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This Issue in Brief

Study of Company Unions.

A study by the Bureau of Labor Statistics of a representative group of 126 company unions indicates that their establishment was most frequently due to the pressure of trade-union activity, in the form either of organization drives or strikes in the trade or vicinity; few were set up in the absence of such external influences. The company unions studied had been most successful in the field of health and safety work. About two-thirds had made some attempts in adjusting individual grievances. Company unions were less effective in handling general questions of wages and hours than in handling other matters, although a small number had engaged in a procedure approximating negotiation, which in some cases had resulted in wage increases. A study of the internal structure and strength of these organizations, however, leads to the conclusion that their aggressiveness was due to the activity of trade-union members within the company union or to encouragement by a management favorably inclined toward the idea of a vigorous union of its own employees but independent of outside affiliation. Page 821.

Accidents in the Fertilizer Industry.

The fertilizer industry, as far back as records are available, has ranked among the industries with very high accident rates. With the cooperation of the National Fertilizer Association, the Bureau of Labor Statistics has just completed a comprehensive accident survey of that industry, with particular reference to the causes of accidents and the possible means of prevention. The survey makes clear that practically all the serious accidents reported could

have been prevented by efficient supervision and management. Page 831.

Effect of Machinery on Farm Labor.

The same forces of drought, depression, and power farming which are displacing tenant farmers and laborers in the Texas Panhandle, as described in a previous article, are operating in southwestern Oklahoma and the Mississippi Delta. Wheat farming is being mechanized rapidly and cotton farming still more rapidly. Between 1929 and 1936 tractors increased from 3,170 to 4,176, or 31.7 percent, in the five leading cotton-producing counties of Oklahoma. The effects of these changes on the economic and social life of the region are described in an article beginning on page 852.

Southern Labor Legislation.

The interest of the Southern States in improved labor legislation and its administration was evidenced at the Southern Regional Conference on Labor Legislation held in New Orleans in February. The resolutions adopted called, among other things, for the enactment by Congress of wage and hour legislation covering interstate commerce, and the enactment by the States of supplemental legislation covering industries not engaged in interstate commerce. Page 875.

Choosing Men for Civilian Conservation Corps.

Selecting young men for enrollment in the Civilian Conservation Corps has been a function of the Department of Labor since the Corps was originally established on April 5, 1933. During the first 5 years more than 1,800,000 youths have been selected and enrolled. Within the respective States, responsibility for making selections is

delegated to the State relief and welfare administrations. Applications are reviewed and approved, therefore, by State and local agencies equipped to know the financial need and personal qualifications of the youths who wish to be enrolled. Many of the applicants in the C. C. C. age group (17-23) have never had any previous employment. On the average they have completed eight grades of schooling but have not had the advantages of a high-school education. Page 846.

Credit Unions, 1936.

At the end of 1936 there were nearly 5,500 credit unions in existence in the United States, of which 66 percent had been formed under State laws and 34 percent under the Federal act. During the year, these organizations made more than a million loans estimated at a total of \$112,056,741. Total assets were placed at over \$90,000,000 and the total membership at nearly 1,200,000 persons. These estimates were based upon reports to the Bureau of Labor Statistics covering some 83 percent of the whole number of associations. Page 878.

Ages and Dependents of the Unemployed.

Approximately one-third of 1,300,546 persons in 16 States who registered as unemployed or on emergency work in the November 1937 census were under 25 years of age, more than one-half were under 35, more than two-thirds were under 45, according to a cross section of reports from these States. Slightly over one-fourth were 45 years

of age and over. Four percent of those reported as wholly unemployed (not including emergency workers) were between 65 and 74 years of age. Only 20 percent of the wholly unemployed and 10 percent of the emergency workers reporting on the subject of dependents had no dependents, while 14 percent of the jobless and 24 percent of the emergency workers had 5 or more dependents. Page 882.

Labor in the Fireworks Industry.

Average hourly earnings in the fireworks industry were 41.3 cents in October 1937, according to a survey made by the Bureau of Labor Statistics. As the average workweek was 40.4 hours, the weekly earnings averaged \$16.68. The plants in the fireworks industry are relatively small and, as they depend largely on local markets, they are widely scattered throughout the United States. Also, employment in most branches of the industry is quite seasonal. Page 942.

Comparative Earnings of Women and Men.

Weekly earnings of women in 40 of 43 manufacturing industries averaged \$20 or less in September 1937, while wages of men in the same establishments were materially higher. The Women's Bureau of the Department of Labor made a special analysis of Bureau of Labor Statistics' wage data to compare earnings of women and men in industries in which women constitute a substantial part of the labor force. Page 900.

MONTHLY LABOR REVIEW

FOR APRIL 1938

CHARACTERISTICS OF COMPANY UNIONS¹

By FLORENCE PETERSON and JOSEPH J. SENTURIA, *Bureau of Labor Statistics*

THERE are three distinct methods of employer-employee dealing. The first is that of individual dealing under which the employer personally, or through his foreman or personnel director, negotiates with his employees individually. The employer may occasionally call a meeting of his employees to make an announcement or for purposes of general discussion. A temporary workers' committee may sometimes be appointed to act upon a particular matter. Essentially, however, relations between the employer and the employee remain on an individual basis, since there is no permanent or formal organization of workers with duly constituted representatives to carry on negotiations. Even where other types of dealing exist, individual dealing is usually present, although it becomes difficult to measure its extent or assess its significance.

The second type of employer-employee relationship is that associated with negotiations with a trade-union. Individual grievances and the detailed interpretation and application of agreements are sometimes handled through shop committees, but broad questions of wages, hours, and working conditions usually are negotiated through representatives or agents of the trade-union who are not necessarily employees of the establishment or company.

The third type is that in which dealings are through a company union. The term "company union" is here used to mean an organization confined to workers of a particular company or plant, which has for its purpose the consideration of conditions of employment. When this method of handling labor matters was carried on by informal committees, the whole arrangement was commonly referred to as an "employee-representation plan." The term "plan" is hardly suitable, however, in cases where more formal procedure has developed, such as written constitutions, elections, membership meetings, provisions for arbitration, written agreements, and dues. This type of employer-employee dealing may also variously be called an employee association, works council, industrial democracy, employee representation, goodwill plan, joint conference committee, industrial council, cooperative association, shop committee, etc. The Bureau uses the term "company union" in its generic sense, that is, to mean an organization of workers

¹ The complete report appears as the Bureau's Bulletin No. 634, "Characteristics of Company Unions."

confined to a particular plant or company and having for its purpose the representation of employees in their dealings with management.

Company unions are an alternative to dealing with the employer either individually or through a trade-union. The question naturally arises, therefore, how do company unions function as agencies representing the interests of the workers? As professed representatives of employees, are company unions set up through the initiative of the employees? Are they self-supporting and free from employer domination? How effective are they in the handling of individual grievances? Do they serve as collective-bargaining agencies in such basic matters as wages, hours, and working conditions?

Study of 126 Company Unions

In order to obtain factual answers to these questions, the Bureau of Labor Statistics made a study of company unions in the spring of 1935. Members of the Bureau's staff visited 126 company unions, interviewing employers, personnel directors, officers and members of the company unions, trade-union members, and citizens who were familiar with the local situation. Copies of minutes of meetings, constitutions, agreements, and other pertinent literature were obtained. Despite conflicting evidence and attitudes revealed in the material presented to the representatives of the Bureau, it has been possible to develop an essentially accurate description of a larger number of company unions than have ever before been studied.

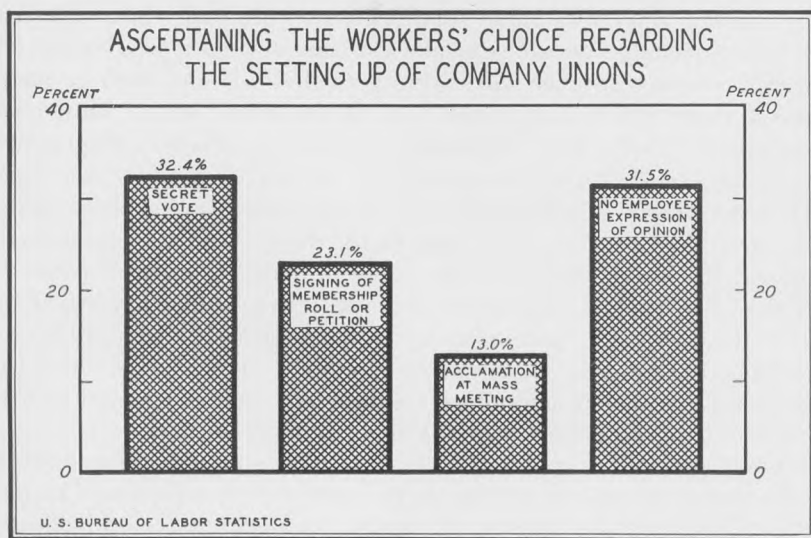
This study was made at the close of the N. R. A. period and before the passage of the National Labor Relations Act. The study is not merely of historical value, however. It describes company unions at a time when many were undergoing or had undergone the changes in form which since then have become more general. The more recent form of company union, referred to by some as "independent" union or association, is essentially the optional-membership type of company union discussed in this study. Also, just as when this study was made, such organizations are still confined to employees of a single plant or company.

How Company Unions Are Established

Examination of a representative group of 126 company unions indicates that their establishment was most frequently due to the pressure of trade-union activity, either in the form of organization drives or strikes in the trade or vicinity. Legislation and other governmental action, such as the creation of the War Labor Board and the passage of the National Industrial Recovery Act, was also an

important factor. Few company unions were set up in the absence of such external influences.

At the time of this study the great majority of company unions had been set up entirely by management. The management usually conceived the idea, developed the plan, and initiated the organization. In a number of cases one or more employees played a part in initiating the company union, but in some of these employee initiative was more apparent than real. In others, the company accepted an employee's suggestion for such an agency, and then created the organization. In only a few instances, generally where a trade-union had failed to win the confidence of the workers, was the organization created primarily through the action of employees. Almost never was it established without some assistance from management.



Where the management formed company unions or supported their establishment, it sometimes exerted no pressure other than stating its own wish in the matter. More frequently, however, it applied varying degrees of additional pressure, including in some cases discharge of trade-union members and threats to close down the plant unless the company union was established. Since in so many instances the presence of a trade-union had inspired the movement to organize a company union, one phase of organizing the company union was to attack the trade-union or to hamper it by delay and manipulation.

The existence of a company union was almost never the result of a choice by the employees in a secret election in which both a trade-union and a company union appeared on the ballot. In one-third of the plans the employees were offered a chance to vote in a secret election in which expression of opinion was limited to a vote for or against

the company union. In some of these cases the company union was formed even when the vote was in the negative. In another third, the company unions were installed without any expression of choice by the workers, while in about an equal number of cases their choice was registered by signature to a membership roll or petition, or by open vote at a public meeting.

Automatic Participation and Optional Membership

Company unions fall into two groups according to the basis on which employees participate in the affairs of the organization. In somewhat more than half of the company unions studied, the right to participate followed automatically from employment by the company. Certain restrictions as to age or period of employment may have existed, but, once these qualifications were met, the employee was automatically free to vote and participate in the affairs of the organization in whatever ways were provided. Under such circumstances there was no such thing as membership in an employee association. There was, technically considered, no association, but simply an agency for representation of employees in their relations with management. As a corollary, such representation arrangements very rarely had provisions for dues or for meetings of the employees, although the latter was more commonly provided than the former.

The second type of company union, comprising somewhat less than half of those studied, operated on a membership basis. In addition to satisfying the essential requirement of employment by the company and whatever other restrictions were imposed, such as age and length of service, the employee went through a more or less formal and voluntary process of applying for and obtaining membership. Most of the company unions of this type were established after March 1933. They included almost all of the dues-charging organizations found in the study and also the great majority of those having general employee meetings.

Management Participation

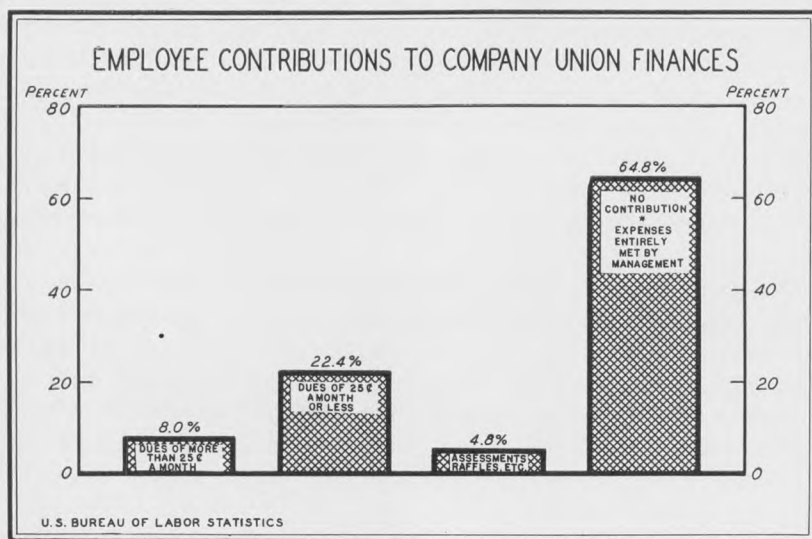
All but a few of the company-union constitutions either specifically or by implication made the management a party to the functioning of the employees' organization. The management could veto amendments to the company-union constitution in a substantial number of instances and could even abolish the company union in a few cases.

Most of the company unions studied relied entirely upon the management for their finances. Many others received more or less important financial assistance from the employer. Such financial dependence generally meant that proposed expenditures by the company union had to be approved by the management. Less than 10

percent of all the company unions appeared to be financially self-supporting. The rate of dues was in most cases considerably below trade-union levels, and few of the company unions had substantial treasuries. Almost all of the dues provisions dated from after March 1933.

Just as the company union was confined to employees of the company, so its officers and representatives almost invariably had to be employees. A few of the company unions had full-time salaried officials. Some of these were paid by the company and all were former employees of the company.

Except for these few cases, the affairs of company unions were managed entirely by persons whose jobs were subject to the good will of the management or to restrictions accepted by the management. In



order to assure company-union officials against discrimination, many constitutions had provisions guaranteeing such officials against discriminatory treatment. There was little evidence of such discrimination among the cases studied. Nevertheless, in many cases persons interviewed expressed fear of the possibility of such treatment or referred to cases in which representatives had been afraid to act aggressively. While such fears were less common among the older, well-established company unions than among those formed more recently, hesitancy about incurring the displeasure of foremen or management persisted even in some cases in which the company union had been functioning for a long time.

A majority of the company unions required that the employee representative must personally attempt to adjust a grievance before it could be taken up by the more formal company-union machinery. The

effect of such an arrangement was to relate the prosecution of grievance cases to the energy and courage of an employee who must face his superiors without the backing of an organization free from the employer's control.

Functioning of Company Unions

In view of the emphasis placed upon the company union as an agency for adjusting individual grievances, it is significant that one-third of the company unions handled no such matters. According to persons interviewed regarding company unions which did take up individual grievances, approximately one-third of this group did so effectively, another third with limited effectiveness, and the remainder ineffectively. The company unions which were effective in handling grievances included most of those with full-time officials as well as most of those which showed some ability to negotiate with the management regarding wages. They also included a relatively large proportion of companies with personnel departments.

Company unions were apparently most successful in the field of health and safety work and in providing that available work be distributed among all employees instead of being concentrated among a few.

Company unions were less effective in handling general questions of wages and hours than in handling other matters. In nearly half of the cases no general wage increases were requested or negotiated by the company union between January 1933 and July 1935. This does not mean that there were no wage increases in these plants. Since it was a period of rising prices and business improvement, some of these companies gave increases but the company unions played no part in securing these increases.

Such wage adjustments as did take place, following requests by company unions, were in most cases not a result of any process which might be termed negotiation or collective bargaining. In some instances, it appeared that the wage increase which management had decided to make was announced through the company union in order to increase the prestige of the company union. Many requests for increases were refused by the management without any negotiation, and with a simple statement that conditions did not warrant an increase or that wages were above those in other plants.

A small number of the company unions engaged in a procedure which approximated negotiation. Some of these negotiations resulted in wage increases. Analysis of the internal structure and strength of these organizations leads to the conclusion that their aggressiveness was due to the activity of trade-union members within

the company union or to encouragement by a management favorably inclined toward the idea of a vigorous union of its own employees but independent of outside affiliation.

Handicaps in Negotiating

In negotiations concerning wages and hours of work, company unions were handicapped by a number of factors. Important among these was their lack of knowledge of the financial condition of the company and of comparative wage scales in the industry. They lacked, in practically all cases, any regular contacts with company unions outside their own plants. Most of them had to rely entirely upon the statement of the situation as presented by the management. Practically none of the company unions had hired outside experts for assistance in negotiations with the management. Most of the organizations were not considered as having the right to hire such assistance, while few of those which had the right possessed the necessary funds.

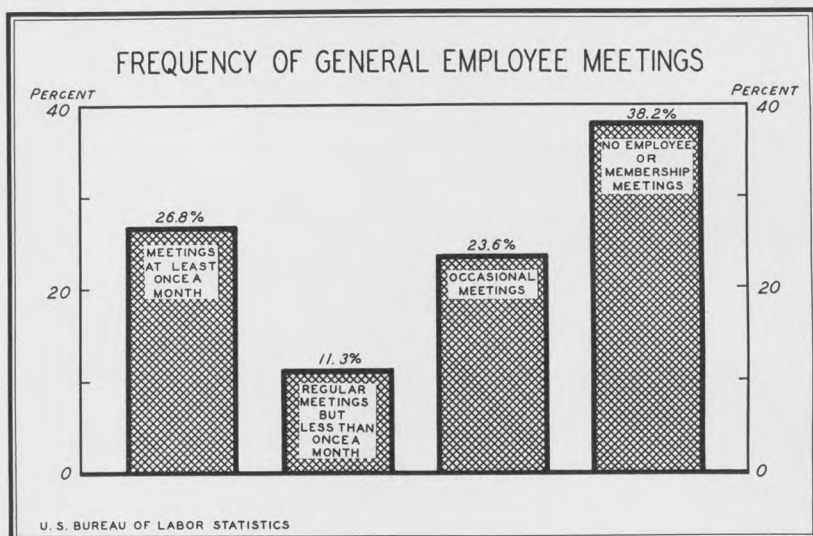
The evidence indicated a reluctance on the part of company-union officials to appeal matters from lower to higher management officials. In some cases the officials who had authority to render the decision of the management were not directly connected with the particular plant concerned. In these cases, conferences with the local management could not be decisive. Final decision had to await action by officials with whom company-union representatives did not come into direct contact.

More fundamental was the company union's inability to bring any pressure upon the employer. In most cases aggressiveness could take the form only of reiterated requests for consideration of the petition of the company union. Practically all of the organizations specifically or by inference disavowed the use of the strike and only a negligible number had funds sufficient to carry on a strike for any length of time. Only one of the company unions had called a strike to enforce a demand. Only one-fifth of the organizations possessed the right to demand arbitration, by disinterested outsiders, of matters which could not be settled by discussion between management and employee representatives. In none of the cases studied in which arbitration was provided for, was an unsettled issue submitted to arbitration. One company union set out to invoke its right to arbitration but abandoned the move in the face of serious employer opposition.

Most important of all, perhaps, the company unions were hampered by their inability to influence wage conditions in more than one plant. Although prevailing wages were specifically recognized as a determinant in wage negotiations in many cases, the company unions had no machinery for affecting conditions in competing plants.

Membership Meetings

Company unions generally lacked adequate means for ascertaining the wishes and problems of the employees. Two-thirds had no provision for regular meetings of employees; some of the others met only once a year. General membership meetings are vital to any organization which seeks to keep in intimate touch with the desires and aims of its members. Where regular and frequent employee meetings are not held, no chance is given to employees as a body to discuss general problems and policies which are of interest to them. Furthermore, except in those few cases in which employee representatives were



allowed time off to see their constituents, employees had no regular machinery for conveying their individual views and interests to their representative.

The company unions studied evinced little interest in matters of social or labor legislation and were even less active in presenting the views of employees on such matters. There was little discussion in their meetings regarding matters of labor legislation or national policy affecting their interests. When such matters were discussed, the company-union spokesmen were likely to present information and statements which had been given them by the management.

Changes During the N. R. A.

Comparison of the structural characteristics of new and old company unions indicates certain significant general tendencies after the enactment of the N. I. R. A. Thus there was a tendency in the direction of membership company unions and away from the automatic-

participation organizations, and a move to reduce service and other requirements for participation. The management participation was reduced or eliminated in many respects, including a shift away from the joint-committee toward the employee-committee form of functioning. Dues and employee meetings became more common. Collective bargaining appeared as a definitely stated objective in some company-union constitutions. The number of agreements signed by both company unions and management increased, although such agreements are still uncommon and sometimes merely incorporate procedural arrangements formerly included in the constitution of the company union.

As a result of these structural changes, a new type of company union has developed that more or less approaches the formal characteristics of trade-unions. This type, represented by 10 percent of the company unions studied, has, in general, a membership basis, membership meetings, dues, bilateral agreements with the company, and provisions for arbitration. A few have paid officials. To this extent they approximate the formal characteristics which are commonly ascribed to workers' organizations. However, they continue to require that all members and even all employee representatives must be employees of the company, and that they have no contacts with workers' organizations outside the company.

During the N. R. A. period there was a tendency for trade-unions and company unions to exist in the same establishment. In not all cases did the two compete directly for members. Where they did compete, the fact that the company union charged no dues and that it was favored by the management gave it an advantage in the minds of many of the workers. Benefit and welfare plans to which the company contributed were in a number of cases administered through the company union, giving a monetary advantage to membership. In a few cases the company union was given credit for the establishment of benefit provisions which were administered and financed entirely by the company. In a variety of more or less tangible ways the preference of the company was made evident.

Evaluation of Company Unions Studied

Considered from the standpoint of their functional pattern, company unions present a varying aspect. For this reason it is impossible to make any neat generalization which will at once describe and appraise all company unions. It would seem, however, that they can be grouped into three broad classifications.

At one extreme were a large number of company unions—more than half—which performed none of the functions usually embraced under the term "collective bargaining." Some of these were merely agencies for discussion. Others had become essentially paper organizations

after their primary function, the defeat of a trade-union, was performed. About one-tenth of the company unions studied, although claiming broader functions, were in reality concerned only with benefit and welfare matters. While their activities along these lines may be important, it is misleading to represent them as agencies for collective bargaining. It does not necessarily follow that this type of organization violated the wishes of the majority of the employees concerned; it is possible that the employees may have been averse or at least indifferent to any other kind of organization.

Another group of company unions, about one-third, were undertaking only a few of the activities in which trade-unions normally engage. These company unions concerned themselves with individual grievances and certain matters relating to working conditions; but broad questions of wages and hours, if they were discussed at all, had not been submitted to a process of negotiation and bargaining. Where these company unions had been successful in the limited area of grievance adjustment, a liberal, intelligent attitude on the part of the management had been an important factor. With careful cooperation by the management about half of the company unions in this group had become effective avenues for the adjustment of individual grievances.

The third group of company unions—about 15 percent of the total studied—were seriously attempting to function in those fields commonly ascribed to collective bargaining. They represented the interests of the workers with a vigor not entirely attributable to encouragement by the management. However, the most vigorous and independent of these company unions existed under conditions of isolation. As agencies for the adjustment of individual grievances, they differed from the adjustment machinery set up under trade-union agreements in many industries in that the employee representatives in adjusting grievances had to face their superiors without the backing of an organization independent of the employer. In the broader field of wage and hour negotiations the company unions did not have access to information or personnel from a national union headquarters.

The degree of isolation in practice was even greater than that inherent in the structure of a union limited to the employees of a single company. Thus, few interested themselves in any proposed legislation or governmental action affecting workers. They did not hire persons outside the plant to assist in negotiations with their employers. Neither did they seek arbitration by impartial outsiders of requests refused by the employer. So rarely was strike action even considered that the threat of withholding their labor played virtually no part in negotiations with their employers. Finally, the most vigorous of these organizations had no means for marshaling the support of large bodies of workers to influence the terms of the labor contract beyond the confines of a single company.

CAUSES AND PREVENTION OF ACCIDENTS IN THE FERTILIZER INDUSTRY, 1936

By MAX D. KOSSORIS and SWEN KJAER, *Bureau of Labor Statistics*

FOR years the fertilizer industry has ranked among the industries with high frequency and severity rates for disabling injuries in the survey conducted annually by the Bureau of Labor Statistics. Among 30 manufacturing industries, the fertilizer industry had the third and fourth highest frequency rate in 1935 and 1936, respectively, and third highest severity rate in each of these years.

For the purpose of learning more about these high rates and the causes which led to injuries, a special survey was organized with the cooperation and backing of the National Fertilizer Association. Every known fertilizer establishment was circularized for information as to average employment, total employee-hours worked, and disabilities. Disabling injuries were classified according to a scheduled series of injury causes for each of the four types of departments which generally reflect the structure of the industry: Unloading and transportation, dry mixing, acidulating, and acid making. Tabulatable results were received from 585 establishments, representing approximately 85 percent of the total establishments in the industry, and about 90 percent of the total employment.

As indicated in table 1, the group of 585 establishments had for the year 1936 a frequency rate of 41.12; that is, 41.12 disabling injuries for every million employee-hours worked, and a severity rate of 4.32, equivalent to a time loss of 4.32 days for every 1,000 employee-hours worked.¹ But as nearly 60 percent of all the reporting establishments experienced no disabling injuries during the year, 237 establishments out of a total of 585 accounted for all of the 1,161 injuries. For this smaller group of establishments, the frequency rate was 49.07 and the severity rate 5.15. This group, however, comprising only about 40 percent of all reporting establishments, contained about 78 percent of all employees and accounted for fully 84 percent of the total employee-hours worked. That the "no disabling accident" group consisted primarily of small establishments is indicated by the fact that the

¹ The standard time-loss ratings used for fatal and permanent disabilities are those approved by the American Standards Association in 1937. A disabling injury for purposes of this study is defined as one which causes a permanent injury or a time loss beyond the day or shift on which the injury was incurred.

average number of employees per establishment was slightly in excess of 10, while that for the "disabling accident" group was nearly 54. The establishments in the former group were engaged primarily in dry mixing of fertilizer, i. e., mixing dry chemicals in given proportions, and averaged only slightly more than 13,000 employee-hours. The "disabling accident" group, on the other hand, included a considerable number of the large establishments which engage in the more integrated process of preparing fertilizer ingredients. Some of these treat chemicals with acids (acidulating), while others also manufacture their own acids. Whereas the season for dry mixing is relatively short, lasting usually about 10 to 14 weeks, the activities of the integrated-process concerns extend over a longer period. Indicative of this are the average annual hours per employee, which were 1,271 for the "no disabling accident" group, and 1,854 for the "disabling accident" group, or nearly half again as high.

TABLE 1.—*Summary of Disabling-Injury Experience in the Fertilizer Industry, 1936*

Item	All reporting establishments	Establishments with disabling injuries	Establishments without disabling injuries
Number of establishments.....	585	237	348
Number of departments.....	855	426	429
Average number of employees.....	¹ 16, 358	¹ 12, 763	¹ 3, 595
Average per establishment.....	28. 0	53. 9	10. 3
Employee-hours—total.....	28, 232, 559	23, 662, 316	4, 570, 243
Average per establishment.....	48, 261	99, 841	13, 132
Average per employee.....	1, 726	1, 854	1, 271
Number of disabling injuries.....	1, 161	1, 161	0
Frequency rate ²	41. 12	49. 07	0. 00
Severity rate ³	4. 32	5. 15	0. 00
Days lost.....	122, 009	122, 009	0. 00

¹ The average number of employees was computed by adding the total number of employees on the pay roll on the 15th of each month worked, and then dividing this total by the number of such months.

² The frequency rate is the average number of disabling injuries per million employee-hours worked.

³ The severity rate is the average days lost per 1,000 employee-hours worked, using the standard time losses adopted in 1937 by the American Standards Association for fatal and permanent disabilities, and actual time losses for temporary total disabilities.

These averages, however, must not be permitted to obscure the fact that a considerable portion of the large establishments had good accident records, and that many small establishments had very poor accident experiences. The following tabulation covering 25 establishments arranged by number of employees, is fairly representative of the experiences reported.

TABLE 2.—*Injury Experiences of Individual Establishments*

Establishment	Average number of employees	Number of disabling injuries	Establishment	Average number of employees	Number of disabling injuries
Large establishments: ¹			Small establishments: ³		
A.....	485	4	O.....	41	14
B.....	287	3	P.....	37	10
C.....	264	27	Q.....	35	13
D.....	237	53	R.....	35	17
E.....	226	26	S.....	34	15
F.....	211	4	T.....	24	6
G.....	179	19	U.....	20	10
H.....	171	47	V.....	12	5
Medium-size establishments: ²			W.....	9	3
I.....	100	12	X.....	4	4
J.....	98	5	Y.....	3	2
K.....	84	21			
L.....	72	11			
M.....	62	10			
N.....	54	11			

¹ Establishments with an average of over 150 employees.

² Establishments with an average of 50 to 150 employees.

³ Establishments with fewer than 50 employees.

As will readily be seen, some of the large firms had very few disabling injuries. For instance, establishment A, with 485 employees, had only 4 disabling injuries, averaging less than 1 per 100 employees. On the other hand, establishment D, with 237 employees, had 53 disabling injuries, or about 22 per 100 employees. Among the small establishments, X, with only 4 employees, had 4 disabling injuries, each disabling a worker for at least 4 weeks. Establishment R, with 35 employees, had 17 disabling injuries, and establishment U, with 20 employees, had 10 such injuries.

Experience of Departments

The 585 reporting establishments contained 855 departments, 222 of which were unloading and transportation, 362 dry mixing, 74 acidulating, 29 acid making, and 168 which could not be classified from the data submitted. About 45 percent of the total number of employees were in dry-mixing departments (7,288 out of 16,358), and another 37 percent (6,097 employees) in the "not otherwise classified" type of departments. About 11 percent (1,833 employees) were reported for the unloading and transportation departments. Acidulating departments and acid-making plants had relatively few employees.

TABLE 3.—Industrial Accident Experience of Fertilizer Industry, 1936, by Departments and Causes of Injuries

ALL REPORTING ESTABLISHMENTS—585 ESTABLISHMENTS

Injury cause and department	Number of departments	Number of employees	Total employee-hours worked	Average hours per employee	Number of disabling injuries causing—			Total number of disabilities	Frequency rate	Severity rate	Average days lost	
					Death	Permanent partial disability	Temporary total disability				Permanent partial disability	Temporary total disability
All departments.....	855	16,358	28,232,559	1,726	10	24	1,127	1,161	41.12	4.32	1,852	16
Falls.....					3	3	110	116	4.11	1.04	2,917	24
Falling materials.....						3	134	137	4.85	.52	4,000	21
Handling of tools or equipment.....						8	422	430	15.23	.65	1,563	14
Gassing.....					4		13	17	.60	.85		9
Acid or chemical burns.....						1	48	49	1.74	.08	1,800	12
Machinery.....					2	3	61	66	2.34	.63	1,533	21
Direct burns (heat).....							3	3		(1)		4
All others.....					1	6	336	343	12.15	.54	800	13
Unloading and transportation.....	222	1,833	3,024,677	1,650	1		206	207	68.44	3.17		17
Falls.....					1		25	25	8.27	.22		27
Falling materials.....							23	23	7.60	.15		20
Handling of tools or equipment.....							71	71	23.47	.44		19
Gassing.....							1	1	.33	(1)		7
Acid or chemical burns.....							7	7	2.31	.02		4
All others.....					1		79	80	26.45	2.34		14
Dry mixing.....	362	7,288	11,508,202	1,579		9	438	447	38.84	2.58	2,606	14
Machinery.....						2	41	43	3.74	.45	2,150	21
Falls.....						1	28	29	2.52	.11	750	18
Falling materials.....						3	68	71	6.17	1.17	4,000	22
Handling of tools or equipment.....						3	171	174	15.12	.72	2,133	11
All others.....							130	130	11.30	.13		11
Acidulating.....	74	765	1,602,755	2,095	1	1	53	55	34.32	5.25	1,800	12
Gassing.....							4	4	2.50	.01		4
Acid or chemical burns.....						1	8	9	5.62	1.19	1,800	14
Machinery.....							6	6	3.74	.05		13
Falls.....					1		3	4	2.50	3.76		8
Falling materials.....							8	8	4.99	.06		13
Handling of tools or equipment.....							9	9	5.62	.05		9
All others.....							15	15	9.36	.13		14

Acid-making plants.....	29	375	777,719	2,074		1	24	25	32.15	1.13	300	24
Gassing.....												
Acid or chemical burns.....							6	6	7.71	.08		10
Direct burns (heat).....												
Machinery.....						1		1	1.29	.39	300	
Falls.....							6	6	7.71	.48		62
Falling materials.....												
Handling of tools or equipment.....							3	3	3.86	.04		10
All others.....							9	9	11.57	.15		13
Not otherwise classified.....	168	6,097	11,319,206	1,857	8	13	406	427	37.72	6.50	1,454	16
Gassing.....					4		8	12	1.06	2.13		13
Acid or chemical burns.....							27	27	2.39	.03		14
Direct burns (heat).....							3	3	.27	(1)		4
Machinery.....					2		14	16	1.41	1.09		25
Falls.....					2	2	48	52	4.59	1.86	4,000	23
Falling materials.....							35	35	3.09	.07		23
Handling of tools or equipment.....						5	168	173	15.28	.75	1,220	14
All others.....						6	103	109	9.63	.56	800	14

SOUTHEASTERN STATES 2-364 ESTABLISHMENTS

All departments.....	540	12,001	19,643,592	1,637	8	20	756	784	39.91	4.73	1,695	14
Falls.....					2	1	67	70	3.56	.88	4,000	20
Falling materials.....						3	83	86	4.38	.69	4,000	18
Handling of tools or equipment.....						6	281	287	14.61	.52	1,117	13
Gassing.....					4		12	16	.81	1.23		10
Acid or chemical burns.....						1	26	27	1.37	.12	1,800	18
Machinery.....					1		46	50	2.55	.69	1,533	22
Direct burns (heat).....												
All others.....					1	6	241	248	12.62	.70	800	12
Unloading and transportation.....	139	1,218	1,967,227	1,615	1		146	147	74.72	4.06		14
Falls.....							18	18	9.15	.18		20
Falling materials.....							20	20	10.17	.08		8
Handling of tools or equipment.....							44	44	22.37	.88		17
Gassing.....							1	1	.51	(1)		4
Acid or chemical burns.....							4	4	2.03	.01		7
All others.....					1		59	60	30.50	3.39		12
Dry mixing.....	224	5,529	8,262,915	1,494		7	340	347	41.99	3.10	2,986	14
Machinery.....						2	33	35	4.24	.62	2,150	24
Falls.....							20	20	2.42	.05		20
Falling materials.....						3	43	46	5.57	1.55	4,000	18
Handling of tools or equipment.....						2	135	137	16.58	.73	2,300	11
All others.....							109	109	13.19	.16		12

See footnotes at end of table.

TABLE 3.—Industrial Accident Experience of Fertilizer Industry, 1936, by Departments and Causes of Injuries—Continued

SOUTHEASTERN STATES²—364 ESTABLISHMENTS—Continued

Injury cause and department	Number of departments	Number of employees	Total employee-hours worked	Average hours per employee	Number of disabling injuries causing—			Total number of disabilities	Frequency rate	Severity rate	Average days lost	
					Death	Permanent partial disability	Temporary total disability				Permanent partial disability	Temporary total disability
Acidulating.....	52	541	1, 113, 364	2, 058	1	1	43	45	40.42	7.48	1, 800	12
Gassing.....							4	4	3.59	.01		4
Acid or chemical burns.....							6	7	6.29	1.70	1, 800	16
Machinery.....							6	6	5.39	.07		13
Falls.....					1		1	2	1.80	5.39		4
Falling materials.....							5	5	4.49	.06		13
Handling of tools or equipment.....							8	8	7.19	.07		10
All others.....							13	13	11.68	.17		15
Acid-making plants.....	24	333	678, 451	2, 037			1	21	32.43	1.28	300	27
Acid or chemical burns.....							4	4	5.90	.08		14
Machinery.....							1	1	1.47	.44	300	
Falls.....							6	6	8.84	.55		62
Handling of tools or equipment.....							2	2	2.95	.04		13
All others.....							9	9	13.27	.17		13
Not otherwise classified.....	101	4, 380	7, 621, 635	1, 740	6	11	206	223	29.26	6.56	991	15
Gassing.....					4		7	11	1.44	3.16		14
Acid or chemical burns.....							12	12	1.57	.04		25
Machinery.....					1		7	8	1.05	.80		19
Falls.....					1	1	22	24	3.15	1.34	4, 000	9
Falling materials.....							15	15	1.97	.06		31
Handling of tools or equipment.....							4	92	12.60	.43	525	13
All others.....							6	57	7.48	.72	800	14

NORTHEASTERN STATES³—143 ESTABLISHMENTS

All departments.....	199	3, 227	6, 442, 242	1, 996	1	4	326	331	51.38	3.44	2, 638	17
Falls.....					1	2	40	43	6.67	1.87	2, 375	32
Falling materials.....							43	43	6.67	.15		22
Handling of tools or equipment.....							2	124	19.56	1.21	2, 900	16
Gassing.....							1	1	.16	(¹)		4
Acid or chemical burns.....							21	21	3.26	.02		5
Machinery.....							14	14	2.17	.04		19
Direct burns (heat).....							3	3	.47	(¹)		4
All others.....							80	80	12.42	.16		13

Unloading and transportation	48	484	877,866	1,814			47	47	53.54	1.42		27
Falls							7	7	7.97	.36		45
Falling materials							1	1	1.14	.16		144
Handling of tools or equipment							22	22	25.06	.55		22
Acid or chemical burns							2	2	2.28	.02		10
All others							15	15	17.09	.33		19
Dry mixing	76	1,102	2,038,727	1,850		2	76	78	38.26	1.76	1,275	14
Machinery							7	7	3.43	.02		7
Falls							6	7	3.43	.41	750	13
Falling materials							20	20	9.81	.23		23
Handling of tools or equipment							29	30	14.72	1.05	1,800	12
All others							14	14	6.87	.06		8
Acidulating	17	186	403,664	2,170			9	9	22.30	.18		8
Acid or chemical burns							2	2	4.95	.03		7
Falls							1	1	2.48	.02		10
Falling materials							3	3	7.43	.09		12
Handling of tools or equipment							1	1	2.48	.01		4
All others							2	2	4.95	.03		7
Acid-making plants	3	26	69,828	2,686			3	3	42.96	.15		4
Acid or chemical burns							2	2	28.64	.10		4
Handling of tools or equipment							1	1	14.32	.05		4
Not otherwise classified	55	1,429	3,052,157	2,136	1	2	191	194	63.56	5.65	4,000	17
Gassing							1	1	.33	(¹)		4
Acid or chemical burns							15	15	4.91	.02		5
Direct burns (heat)							3	3	.98	(¹)		4
Machinery							7	7	2.29	.07		30
Falls							26	28	9.17	3.57	4,000	34
Falling materials							19	19	6.23	.10		16
Handling of tools or equipment							71	72	23.59	1.69	4,000	16
All others							49	49	16.05	.20		12

WESTERN STATES 4-78 ESTABLISHMENTS

All departments	116	1,130	2,146,725	1,900	1		45	46	21.43	3.29		24
Falls							3	3	1.40	.01		10
Falling materials							8	8	3.73	.18		48
Handling of tools or equipment							17	17	7.92	.15		19
Acid or chemical burns							1	1	.47	(¹)		4
Machinery					1		1	2	.93	2.80		10
All others							15	15	6.99	.15		22
Unloading and transportation	35	131	179,584	1,371			13	13	72.39	1.94		27
Falling materials							2	2	11.14	.82		74
Handling of tools or equipment							5	5	27.84	.52		19
Acid or chemical burns							1	1	5.57	.02		4
All others							5	5	27.84	.58		21

See footnotes at end of table.

TABLE 3.—Industrial Accident Experience of Fertilizer Industry, 1936, by Departments and Causes of Injuries—Continued

WESTERN STATES⁴—78 ESTABLISHMENTS—Continued

Injury cause and department	Number of departments	Number of employees	Total employee-hours worked	Average hours per employee	Number of disabling injuries causing—			Total number of disabilities	Frequency rate	Severity rate	Average days lost	
					Death	Permanent partial disability	Temporary total disability				Permanent partial disability	Temporary total disability
Dry mixing	62	657	1, 206, 560	1, 836			22	22	18. 23	0. 37		20
Machinery							1	1	. 83	. 01		10
Falls							2	2	1. 66	. 02		10
Falling materials							5	5	4. 14	. 18		44
Handling of tools or equipment							7	7	5. 80	. 11		20
All others							7	7	5. 80	. 05		8
Acidulating	5	38	85, 727	2, 256			1	1	11. 66	. 11		10
Gassing												
Acid or chemical burns												
Machinery												
Falls							1	1	11. 66	. 11		10
Falling materials												
Handling of tools or equipment												
All others												
Acid-making plants	2	16	29, 440	1, 840								
Not otherwise classified	12	288	645, 414	2, 241								
Machinery					1		9	10	15. 49	9. 71		30
Falls					1		1	1	1. 55	9. 30		16
Falling materials							1	1	1. 55	. 02		16
Handling of tools or equipment							5	5	7. 75	. 13		17
All others							3	3	4. 65	. 25		54

¹ Less than 0.005.² Includes Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.³ Includes Connecticut, Illinois, Indiana, Maine, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin.⁴ Includes Arizona, California, Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Oregon, Texas, Utah, and Washington.

For all departments there were 1,161 disabling injuries, of which 10 resulted in death, 24 in permanent partial disabilities, and 1,127 in temporary total disabilities. Handling of tools or equipment was involved causally in 430 disabling accidents. Falls accounted for 116, of which 3 were fatal and 3 more resulted in permanent injury, with an average time charge per case of 2,917 days. Out of 17 disabilities caused by gassing, 4 resulted in death. All of these fatalities occurred in a plant in a single accident, which also caused 5 temporary total disabilities. Of 66 machine injuries, 2 were fatal and 3 resulted in permanent injury. Causes classified as "all other" accounted for 343 disabling injuries, of which 6 resulted in permanent disabilities and 1 in death.

The highest number of disabling injuries per million employee-hours worked occurred in the unloading and transportation departments, which had a frequency rate of 68.44. The corresponding severity rate was 3.17. Of the 207 disabling injuries in this group, 1 resulted in death and 206 in temporary total disability. Nearly a third of all the disabling injuries occurred in connection with tools and equipment. Injuries from falls or falling material were about evenly balanced, with 25 and 23 cases, respectively.

The largest number of injuries were experienced by dry-mixing departments, with a total of 447. None of these were fatal, although 9 resulted in permanent injuries so severe as to account for an average time loss of 2,606 days per case. Falling materials accounted for 71 injuries, of which 3 were of a permanent nature with an average time loss of 4,000 days. Handling of tools or equipment was involved in 174 injuries, about 39 percent of the total for dry mixing. For these departments as a group, the frequency rate was 38.84 and the severity rate 2.58.

The 74 acidulating departments had a total of only 765 employees. Fifty-five disabling injuries, 1 of them fatal and 1 permanent in character, resulted in a frequency rate of 34.32 and a severity rate of 5.25. The death was due to a fall. Among the remaining injuries no single cause stands out. Acid or chemical burns accounted for 9 injuries, as did handling of tools or objects. Falling materials accounted for 8 cases. Although there were only 4 injuries due to falls, one of these was fatal.

Acid-making plants, of which 29 were reported, had 25 disabling injuries for an average of 375 employees, with a frequency rate of 32.15 and a severity rate of 1.13. Although the time loss for the 1 permanent injury was only 300 days, the average time loss per temporary total disability was 24 days, which greatly exceeds the average days lost for this type of disability for the other departments. Six falls, with an average time loss of 62 days, largely account for this

high average. Acid or chemical burns account for 6 injuries, but the average days lost was only 10 per injury.

There were 168 departments which could not be classified by type of work. These departments had 6,097 employees and a total of 427 disabling injuries, of which 13 were permanent in nature and 8 fatal. The frequency rate for this group is 37.72 and the severity rate 6.50—the highest for the various types of departments listed. Fully 40 percent, or 173 injuries, occurred in connection with the handling of tools or equipment; 5 of these injuries were permanent in nature. Machinery, with only 16 injuries, accounted for 2 fatalities. Two more fatalities occurred in connection with falls, which were also responsible for 2 permanent and 48 temporary disabilities.

Geographic Differences

In an effort to determine whether there were any significant differences due to geographic location, the reporting establishments were divided into 3 groups: (1) The Southeastern States, including Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia; (2) the Northeastern States, including Connecticut, Illinois, Indiana, Maine, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin; and (3) the Western States, including Arizona, California, Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Oregon, Texas, Utah, and Washington.

A break-down by types of departments in the three areas gives the following results:

TABLE 4.—*Injury Rates in the Fertilizer Industry, by Departments and Geographic Areas*

Type of department	Frequency rate				Severity rate			
	South-east	North-east	West	Total	South-east	North-east	West	Total
All departments.....	39.91	51.38	21.43	41.12	4.73	3.44	3.29	4.32
Unloading and transportation.....	74.72	53.54	72.39	68.44	4.06	1.42	1.94	3.17
Dry mixing.....	41.99	38.26	18.23	38.84	3.10	1.76	.37	2.58
Acidulating.....	40.42	22.30	11.66	34.32	7.48	0.18	.11	5.25
Acid making.....	32.43	42.96	0.00	32.15	1.28	0.15	.00	1.13
Not otherwise classified.....	29.26	63.56	15.49	37.72	6.56	5.65	9.71	6.50

The rates for acidulating departments and acid-making plants in the Western States group and for acid-making plants in the Northeastern States group, although shown, are of little importance because of the small number of employees involved. Ruling them out for purposes of comparison, there still are left important differences

between the rates of the various types of departments in the three areas.

In all three areas, the unloading and transportation departments are clearly disclosed as the most hazardous type of operation; certainly, they have frequency rates out of all proportion to those of the other departments. In the Southeastern area, there were nearly 72 disabling injuries for every million hours worked, with a time loss of over 4 days for every 1,000 hours worked. The average days lost per injury was 14. As is apparent from table 2, handling of tools and equipment was by far the leading cause of injury, with falling materials and falls ranking second and third respectively.

The frequency rate of 72.39 for unloading and transportation in the Western States group was nearly as high as that for the Southeastern States, 74.72. For the Northeastern States, the frequency rate was considerably lower, 53.54, or 21 disabling injuries less per million hours worked. The leading causes of injury, however, are the same in all three groups.

Dry-mixing departments rank second highest in size of frequency rates. The spread between the rates for the three areas is very pronounced, with 41.99 for the Southeastern group, 38.26 for the Northeastern group, and only 18.23 for the Western group. Similarly pronounced are the differences between the severity rates, with 3.10, 1.76, and 0.37, respectively. The outstanding causes of injury in these accidents in the Southeastern group are handling of tools or equipment, with 137 disabling accidents; falling materials, 46 accidents; and machinery, with 35 accidents. In the Northeastern States, handling of tools or equipment, although the leading injury cause, does not dominate the accident experience as in the case of the Southeastern States. Falling materials accounted for 20 disabling injuries, and machinery for 7. In the Western States group, the same three causes stand out, but the number of such accidents is very much smaller, as is the average number of employees in these departments. As the frequency rate indicates, however, the disabling accidents in this group occurred far less frequently in terms of total employee-hours worked than in either of the other two groups of States.

The number of acidulating departments was small in each of the three areas, as was the number of employees involved. In fact, the number of employees and employee-hours worked in all but the Southeastern group is too small to warrant a comparison of their disabling-injury rates. The frequency rate of 40.42 for the Southeast is high, and still more so is the severity rate of 7.48. One death was caused by a fall. Acid or chemical burns were the leading cause of injuries, with machinery a close second.

Acid-making plants had the lowest frequency rate in the Southeastern States, as well as the lowest severity rate. The rates, respectively, are 32.43 and 1.28, but the average time loss per temporary total disability was high, with 27 days per case, primarily because of falls.

The Northeastern States, having 143 establishments with 199 departments and 3,227 employees, accounted for 331 disabling injuries, and had the highest frequency rate of the 3 areas, but a lower severity rate than the Southeastern States. This latter group of States experienced the highest severity rate, with 4.73 days lost per 1,000 employee-hours worked. The lowest frequency and severity rates, 21.43 and 3.29 respectively, were for the States in the Western group. The Southeastern States, however, had by far the largest number of employees—fully 73 percent of the total. The Northeastern States had not quite 20 percent, and the Western States the balance of 7 percent.

Causes of Disabling Accidents

Because reporting establishments were asked to describe the more serious accidents, it is possible to indicate the types of accidents found in the various types of departments. An analysis of these need not go very deep to disclose that nearly all of them were preventable, and that a considerable number were due to poor working conditions. On the face of these descriptions it is clear that in many instances, chiefly in the Southeast, the type of labor employed requires close supervision to avoid accidents. Generally, and certainly in these instances, accident prevention is a challenge to efficient management. At stake are not only human lives and limbs, but also proper and efficient operating conditions.

Following are descriptions of disabling accidents by departments; where possible, a suggestion is made directly below the description as to how the accident could have been prevented.

DESCRIPTION OF ACCIDENTS AND METHODS OF PREVENTION

Unloading and transportation

1. Slipped on wet loading ramp leading from boxcar to a truck. Fell and ruptured himself.

"We have since provided nonskid runways with corrugations to prevent injuries of this kind in the future." (Comment of reporting establishment.)

2. While unloading truck, worker threw hook over to other side of truck, hitting man standing nearby between neck and shoulder. Disabled for over 14 weeks.

Worker should have been required to look or call to give warning before throwing hook. In general, the practice of throwing objects should be discouraged.

3. Employee caught between boxcar and platform while moving car. Hip bone broken, disabled for over 14 weeks.

Provide more clearance between car and platform.

4. Backing electric truck out of low door. Struck in back of head by obstruction over door.

Remove obstruction to make passage safe.

5. Cleaning track, when struck by a car pushed by another employee. Fell 15 feet into pile of fertilizer. Fractured spine, died month later.

Men should not be permitted on track while cars are being moved. Provide cars with bell or some other warning signal.

6. Man working on trestle stepped in front of moving car. Killed.

Men should not be permitted on track while cars are being moved. Provide cars with bell or some other warning signal.

7. Walking on shipping platform, stepped into hole being repaired. Injury to leg.

Fence off or flag such repair work.

8. Coworker hit worker's foot with a hand pick while working in hold of a steamship discharging potash salts.

Men should be spaced farther apart. Have fewer men in congested working areas.

9. Cleaning tailing mill on a shipping unit, stuck hand into mill. Fractured finger.

Men should not be permitted to clean machinery in motion.

10. Five men, loading from a pile of superphosphate, undermined top of pile which slid down, injuring one worker.

Supervisor should never permit undermining of pile.

11. Load of 500 pounds fell on worker after hand truck struck an obstacle in path of wheels. Hand injured. A second worker tried to catch the load before it hit the floor, wrenched his back, disabled 7 weeks.

Keep floors clear of obstacles. Pay careful attention to good housekeeping and loading of trucks.

12. Six men, out of a total of 10 employees, hurt by slipping on wet platforms and gangboard.

Sand slippery floors. Provide nonskid platforms and gangboards. Floor wetness can usually be greatly reduced by proper drains and control of use of water.

Dry mixing

1. Painting building, ladder slipped, worker fell, gashing arm on protruding nail.

Insist that men secure ladders against slipping. Use nonslip ladder feet. Eliminate projecting nails.

2. Four workers picking on pile of fertilizer; one struck in arm by fork of another.

Men should be spaced farther apart, at safe distances, and kept that way.

3. Crew picking and shoveling on a pile of fertilizer. Man struck in calf of leg with a pick handled by another.

Men should be spaced farther apart, at safe distances, and kept that way.

4. Lifting plank while unloading material; hernia.

Teach workers to lift safely.

5. Hauling materials to elevator, worker's hand mashed when sideswiped by cart of another worker.

Provide sufficient clearance for carts.

6. While pushing cart, run into by another worker. Abrasion of heel, infected.
Provide closer supervision, and adequate first-aid treatment.
7. While dumping material from wheelbarrow, handle of barrow struck hand, breaking bone.
Description insufficient to indicate unsafe practice.
8. Fellow worker, turning to dump load, struck man in ribs.
Prevent congestion of workers and provide more adequate aisle space.
9. Placing empty bag over fertilizer chute to eliminate dust near conveyor, employee struck gear; lost a finger.
All gears should be enclosed.
10. Hand infected from break in skin.
Proper first-aid treatment of all injuries.
11. Helping to start engine; glove caught in belt between engine and drive shaft. Disabled 3 weeks.
Do not permit makeshift or improper methods of starting engines.
12. Releasing brake on boxcar, slipped and fell under car, crushed leg, permanent injury.
Provide careful training for such hazardous work.
13. On way to work, man cut across still beams of a foundation for a new furnace. Fell, injured hip, died 2 months later.
Do not allow unauthorized persons in construction area.
14. Tripped over wire and fell; hernia.
Keep walking areas clear of obstructions. If obstructions are necessary, keep them guarded.
15. Tending screen on mixing machine; vibration caused piece of iron pipe to fall, striking man on head.
Proper periodic inspections. Keep loose objects from overhead.
16. Stepped on plank; stuck nail in foot.
Keep walking areas clear. Eliminate all projecting nails. Adequate first aid.
17. Fertilizer screen fell, causing slight foot injury. Infection developed, disability of 3 weeks.
Proper first-aid treatment of all injuries. Secure screens against falling.
18. Injured by nail protruding from falling plank.
Eliminate projecting nails. Avoid loose objects overhead. Inspect periodically.

Acidulating

1. Pulled electric dumpcar to end of track to locate bumper, lost control over car, which ran over end of track, catching employee under it. Death.
Guard construction work properly. Provide positive means for car control; e. g., temporary bumper or secure car by means of a cable or other devices.
2. Climbed up ladder to grease bearings of an outlet screw; clothes caught in counter shaft of screw, pulled worker against shaft. Injuries to arm, side, and hip. Died 11 days later.
No greasing should be permitted on machinery in motion. Provide safety shaft and collars.
3. Two men connecting discharge line to a tank car of "nitrate solution." Safety valve blew off, solution sprayed into face and eyes of worker.
Provide protective masks.
4. Turning on valve of ammonia line, liquid ammonia shot into eyes. Disabled 3 weeks.
Provide protective masks.

Acid making

1. Cleaning out tower, men inhaled nitrogen dioxide gas. Four men killed, five injured. (Out of a total working force of 45 men, this one plant had 4 men killed and 8 injured.)

Provide workers with fresh-air respirators, preferably the type approved by the United States Bureau of Mines.

Establishments not classified by departments

1. Applying gear compound to gear; right hand caught between gears. Lost 4 fingers of right hand.

No greasing should be allowed on moving machinery.

2. Standing on bag conveyor when another employee started conveyor, wedging foot between conveyor and metal guard rail. Fractured bone, disability over 14 weeks.

Do not permit employees to stand on conveyors. Do not permit starting of machinery before making sure that other workers are out of danger.

3. Coming down ladder, ladder slipped, worker struck right side against radiator after falling 5 feet.

Insist that men secure ladders against slipping. Use nonslip ladder feet.

4. Stepped on loose piece of flooring, board flew up, striking worker in mouth. Loss of 4 teeth, badly lacerated lip.

Keep floor in good repair.

5. Chipping rust from beam, piece struck eye. Disabled 2 weeks.

Compel wearing of adequate goggles on work of this type.

It is hardly necessary to repeat that the causes which led to the accidents described could easily have been prevented, and that, on the face of the reports received, there is no justification for the unfavorable injury experience of the fertilizer industry.

SELECTING 1,800,000 YOUNG MEN FOR THE C. C. C.

By W. FRANK PERSONS, *Representative, Department of Labor, Advisory Council, C. C. C.*

THE FIFTH anniversary of the Civilian Conservation Corps (known officially as Emergency Conservation Work until July 1, 1937) will occur on April 5, 1938. The function of the Department of Labor in this large-scale undertaking has been the selection of the young men (17 to 23 years of age) who supply the major manpower of the Corps. Records show that from April 1933 to March 1938, more than 1,800,000 youths were selected and accepted for employment in the conservation of forest, park, and land resources throughout the country.

Responsibility for the selection of the junior enrollees was delegated to the Department of Labor, at the outset of the organization, by Executive order, signed by the President on April 5, 1933. This order stated:

The Secretary of War, the Secretary of Agriculture, the Secretary of the Interior, and the Secretary of Labor each shall appoint a representative, and said representatives shall constitute an Advisory Council to the Director of Emergency Conservation Work.

Under this authority, the viewpoint of the Department of Labor has been represented in the formulation of basic decisions of general policy affecting the entire Corps and its work. In addition, the Department has supervised a Nation-wide organization for the selection of enrollees. Unique features of this organization have been its voluntary character and its responsiveness to a single purpose—to select the best qualified men in the eligible group.

Uniform Eligibility Standards

Selection is made under uniform national standards of eligibility. These standards relate to age, citizenship, unemployment and relief status, marital status, character, and physical fitness. As a condition precedent to enrollment, each junior enrollee must agree to allot to a dependent relative a substantial portion of his monthly pay of \$30. The man's family thus receives each month, directly from the Finance Office, an allotment check of from \$22 to \$25 to be used in meeting family needs.

Within the respective States, authority to make selections is delegated by the Department of Labor to the established State relief and welfare administrations. The State selecting agencies, acting through

their local representatives, have the continuous task of receiving and investigating hundreds of thousands of C. C. C. applications each year. They interview applicants, select the most needy young men, and give approval to each beneficiary to receive the allotment of an enrollee's pay.

Filling of Vacancies

Enrollment periods occur each 3 months—in April, July, October, and January—on the basis of a national plan approved by the Director of the Corps. At such times the Department of Labor is informed of vacancies in existing camp strength. Thereupon, it issues a requisition to each State selecting agency to provide the number of new men needed. The State agency breaks down this requisition into smaller requisitions for each local unit, and sends forward the required numbers to acceptance stations at the scheduled dates.

It is under this procedure that 1,800,000 young men have been selected and sent forward during the first 5 years of the C. C. C. program. The authorized strength of the Corps (including both juniors and veterans) has varied during these years from a maximum of 505,000 during the quarter beginning July 1, 1935, to a minimum of 280,000 during the quarter beginning January 1, 1938.

The following table shows the maximum authorized strength and the number of young men selected during each fiscal year by the Department of Labor, as original members of the Corps (1933), or as additional members during expansion of size (1935), or as replacements to fill vacancies (every 3 months):

Junior Members of C. C. C. Selected and Enrolled Under Auspices of U. S. Department of Labor, 1933 to 1938

[Including maximum authorized junior strength for each quarterly period]

Enrollment periods	Junior applicants selected and enrolled under auspices of Department of Labor	Total national junior quota (maximum authorized strength)	Enrollment periods	Junior applicants selected and enrolled under auspices of Department of Labor	Total national junior quota (maximum authorized strength)
Grand total (April 1933-March 1938).....	1,829,981	-----	Total, fiscal year 1936.....	378,467	-----
Total, fiscal year 1933 (April 5-June 30).....	293,050	1 275,000	July-August 1935.....	183,833	470,000
Total, fiscal year 1934.....	245,357	-----	October-November 1935.....	94,149	445,000
July 1934.....	² 93,000	275,000	April-May 1936.....	100,485	325,000
October 1934.....	² 88,369	275,000	Total, fiscal year 1937.....	255,643	-----
January 1934.....	² 38,564	275,000	July 1936.....	43,191	325,000
April 1934.....	² 113,793	275,000	October 1936.....	92,793	325,000
Total, fiscal year 1935.....	460,868	-----	January 1937.....	44,362	325,000
July 1935.....	² 156,500	320,000	April 1937.....	75,297	325,000
October 1935.....	88,369	320,000	Fiscal year 1938 (incomplete).....	196,596	-----
January 1935.....	63,086	320,000	July 1937.....	49,207	270,000
April 1935.....	³ 107,237	320,000	October 1937.....	124,145	265,000
June 15-30, 1935.....	45,676	320,000	January 1938.....	23,244	255,000

¹ Original junior contingent (age 18-25) of the Corps, including 24,375 local experienced men.

² Estimated.

³ Beginning with the April 1935 enrollment period, local experienced men were no longer selected by the Department of Labor.

No Federal funds are used to defray the expense of selection activities in the various States. It is the uniform policy to request appropriate State agencies to accept this responsibility without cost to the Federal Government. Since allotment payments, made by enrolled members of the Corps to their needy dependents, amounted during the fiscal year 1937 to \$88,073,059, and have amounted in the aggregate to more than \$425,000,000 since the beginning of the Corps, the comparatively small administrative cost necessary on the part of each State, in order to assure full participation in the benefits of the C. C. C. camp program, has been readily assumed.

Responsibilities of Department of Labor

The chief functions of the Department of Labor in the administration, coordination, and supervision of the selection of C. C. C. enrollees and the State and local agencies and facilities utilized for this purpose are as follows:

(1) Membership on the Advisory Council to the Director of the Corps, and liaison with the Director's office and the Federal departments and agencies participating in C. C. C. operations; participation in planning and policy-making on questions affecting the purposes and scope of the Civilian Conservation Corps enterprise as a unified whole.

(2) Recommending eligibility policies and rules and regulations governing selection of junior members of the Civilian Conservation Corps, to be issued with the approval of the Director of the C. C. C.

(3) Appointing State selecting agencies under the "cooperative agreements" authorized in basic legislation, and assuring the uninterrupted continuance of selection facilities in the States on a voluntary and uncompensated basis.

(4) Supervising and coordinating the efforts of designated selecting agencies through field trips and conferences, and through communication and correspondence with selecting officials on special problems; evaluating the work of such agencies and suggesting means for its improvement when necessary; consultation and assistance in the development of training programs for local selection personnel and in plans for the greater adjustment of enrollees to camp life and their placement upon discharge.

(5) Preparing printed and mimeographed materials for information and guidance of State and local selecting agencies; issuing "letter of instruction" series to the field; preparing informative materials for prospective enrollees.

(6) Publishing basic State quotas and authorizing periodically the selection of men needed to replace wastage in full strength (in accord with general plans approved by the Director of the C. C. C.).

(7) Planning and initiating the procedure for selection; supervising the filling of requisitions for replacements.

(8) Summarizing and preparing reports covering selection data from the field; preparing special memoranda and reports for the Director of the Civilian Conservation Corps and members of his staff.

(9) Rendering decisions, after review of facts, in cases of disputed allotments referred for action by the War Department.

(10) Answering routine requests for information on eligibility, selection procedure, changes of allotment, and similar matters.

In carrying forward the above functions, the total expenditures of the C. C. C. office of the Department of Labor have been less than \$20,000 per year in each of the fiscal years up to and including the year 1937. During the latter year the expenditures were \$19,258.

Effective Cooperation of State Agencies

In each successive year since 1933, the cooperative plan under which the State welfare and relief organizations have worked with the Department of Labor in selecting the best qualified youths for the Civilian Conservation Corps has increasingly exemplified the effectiveness of a typically American process of government. It is a democratic process in which the maximum use is made of State and local initiative and responsibility. Not only have officials of the public relief and welfare organizations in the various States and communities given wholeheartedly of their time and effort to assure the success of the C. C. C. enterprise, but the assistance in an advisory capacity of school officials, community houses, private welfare agencies, and religious bodies has been enlisted and readily given. Nor can it be said that this keen interest and uncompensated assistance has been of a purely emergency character. It has continued to flourish after 5 years of operation of the C. C. C. program.

Through this process it has been possible in many communities to attain a broader understanding of the benefits which result from the selection of young men of ambition, purpose, and character for service in C. C. C. camps. To a much less extent than formerly are selecting agencies besieged by public and quasi-public officials urging that "problem cases" be enrolled in the Corps without regard to their adaptability to the Corps and their qualifications for the work program. It is not only an unwarranted expense to the Government to outfit and transport enrollees who remain in camp only a few days or weeks; it is also a loss to the community which selected such applicants and is a disservice to the applicants. The youths who are best able to contribute to the work of the Corps and most anxious to profit by its work and training opportunities are the young men the Civilian Conservation Corps wants.

Although careful selection is the primary function of the State and local agencies which act on behalf of the Department of Labor, their responsibilities extend to a broader field. Adjustment of enrollees to camp life has been emphasized as a proper concern of those responsible for selection. Cooperation between the camp supervisory personnel and the selecting agents—who are the connecting links between the enrollees and their home communities—has already resulted, in many instances, in improved camp morale.

State and local selecting agencies have been encouraged also to assist returned enrollees in their search for permanent employment through cooperative plans with camp administrative officials and by utilizing the facilities of State employment services.

Age and Schooling of C. C. C. Youths

The method of tabulating and analyzing in each State factual data with respect to newly selected applicants at the time of acceptance and enrollment in the Corps has been continuously improved and extended. Reports are now made to the Department of Labor immediately after each enrollment period on the following subjects:

1. Age distribution of juniors accepted for enrollment.
2. Length of unemployment of juniors prior to selection.
3. Years of schooling completed by juniors prior to selection.
4. Relief status of juniors accepted for enrollment.
5. Urban-rural classification of juniors accepted for enrollment.
6. Allotments of juniors accepted for enrollment.
7. Employment office registrations of juniors accepted for enrollment.

Through these reports many significant data are being obtained which have an important bearing on policy making in the interest of the entire Corps.

Figures on the ages of young men selected for enrollment in the Corps present unusual evidence of the need of 17 and 18 year old youths for the type of experience and training available in C. C. C. camps. A third of the applicants selected in the last 3 enrollments (July and October 1937 and January 1938) were 17 years old. More than half were either 17 or 18 years of age, and nearly three-quarters had not reached their twentieth birthday.

It is undoubtedly true that youths just out of school and with no specialized training have found their employment opportunities to be limited by their immaturity and inexperience. They seek enrollment in the Civilian Conservation Corps, therefore, for the appropriate purpose of gaining such maturity and of developing such useful skills as will enable them to approach private employers and register at public employment offices with more self-assurance and a more impressive work history.

The testimony of selecting agents as well as of camp supervisory personnel bears out the fact that the majority of these youths do not enter the camps solely for the purpose of escaping idleness for a time, but rather because they are eager to work at the various jobs to which they are assigned, anxious to learn how to handle tools and machinery, and ambitious to advance themselves up the ladder of employability.

More than a sixth of the youths accepted have never been previously employed, according to their own report. For these young men, most

of whom have very recently left school, as well as for many whose previous work experience has been of a temporary or intermittent nature, the Corps very clearly is providing a first opportunity to know the meaning of a regular job.

A summary of the information available over a period of the last 2 years (April 1936 to March 1938), on the number of years of schooling completed by selected applicants indicates that 66.7 percent of the youths had completed primary school (eighth grade) while 9.8 percent had completed high school. It is evident that a great many of the new enrollees ended the formal part of their education either immediately after completing grade school or in the early years of high school. Frequently this early termination of schooling was due to family financial limitations. It is especially helpful to these youths, therefore, to be able to avail themselves of the work and training program of the Civilian Conservation Corps, and, on a voluntary basis, to secure additional education.

Moving Toward a Permanent C. C. C.

On April 5, 1937, the President recommended to Congress that the Civilian Conservation Corps be made a permanent agency of the Federal Government. On June 28, 1937, Congress passed and the President signed an act (Public, No. 163, 75th Cong.) establishing the Civilian Conservation Corps for a period of 3 years, beginning July 1, 1937.

The Corps has now passed from its emergency phase and has begun the development of a permanent program. Substantially the same organization which was created in 1933 under the program of Emergency Conservation Work is continued by the act and by Executive Order 7677-A supplementing the act. The Department of Labor will continue to participate in the administration of the Corps and will have the responsibility, as during the past 5 years, for the selection of all junior enrollees.

POWER FARMING AND LABOR DISPLACEMENT

PART 2.—SOUTHWESTERN OKLAHOMA AND MISSISSIPPI DELTA

By PAUL S. TAYLOR, *University of California*

THE SAME forces of drought, depression, and power farming which are displacing tenant farmers and laborers in the Texas Panhandle are operating in southwestern Oklahoma and the Mississippi Delta.

Farm-Labor Displacement in Southwestern Oklahoma

Southwestern Oklahoma, like Hall and Childress Counties, Tex., is part of the western dry cotton area. The beginnings of mechanization of cotton production and the portent of its effects were noted by an Oklahoman as long as 7 years ago:

Striking progress has been made in parts of the South in recent years in the mechanization of cotton production. * * * The effect * * * is likely to prove even more striking in its economic and social aspects than with the agricultural production, in which the use of machinery has increased gradually over the past 50 years or more.¹

In 1936 another observer gave as reasons for the exodus of farm population from southwestern Oklahoma not only drought, but also mechanization in the form of tractor farming and harvesting by "sledding."² The observations which follow are based on brief field reconnaissance in 1937 and examination of available statistical data on farm tractors.

The use of tractors on Oklahoma farms is increasing rapidly. Although this State was among those most severely struck by drought, the number of tractors increased 25.2 percent between 1929 and 1936, or slightly more rapidly than in the United States as a whole. Even more striking is the tremendous recent acceleration in the use of tractors. Between 1929 and 1934 the annual rate of increase averaged only 1 percent. In 1935 the rate of increase rose to 7.9 percent, and in 1936 to 9.7 percent (table 1).

TABLE 1.—*Increase of Farm Tractors in Oklahoma, 1929-36*¹

Year	Number of farm tractors	Index	Annual percent of increase
1929	25,962	100.0	-----
1934	27,205	104.8	² 1.0
1935	29,356	113.1	7.9
1936	32,504	125.2	9.7

¹ 1929 figures from 1930 census; 1934-36 figures from Oklahoma Highway Department.

² Average.

¹ Journal of Farm Economics (Menasha, Wis.), January 1931, p. 29: Mechanization of Cotton Farms, by P. H. Stevens.

² Rural Sociology, Baton Rouge, September 1936, p. 332: Some Observations on Oklahoma Population Movements Since 1930, by Robert T. McMillan.

TRACTORS ON WHEAT FARMS

Tractor farming is increasing rapidly on wheat farms. Between 1929 and 1936 tractors increased 25 percent in the five leading wheat-producing counties of Oklahoma. These counties produced 43.8 percent of the winter wheat crop of the State (there is practically no spring wheat), and practically none of the cotton of the State. The invasion of wheat by the tractor is not surprising, except perhaps that it has been proceeding so rapidly during drought. This may be explained in part by the fact that heat was so extreme in 1934 and 1936 that farming with horses was difficult, and also by the fact that the rise in price of feed because of drought increased the relative advantage of mechanical over animal power.

A notable and significant, if extreme, instance of mechanization and labor displacement in wheat was drawn to our attention. In one of the northern wheat counties one man has purchased successively 100 quarter sections. He introduces machinery, leaves one tenant on each section, and displaces from one to three tenants.

TRACTORS ON COTTON FARMS

More astonishing than the mechanization in wheat farming is the fact that the use of tractors is now invading cotton farming even more rapidly. Between 1929 and 1936 tractors increased from 3,170 to 4,176, or 31.7 percent, in the five leading cotton-producing counties of Oklahoma.³ These counties produced 20.8 percent of the cotton of the State in 1934, but only 7.2 percent of the wheat. In the five leading wheat-producing counties of the State,⁴ the number of tractors increased in the same time from 6,233 to 7,790, or 25.0 percent. These counties produced 43.8 percent of the total wheat of the State, but only 0.5 percent of the cotton.

In those crop-reporting sections of the State where wheat predominates, farm tractors increased only 13 percent. In sections where cotton predominates, with wheat second, tractors increased 40 percent.

Even very limited inquiry and observation reveal that tractor farming is displacing tenants in both cotton and wheat cultivation in Oklahoma, as it is in the Texas Panhandle. Abandonment of farmhouses is a feature of the rural landscape conspicuously evident to the traveler through the southwestern quarter of Oklahoma. Here tractor farming is expanding rapidly. In explanation of house abandonment near Cache, in Comanche County it was said: "The moneyed men are renting bigger tracts from the Indians. They work them

³ Beckham, Caddo, Grady, Tillman, and Washita Counties. All are located in the southwestern quarter of the State.

⁴ Alfalfa, Garfield, Grant, Kay, and Kingfisher Counties. All are located in the north central part of Oklahoma. Oklahoma produces practically no spring wheat.

with tractors. They won't let the people live in the houses on the farms." A few miles west of Gardner on the same road, 18 families are encamped in miserable makeshift shacks or tents in one cluster, squatting on land adjoining U. S. Highway 62 and adjoining "blind" sections. All are on relief. Practically all were former renters or farm wage laborers.

This district has contributed heavily to the refugees entering Arizona and California. The importance of what is occurring in this area is given emphasis by the fact that of some 210,000 migrants "in need of manual employment" entering California by motor vehicle between June 16, 1935, and November 15, 1937, approximately one-quarter traveled in vehicles bearing an Oklahoma license.⁵

Cotton production has always required more labor per acre than wheat raising. The amount of human displacement caused by introduction of machinery, drought, depression, and other dislocating factors, therefore, is much greater in cotton production than in wheat raising. This largely explains the fact that while the farm population of the five leading wheat counties of Oklahoma, despite drought, mechanization, etc., not only held its own, but even increased 2 percent between 1930 and 1935 the farm population of the five leading cotton counties declined by 13 percent in the same period.

OTHER CAUSES OF DISPLACEMENT

Tractor farming, of course, is not the only cause of heavy displacements of tenants and laborers. In Oklahoma, as in other portions of the Great Plains and adjacent stricken areas, drought, depression, and even land exhaustion are contributory causes.

In the northwest quarter of Carter County, near Ardmore, for example, is a strip about 10 miles wide and 40 miles long which is practically exhausted both for oil recovery and for agricultural purposes. Large numbers of families have left this area for the west coast, and are still leaving. These quotations are from our field notes.

At Newport:

There's my grandfather's house. He was a pioneer in this country. Now my brother's camping there just barely existing, trying to farm 30 acres.

There's some more wore-out land. I cleared that land 30 years ago.

All this country is fit for now is to hold the world together.

Fifteen families left for California within the last month.

At Lone Grove:

The land's wore out. This was good farming country when we came here 40 years ago. People didn't know how to take care of it. The loan companies and insurance companies and real-estate men own most of it now, and they only hold it for the oil and mineral rights.

At Oil City:

Half this country's in California. I've got 20 relations went to California in the last 6 months.

⁵ Drought Refugee and Labor Migration to California, Monthly Labor Review for February (p. 312) and December 1936 (p. 1355).

Curiously, there are practically no vacant rural houses in this particular area. As they are vacated, they are immediately filled by poor families from the surrounding sections, usually living on relief, but sometimes without any visible support.

If W. P. A. projects were to be withdrawn, many thousands of families still clinging to Oklahoma would leave for the West. W. P. A. pays only \$26.40 a month in rural Oklahoma, but that is sufficient to hold many. Local relief standards are extremely low. The executive of a private philanthropic association in Oklahoma City, who has close relations with the problem of Oklahoma transients in other States, stated that county relief is frequently as low as \$3 a month per family, that it averages from \$5 to \$7 per family in the rural counties, and that the highest figure of which she has ever heard, which was paid to one very large family, was \$16 a month.

As causes of displacement, drought and depression are temporary. Tractor farming and land exhaustion are final.

The Black Waxy Prairie of Texas

Power farming and its accompaniments are beginning to penetrate the Black Waxy Prairie of Texas, which is the outstanding producing section of the western part of the Cotton Belt. Observations in this area were limited to brief reconnaissance in four counties of the northern portion. Samples of the findings are presented in the following notes and quotations.

A cotton farm of 2,500 acres in Ellis County, with abandoned tenant houses, 3 years ago had 24 tenants of whom 10 white and 1 colored were cultivating on thirds and fourths and 8 white and 5 colored were cultivating on halves (as croppers). In 1937 there were 6 tenants, all of whom were white, farming on thirds and fourths, and no croppers.

One colored cropper, formerly with 54 acres of cotton, remains on the farm now with only 15 acres of cotton, and is working for the owner at \$1 a day when he works. He came to this farm 19 years ago. Most of the work which used to be performed by tenants and croppers is now performed by day labor.

A colored wage laborer, formerly a cropper, said:

The big fellows are working their farms with tractors and day labor.

The peoples [renters] is walking the road looking for places.

I don't know what's going to become of this here world.

This year's the worst. About 30 or 40 families, black and white, lost their places this year, right around here.

A man at a gas station in the nearest town stated:

This relief is ruining the towns. They come in from the country to get on relief.

The landowners are buying tractors, mostly the last 2 years, and running their farms.

A sharecropper, speaking of the vacant tenant houses in McLennan County, declared that—

When this here depression come on, wages went down to six bits a day. The people couldn't live on it, and went to town. I have 40 acres on halves, and work for the landlord driving a tractor at \$1.50 a day. Most of the tractor drivers get \$1.25.

An agricultural officer said:

Two hundred farms changed hands by foreclosure or surrender of deed of trust this year in Bell County. The land went mostly to insurance companies. They try to rent it to the biggest operators they can find, mostly to men with tractors.

When a man gets a tractor, he doubles the size of his farm.

The tenants can stay in the houses or go to town and stay on relief.

One machinery man sold 100 tractors this year. He sold about half that many last year.

A tenant in Navarro County who had his own tractor, declared:

Of course it throws a lot of people out of work. I increased my acreage from 100 to 143.

A day laborer on farm expressed himself thus:

He [the landlord] claims it's right smart cheaper to use tractors. I don't see how it can be; he can't raise his gas and oil. It's mighty hard on the tenants.

A cropper said:

Over there one man works 1,100 acres; he bought four tractors and now works day labor.

Now since it's the tractors are the fashion, a teamster can't get to make a crop hardly. Where it's stumpy a teamster can get a crop.

The displaced workers frequently go to the towns and on relief. No indications were noted that strongly defined currents of emigration from the area to other sections have yet developed.

Mississippi and Arkansas Deltas

In the Delta lands of Mississippi, Arkansas, and Louisiana the old plantation system survives probably more vigorously than anywhere else in the Cotton Belt. It is the most concentrated cotton-producing section of the deep South. About 85 percent of the farm land is operated under the plantation system. Land holdings are large, and on each 15 to 20 acres of cotton there is a tenant family. The countryside was deliberately populated densely in order that there might be available on the plantation itself enough hands to meet the peak labor requirement for pickers at harvest time. These farm families are typically Negro sharecroppers, who supply only their labor under the direction of the landlord or overseer. Landlords customarily "furnish" groceries and credit while the crop is being made, and settle with their croppers after the harvest by dividing the proceeds. This is one of the main examples of what has come to be known as "cotton tenancy."

PLANTATION RESISTANCE TO MECHANIZATION

Because of the high seasonal labor peak at the time of harvest, and the lack of mobile labor, the most careful students outside the Delta have been of the opinion that mechanization in the form of tractors and improved tillage equipment would not occur until the advent of a machine picker should eliminate the need for hand laborers in the harvest. The following quotations express the accepted view:

Machine agriculture enables the farmer to cultivate more acres and thus add to his increased labor returns, increased returns on capital. The amount of cotton a farmer can grow is limited by the amount he can pick. Cotton has so far defied machine harvesting. This defiance limits the development to any great extent of mechanized methods of planting and cultivating. It is useless to plant more cotton than can be picked.⁶

Tractors are most numerous in the Corn Belt, in the southern portions of the hay and dairy region, in the spring and winter wheat regions, and in California where fertile soils and progressive agriculture are found. In the spring wheat region and California, in 1925, about 1 farm in 5 had a tractor; in the Corn Belt about 1 farm in 6; elsewhere in the United States 1 farm in 7 to 20, except in the States south of the Ohio and Potomac Rivers, where only 1 farm in 30 to 1 in 100 had a tractor. The acreage of cotton a farmer can handle is not limited by the acreage he can plow and plant, as with wheat, or can cultivate, as with corn, but by the quantity he can pick, and a tractor cannot help in picking cotton so long as it is picked by hand.⁷

As recently as June 1937 the same idea was repeated by the report on Technological Trends and National Policy (National Resources Committee, pp. 141, 142). Even the Oklahoma observer who foresaw so clearly the spread of tractors in western cotton as long ago as 1931 also believed that the labor system of plantations of the Southeast would offer strong resistance to power farming and other forms of mechanization.⁸

The general acceptance of this belief in the resistance of the planters because of the labor pattern led us to assume that facing the problem of labor displacement by mechanization in the deep South could be postponed until a machine picker was adopted commercially. The effects of development of the row-crop, all-purpose tractor, of depression and the relief program, and of building good roads were not foreseen, and under these conditions the planters' resistance is yielding readily. Already, perhaps 15 percent of the Yazoo-Mississippi Delta is farmed by tractors.

⁶ Vance, Rupert B.: *Human Factors in Cotton Culture*, Chapel Hill, University of North Carolina Press, 1929, p. 199.

⁷ Baker, O. E.: *A Graphic Summary of American Agriculture* (U. S. Department of Agriculture, Miscellaneous Publication No. 105, May 1931, p. 100). See also, *International Institute of Agriculture, World Cotton Production and Trade* (1936), p. 60.

⁸ *Journal of Farm Economics* (Menasha, Wis.), January 1931, p. 26: *Mechanization of Cotton Farms*, by P. H. Stevens.

PLANTERS' ACCEPTANCE OF MECHANIZATION

Mechanization is invading the Delta. In many parts the "1-man-1-mule" method still rules, but in the counties immediately adjacent to Greenville and Clarksdale, Miss., and in the Arkansas Delta opposite Memphis, Tenn., mechanization is already well advanced. Tractors, and 2- and 4-row planters and cultivators are making great headway and economizing man-power on the larger plantations and better lands. Check-row planting, as well as cross-plowing, on a commercial scale has begun to produce the same result, i. e., elimination of hand chopping.

ORIGINS OF A MOBILE LABOR RESERVE

The development of a mobile labor reserve to meet seasonal hand-labor peaks as a condition essential to preharvest mechanization was recognized even by those who did not expect it to occur. Vance, for example, wrote in 1929 that "except for Mexicans in Texas there have developed no migratory laborers in cotton as in wheat." This was an understatement, even in 1929, of the spread of migratory labor in cotton, for already it was affecting the farm pattern where it prevailed in central, south, and west Texas, southwest Oklahoma, Arizona, and California. The extensive growth of large-scale, semimechanized⁹ cotton farms in the western areas—practically three-fourths of the large-scale cotton farms of the country are in these four States—is predicated upon the availability of mobile labor. Mobility, of course, was a characteristic, not of a particular nationality, but of cotton regions, for although Mexicans predominated, thousands of Negro and white American migrant families also followed the cotton harvests.

It is of particular significance, therefore, that a mobile labor reserve of cotton workers is developing in the towns and cities of the Mississippi and Arkansas Deltas. It is being recruited largely from families who until recently were tenants, croppers, or laborers on the plantations, but who are having the ground cut from under them. The failure of industry to absorb rural emigrants, or even to hold those who had left the farms earlier, adds to the available reserves.

THE NEW LABOR PATTERN

Demand for labor in planting and cultivating cotton is being greatly diminished by power farming. Although the introduction of new methods in the Delta is still "spotty" and uneven in degree, the new labor pattern is clear. With the most efficient equipment—4-row machines drawn by tractors—one man can do the work of eight mules and eight Negroes following the most primitive methods (i. e., 1-man,

⁹ I. e., mechanized in most preharvest operations.

1-mule) which are still employed on some plantations in the Delta. Besides, the tractors can be worked by drivers in shifts, and at night, to work the crop rapidly when it needs prompt attention.

The demand for hand hoers is being sharply reduced. Not only is more prompt and more frequent cultivation possible with machines, but cross-cultivation in lieu of chopping is a growing practice. Also check-row planting is now employed on a commercial scale; although not yet widely adopted, it is likely to spread steadily. One planter who check-row planted 340 acres in 1937 stated that his cotton required only one-third of the amount of hand hoeing usually necessary and yielded 430 bales. By using either of these techniques, the method of cultivating corn is approximated in cotton cultivation.

Growth of wage labor.—Simultaneously with mechanization and the other disturbing factors already noted, tenants and croppers find the old customary basis of remuneration abandoned. Annual payment according to an agreed share of the crop, supplemented by the system of "furnish," is replaced by payment to laborers of a wage by the day, when employed. Practically all the mechanized plantations operate with day labor, dispensing with most of their croppers. A very few retain their tenants or croppers and continue to operate on shares after purchasing tractors; indeed, mention has been made of one plantation which retained all its tenants on the old basis. But on most mechanized plantations the tenant houses are abandoned, except as families remain in them in reduced numbers to work as laborers. The displaced croppers move to town, and a very few are beginning to migrate to the industrial North, following the well-cut channels of the great migration of the twenties.

Shifts in method of payment from shares to daily wages and back again have occurred in the past. The distinguishing features of the present trend toward wage labor when accompanied by mechanization are (1) the increase in scale of farming operations, which reduces opportunity for the small cropper or tenant to achieve anything resembling independent farming status, and (2) the great reduction in demand for human labor in cotton production, which decreases the opportunity of finding any place at all in the process, even that of a wage laborer. This trend is permanent.

RURAL SOCIAL CHANGES

Social changes of major import, produced by the complex causes described above, were already extensive by 1935. They are continuing now, chiefly under the impulse of mechanization.

Average size of farm in the Mississippi Delta increased 25.1 percent between 1930 and 1935 (see table 2). Farm population decreased 13.4 percent.

Declining opportunity on the farms accompanied these changes. The number of farms fell 13.2 percent. Colored operators particularly were affected adversely. While the number of white operators declined in this richest southern part of the Cotton Belt only 3.2 percent, the number of colored operators fell 15.2 percent.

The trend in the plantation economy of the Delta differed somewhat from the trend in the hill country of Mississippi. While white operators were declining 3.2 percent in the Delta, they increased 10 percent in the State as a whole. While colored operators declined 15.2 percent in the Delta, they decreased only 8 percent in the State as a whole. It is clear that both white and colored operators found conditions less severe during the period 1930-35 in the poorer hill country than they did in the rich Delta.

Exact measurement of the correlation between tractor farming and declining farm population is not possible. Factors in causation cannot be singled out, nor do time periods for which data are available coincide. Nevertheless, data for Washington County in the heart of the Mississippi Delta are presented in table 2. Tractors increased by 175 percent between 1930 and 1937, partly before 1935, but to a large extent afterward. Average size of farm increased by one-fourth, the number of farms decreased by 13.9 percent, and farm population by 10.2 percent before 1935. It is plain from observation that these trends have continued strongly since the census of 1935 was taken.

TABLE 2.—*Rural Changes in the Mississippi Delta¹ and in Washington County, Miss.,² 1930-35*

Item	Mississippi Delta			Washington County, Miss.		
	1930	1935	Percent of change	1930	1935	Percent of change
Number of farm tractors.....				285	³ 784	+175.1
Number of farms.....	101,160	87,765	-13.2	8,965	7,716	-13.9
White farm operators.....	17,258	16,707	-3.2	1,312	1,097	-16.4
Colored farm operators.....	83,882	71,148	-15.2	7,653	6,619	-13.5
Average size of farm (acres) ⁴	34.6	43.4	+25.1	32.6	40.8	+25.1
Farm population.....	382,346	330,997	-13.4	32,686	29,352	-10.2
White.....	75,183	63,506	-15.6	5,805	4,421	-23.8
Colored.....	307,183	267,491	-12.9	26,881	24,931	-7.3

¹ The following counties of Mississippi are included in the Delta: Bolivar, Coahoma, Holmes, Humphreys, Issaquena, Leflore, Quitman, Sharkey, Sunflower, Tallahatchie, Tunica, Washington, Yazoo.

² County seat Greenville, in the Mississippi Delta.

³ Estimated, 1937. From 69 percent of farm acreage of the county which is under crop agreement with the Government, 1937, there were reported 541 tractors. It was assumed, after consultation with the county agent's office, that tractors are used to the same degree on farms not under crop agreement.

⁴ Unweighted average of county averages.

Perhaps these changes should not have been so surprising to observers as they are, for since as early as 1932 experts in farm management within the Delta have specifically been urging the practices upon which they are based. Fully cognizant of the social effects which now disturb both southern and northern students of the problem from outside the Delta, these experts have officially advocated what now

is a major trend, viz, mechanization, abandonment of the tenant-cropper system, use of day labor, larger-scale farming, displacement of a large proportion of the labor population from the land. Delta Experiment Station Bulletin 298, entitled "Making Cotton Cheaper," states:

Fifteen-acre-per-family units can never again be profitable on the average, even in the Delta. Neither labor nor operator will ever be satisfied again with living standards possible under a system requiring so much overhead and the support of so many human beings per unit area. * * *

No other items were reduced so much in 1931 as tenant charges, but because of the human factor these will be the first to rise when business revives. Farm labor's daily income is still below that of industrial labor. Only farm machines and power can equalize it. Farm labor must do more work per family, else farms cannot compete with industry for labor. Industries have mechanized in self-defense, as the farms must do as rapidly as possible. From 30 to 50 percent of present Delta farm labor must ultimately be replaced by machinery if plantations are to escape foreclosure. * * *

Putting labor on a cash or day basis will increase its efficiency 50 to 100 percent.

As cultivating machinery is improved, more hoeing can be eliminated by cross plowing. Cotton-chopping machines will also assist. Soil enrichment will make checked (either check-planted or plowed into checks) cotton compete in production with drilled cotton, thereby eliminating more hoeing. * * *

Operating costs on five tractor-operated plantations in 1931 average \$16.45 per cotton acre. This is \$11.12 less than the per-cotton-acre cost of operation on the five-tenant operated plantations, or a difference of 40 percent.

The Experiment Station experts reject any responsibility of agriculture to retain labor which is uneconomical under the industrialized system, or to reabsorb displaced labor.

Reduction of the farm-labor population 30 to 50 percent is essential to "decent" living standards on the farm. Soap-box orators may decry cotton pickers, tractors, 2- and 4-mule machinery, but they and other modern farm machines are just as essential to farmers who expect to earn decent livings and fair returns on investments as are linotypes to printers, compressed air and concrete-mixing machines to contractors, modern spinning and weaving machines to textile manufacturers, or modern equipment to other American industries. True enough, up-to-date farm equipment reduces man-power necessary. So does all modern machinery. But Americans will not go backward. It is not up to American farms to absorb, even at pauper wages, either the labor released from modernized industry or non-essential farm labor replaced by the economical use of adapted farm machines. American genius must find other fields for replaced labor, both from modernized farms and industry, if peasantry is to be avoided.

The observed trend toward power farming in cotton and labor displacement, therefore, is completely in harmony with the recommendations for lower costs of production. Whatever the responsibility of agriculture certainly the Nation cannot evade responsibility for dislocation of from one-third to one-half of the cotton workers.

GROWTH OF MOBILE LABOR RESERVE

Cotton planters in the Delta are coming to depend more and more upon the mobile labor reserve, the origins of which were described

earlier. It is the presence of this reserve, comprised principally of cotton workers recently swept from the land into the towns, which makes tractor farming feasible. Labor displaced from the plantations still remains a part of the agricultural labor supply, but it is employed only as a reserve to meet seasonal peak needs. Daily movement of labor between town and plantation during heavy seasons has been developing to a surprising extent, facilitated by very recent construction of graveled and hard-surfaced roads.

On a Saturday morning in June 1937, between 1,000 and 1,500 Negro cotton hoers were seen being brought in trucks from Memphis, Tenn., across the Mississippi River State boundary to the cotton fields of the Arkansas Delta. Other hundreds were taken south into Mississippi. The numbers so transported daily across State lines are much greater during the week than on Saturday. Some of these truckloads of laborers leave as early as 4:30 a. m., and some return as late as 8:30 p. m. Some travel 45 miles each way, and there may be as many as 100 in each truck. Loads of 40 and 50 are common. Among the places to which they go are Parkin, Earle, Wilson, and Forrest City. Wages for these hoers were \$1 and \$1.25 a day. Transportation and cost of recruitment was paid for by the planters.

Numerous cotton hoers move daily out of Greenville, Clarksdale, Vicksburg, and smaller towns in the same manner. From Greenville they are transported as far as 37 miles each way.

DISTANT LABOR SOURCES

Distant sources of labor are being tapped by cotton planters to meet the heavy seasonal peaks. In 1936 Mississippi Delta planters advertised for cotton pickers in newspapers of Memphis, Tenn.; Jackson and Meridian, Miss.; Dallas, Tex.; New Orleans, La.; and doubtless elsewhere. Mexican cotton pickers were brought from the vicinity of Dallas, Tex. Planters also draw heavily upon Negro labor in the vegetable section south of Jackson, Miss., near Hazelhurst and Crystal Springs, after the tomato harvest is concluded.

Even more significant than the importation of cotton pickers is the distant recruitment of cotton choppers in the spring, for chopping is the smaller of the two seasonal labor peaks, and outside labor has rarely, if ever, been introduced for this operation. In 1937, as far as is known, for the first time, hundreds of Mexican cotton choppers were recruited for plantations in southern Washington and Issaquena counties of Mississippi. They were also brought from Dallas, Tex. Still greater numbers of Mexicans from Texas were drawn in for the 1937 harvest. It is not accidental that this section is the part of the Delta which has probably developed power farming, cross-cultivation, and even check-row planting to the highest degree.

The importation of outside labor for the cotton harvest, of course, is not entirely new to the Delta. In 1925, for example, some train-loads of Mexican pickers were brought from Texas. These drafts upon mobile resources, however, were exceptional, as when bumper crops were produced and weather compelled rapid harvesting. Now, the use of seasonal labor is appearing as a normal method of operation, essential to semimechanized farming in both picking and chopping.

Displaced labor, forced into the towns, finds little employment there. In some communities, some industrial work and odd jobs for the men, and some domestic service for the women are available. In Greenville a pulp mill and gypsum works afford some employment. But the main employment for most of these ex-tenants, croppers, and farm laborers cut away from the land continues to be scanty day labor on the farms during cotton hoeing and picking seasons, covering a span of approximately 6½ months. Some receive relief, and a few go North to industries where others preceded them during the prosperous twenties.

Conclusion

The invasion of southern cotton culture by power farming is well under way in important areas. Its progress is "spotty," but the pattern of social and economic effects which it produces is already clear—fewer family farms, larger farms operated by wage labor, dependence on mobile labor reserves to meet seasonal peak demands for cotton choppers and pickers.

Many tenants who have tilled the land on the family-farm basis are made landless, forced by the machine into the towns, or reduced to day labor on the farms. Large numbers who have gone to the towns have fallen on relief, or even have sought refuge in distant parts. Not only is their security gone, but the opportunity even to rise to ownership is diminished, for profitable operation of mechanized farms requires more land and more capital equipment per farm.

Whites and blacks, managing share tenants and sharecroppers, alike are swept from the land. In the Texas Panhandle mainly native American white tenants are being displaced. In the Delta the dislocation affects principally black sharecroppers in Mississippi and both blacks and whites in Arkansas.

Landlords, and those tenants who are able to purchase tractors and remain on the land, are benefiting from the new economies of production. Some sharecroppers who remain as day laborers to operate the machines are as well or even better off than before, but for those who were managing tenants with teams and tools the new dependence on wages represents a sharp reduction in status. And those tenants, croppers, and laborers alike are in straits who are being forced into the towns and drawn back to the land only seasonally to serve hand-labor peaks as wage workers.

Tractor farming is, of course, not the only cause of displacement and of the shift from tenancy to wage labor in cotton cultivation. It is not possible to isolate the effects of the tractor from those of drought, depression, or phases of the Government emergency program, nor is it necessary. For it is amply clear in the areas studied that at present the major cause of displacement and change in the agricultural labor pattern is power farming.

Trade journals confirm field observations of the strength of the movement toward power farming in important cotton sections. For example:

An outstanding feature of the spring trade has been the demand for tractors from the sections of the South formerly dependent upon mules for power. Whether this is normal progress or an economic reaction to higher mule prices remains to be seen. The demand has been heaviest in the lowland sections from which the flood waters have recently receded. * * *

Memphis: What promises to be one of the most active selling seasons in many years is now swamping the farm equipment branches in Memphis and the retail trade throughout Tennessee, Arkansas, and Mississippi. The demand for tractors is setting an all-time record and many of the companies are far behind in their deliveries. Proportionately heavy is the demand for plows and planters. Hardly had the flood crest passed until the farmers in the lowlands of the Mississippi and its tributaries, especially in Arkansas, were clamoring for tractors with which to repair the water damage and prepare fields for seeding. * * *

Back of the heavier trade volume, of course, is a greatly increased buying power. Last year's income from farm crops in Mississippi, for instance, totaled slightly more than \$300,000,000, more than half of which was from cotton, and with a surprisingly high return of \$41,000,000 from increased corn planting.¹²

The irregularity of the advance of power farming is plain; indeed its practice always will be uneven, and consequently its effects on relative costs of production, displacement, and the labor pattern. The eastern cotton area in general is less adapted to mechanization than the Delta and the western areas. But there are clear indications of incipient change even there, especially in the coastal plain sections. For example, a prominent implement dealer in Georgia stated that in 1936 he had sold 17 tractors with 2-row cultivators attached for use in cotton, 136 in 1937, and that in 1938 he expects sales of this type to reach 300.

National statistics corroborate the increasing importance of tractor farming in the Cotton Belt. Sales of farm tractors in 1936 were 10.6 percent above 1929, despite the fact that sales of all types of farm equipment were still 10.7 percent below 1929. In 1936 sales of farm tractors comprised 42 percent of all farm-equipment sales in the United States, the highest proportion and the highest volume ever recorded. (See table 3.)

¹² Implement and Tractor, Kansas City, March 20, 1937, p. 40.

TABLE 3.—Farm Equipment Sold by Manufacturers for Use in United States, 1922-36¹

Year	All types of farm equipment	Tractors	Percent of tractors
1936.....	\$409,090,155	\$171,850,905	42.0
1935.....	302,259,557	123,432,843	40.8
1930.....	382,190,716	133,054,559	34.8
1929.....	458,091,248	155,406,163	33.9
1928.....	402,872,036	122,281,032	30.4
1927.....	391,868,822	131,667,221	33.6
1926.....	364,751,042	105,001,649	28.8
1925.....	340,271,234	92,506,790	27.2
1924.....	277,924,547	74,063,314	26.6
1923.....	311,976,047	77,418,955	24.8
1922.....	222,907,764	53,860,771	24.2

¹ Bureau of the Census. Data for 1931-34 not available on comparable basis; sales of tractors and farm equipment were very low during these years.

The relative importance of tractors on southern farms has been growing rapidly. Between 1930 and 1937, according to the best data available, the number of farm tractors increased from 12.2 percent to 18.5 percent of the national total (see table 4). While tractors increased 23.7 percent in the United States, they increased 87.9 percent in the 10 southern cotton States.

TABLE 4.—Farm Tractors in 10 Cotton States¹ and in the United States, 1920-37²

Item	Number of tractors				Percent of increase over preceding year		
	1920	1925	1930	1937	1925	1930	1937
United States.....	246,083	505,933	920,021	1,138,375	105.6	81.9	23.7
10 cotton States.....	29,075	58,751	111,839	210,088	102.1	90.4	87.9
Percent in cotton States.....	11.8	11.6	12.2	18.5	.....	.....	.....

¹ The 10 cotton States are Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Oklahoma, Tennessee, and Texas.

² Bureau of Census; 1937 estimate by Farm Implement News, April 8, 1937, p. 1925.

POWER FARMING IN ARIZONA AND CALIFORNIA COTTON

The fullest development of power farming can be seen in Arizona and California, which were not included in this study. Modern planting and cultivating equipment is in general use. Sharecropping is practically nonexistent. Only a few laborers are retained on the farm the year round; those work usually by the day. Hordes of mobile families, who come only for the chopping and picking, are depended on to meet the seasonal peaks. Cotton farming is characteristically on a large scale. In 1930 Arizona and California produced only 3 percent of the Nation's cotton, but in those two States were 47 percent of all the large-scale cotton farms of the country.

Established on newly irrigated lands, and not on farms already densely populated by share tenants, there has been no displacement

of cotton workers in these States by power farming. On the contrary, there were heavy drafts of Mexican immigrants, and now much use of displaced cotton workers from the Southwest. For this reason, and because so small a percentage of the Nation's cotton is produced there, the significance of the western industrialized pattern as a portent of labor displacement in the Cotton Belt has been largely overlooked.

THE FUTURE

Whether, when, and in what parts of the South this pattern of industrialized cotton culture will be developed, based on mechanization of most preharvest operations and upon migratory labor, are questions of the future. The rate, and even the extent, of adoption of machine methods will be influenced by factors such as topography, size of farms, land conditions, fluctuations in farm income, availability and cheapness of labor and relative prices of food and fuel, of animals and machines. Complete mechanization, even of the preharvest operations, will be retarded by various factors such as prejudice against machines, low farm income, stumpy fields, small farms, and ill-adapted drainage systems, unfavorable terrain, strict observance of Government crop-contract provisions protecting tenants, or exceptionally strong sense of responsibility of some landlords for their tenants and laborers. Certainly, mechanization will never be completely achieved throughout the present cotton-producing belt of the South, but the direction and seriousness of labor problems raised by current changes are already evident.

Power farming and tillage equipment and practices which mechanize preharvest crop operations, of course, accomplish only the semi-mechanization of cotton production. The harvest will remain a hand operation until mechanical pickers become available on a commercial basis. When this occurs, the opportunity to use tractors in all crop operations from planting to harvest will provide added incentive, in those areas where the machine picker is practicable, to adopt power farming.¹³ If these developments are achieved, then the mobile labor reserves required by semimechanization will sustain a second shock. Their present displacement from the land will be followed by the loss of even the seasonal employment on the land which remains.

The industrialized labor pattern which is incipient in the cultivation of southern cotton has already flowered in Arizona and California. It is also well developed in the important truck and fruit crops of the West. The position of the landless, mobile, intermittently employed wage laborers of industry is increasingly approximated in important sections of agriculture. This raises the question whether the social

¹³ U. S. Works Progress Administration. National Research Project. *Mechanical Cotton Picker*, by R. L. Horne and E. C. McKibben. Philadelphia, 1937, pp. x, xi, 10, 11.

security of these workers should not be sought through adaptation of techniques now used to bring social security to industrial labor.

NATIONAL REPERCUSSIONS

Mechanization of southern cotton has National repercussions, for it is feeding the stream of distressed refugees flowing steadily west who join the mobile labor reserve of agriculture from Arizona to Washington. Except for Government agencies of relief and rehabilitation, the stream of the dislodged would now be greater. The increase of migrant refugees makes more acute an old question: How shall the burden of relief and rehabilitation of those who emigrate in distress be shared between States of origin and those of destination, and with the Federal Government?

The march of power farming in cotton raises grave questions for the South. Shall transformation of the rural structure along industrialized lines be allowed to pursue its own course? Can it be impeded or modified if we would? What of the cotton farmers and workers on lands which cannot mechanize to cheapen costs? Can farm rehabilitation on the best cotton land succeed unless it is based on the low costs of the newly-developing machine methods? What of the thousands of families already displaced from the land, their numbers growing as power farming grows? Can alternative employment be developed that would make the mechanization of agriculture serve as a base on which to build better agricultural incomes? Despite the obstacles which will retard the spread of mechanization in cotton, it is clear that the problem of human displacement in the Cotton Belt is not to be postponed to the future. It faces us now.

International Labor Relations

PROGRAM OF INTERNATIONAL LABOR CONFERENCE OF JUNE 1938

By W. ELLISON CHALMERS, *Acting United States Labor Commissioner, Geneva*

ON THE second of June 1938, some 250 representatives of the governments, employers, and workers of most of the nations of the world will arrive in Geneva, Switzerland. They will be there to ponder the promulgation of further labor treaties of which 62 have already been adopted by the International Labor Organization. They will also be called upon to enter into an extensive debate upon world-wide economic and social trends, to vote upon resolutions laying out some of the future work of the Organization, and to approve of the report of the conference agency for the supervision of the treaties which have already been adopted and ratified. The delegates and their advisers will begin a busy 3 weeks, debating social policy and proposing further steps toward the internationalization of minimum labor standards.

It is now almost 4 years since the United States became a member of the I. L. O. The United States delegation, therefore, will have the benefit of a considerable experience in previous conferences and of our continuous active collaboration.¹ Under the constitution of the I. L. O., our delegation will contain two delegates representing the Government, one the employers, and one the workers. Each of these will be empowered to speak and to vote upon all issues that are before the Conference. Each will be assisted by a number of advisers, for a single delegate could not alone fully represent his country or his economic group. There are too many committee and Conference sessions going on simultaneously, and an expert knowledge of at least six or eight different issues is demanded.

The main purpose of the International Labor Conference is the consideration and eventual adoption of conventions, or labor treaties, and for months the I. L. O. has been busy preparing for it. After a number of preliminary studies and intensive debates, the Governing Body—or executive board—of the Office had decided upon the following six topics as this year's agenda: Generalization of the reduction

¹ For a description of the organization and procedure of the Conference, see *Monthly Labor Review*, April 1936 (pp. 953-968); and for a report on the last session of the Conference see *Monthly Labor Review*, August 1937 (pp. 344-355).

of the hours of work; hours and rest periods in road transportation; vocational education; statistics of hours and wages; contracts of employment of indigenous workers; and equality of treatment of migrant workers. For each of these, the Office has prepared an elaborate summary of the present law and industrial practice throughout the world and an analysis of what basis the Conference might use for an international treaty in the field. With these in hand, each delegate and his advisers must become familiar with the progress of national legislation and practice throughout the world, weigh the desirable objectives, and then judge what advance can reasonably be asked for different nations.

When the Conference convenes, it will set up a committee to deal with each of the items on its agenda. On each committee will sit the delegates or their advisers who are expert in the particular field and who will represent the governments, workers, and employers from the interested member nations. To each such committee the Office report dealing with that subject will be referred, and the report will be used as the basis of an intensive debate. For the one topic, statistics, upon which final action is expected, the committee report will be a definite and precise draft convention. For each of the other subjects the committee report will be a summary of the preliminary discussions among the delegates and a recommendation on whether or not to proceed with a final and definitive discussion of the subject 12 months later. Thus, the final adoption of conventions on each of these subjects depends in large part upon the negotiations of this coming Conference. After years of experimentation it has been discovered that it requires this relatively slow procedure to achieve agreements reconciling the great variety of national and group interests which are necessarily involved.

Hours of Work for All Industry

For the United States, the most important item on the Conference agenda this year concerns the reduction of the weekly maximum of hours of work. Of course, this is not a new subject for the International Labor Organization. At its first Conference session in 1919 a 48-hour convention was adopted. Its ratification by 22 nations, including most of the industrially important countries, definitely established, for the period of the 1920's, the level of maximum hours. With the depression, however, the movement for a further reduction in weekly hours gathered force, and the discussions within the I. L. O. beginning in 1931, focused international attention on the issue.

In those first years of an international consideration of a maximum less than 48, many Conference delegates tried to obtain agreement on a program containing two different objectives. These delegates

sought to set up a goal for the shorter-hours movement and at the same time to secure the adoption of a convention so eminently practical and realistic that it could be soon ratified and applied by the major industrial countries of the world. But their hope to combine these two objectives was not realized. Despite a series of studies and conferences extending from 1931 through 1934, they were unable to secure the two-thirds Conference majority necessary for the adoption of any treaty. In 1935, therefore, they had to fall back to a "convention of principle," stripped of any concrete terms of application, but setting the 40-hour weekly maximum as the goal of national and international effort. At the same time they induced the Conference to begin an intensive study of the possibilities of applying this general principle industry by industry, through a series of separate conventions. Three years' effort in this direction has yielded only limited results. It is true that three such conventions have been adopted, dealing with the glass-bottle industry in 1935, with public works in 1936, and with the textile industry in 1937; but a number of others have failed to secure the two-thirds support necessary for adoption.

The effort to set forth practical next steps toward the 40-hour objective, by the consideration of separate conventions, has now been largely abandoned. The Governing Body of the I. L. O. decided last fall to ask the Conference to consider again the framing and adoption of a realistic maximum-hours convention that would embrace practically all of industry. From this new debate will be omitted only the glass-bottle industry, public works, and textiles, on which conventions already exist; coal mining and road transport, for which separate conventions are already planned, the maritime industry, which is handled by a separate series of conventions; and agriculture.

There is reason to believe that the coming discussion of a general convention will differ in character from those of earlier years. As indicated above, the desire to set forth in general terms a goal for each nation has been met by a "convention of principle." In the 5 years of debate upon realistic measures of application of such a principle, a great deal of knowledge has been accumulated of the conditions existing in different countries and the possibilities of a practical international agreement are now much better understood. In addition, several countries have been experimenting with national regulations and with voluntary arrangements limiting hours to approximately 40 per week. Therefore, although it is by no means certain that any further conventions on maximum hours will be adopted within the next 2 years, the discussions that will begin this June will be more realistic and practical than any that have preceded them.

The preliminary discussions in the Governing Body and the reports of the Office already prepared indicate that the Conference must face such questions as the following: Although the 40-hour goal is to be retained, should the international program call for an immediate change from 48 to 40, or should some intermediate step be adopted first, or some transitional step be permitted? Since it has proved extremely difficult to provide internationally for an unvarying standard for all kinds of industries and in all economic circumstances, what flexibilities should be permitted for different industries, for different geographic and rural regions, and for different size establishments? In short, what practical modifications need to be made in the 40-hour goal already set by the Conference, in order to stimulate progress in that direction by the several nations?

ONE, OR EIGHT, HOURS CONVENTIONS?

Although there is a strong desire to make another attempt at a single convention, the Office reports to the June Conference show clearly that several drafts, rather than one, will have to be discussed. Under a general convention, the Office suggests, might be grouped all of manufacturing industry, with commerce and offices either also included or made the subject of a separate draft. Rail, inland waterways, and air transport, the Office suggests, should each be considered separately. So, also, the Office recommends that since the coal and road transport industries are the subject of separate discussions this year, they also might be made separate conventions. The Office proposal, therefore, is that seven or eight draft conventions be considered, which together would embrace all of industry not already covered by I. L. O. conventions.

The Conference will have to consider also at what rate it should proceed in the consideration of these subjects. The Governing Body has already decided that it will be impossible to conclude the consideration of any of these hours conventions in a single Conference session. The discussion this June, therefore, will be devoted to a consideration of whether to proceed further with the hours debate, and a preliminary consideration of the problems raised in the phrasing of international agreements on the lines indicated above. It will then have to decide whether some of the conventions, perhaps for manufacturing industry and for offices and commercial establishments, for coal mines and road transport, might be prepared for final consideration in 1939, while the further discussion of railroads, inland water and air transportation might be delayed.

Weekly Hours in Coal Mining

The coal industry is one of the two cases where the I. L. O. continues to seek to deal separately with a special industry in prescribing

maximum hours. For this industry, hours limitation by international discussion and agreement has been sought since 1930. As a result of such discussions a convention fixing a daily maximum schedule was adopted in 1931 and then revised in 1935. Following this, in 1935 and 1936, the Conference considered the coal industry as one of several large industries to which it might apply a weekly maximum of 38½ hours. Although this convention failed by a few votes to secure the required two-thirds majority, the Conference believed the subject should not be dropped, and ordered that it be reconsidered later. Consequently, on May 2, 1938, a month before the annual Labor Conference opens, a technical preparatory conference of coal experts, representing governments, workers, and employers of most of the principal coal-producing nations, will meet in Geneva. It will again consider whether a weekly hours limit might be possible. It will have before it an elaborate study by the Office of the economic problems of the industry. If the discussions of both the economic and technical questions raised in the elaboration of a weekly hours limitations are fruitful, the June Conference will be asked to place the subject upon the agenda of the 1939 session for final action.

Hours and Rest Periods in Road Transport

The I. L. O. has recognized that employment on busses and trucks is so strikingly different from employment in factories that international regulations on such a subject have to be quite different from those applying to factory and office workers. In its report prepared for the Conference, the Office has also recognized that these variations require quite a different application of the general principle of the 40-hour week. The debate this June on this subject, therefore, will be quite distinct from the other hours debates. If it reveals that there is a reasonable opportunity to reach an agreement on the length of the working day, on the maximum number of actual working hours per week and of hours on duty per week, and the minimum length and frequency of rest periods, the Conference will be asked to place this subject also on the 1939 Conference agenda for final action. The Office report reveals that the American delegation taking part in these debates will find that a number of European countries have progressed much further in such regulations than have either the Federal or State Governments in the United States.

Vocational Education

Although vocational education is not a labor standard in which disastrous competition is likely to occur between countries, the effective development of vocational education is a matter which intensely

interests all sections of the industrial population. It is not surprising, therefore, that this should appear as another item on the Conference agenda. The delegates will be asked to consider what kind of a vocational program might reasonably be expected of governments, and how workers' and employers' representatives could function in such programs. In order that this subject also may be thoroughly discussed before any final decision is taken for this agenda item, final action cannot be expected until 1939. The content of the convention that may be adopted next year, however, will be largely determined by the deliberations of the Conference committee on vocational education this June.

Migrant Workers and Native Laborers

There are two other topics on the Conference agenda which are scheduled for only preliminary discussion in 1938. Neither of these will directly involve the United States to any significant extent. One proposal seeks to secure equal treatment for migrant workers in countries where there is substantial immigration. It is hoped that such a convention will set standards for the supply of information to prospective migrants, regulate their recruiting and placement, assure the equality of treatment of migrants with local workers in their conditions of employment and set forth conditions governing their possible repatriation. In all of these matters the Conference is asked to consider not only writing general standards, but also to suggest the lines along which bilateral agreements might be signed between countries of emigration and others of immigration.

A second deals with the contracts of employment of native workers, and is a subject concerning principally Great Britain and the Dominions, Belgium, Spain, France, Italy, Japan, Liberia, the Netherlands, and Portugal. The convention is expected to contain regulations on the contents of the written contracts, the basis for their enforcement or their termination, and for repatriation of such native labor.

Statistics of Wages and Hours

It will have been noted that upon all of the subjects discussed above, the Labor Conference this June is to hold only a "preliminary discussion." In the case of statistics, however, several preliminary discussions already have taken place. Both a small committee of statistical experts and a larger conference of government statisticians met last fall. These technical conferences studied with great care the statistical material prepared by different governments and compiled and published by the I. L. O. They found that the statistical reports of the I. L. O. are the only regular studies being together the parallel

national figures on all aspects of the labor problem. But they also found that the variations between different countries in the methods of compiling such figures are so extreme that adequate international comparison is extremely difficult and often impossible. The experts who participated in these preliminary discussions hoped to see a code of regulations worked out by the I. L. O. covering all the main branches of labor statistics and to which each national authority would be asked to conform. It was contemplated that such a code would serve as a minimum that could be met by all the industrially important nations of the world. To make a beginning in this direction, they proposed that a labor convention be adopted setting minimum standards for the collection of statistics on average earnings and hours per day or per week for each principal occupation of each industry. The draft text which these experts decided upon will be before the Conference, in the hope that a convention on the subject may be finally voted this June.

Labor Conferences

SOUTHERN REGIONAL CONFERENCE ON LABOR LEGISLATION¹

A TWO-DAY regional conference of 11 Southern States—the fourth in a series of Southern conferences—called by the Secretary of Labor, was held in New Orleans February 14 and 15, 1938, at the invitation of the Governor of Louisiana. It was attended by the labor commissioners, by a large group of labor representatives, a number of members of the State legislatures, a number of employers, representatives of civic associations, and a large group of individuals interested in improving living and working conditions in their communities through labor legislation. The 11 States represented at the conference were Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas.

The Secretary of Labor opened the conference by stressing the benefits, to all elements in the community, of legislation which sets good basic labor standards. The South, with its growing industries, is coming to realize, just as other parts of the country have, that machines have brought with them new hazards, as well as great potentialities for improving the standard of living. Labor legislation simply expresses the agreement of the industries themselves and the community “not to permit an industrial development that is hazardous from the point of view of health or accidents or inadequacy of income or overwork.”

Brief reports by the labor commissioners present told of the legislative gains in their States since the Atlanta Conference in 1933—the first of the series—and all acknowledged the stimulus which these conferences had provided. Six of the labor commissioners represented labor departments newly created in the last 5 years, while the heads of the older departments reported new powers, increased staff and appropriations, new laws to enforce, and the collection of records picturing the industries and working conditions in their States. All agreed that much remained to be done, but were hopeful that within a comparatively short time the inadequacies of southern labor laws would be wiped out. The conference then settled down to its main

¹The proceedings of the conference will be available through the Division of Labor Standards.

business of discussing what general powers and duties it is desirable to vest in a State labor department, and the problems connected with the administration of specific labor laws.

The ensuing sessions afforded ample opportunity for a frank discussion of ways and means of improving both the standards set by laws and, especially, the effective administration of the laws. Many criticisms were voiced against lax or inadequate enforcement, resulting in part from lack of funds and personnel, in part from political considerations, and in part from inefficient and untrained personnel. The invigorating effect of a strong, active labor movement on both laws and administration was repeatedly emphasized. A number of speakers complained of the restrictive effect on the labor electorate of requiring the payment of poll taxes as a prerequisite to voting, and told of efforts to secure repeal in several States.

In addition to the formal resolutions adopted at the conference, a large number of constructive informal suggestions were made by various speakers. These included: A procedure for setting up safety codes; methods of obtaining good factory inspectors; ways of mobilizing support for labor departments, and methods of checking on the effective administration of labor laws.

On the second day a lengthy discussion took place concerning the regulation of hours and wages, both by States and by the Federal Government.

A dinner arranged by the Governor of Louisiana and the mayor of New Orleans was attended by 600 persons representing organized labor, industry, and civic associations. The Governor, in his address, approved a "floor" for wages and a "ceiling" for hours. He told the conference that if low wages could have attracted industry, the South would long ago have become the leading industrial section, but that the people of the South were beginning to realize that skilled mechanics, only obtainable at high wages, were more important.

Resolutions Adopted

The conference closed with the adoption of the following resolutions:

Resolved, That the Southern Regional Conference, meeting in New Orleans, February 14-16, 1938, go on record in favor of the following program:

1. The creation of coordinated State labor departments for the administration of all labor laws, and adequate financing of such departments.
2. The enactment by Congress of wage and hour legislation and the enactment by the States of supplemental legislation covering industries not engaged in interstate commerce.
3. The speedy ratification of the pending child-labor amendment and the enactment of State child-labor laws establishing a 16-year minimum age, regulating the conditions of employment for minors under 18, and providing for sound administrative procedures.

4. The strengthening of workmen's compensation laws, including provision for coverage of occupational diseases, the establishment of State funds, and the abolition of court administration.

5. The enactment of State legislation establishing an apprenticeship council within the State labor department to promote and protect labor standards in apprenticeship.

6. The submission of all plant training programs for vocational education to the State labor department or other State agency enforcing labor laws for approval before Federal funds are allotted for carrying them on. Be it further

Resolved, That future regional conferences be held in public meeting places so that all groups interested in labor legislation may participate freely.

Resolution re Pettengill bill, H. R. 1668

Whereas the Pettengill bill, H. R. 1668, now pending in our National Senate, is of great importance to labor; and

Whereas its passage will do much to stabilize employment on the railroads; therefore be it

Resolved by this Department of Labor Conference of Labor Representatives from 11 Southern States—February 14, 15, and 16, 1938—that this bill be passed by our Senate; and be it further

Resolved, That a copy be sent to each of the Senators of the 11 States represented here, urging that they give their unqualified support to it and vote for its passage when it comes to the floor of the Senate for final action.

Resolution re Senate bill 69

Whereas there is a bill pending in Congress, Senate bill 69, better known as the "car-limit bill." It has the support of the Railroad Brotherhoods, and has passed the Senate; it is now before the Committee on Interstate and Foreign Commerce of the House. The records of the present hearing before this committee reveal that hundreds of employees are killed or injured and that thousands of dollars are lost yearly in damage to property: Therefore be it

Resolved, That we, the labor representatives of the Southern States Regional Conference on State Labor Legislation now in session at New Orleans, La., request the Congressmen from our respective States to support this measure and urge them to use their influence in bringing it to an early vote on the floor of Congress.

Cooperation

SUMMARY OF CREDIT UNION OPERATIONS, 1936¹

ALTOGETHER, nearly 83 percent of all the credit unions in the United States at the end of 1936 were covered by data obtained by the Bureau of Labor Statistics in its general survey of cooperatives. Of a total of 5,478 associations, 3,613 had been chartered under State laws and 1,865 under the Federal Credit Union Act. As all of the Federal associations have been formed since June 1934, they are still small as compared with the State credit unions, some of which date back to the first decade of the present century.

In the following tables are shown the membership and total resources at the end of 1936 and the number of loans granted and amount loaned during that year, for the credit unions for which reports were received by the Bureau of Labor Statistics. In parallel columns are shown estimates on the same points for the whole number of associations in existence at the end of the year.

All of the figures in the "estimates" columns represent a combination of data arrived at separately for the State and the Federal associations. These estimates were obtained by extending the averages of the reporting associations to the nonreporting associations (but at a somewhat lower figure to allow for the fact that the nonreporting associations are likely to be the smaller ones) and the total was then rounded off, generally to the nearest hundred or thousand. It will be noted that for some States estimates were not necessary, as the Bureau's data covered all the associations there. In other cases the figures are only partial estimations; in other words, there was complete coverage for either the State group or the Federal group.² In such cases, after the margin of unreported associations in the group with incomplete coverage was allowed for, the rounded-off total for the group was added to the exact figures reported by the group in which coverage was complete.

Although there may be a margin of error of perhaps 5 percent either way in a few States, it is believed that the data for the United States as a whole represent a fair picture of credit-union development at the end of 1936. In reading the tables, however, it should be borne in

¹ Operations of credit unions formed by the various occupational, industrial, and other membership groups will be presented in a later article.

² The data for the Federal associations were furnished to the Bureau of Labor Statistics by the Farm Credit Administration.

mind that the figures showing number of associations in existence include a certain number which had been formed at the end of the year, but which had not yet actually begun operation.

As the tables show, the credit unions chartered under the various State laws formed 66 percent of the total, had 71 percent of the total membership, and did 83 percent of the total business reported. Although the State organizations greatly preponderated at the end of 1936, the data at hand indicate that during 1937 the credit unions formed under the Federal Act were growing in number in most States much faster than those formed under State acts, and if they continue to do so will undoubtedly outstrip the State associations.

TABLE 1.—*Reported and Estimated Total Membership and Assets of Credit Unions at End of 1936*

State and geographic division	Total number of known credit unions ¹	Membership			Total assets		
		Associations reporting to B. L. S.		Estimated total members, all associations	Associations reporting to B. L. S.		Estimated total amount, all associations
		Number	Members		Number	Amount	
United States.....	5, 478	4, 408	1, 044, 499	1, 197, 466	4, 437	\$80, 215, 392	\$90, 098, 239
State associations.....	3, 613	2, 734	741, 502	881, 496	2, 774	71, 124, 747	80, 686, 433
Federal associations.....	² 1, 865	1, 674	302, 997	315, 970	1, 663	9, 090, 645	9, 411, 806
New England.....	541	522	187, 315	188, 599	521	21, 785, 089	22, 019, 189
Maine.....	21	20	4, 028	³ 4, 060	20	312, 194	³ 314, 156
New Hampshire.....	8	7	5, 778	³ 6, 291	7	1, 658, 344	³ 1, 860, 462
Vermont.....	4	3	150	200	3	2, 173	2, 600
Massachusetts.....	384	379	147, 098	³ 147, 418	378	16, 641, 834	³ 16, 654, 605
Rhode Island.....	24	23	12, 164	³ 12, 211	23	2, 576, 496	³ 2, 578, 479
Connecticut.....	100	90	18, 097	³ 18, 419	90	594, 048	³ 608, 887
Middle Atlantic.....	785	718	201, 124	207, 660	713	14, 291, 159	14, 609, 992
New York.....	366	339	103, 311	³ 104, 880	337	10, 627, 049	³ 10, 675, 088
New Jersey.....	123	117	29, 461	³ 29, 780	117	1, 373, 645	³ 1, 382, 904
Pennsylvania.....	296	262	68, 352	73, 000	259	2, 290, 465	2, 552, 000
East North Central.....	1, 503	1, 128	265, 474	333, 320	1, 119	17, 599, 540	22, 627, 625
Ohio.....	272	193	45, 894	56, 600	189	1, 916, 609	2, 568, 000
Indiana ⁵	207	136	28, 981	³ 43, 918	135	1, 555, 546	² 2, 297, 948
Illinois ⁵	408	226	87, 147	123, 200	222	7, 232, 764	10, 895, 000
Michigan.....	160	117	23, 150	29, 300	117	2, 281, 944	2, 284, 000
Wisconsin.....	456	456	80, 302	80, 302	456	4, 582, 677	⁴ 4, 582, 677
West North Central.....	892	710	121, 792	153, 659	707	9, 732, 540	11, 655, 400
Minnesota.....	230	229	42, 574	⁴ 42, 574	229	3, 487, 092	⁴ 3, 487, 092
Iowa ⁵	177	104	17, 340	24, 600	106	1, 106, 718	1, 459, 750
Missouri.....	192	88	23, 209	47, 750	84	1, 938, 916	3, 506, 000
North Dakota.....	28	26	2, 097	⁴ 2, 097	25	57, 204	³ 57, 997
South Dakota.....	14	13	1, 734	1, 800	13	58, 049	60, 000
Nebraska.....	188	187	24, 527	⁴ 24, 527	187	2, 548, 681	⁴ 2, 548, 681
Kansas.....	63	63	10, 311	⁴ 10, 311	63	535, 880	³ 535, 880
South Atlantic.....	573	457	98, 667	113, 583	450	5, 445, 238	6, 409, 044
Delaware.....	5	5	262	⁴ 262	5	1, 921	1, 921
Maryland.....	38	36	11, 425	⁴ 11, 425	36	467, 714	³ 467, 714
District of Columbia.....	86	71	24, 520	29, 500	68	1, 007, 034	1, 157, 000
Virginia.....	76	54	12, 538	16, 450	54	808, 438	1, 170, 000
West Virginia.....	42	37	7, 239	7, 586	37	377, 632	³ 381, 949
North Carolina.....	102	58	7, 668	11, 300	57	524, 816	848, 000
South Carolina.....	19	15	1, 939	2, 143	14	65, 133	³ 68, 254
Georgia.....	96	95	20, 217	⁴ 20, 217	95	1, 634, 206	⁴ 1, 634, 206
Florida.....	109	86	12, 859	14, 700	84	558, 344	680, 000
East South Central.....	248	160	36, 625	51, 097	161	2, 771, 464	3, 434, 700
Kentucky.....	67	41	11, 613	20, 385	43	1, 136, 087	1, 357, 700
Tennessee.....	109	74	17, 026	21, 000	74	1, 179, 262	1, 490, 000
Alabama.....	55	32	5, 786	³ 7, 162	31	369, 924	484, 500
Mississippi.....	17	13	2, 200	2, 550	13	86, 191	102, 500

See footnotes at end of table.

TABLE 1.—Reported and Estimated Total Membership and Assets of Credit Unions at End of 1936—Continued

State and geographic division	Total number of known credit unions	Membership			Total assets		
		Associations reporting to B. L. S.		Estimated total members, all associations	Associations reporting to B. L. S.		Estimated total amount, all associations
		Number	Members		Number	Amount	
West South Central.....	336	261	47,459	55,100	290	\$2,880,375	\$3,048,248
Arkansas.....	30	20	1,890	3,500	21	77,336	95,500
Louisiana.....	61	53	11,139	12,000	52	577,529	635,000
Oklahoma.....	53	35	5,363	6,600	37	310,073	370,800
Texas.....	192	153	29,067	33,000	180	1,915,437	³ 1,947,448
Mountain.....	158	123	16,337	18,750	127	1,019,342	1,048,188
Montana.....	14	10	795	³ 1,219	10	35,175	45,014
Idaho.....	20	17	890	960	18	23,768	24,684
Wyoming.....	14	11	729	825	11	17,172	19,000
Colorado.....	46	34	8,035	³ 9,522	33	616,221	613,333
New Mexico.....	11	7	598	³ 758	7	17,294	31,294
Arizona.....	8	7	521	³ 553	7	35,123	³ 36,178
Utah.....	42	34	4,649	³ 4,793	38	273,032	³ 277,128
Nevada.....	3	3	120	⁴ 120	3	1,557	1,557
Pacific.....	423	314	68,308	74,300	334	4,676,792	5,232,000
Washington.....	110	70	8,816	4,900	98	769,595	795,000
Oregon.....	38	28	5,384	6,400	27	408,172	437,000
California.....	275	216	54,108	63,000	209	3,499,025	4,000,000
Hawaii.....	19	15	1,398	⁴ 1,398	15	13,853	⁴ 13,853

¹ Figures in this column represent in most cases, total number of credit unions in existence.

² Includes 77 credit unions chartered but not yet in operation at end of year.

³ Only partly estimated, i. e., complete coverage either for State or for Federal associations.

⁴ Actual figure—i. e., complete coverage—for all associations in operation at end of year.

⁵ Preliminary figures.

TABLE 2.—Reported and Estimated Total Number of Loans Made and Amounts Loaned by Credit Unions in 1936

State and geographic division	Total number of known credit unions ¹	Number of loans			Amount of loans		
		Associations reporting to B. L. S.		Estimated total, all associations	Associations reporting to B. L. S.		Estimated total, all associations
		Number	Borrowers		Number	Amount	
United States.....	5,478	3,866	808,307	1,037,626	3,825	\$87,814,899	\$112,056,741
State associations.....	3,613	2,295	589,598	808,471	2,210	72,707,739	96,398,681
Federal associations.....	² 1,865	1,571	218,709	229,155	1,615	15,107,160	15,658,060
New England.....	541	325	99,304	124,378	356	14,365,241	21,076,665
Maine.....	21	17	3,914	³ 4,162	18	346,996	³ 355,178
New Hampshire.....	8	6	910	³ 1,110	7	248,242	³ 278,325
Vermont.....	4	3	109	125	3	3,766	4,500
Massachusetts.....	384	196	72,026	94,700	218	11,688,488	18,330,000
Rhode Island.....	24	16	5,627	7,200	22	1,069,694	1,073,838
Connecticut.....	100	87	16,718	³ 17,081	88	1,008,055	³ 1,034,824
Middle Atlantic.....	785	689	142,548	150,074	706	17,886,461	18,354,868
New York.....	366	321	69,452	72,300	333	12,282,762	³ 12,321,701
New Jersey.....	123	116	24,110	³ 24,274	117	1,803,585	³ 1,818,167
Pennsylvania.....	296	252	48,986	53,500	256	3,800,114	4,215,000
East North Central.....	1,503	1,052	209,171	313,403	800	19,905,923	28,780,075
Ohio.....	272	184	32,185	41,100	193	3,189,407	4,600,000
Indiana ⁵	207	128	20,763	32,300	134	1,872,846	2,565,000
Illinois ⁵	408	223	93,534	168,900	234	9,405,317	12,850,000
Michigan.....	160	104	14,646	20,100	114	2,730,334	2,845,000
Wisconsin.....	456	413	48,043	³ 51,003	125	2,708,019	³ 5,920,075

See footnotes at end of table.

TABLE 2.—Reported and Estimated Total Number of Loans Made and Amounts Loaned by Credit Unions in 1936—Continued

State and geographic division	Total number of known credit unions	Number of loans			Amount of loans		Estimated total, all associations
		Associations reporting to B. L. S.		Estimated total, all associations	Associations reporting to B. L. S.		
		Number	Borrowers		Number	Amount	
West North Central.....	892	593	104, 736	140, 210	708	\$11, 468, 463	\$13, 948, 557
Minnesota.....	230	228	38, 958	³ 39, 021	228	4, 234, 743	³ 4, 238, 019
Iowa ⁴	177	93	15, 735	24, 090	107	1, 434, 959	1, 780, 000
Missouri.....	192	82	20, 456	39, 150	84	2, 524, 824	4, 652, 000
North Dakota.....	28	25	1, 954	³ 1, 978	26	127, 975	³ 129, 960
South Dakota.....	14	13	1, 519	1, 550	13	100, 884	103, 000
Nebraska.....	188	89	15, 940	³ 24, 247	187	2, 378, 148	⁴ 2, 378, 148
Kansas.....	63	63	10, 174	⁴ 10, 174	63	667, 430	⁴ 667, 430
South Atlantic.....	583	385	89, 918	112, 653	404	7, 871, 106	10, 604, 881
Delaware.....	5	4	110	120	4	2, 851	³ 3, 000
Maryland.....	38	33	7, 918	8, 150	36	739, 521	⁴ 739, 521
District of Columbia.....	86	68	22, 548	26, 300	66	1, 798, 128	2, 100, 000
Virginia.....	76	46	14, 638	21, 950	51	1, 183, 319	1, 627, 000
West Virginia.....	42	25	5, 027	7, 500	30	462, 509	591, 000
North Carolina.....	112	53	8, 270	10, 300	54	757, 361	1, 980, 000
South Carolina.....	19	13	³ 1, 889	2, 149	14	129, 374	³ 139, 188
Georgia.....	96	61	³ 16, 748	20, 984	65	1, 822, 206	³ 2, 275, 172
Florida.....	109	82	12, 770	15, 200	84	975, 837	1, 150, 000
East South Central.....	248	151	49, 126	60, 943	161	4, 643, 623	5, 837, 013
Kentucky.....	67	43	17, 017	20, 300	44	2, 127, 608	2, 549, 000
Tennessee.....	109	66	22, 828	28, 200	71	1, 831, 852	2, 340, 000
Alabama.....	55	31	7, 519	³ 10, 293	33	540, 387	³ 788, 013
Mississippi.....	17	11	1, 762	2, 150	13	143, 776	160, 000
West South Central.....	336	245	48, 757	57, 110	254	4, 371, 622	4, 909, 250
Arkansas.....	30	20	1, 825	2, 360	20	128, 855	171, 750
Louisiana.....	61	47	11, 297	12, 500	50	1, 274, 676	1, 395, 000
Oklahoma.....	53	36	5, 655	7, 300	36	494, 804	515, 000
Texas.....	192	142	29, 980	34, 950	148	2, 473, 287	2, 827, 500
Mountain.....	158	116	13, 490	16, 605	119	1, 552, 361	1, 779, 832
Montana.....	14	10	721	³ 983	10	59, 020	³ 56, 888
Idaho.....	20	17	697	740	17	40, 311	42, 200
Wyoming.....	14	10	457	500	10	31, 673	35, 000
Colorado.....	46	31	6, 686	³ 8, 519	31	905, 088	³ 1, 059, 425
New Mexico.....	11	6	530	775	7	33, 672	³ 38, 672
Arizona.....	8	7	376	³ 423	7	46, 177	³ 47, 947
Utah.....	42	33	3, 977	4, 600	35	434, 455	477, 500
Nevada.....	3	2	46	65	2	1, 965	2, 200
Pacific.....	423	302	51, 117	61, 950	308	5, 741, 286	6, 755, 000
Washington.....	110	67	7, 104	9, 800	66	661, 361	885, 000
Oregon.....	38	25	5, 175	6, 850	27	476, 703	565, 000
California.....	275	210	38, 838	45, 300	215	4, 603, 222	5, 305, 000
Hawaii.....	19	8	140	300	9	8, 813	10, 600

¹ Figures in this column represent in most cases the total number of credit unions in existence.

² Includes 77 credit unions chartered but not yet in operation at end of year.

³ Only partly estimated; i. e., complete coverage either for State or for Federal associations.

⁴ Actual figure—i. e., complete coverage—for all associations in operation at end of year.

⁵ Preliminary figures.

Employment and Labor Conditions

AGE DISTRIBUTION AND DEPENDENTS OF UNEMPLOYED

ALMOST one-third of 1,300,546 unemployed persons (including emergency workers) in 16 States in November 1937 were under 25 years of age; over one-half were less than 35 years of age; over two-thirds were less than 45, according to a cross section of reports from these States. Slightly more than one-fourth were 45 years of age and over.

Four percent of those registered as wholly unemployed (not including emergency workers) were between 65 and 74 years of age. In the last-mentioned age group emergency workers constituted under 2 percent, which indicates the transfer of the needy jobless to the old-age assistance rolls.

The average age of unemployed females was uniformly below that of males. When compared with the age distribution of the population the jobless were overrepresented among both the young and the old.

The statistics here presented are from a press release of February 25, 1938, from the National Unemployment Census, which gives data on age groups, sex, and the number of workers in the families of the unemployed, also the number of dependents of each jobless registrant, November 16-20, 1937, in Alabama, Arizona, Arkansas, Colorado, Connecticut, Delaware, Georgia, Idaho, Iowa, Kentucky, Louisiana, Montana, Nevada, New Hampshire, New Mexico, and Oregon.

Dependents.—Only one-fifth of the totally unemployed and one-tenth of the emergency workers, reporting on the subject of dependents, had no dependents.

The average number of dependents per person registered as unemployed was much lower among women than among men for the emergency workers as well as for the larger group of registered unemployed.

One-third of the totally unemployed females and almost one-fourth of the females on emergency work were without dependents.

Fourteen percent of the persons wholly unemployed and 24 percent of the emergency workers reported 5 or more dependents. Both male and female emergency workers had more dependents than the non-emergency unemployed male and female workers.

Other workers in the families of the unemployed.—An analysis of the returns shows that 38 percent of the wholly unemployed and 54 percent of the emergency workers reporting on other workers in the family had no other workers in the same household. In families having one or more workers besides the person registering as unemployed, the number of secondary woman workers was much greater than the number of secondary man workers.

Statistics for other States.—The Administrator in his letter to President Roosevelt, released February 25, 1938, called attention to the fact that the 16 States for which unemployment returns have been tabulated are largely agricultural, that the unemployment data for the larger industrial States had not yet been completely tabulated; and that while the inclusion of industrial States will change the percentages somewhat, "an analysis of the data from the 16 States clearly indicates that our compilations will have broad significance in showing State and regional differences on the major factors of unemployment."



EMPLOYMENT AND UNEMPLOYMENT IN PUERTO RICO

A CENSUS of Puerto Rico made in 1935, the results of which have recently been made public, gives detailed data regarding both employment and unemployment of wage and salary workers.

According to this census ¹ the gainful workers 10 years of age and over in the island in 1935 numbered 522,825, or 30.3 percent of the total population of 1,723,534 in that year. Of the 522,825 persons usually following gainful occupations, 134,258, or 25.7 percent, were employers or self-employed and 388,567, or 74.3 percent, were wage and salary workers. Of this last-mentioned group, 20.0 percent were unemployed.

The distribution of employed and unemployed gainful workers by industry and sex in 1935 is given in the following table. Of the male gainful workers 61.5 percent were in the agricultural group and 57.2 percent of the female gainful workers were in the manufacturing and mechanical industries, 35.7 percent being home needlecraft and embroidery workers. Among the male wage and salary workers 23.1 percent were unemployed as compared to 11.0 percent of the female wage and salary workers.

¹ Puerto Rico. Reconstruction Administration. Census of Puerto Rico, 1935: Population, Bulletin No. 2, Characteristics of the Population, Including Occupations. Washington, 1937.

Gainful Workers 10 Years of Age and Over in Puerto Rico, by Sex and Employment Status, 1935

Sex and industry group	All gainful workers	Employers and self-employed	Wage and salary workers	
			Total number	Percent un-employed
Males: All industries.....	384, 118	95, 661	288, 457	23. 1
Agriculture.....	236, 241	53, 412	182, 829	26. 0
Forestry and fishing.....	2, 457	941	1, 516	4. 0
Extraction of minerals.....	543	12	531	15. 1
Manufacturing and mechanical industries.....	53, 028	10, 957	42, 071	28. 3
Transportation and communication.....	20, 277	3, 158	17, 119	20. 5
Trade.....	36, 454	22, 468	13, 986	10. 3
Public service.....	5, 873	2	5, 871	6. 7
Professional service.....	7, 434	1, 707	5, 727	6. 7
Domestic and personal service.....	9, 647	2, 893	6, 754	5. 5
Clerical occupations.....	12, 164	111	12, 053	8. 8
Females: All industries.....	138, 707	38, 597	100, 110	11. 0
Agriculture.....	10, 145	4, 477	5, 668	14. 8
Forestry and fishing.....	6		6	
Manufacturing and mechanical industries.....	79, 287	26, 825	52, 462	14. 3
Transportation and communication.....	409	2	407	9. 1
Trade.....	1, 869	773	1, 096	4. 9
Public service.....	64		64	
Professional service.....	7, 912	620	7, 292	6. 5
Domestic and personal service.....	33, 163	5, 809	27, 354	5. 1
Clerical occupations.....	5, 852	91	5, 761	11. 8

WORKING CONDITIONS IN CANADIAN INDUSTRIES

SLIGHTLY over 7,700 Canadian firms, with a total of 1,028,750 employees, recently replied to a questionnaire issued by the National Employment Commission of the Dominion. The inquiry dealt with employment comparisons, hours of work per week, seasonality in employment, hiring practices, employee-relations plans, and plant modernization.¹ A brief résumé of some of the findings of this investigation is given below.

Employment conditions as experienced by replying firms were reported for September 1936 as compared with the same month in each of the years 1929 and 1933. The net change from September 1929 to September 1936 in the number of employees of identical firms was 148,303. The chief causes of this shrinkage in employment were reported by various firms as follows:

Firms reporting

Decrease in domestic demand.....	1, 610
Decrease in export demand.....	208
Introduction of new machines.....	114
Increased use of alternative products.....	214
Change to new line of product or activity.....	131
Other causes.....	681

As certain firms reported two chief causes, such firms are carried once under each cause. This fact, together with the fact that only

¹ Canada, National Employment Commission, Report on Phases of Employment Conditions in Canadian Industry, Ottawa, 1937; Canadian Labor Gazette (Ottawa), January 1938, pp. 18-21. An analysis of maximum hiring ages by industries from this report was published in the March 1938 Monthly Labor Review.

firms whose number of employees was substantially less in 1936 than in 1929 were requested to report on the subject, makes the above statistical statement indicative rather than strictly quantitative.

Hours of Work per Week

Of 7,523 firms, with 1,015,636 employees, which replied specifically to the inquiry on hours of work, 64.2 percent reported that their regular weekly working hours in 1936² were 48 or under; and 35.8 percent reported such hours as 49 or more. Of these 1,015,636 employees, 68.3 percent had a working week of 48 hours or less and 31.7 percent worked 49 hours or more a week, as shown in the following table.

TABLE 1.—Hours of Work per Week, in 7,523 Canadian Firms, 1936

Schedule of weekly working hours	Reporting firms		Employees	
	Number	Percent	Number	Percent
All schedules.....	7, 523	100. 0	1, 015, 636	100. 0
48 hours or less.....	4, 827	64. 2	693, 720	68. 3
36 hours and under.....	84	1. 1	4, 260	. 4
37 hours to 40 hours.....	556	7. 4	82, 708	8. 1
41 hours to 44 hours.....	1, 640	21. 8	121, 641	12. 0
45 hours to 48 hours.....	2, 547	33. 9	485, 111	47. 8
49 hours and over.....	2, 696	35. 8	321, 916	31. 7
49 hours to 54 hours.....	1, 463	19. 4	149, 496	14. 7
55 hours to 60 hours.....	1, 071	14. 2	157, 139	15. 5
Over 60 hours.....	162	2. 2	15, 281	1. 5

Seasonality in Employment

Of the 7,725 firms responding to the general questionnaire, 3,550, employing 440,328 persons, stated that their operations were seasonal. Of these 3,550 firms, 2,089 reported their standard weekly hours as 48 or less, and 1,372 firms as 49 or more; 89 of these firms did not report their standard weekly hours.

In the following table the firms reporting seasonality are classified by the average yearly number of weeks in which they worked overtime or short time in the years 1934 to 1936.

TABLE 2.—Yearly Average of Overtime, Short Time and Shut-Downs in 3,550 Reporting Canadian Firms, 1934-36

Duration of specified operation or shut-down	Number of firms reporting		
	Overtime	Short time	Complete shut-down
1 to 10 weeks.....	810	589	587
11 to 20 weeks.....	447	731	244
21 to 30 weeks.....	81	281	205
31 to 40 weeks.....	15	101	97
41 to 50 weeks.....	4	26	36
51 to 52 weeks.....	3	18	7
None.....	1, 029	417	51
Not reported.....	1, 161	1, 387	2, 323

² In the few instances in which an employer reported more than one "standard workweek" in 1936, each particular schedule presumably being referable to one group of employees of the firm, an effort was made to place that firm in the most representative class.

Hiring Practices

The major subjects discussed in connection with hiring practices are the chief method of hiring, prescribed maximum age of entry, prescribed retirement age, and apprenticeship systems.

Of 7,725 firms replying to the questionnaire, 88.5 percent reported a chief method of hiring and 11.5 percent did not specify any method.

The chief methods of hiring early in 1937 reported by 6,840 firms were:

	<i>Percent of firms</i>
"At the gate".....	24.1
Through advertisement.....	14.9
Through trade-unions.....	7.1
From waiting list.....	5.8
Through the Employment Service of Canada.....	3.8
Through present employees.....	1.7
Through other methods.....	16.3
Through 2 or more methods.....	26.3

Of 7,725 firms, 12.0 percent had a maximum hiring age, 83.3 percent had no such age, and 4.7 percent did not report on this point. A prescribed retirement age was reported by 18.7 percent, no such age by 26.2 percent, and 55.1 percent did not report. The 928 firms reporting a maximum hiring age had 302,379 employees and the 1,442 firms reporting a prescribed retirement age had 438,320 employees. Detailed data are given in table 3.

TABLE 3.—*Number of Employees in Canadian Firms with Specified Maximum Hiring Ages and Prescribed Retiring Ages*

Prescribed age	Number of firms	Number of employees ¹
Maximum hiring age.....	928	302,379
20 to 29 years.....	51	6,148
30 to 39 years.....	85	20,456
40 to 49 years.....	322	221,752
50 to 59 years.....	174	29,862
60 to 69 years.....	93	9,724
70 years and over.....	6	172
Not specified.....	197	14,265
Prescribed retirement age.....	1,442	438,320
50 to 59 years.....	19	1,736
60 to 69 years.....	681	304,332
70 years and over.....	165	43,883
Not specified.....	577	88,369

¹ As of September 1936.

Apprenticeship plans had been adopted by 24.1 percent of the firms, 70.5 percent had no plans of this nature, and 5.4 percent did not report. Table 4 shows that the majority of the firms using apprenticeship had plans of their own, although small proportions were making use of trade-association schemes or Government plans.

TABLE 4.—Types of Apprenticeship Plans in Canadian Firms, as of January 1937

Type of plan	Number of firms	Number of employees ¹
All types.....	1,859	280,562
Private plans.....	1,388	234,319
Trade-association schemes.....	206	20,184
Government plans.....	167	20,071
Not specified.....	98	5,988

¹ As of September 1936.

Employee-Relations Plans

Provisions for promoting desirable employer-employee relations, including sick leave with pay, holidays with pay, pension plans, housing of employees, and other plans, as of January 1937, are reported in table 5. Sick leave with pay was provided by 6,496 of the 7,725 firms sending in returns. These firms in September 1936 had 919,779 of the 1,028,750 employees covered by this survey. Holidays with pay were reported by a still larger number of firms—6,743, having 958,295 employees.

TABLE 5.—Employee-Relations Plans in Effect in Canadian Firms as of January 1937

Plans	Number of firms	Number of employees ¹	Plans	Number of firms	Number of employees ¹
Sick leave with pay.....	6,496	919,779	Housing plans.....	930	293,474
Salaried employees only.....	5,028	689,894	Aid for acquiring houses.....	268	54,633
Wage earners only.....	20	852	Free or low rent.....	512	185,134
Salaried employees and wage earners.....	837	131,477	Aid for acquiring houses and free or low rent.....	150	53,707
Unspecified classes.....	611	97,556	Other plans:		
Holidays with pay.....	6,743	958,295	Assisted group insurance.....	2,493	408,670
Salaried employees only.....	5,072	656,252	Life insurance other than group.....	44	43,295
Wage earners only.....	17	787	Stock subscriptions.....	168	48,768
Salaried employees and wage earners.....	1,256	227,038	Other assisted savings.....	180	54,203
Unspecified classes.....	398	74,218	Sickness insurance.....	744	240,906
Pension plans:			Bonus.....	44	5,744
All plans.....	722	386,677	Lump sum retiring allowance.....	38	27,217
Mining industries.....	14	11,554	Benefit scheme for office staff only.....	26	9,873
Secondary industries.....	708	375,123	Miscellaneous schemes.....	228	89,100
Manufacturing.....	320	124,626			
Other.....	388	250,497			

¹ As of September 1936.

Plant Modernization

Of the 7,725 firms, 43.3 percent stated that their plants had been modernized since 1929 and 36.9 percent that no modernization had been undertaken since that date; 19.8 percent did not answer this inquiry. Fifty-nine percent of the firms reported that their plants were up to date at the time this information was given, 21.6 percent that their plants were not up to date; and 19.4 percent made no report on the subject.

INDEPENDENT WORKERS IN HANDICRAFT TRADES IN GERMANY

HANDICRAFT trades in Germany were encouraged under the original National Socialist economic program, as a means of improving the interests of the middle class. A noticeable improvement in the condition of independent, self-employed handicraft workers during the first 3 years of the Nazi regime is indicated by the following figures:¹

Development of Independent Handicraft Enterprises in Germany, 1931-36

[A verage exchange rate of mark in 1931=23.63 cents; in 1933=30.52 cents; 1934=39.38 cents; 1935=40.26 cents]

Year	Number of enterprises	Total income
		<i>Marks</i>
1931.....	1,383,438	9,000,000,000
1933.....	(1)	11,000,000,000
1934.....	1,542,996	14,000,000,000
1935.....	(1)	20,000,000,000
1936.....	1,652,751	(1)

¹ No data.

Upon the adoption of the 4-year plan handicraft enterprises were discouraged, as all the available supply of labor was needed in the large-scale industries. A retroactive law passed in January 1935 provided that only a duly registered master artisan² could own an independent craft enterprise, and that registered independent craftsmen who were not master artisans would have to pass a master artisan's examination; the persons exempted from these requirements were those born before 1900. This law affected 10 percent of the owners of existing handicraft enterprises, and as the cost of a master's examination was extremely high, many owners went out of business. The effect of the 1935 law is twofold: (1) It makes handicrafts a closed profession and protects from competition those who are already masters; (2) many artisans debarred from independent ownership of a craft enterprise obtain employment in large-scale industry, thereby somewhat relieving the shortage of skilled labor.

As a result of this and other measures to discourage handicraft enterprises, the number of such enterprises has been decreasing rapidly. From January 1936 to March 1, 1937, there was a reduction of 47,212 enterprises. By October 1, 1937, a total of 74,375 enterprises, or 4 percent of the total number, had ceased to exist. Most of the discontinued enterprises belonged to young persons under 30 years of age, who had established handicraft enterprises as a means of protection against unemployment. It is believed that the total number of handicraft enterprises is again below the 1,600,000 figure.

¹ Data are from report of Halleck L. Rose, American vice consul, Berlin, January 28, 1938.

² Registration of journeyman and master artisans in the Chamber of Handicraft was made compulsory by the Code of Industry and Trade of 1900.

WAR-TIME LABOR POLICIES PROPOSED BY JAPANESE EMPLOYERS

AMONG the problems discussed in a detailed statement submitted to the Government of Japan by the Japanese National Confederation of Industrial Associations, relative to war-time industrial measures, were replacement of adult male workers by women and young persons; the relaxing of factory inspection; treatment of workers called up for military service; and labor policy and demobilization.

The following excerpts from this statement were included in a communication to the International Labor Office:¹

Replacement of adult male workers by women and young persons.—It is hoped that, as a temporary relief measure, some leniency may be exercised in relation to certain portions of acts and regulations which concern labor protection, in order that women and young persons may be employed, insofar as their health is not impaired or injured, to meet the deficiency of working power created by the expansion of production in the present emergency.

Relaxing of factory inspection.—Although, in view of the situation, no particular objection is raised to the purport of the Guiding Principles for Munitions Factories which were issued some time ago by the Bureau of Social Affairs, at the same time, since factory inspection is often too rigidly enforced in some localities by the officials, it is hoped that the Government may devise appropriate measures for the moderation of such inspection.

Treatment of workers called up for military service.—In the case of employees of privately owned factories and private business firms called up for military service, employers give every possible consideration so that the employees need not suffer any anxiety with regard to their families at home. But, in the case of independent workers and farmers who are called up, no special treatment is given to their families other than such assistance as poor relief granted by the Government to poverty-stricken people and charity given by special public organizations and public-minded men of the locality. Thus, there is a radical difference in the treatment of these two classes of men, in view of which fact, it is hoped that the Government will speedily establish a rational and concrete policy in regard to the general treatment of men called up.

Labor policy and demobilization.—(a) Reemployment of demobilized soldiers. Although in the case of undertakings regularly employing 50 workers or more, employers are required to reengage demobilized workers, in accordance with the act concerning guaranties of employment for persons entering military service, it is nevertheless hoped that the employment exchanges will give preference to demobilized soldiers in the matter of their reemployment.

(b) Adjustment of surplus labor. Workers temporarily employed to take the place of workers called to the colors and any other supernumerary workers should, upon the reengagement of demobilized workers, be transferred in particular to newly created or enlarged undertakings or to undertakings which are not engaged in making munitions. Woman workers employed during the emergency to fill vacancies should be sent back to their homes. When it is found necessary to discharge ordinary workers, every possible consideration should be given to them, such as payment of dismissal allowance, placing them in some other employment,

¹ International Labor Office, Industrial and Labor Information, Geneva, February 7, 1938, pp. 166-167.

and in particular, encouraging them to emigrate to Manchukuo or North China, or putting into effect large-scale civil engineering and building programs in order to provide employment for them. The Government and the nation should cooperate in measures for the ultimate absorption of all surplus labor.

(c) Reeducation and special treatment of wounded soldiers. Although it is taken for granted that the Government will guarantee the livelihood of wounded soldiers, in the event of any of them wishing to be employed, suitable work should be found for them according to the nature and extent of their injuries; if necessary, they should be given facilities for vocational reeducation, or supplied with piece work which they may do at home. In this connection, adequate and appropriate facilities should be created by the joint effort of the Government and the nation.

Negroes in Industry

PLACEMENT OF COLORED WORKERS BY U. S. EMPLOYMENT SERVICE

THE active file of the United States Employment Service in April 1937 included 751,062 colored applicants, of whom 550,378 were males and 200,684 females. The details by geographical regions are given in table 1.¹

TABLE 1.—*Number of Colored Applicants in Active-File Inventory, April 1937, by Region and Sex*

Region	Total	Males	Females
United States.....	751,062	550,378	200,684
New England.....	9,703	6,797	2,906
Middle Atlantic.....	136,661	93,653	43,008
East North Central.....	117,690	85,005	32,685
West North Central.....	42,023	29,037	12,986
South Atlantic.....	175,446	128,055	47,391
East South Central.....	91,574	68,140	23,434
West South Central.....	121,823	94,249	27,574
Mountain.....	26,144	22,121	4,023
Pacific.....	29,998	23,321	6,677

In April 1937 these colored male applicants constituted 12.7 percent of all male applicants in the active file, while in 1930 11.3 percent of the male gainful workers were colored. Of the female applicants in April 1937, 17.8 percent were colored, as compared to 18.0 percent colored among the female gainful workers of 1930, as recorded in table 2.

¹ U. S. Employment Service. Survey of Employment Service Information. Washington 1937.

The term "colored" is used to designate all persons not included in the so-called "white races." It applies principally to Negroes, American Indians, Mexicans, and orientals, inasmuch as they are all "nonwhite." The Employment Service reporting procedures do not distinguish between the several "nonwhite" races, so that it is impossible to establish precisely the composition of the colored group. However, 85 percent of colored men and 95 percent of colored women recorded among the gainfully employed in 1930 were Negroes; and of those who were not Negroes, 61 percent of the men and 67 percent of the women were concentrated in California (Mexicans and orientals) and Texas (chiefly Mexicans). Thus, outside of these two States less than 1 percent of both men and women among the gainfully employed were non-Negro nonwhites; and these were principally American Indians in the western States and orientals in metropolitan colonies. Therefore, except in California, in which there are few Negroes, and Texas, in which about two-fifths of the colored population are not Negroes, the term "colored" as applied to Employment Service data, may be read as almost synonymous with "Negro."

TABLE 2.—Proportion of Colored Persons Among Gainful Workers, Active-File Inventory, and Private and Total Placements, by Region and Sex

Region	Colored males as percent of—				Colored females as percent of—			
	Male gainful workers, 1930 census	Male active file, April 1937	Male placements, July 1936–March 1937		Female gainful workers, 1930 census	Female active file, April 1937	Female placements, July 1936–March 1937	
			Private	Total			Private	Total
United States.....	11.3	12.7	19.9	15.6	18.0	17.8	21.7	20.8
New England.....	1.4	2.1	1.3	1.5	1.7	2.8	4.7	4.5
Middle Atlantic.....	4.6	8.3	6.0	5.9	7.7	15.4	19.3	17.9
East North Central.....	4.5	10.6	6.4	7.0	6.5	17.4	13.3	13.8
West North Central.....	3.4	5.8	2.6	2.5	5.6	12.2	4.1	4.4
South Atlantic.....	28.0	29.7	50.0	42.7	46.0	31.8	63.3	60.7
East South Central.....	28.1	18.7	35.0	33.6	52.5	22.3	40.8	36.2
West South Central.....	25.2	27.7	60.2	39.2	40.9	29.8	48.0	43.7
Mountain.....	10.0	13.4	10.9	6.1	9.4	12.4	8.8	8.3
Pacific.....	8.9	8.7	8.5	5.8	5.5	9.4	6.1	5.9

Placements of colored applicants in the 9-month period were more numerous, in proportion to colored registrations, than the placements of white applicants in proportion to white registrants. Twenty percent of the total male placements in private employment and 13 percent of the male public and relief placements were from the colored male group of applicants, although this group constituted less than 13 percent of the total male applicants. Among the female applicants, 18 percent were colored, but 22 percent of the female private placements and 11 percent of the female public and relief placements were from the colored group.

The relation between applications and placements of colored workers was far from uniform throughout the country. In general, colored workers were relatively more numerous among applicants than among placements in the Northern States, but in the South the opposite was true. These variations appear to reflect certain geographical differences in the occupational distribution of colored workers. In the South, to a greater extent than in the North, placements of men were concentrated in the laboring occupations, which are largely manned by colored workers. Consequently, large numbers of colored men were placed in the Southern States. In the North, on the other hand, a larger proportion of the placements of men were in the more skilled occupations in which, though there were considerable numbers of colored applicants, the placement opportunities for colored workers were very limited.

Industrial Distribution of Colored Placements

Favorable placement rates for colored workers in the 9 months covered were most striking in the agricultural field, in which 37 percent of the colored males and 63 percent of the colored females were placed. In building and construction and in manufacturing the proportion of colored persons placed was higher than their ratio to applicants in the colored group. In the great majority of the other indus-

trial groups, including domestic, personal, and recreational services, the ratio of colored workers to all workers placed was not so high as the ratio of colored applicants to all applicants.

Concentration of Colored Applicants in Certain Occupations

Colored applicants in the period under review were much more concentrated in certain occupational groups than were the white applicants. Over 60 percent of the colored male applicants were classified as service and physical-labor workers, as compared to 33 percent of the white males. On the other hand, the percentage of colored male applicants in the group of production and crafts workers was only 35 percent, as compared to 53 percent of the white males. The white-collar group included 12 percent of the white male applicants and less than 3 percent of the colored, as reported in table 3.

TABLE 3.—*Percentage Distribution of Active-File Inventory and Placements, by Occupation, Color, and Sex*

Occupational group	Males				Females			
	White		Colored		White		Colored	
	Active file, April 1937	Placements, July 1936-March 1937	Active file, April 1937	Placements, July 1936-March 1937	Active file, April 1937	Placements, July 1936-March 1937	Active file, April 1937	Placements, July 1936-March 1937
All occupations.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Professional and kindred workers.....	3.9	2.8	1.2	.3	6.1	3.0	4.1	.7
Salespersons.....	3.7	1.5	.9	.1	6.7	8.7	.5	.3
Clerical workers.....	4.8	2.7	.8	.2	20.3	12.9	2.5	.7
Service workers.....	5.3	6.0	15.8	7.3	45.4	60.9	78.3	78.9
Craftsmen.....	25.2	16.8	11.4	3.3	3.9	2.0	.9	.2
Production workers.....	28.0	22.2	23.3	8.7	9.0	8.9	8.2	8.1
Physical-labor workers.....	27.2	48.0	45.4	80.1	2.6	3.6	2.5	11.1
Unassigned persons.....	1.9	-----	1.2	-----	6.0	-----	3.0	-----

Ages of Applicants and of Workers Placed

The proportion of applicants under 25 years of age was not so large in the group of colored males as among the white males, according to table 4. The percentage of colored male workers under 25 placed, however, was higher than the record for white males. Furthermore, in the age groups between 25 and 44, higher percentages of colored than of white males were placed. Among the applicants 45 years of age and over, the proportion of white male applicants placed was higher than that of colored male applicants.

Among colored females the placement frequency of those under 25 years of age was below and the placement frequency in the age group 25-44 was above that among white females of the corresponding age groups.

TABLE 4.—Percentage Distribution of Active-File Inventory, and Placements, by Age, Color, and Sex

Age group	Males				Females			
	White		Colored		White		Colored	
	Active file, 1930 census	Place-ments, July 1936-March 1937	Active file, 1930 census	Place-ments, July 1936-March 1937	Active file, 1930 census	Place-ments, July 1936-March 1937	Active file, 1930 census	Place-ments, July 1936-March 1937
All ages ¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 20 years.....	4.3	5.9	3.8	7.5	11.6	17.4	6.8	10.0
20 to 24 years.....	15.9	18.7	14.3	18.7	23.3	24.1	17.2	17.8
25 to 29 years.....	13.5	16.1	14.4	17.2	11.5	12.9	14.9	17.6
30 to 34 years.....	11.2	13.2	12.5	13.5	9.5	9.5	13.7	15.2
35 to 39 years.....	10.3	11.8	12.5	12.9	10.3	10.4	13.5	15.2
40 to 44 years.....	10.1	10.6	11.7	10.8	9.6	9.3	11.7	10.7
45 to 49 years.....	9.8	8.9	9.6	7.8	8.3	7.2	8.3	6.4
50 to 54 years.....	8.9	6.9	8.3	5.8	6.6	4.7	6.6	4.2
55 to 59 years.....	7.1	4.2	6.0	3.2	4.7	2.7	3.8	1.7
60 to 64 years.....	5.1	2.4	3.7	1.6	2.9	1.3	2.1	.8
65 years and over.....	3.8	1.3	3.2	1.0	1.7	.5	1.4	.4

¹ Distribution based on total of persons whose ages were known.

Duration of Unemployment Among New Colored Applicants

Among applicants registered for the first time in the period July 1936 to March 1937, unemployment was more severe in the case of colored than of white workers. As disclosed in table 5, only 10 percent of the colored males were at work when they registered, as compared to 18 percent of the white males. Although 26 percent of the colored males had been jobless less than a month, compared to 21 percent of the white males, the percentages of colored males in the groups with longer periods of unemployment were also larger.

The proportions of colored females in the groups having from 1 month to almost 4 years of unemployment were larger than the corresponding percentages of white females. However, relatively more white females had been unemployed for 4 years or more.

TABLE 5.—Percentage Distribution of New Applicants, July 1936 to March 1937, by Length of Unemployment and by Color and Sex

Length of unemployment	Males		Females	
	White	Colored	White	Colored
Total.....	100.0	100.0	100.0	100.0
None (working when registered).....	17.9	10.0	7.8	6.8
Less than 1 month.....	20.8	25.9	14.4	16.6
1 but less than 2 months.....	13.8	14.8	9.2	10.4
2 but less than 6 months.....	18.8	20.5	14.3	17.2
6 but less than 12 months.....	7.0	7.4	7.0	8.6
12 but less than 24 months.....	4.7	5.4	5.6	7.4
24 but less than 36 months.....	2.5	3.0	3.2	4.6
36 but less than 48 months.....	1.7	2.1	2.0	3.0
4 years and over.....	4.8	5.8	12.4	11.3
Recent students.....	5.7	3.3	13.0	6.4
Not ordinarily employed.....	1.2	1.1	8.9	5.7
Unspecified.....	1.1	.7	2.2	2.0

Industrial Relations

CONCILIATION AND ARBITRATION ACT OF BRITISH COLUMBIA

IN THE FALL of 1937 the British Columbia Legislature passed "an act respecting the right of employees to organize and providing for conciliation and arbitration of industrial disputes." The sections of this new legislation which deal with freedom of association were based to some extent on the draft bill of the Canadian Trades and Labor Congress, and as introduced in the legislature these sections and the sections relative to collective bargaining were similar to provisions in the Trade Union Act of Nova Scotia, also passed in 1937.¹ The principal provisions of the British Columbia measure as passed are reviewed in the Canadian Labor Gazette (Ottawa) of January 1938.

The new statute states that the "right of employers and employees to organize for any lawful purpose is hereby recognized"; that it is lawful for employees to engage in collective bargaining with their employers and to carry on such bargaining through representatives of employees who have been duly elected by a vote of the majority of the employees affected. Any employee or employer who refuses to bargain as provided in the act is liable to a maximum fine of \$500.

It is also unlawful under this statute for an employer to attach to or continue in a verbal or written employment contract "any condition seeking to restrain any employee from exercising his rights under the act and any such condition is declared to be of no effect."

Any person is liable to a maximum fine of \$500 "who by intimidation or threat of loss of position or employment, or by any other threat, seeks to compel any person to join or refrain from joining any organization or to refrain from becoming an officer of any organization." It is explained in the statute that the clause concerning intimidation should not be interpreted to prevent an employees' organization from continuing an existing agreement or from making a new agreement with any employers or employers' association which provides that all the employees of the employers parties to such agreement shall be members of a specified employees' organization.

¹ See Monthly Labor Review, Washington, June 1937, p. 1471.

The employer's right to suspend, lay off or discharge employees for proper and sufficient cause cannot be interfered with under any provision of the statute.

The conciliation and arbitration provisions of the act are applicable to any controversy between an employer and a majority of all his employees, or a majority of his personnel employed in any separate department or plant concerning any matters that affect or relate to work done or to be done by him or them, or relative to the rights, duties, or privileges of employers or employees, including especially the wages and working hours, sex, age, or status of employees and employment conditions; "the employment of children or any person or class of persons; or the dismissal or refusal to employ any particular persons or class of persons; claims for preference of employment to one class of persons being or not being members of labor or other organizations, British subjects or aliens; materials supplied, any established custom or usage, or the interpretation of an agreement or any clause of an agreement."

The new legislation repeals the British Columbia Industrial Dispute Investigation Act of 1925 which made the Dominion Industrial Disputes Investigation Act applicable to every dispute of the character defined in the latter act which came under the legislative jurisdiction of the Province.

The new British Columbia statute applies to any employer having one or more employees in any industry except agriculture and domestic service, but only in matters within the legislative jurisdiction of the Province.

A strike or lock-out is prohibited between the time of application for the appointment of a conciliation commissioner to settle the controversy and 14 days after the date designated for voting on the acceptance or rejection of a report of the arbitration board, which is to be set up whenever a commissioner of conciliation is unable to settle a controversy. In case of a dispute concerning wages and hours, however, no employer may make any change in wages or working hours unless the employees consent, nor may a strike or lock-out be declared before an application is made for the appointment of a commissioner of conciliation. The burden of making such application is placed upon the party making the proposal to change wages or hours.

Either party to a dispute may apply to the Minister of Labor for the appointment of a conciliation commissioner. The Minister is required to decide on the application within 3 days after receiving it. Moreover, the Minister may, on his own initiative, appoint a conciliation commissioner in case of an existing or apprehended dispute.

The conciliation commissioner must make a report to the Minister of Labor within not more than 14 days, unless the parties to the dispute agree to an extension of time.

In a case in which a conciliation commissioner has been appointed on the application of a party to the controversy and has been unable to effect a settlement, it is the duty of the Minister of Labor, under the statute, to refer the controversy to a board of three arbitrators. This requirement does not obtain in cases in which the commissioner of conciliation is appointed on the initiative of the Minister of Labor.

The question of the acceptance or rejection of the award of the arbitration board is submitted to a separate vote (by secret ballot) of the employers and employees, which may be supervised by the Minister of Labor. It is expressly stipulated in the statute that no court shall have power to enforce any award made under this law.

If either party to the dispute fails to appoint an arbitrator within the time required, the Minister of Labor may make the appointment. It is provided that the third arbitrator, who serves as the chairman of the board, shall be appointed by the other two. In case the two arbitrators fail to appoint a third within 5 days after they are appointed, the Lieutenant Governor in Council is empowered to appoint the chairman of the arbitration board. The act stipulates that an award shall be made in not more than 14 days after the board's appointment, unless the parties to the dispute agree to an extension of the period.

For any violation of the statute for which a penalty has not been provided, the offender is liable to a maximum fine of \$500.



COLLECTIVE AGREEMENTS IN NETHERLAND AGRICULTURE¹

THERE were 353 collective agreements in force in agriculture in the Netherlands on June 1, 1937, covering 24,750 enterprises and 78,350 workers. The numerical development of these agreements is shown by the following figures for the years of 1930-37:

Enterprises and Workers Covered by Collective Agreements in Agriculture in the Netherlands at Specified Dates

Date	Number of agreements	Number of enterprises covered ^a	Number of workers covered ^a
Jan. 1, 1920.....	53	3, 850	11, 900
June 1, 1930.....	148	6, 050	26, 500
June 1, 1931.....	144	6, 050	27, 700
June 1, 1932.....	146	6, 500	27, 000
June 1, 1933.....	169	7, 700	31, 800
June 1, 1934.....	197	9, 550	40, 200
June 1, 1935.....	250	10, 850	39, 200
June 1, 1936.....	324	20, 550	61, 750
June 1, 1937.....	353	24, 750	78, 350

^a Rounded figures.

¹ Data are from report of Stephen C. Brown, American vice consul at Rotterdam, February 10, 1938.

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The great increase in the number of such agreements in the past 2 years is attributed largely to the promulgation in 1936 of an arbitral decision concerning labor conditions in agriculture. By the Agricultural Crisis Act of 1933 the Minister of Economic Affairs is empowered to prescribe such conditions as he deems necessary to effect the purposes of the decree, and all persons and organizations receiving aid from the Crisis Fund must observe them. By the decree of June 27, 1934, such persons and organizations were required to recognize one or more of the three unions of agricultural workers. The same decree required them to accept the decisions of arbitrators appointed by the Minister in case of labor disputes.

The three unions in question are the Netherland Union of Workers in the Agricultural, Horticultural, and Dairy Industries; the Netherland Christian Farm Workers' Union; and the Roman Catholic Farm Workers' Union. They cooperate closely in negotiating collective agreements with employers.

Agreements are entered into with individual employers as well as with organizations of employers, though agreements of the latter kind are by far the most common. The usual stipulations relate to hours of work, minimum wages, holidays, and in many cases, the employment of women and children. Practically all make a distinction between permanently employed workers and temporary or casual labor. A provision setting up an arbitration board for the settlement of disputes is a feature of practically all agreements.

Many contracts provide that the employer shall furnish each permanent employee a small plot of ground for his own use, or a certain quantity of potatoes in lieu thereof. Others provide for allowances to married employees for minor children. One contract, that in the bulb-growing industry, provides for the establishment of a fund for the payment of such allowances, and also for another fund for the payment of old-age pensions.

The hours of work stipulated in the agreements vary according to the season and local custom; 12 hours per day is usual. In the winter months, however, hours of work are generally limited to the hours of daylight. Extra pay is usually stipulated for overtime, Sunday, and holiday work.

The minimum rates of pay likewise vary considerably. They are usually fixed on an hourly, daily, or weekly basis, with the proviso that piece rates shall not be fixed in such a manner that the employee cannot reasonably earn the equivalent of the specified minimum wage. The daily or weekly basis is the most common in agreements. Minimum rates vary frequently according to the season of the year. It is usual to prescribe minimum rates also for employees of minor age.

Agreements are generally entered into for a period of one year, ordinarily expiring in February or March. Some provide for auto-

matic extension of the agreement for an equal period of time if neither of the parties has given notice of a desire to end or change it within a specified time before expiration.

Nearly all stipulate that individual employment contracts with unorganized workers shall conform to the conditions of the collective contract. Even when this is not stipulated, the Netherland labor law requires employers bound by a collective contract to observe its conditions in contracts with unorganized workers, unless the contrary is explicitly stipulated in the collective contract.

It is believed that the hours provisions of the contracts usually embody prevailing customary standards, although employees may have gained some advantage in the matter of overtime, Sunday, and holiday work.

Another development that may be connected with the growth of the collective-contract system is the increasing trend toward mechanization observed in the cultivation of field crops.

Women in Industry

COMPARATIVE EARNINGS AND HOURS OF MEN AND WOMEN

AVERAGE weekly earnings in excess of \$20 were paid to woman workers in only 3 of 43 manufacturing industries during a representative pay-roll period in September 1937. In over half of these industries (23) average weekly earnings of women were less than \$15. The average earnings of men employed in the same establishments were materially higher except in one industry—radio and phonograph manufacture—and in some instances were nearly twice as high as those of woman workers. Women's working hours averaged less than 40 per week in all 43 manufacturing industries, and less than 35 in 27 of them. Men, on the other hand, worked fewer than 35 hours per week in only 8 industries, and over 40 hours in 13.

These data are derived from an unpublished special analysis which the Women's Bureau of the Department of Labor made from employment and pay-roll records of 43 manufacturing industries collected by the Bureau of Labor Statistics. The manufacturing industries selected for the comparison of earnings of men and women are those in which women constitute a substantial part of the labor force. Women comprised more than one-third the total number of workers in each of 25 manufacturing industries, and in 7 industries the proportion of women was over 75 percent. The total number of women covered by the special analysis was 464,000 wage earners and 51,000 clerical workers, in the 12 leading manufacturing States employing the largest number of women. Data for laundries and cleaning and dyeing establishments, covering nearly 22,000 women, were similarly analyzed.

Details are presented in the following tables. Table 1 shows average hours worked, and average hourly and weekly earnings, by sex and by industry, for 43 selected manufacturing industries and 2 service industries. Table 2 gives average weekly earnings of men and women in clerical occupations in certain of those industries.

TABLE 1.—Average Hours Worked, and Average Hourly and Weekly Earnings in Selected Industries, September 1937, by Industry and Sex

Industry	Women re- ported		Average week's earn- ings		Average hours worked		Average hourly earnings	
	Num- ber	Percent women form of total	Men	Wom- en	Men	Wom- en	Men	Wom- en
Manufacturing:							<i>Cents</i>	<i>Cents</i>
Textile industries.....	116, 117	43.4	\$21.34	\$14.00	35.3	31.6	60.4	44.6
Cotton goods.....	26, 981	38.4	17.11	12.75	36.3	32.3	47.2	39.5
Cotton small wares.....	2, 396	51.4	25.67	14.14	41.2	35.3	62.0	40.4
Knit goods.....	41, 413	60.8	26.40	14.47	37.5	39.9	71.1	44.4
Hosiery.....	23, 793	55.2	28.38	15.84	36.4	34.6	78.8	46.8
Outerwear.....	4, 039	68.5	22.63	13.52	37.7	32.5	63.4	41.6
Underwear.....	11, 456	76.8	20.82	11.56	38.4	30.3	54.2	38.2
Cloth.....	2, 125	51.6	22.29	12.21	39.7	31.6	56.1	38.5
Silk and rayon.....	16, 336	52.9	18.90	12.22	35.9	32.3	52.7	37.8
Woolen and worsted goods.....	20, 743	36.6	21.54	13.59	32.9	28.1	63.7	51.9
Carpets, rugs, wool.....	4, 733	29.5	21.32	15.96	31.2	31.1	68.3	54.4
Dyeing, finishing.....	3, 515	17.0	23.56	14.94	35.6	32.5	66.1	46.2
Clothing industries.....	93, 279	72.8	28.21	14.46	31.0	29.2	93.8	54.7
Men's clothing.....	33, 230	62.3	28.12	15.66	30.4	27.7	95.3	56.6
Wool suits, etc.....	22, 719	56.0	22.82	17.12	29.6	27.7	99.4	62.9
Cotton, work clothing.....	10, 511	82.0	22.83	12.17	37.4	30.3	61.6	40.2
Shirts, collars.....	16, 758	86.3	21.81	12.77	37.1	32.4	59.6	40.3
Women's clothing.....	34, 002	80.3	35.17	17.40	29.3	28.6	100.3	62.7
Blouses, skirts.....	11, 986	86.6	25.47	13.29	33.0	29.8	74.6	44.6
Coats, suits.....	1, 744	48.5	30.87	17.69	24.9	23.7	125.6	72.8
Dresses, cotton.....	11, 058	92.4	22.93	12.08	38.5	34.3	59.8	35.4
Dresses, other.....	9, 214	71.2	32.30	20.16	28.1	26.7	113.2	74.5
Corsets, etc.....	4, 623	85.1	27.64	13.37	40.4	31.4	69.4	42.7
Food industries.....	70, 420	38.5	27.70	14.58	43.4	35.4	64.2	42.2
Confectionery.....	15, 069	61.9	21.56	14.60	45.6	38.8	57.1	38.0
Meat packing, etc.....	5, 955	14.4	31.45	20.76	42.1	38.4	75.2	54.3
Baking.....	8, 427	24.1	30.23	16.09	44.8	37.8	67.9	42.4
Canning (fruit and vegetable).....	40, 969	49.7	22.04	13.31	43.7	31.9	53.0	42.8
Leather industries: Boots and shoes.....	24, 045	45.4	18.92	12.18	31.7	29.4	60.6	42.1
Tobacco industries: Cigars, cigarettes.....	9, 808	79.5	20.83	14.08	38.7	33.0	52.6	41.6
Paper and printing.....	26, 767	19.9	32.37	15.69	38.9	35.2	82.0	44.5
Printing, publishing:								
Book and job.....	12, 842	25.5	33.91	16.07	39.2	34.7	86.8	46.8
Newspaper, periodical.....	1, 659	5.7	39.78	24.42	36.3	37.7	106.6	62.8
Paper and pulp.....	4, 473	10.4	25.95	14.43	37.7	32.7	65.4	44.0
Paper boxes.....	7, 793	64.4	24.51	14.48	41.8	36.7	58.6	39.2
Electrical industries.....	58, 188	28.0	29.91	18.85	39.2	35.7	74.6	50.7
Electrical machinery, supplies.....	39, 036	23.3	29.31	19.35	39.1	36.3	75.7	51.4
Radio, phonographs.....	19, 152	47.4	17.83	17.19	45.2	38.8	55.2	42.9
Metal industries.....	31, 251	12.9	28.84	17.16	40.0	35.8	72.1	48.3
Foundries, etc.....	7, 429	4.5	29.45	17.87	40.2	36.2	73.2	50.3
Hardware.....	9, 076	28.8	25.80	16.54	38.1	34.7	67.9	47.6
Stamped, etc., ware.....	4, 446	26.5	25.77	14.52	38.8	33.9	67.4	43.4
Tin cans.....	4, 485	27.0	26.59	16.28	40.7	35.3	65.3	46.4
Clocks, watches.....	5, 815	48.1	22.67	15.96	40.4	37.4	66.3	42.4
Rubber goods.....	16, 222	23.8	29.60	17.50	33.3	32.3	91.8	56.5
Auto tires.....	5, 824	15.3	31.30	18.94	29.4	26.5	106.5	71.7
Rubber boots, shoes.....	6, 258	51.5	30.20	19.06	41.0	37.9	73.7	50.2
Rubber goods, other.....	4, 140	23.1	25.14	14.92	39.6	36.7	64.7	42.3
Wood industries: Furniture.....	3, 436	7.3	23.13	14.64	39.9	35.2	58.6	44.3
Chemical industries.....	7, 812	36.8	28.77	17.90	38.3	33.5	75.6	55.6
Rayon.....	5, 482	33.1	28.99	17.49	39.0	28.5	74.4	61.3
Drug preparations.....	2, 330	49.7	27.74	15.15	39.0	38.5	70.6	39.1
Glass and pottery.....	6, 809	18.6	25.70	14.32	37.9	35.4	68.4	40.2
Glass.....	4, 908	17.4	25.25	13.46	37.0	34.8	68.5	37.6
Pottery.....	1, 901	22.2	27.15	16.00	40.9	37.2	67.0	43.2
Nonmanufacturing:								
Laundries.....	18, 723	67.8	27.45	13.44	46.0	39.1	58.8	34.2
Dyeing, cleaning.....	3, 125	46.5	27.89	16.39	44.9	40.7	61.7	39.9

TABLE 2.—Average Week's Earnings of Office Workers in Selected Industries in September 1937, by Sex

Industry	Women reported		Average week's earnings	
	Number	Percent women form of total	Men	Women
Manufacturing—Selected industries:				
Textile industries:				
Knit goods.....	1,342	71.1	\$35.52	\$19.25
Woolen and worsted goods.....	1,000	53.9	37.60	22.35
Clothing industries:				
Men's clothing.....	1,296	69.2	36.48	19.89
Women's clothing.....	1,058	70.9	34.22	22.53
Food industries:				
Slaughtering and meat packing.....	1,678	31.8	44.28	27.36
Baking.....	1,251	59.4	33.29	20.69
Canning (fruits and vegetables).....	1,024	55.9	32.20	22.50
Leather industries: Boots and shoes.....	1,417	76.0	32.22	17.75
Paper and printing industries:				
Printing and publishing:				
Book and job.....	4,553	55.5	43.54	22.10
Newspaper and periodical.....	6,180	43.9	40.06	21.89
Paper and pulp.....	1,030	45.3	42.17	24.42
Electrical industries:				
Electrical machinery, apparatus, supplies.....	8,052	37.2	43.52	25.19
Radio, phonographs.....	1,164	36.9	38.97	20.73
Metal industries:				
Foundries and machine shops.....	6,044	33.5	35.99	25.09
Hardware.....	1,207	55.9	35.32	18.95
Rubber goods: Auto tires.....	1,296	33.0	47.90	22.13
Wood industries: Furniture.....	1,502	47.0	40.11	21.02
Nonmanufacturing:				
Laundries.....	1,408	83.8	35.48	18.65



INCREASE IN WOMAN WORKERS IN GERMANY ¹

WOMAN workers are being employed in increasing numbers in industry and trade in Germany. This is due to a reversal of the original policy of the present Government toward woman workers since the adoption of the 4-year plan. When the present Government took control in 1933 it proposed to take women out of industries and trades, to put them back in homes, and to keep them there for housekeeping and child rearing. To that end women were encouraged to marry and were granted marriage loans if they obligated themselves not to enter industrial employment after their marriage. Employment-service agencies were ordered to give male labor preferential treatment and to refuse to find work for women except as domestic or agricultural servants.

When the 4-year plan was put into operation, however, the need of more industrial workers became apparent and the policy of the Government as to woman workers changed. Women were found to be especially adapted to work in certain occupations and industries, such as spinning and weaving and the production of artificial wool and other fibers, because of their dexterity, and there were also special needs for women in commercial employment. The training of women

¹ Data are from report of A. Dana Hodgdon, American consul at Berlin, November 20, 1937.

in many of the occupations in which the work is usually performed by men was also considered advisable in view of the anticipated need of men for military duty.

In July 1937 woman workers who had received marriage loans, granted only to those who undertook to leave paid employment, were permitted to work on paid jobs if their husbands were on compulsory military or labor service, and from October of the same year marriage loans were granted to women even if they did not leave industrial employment.

The result has been an increase of employed woman workers, as shown by the following figures of the membership of the sickness-insurance system in Germany: ²

	<i>Employed woman workers</i>
1933.....	4, 583, 058
1934.....	4, 849, 694
1935.....	5, 002, 989
1936.....	5, 337, 573

There were thus over 700,000 more women employed in 1936 than in 1933.

Employed women have also gained in proportion to employed men in industry. In January 1936 there were 25.2 employed women for each 100 employed men, while in January 1937 there were 25.7 women for each 100 men in industry.

² Germany. Statistisches Reichsamt. Statistisches Jahrbuch, 1937. Berlin, 1937, pp. 334, 344.

Court Decisions

WITHDRAWAL OF RECOGNITION FROM COMPANY UNION UPHeld

THE United States Supreme Court on February 28, 1938, decided two cases¹ concerning interference with the formation and administration of a company union. In these two cases Mr. Justice Stone delivered the unanimous opinion of the Court upholding an order of the National Labor Relations Board to compel the withdrawal of recognition from labor organizations found by the Board to be dominated by the Pennsylvania Greyhound Lines, Inc., and the Pacific Greyhound Lines, Inc.

The principal question for determination by the Supreme Court was whether the National Labor Relations Board, upon finding that an employer had dominated a labor organization, could require the employer to withdraw all recognition of the organization as the employees' representative, and to post notices informing them of such withdrawal. As pointed out by the Court, the Pennsylvania Greyhound Lines, Inc., operated motorbus service between the Atlantic seaboard, Chicago, and St. Louis. An affiliate of the Pennsylvania company, the Greyhound Management Co., performed personnel services for both that company and the Pacific company. It appeared also that both corporations acted as employers of the employees working at a garage of the Pennsylvania company in Pittsburgh.

The Amalgamated Association of Street and Electric Railway and Motor Coach Employees of America, Local Division No. 1063, filed charges with the National Labor Relations Board alleging that the companies had engaged in specified unfair labor practices in violation of the act. After proper notice and hearing, the Board sustained the charges and ordered that such practices cease. The Board also ordered that the companies withdraw recognition from the employees' association. The Court of Appeals for the Third Circuit, after a long delay, struck from the order of the Board all provisions requiring the withdrawal by the companies of recognition of the employees' association, and publication of notice of withdrawal, and ordered that the Board's decision in other respects should be enforced. The lower court was of the opinion that the Board was powerless to order

¹ *National Labor Relations Board v. Pennsylvania Greyhound Lines, Inc.*, and *National Labor Relations Board v. Pacific Greyhound Lines, Inc.*, 58 Sup. Ct. 571, 577.

the employers to withhold recognition from the association without notice to it, and without an election by the employees for the purpose of choosing a labor organization to represent them.

In rendering his opinion, Mr. Justice Stone pointed out that the companies did not assail the findings of fact by the Board. The principal questions for determination, he said, are ones of law; that is, whether under the circumstances the Board acted within its authority. Pertinent sections of the act were presented, and Mr. Justice Stone showed from the history of the act and its language, that the law's primary purpose was to protect interstate commerce by securing to employees the right to organize and bargain collectively through representatives of their own choosing, and even to engage in concerted activities for the accomplishment of that object.

Mr. Justice Stone also pointed out that before the passage of the National Labor Relations Act the Supreme Court had given recognition to the fact that the operation of a company union dominated by an employer may be the means of preventing self-organization of employees and their choice of representatives for the purpose of collective bargaining. In referring to a case² concerning the Railway Labor Act of 1926, the Court said "we had held that in enforcing this provision, employer recognition of a company union might be enjoined and the union 'disestablished', as an appropriate means of preventing interference with the rights secured to employees by the statute." Again, the Court showed that Congress in adopting the National Labor Relations Act considered the experience in the administration of the Railway Labor Act. Several references were made to the report of the hearings to show that there was a need for a continuance and amplification of the policy of the Railway Labor Act. While the Court considered it unnecessary to repeat in full detail the facts disclosed by the findings, it nevertheless briefly alluded to some and said that:

Section 10 (e), 29 U. S. C. A. sec. 160 (e), declares that the Board's findings of fact "if supported by evidence, shall be conclusive." Whether the continued recognition of the employees' association by respondents would in itself be a continuing obstacle to the exercise of the employees' right of self-organization and to bargain collectively through representatives of their own choosing, is an inference of fact to be drawn by the Board from the evidence reviewed in its subsidiary findings. See *Swayne & Hoyt, Ltd. v. United States*, 300 U. S. 297.

We may assume that there are situations in which the Board would not be warranted in concluding that there was any occasion for withdrawal of employer recognition of an existing union before an election by employees under section 9 (c), 29 U. S. C. A. sec. 159 (c), even though it had ordered the employer to cease unfair labor practices. But here respondents, by unfair labor practices, have succeeded in establishing a company union so organized that it is incapable of functioning as a bargaining representative of employees. With no procedure for meetings of members or for instructing employee representatives, and with no

² *Texas & N. O. R. Co. v. Brotherhood of Railway & Steamship Clerks*, 281 U. S. 548.

power to bring grievances before the joint reviewing committee without employer consent, the association could not without amendment of its bylaws be used as a means of the collective bargaining contemplated by section 7; and amendment could not be had without the employer's approval.

In view of all the circumstances the Board could have thought that continued recognition of the association would serve as a means of thwarting the policy of collective bargaining by enabling the employer to induce adherence of employees to the association in the mistaken belief that it was truly representative and afforded an agency for collective bargaining, and thus to prevent self-organization. The inferences to be drawn were for the Board and not the courts. *Swayne & Hoyt, Ltd. v. United States*, supra. There was ample basis for its conclusion that withdrawal of recognition of the association by respondents, accompanied by suitable publicity, was an appropriate way to give effect to the policy of the act.

As the order did not run against the association it is not entitled to notice and hearing. Its presence was not necessary in order to enable the Board to determine whether respondents had violated the statute or to make an appropriate order against them.

In the Pacific Greyhound Lines case the same issues were presented as in the Pennsylvania decision. Mr. Justice Stone also delivered the opinion in the second case, which was unanimously concurred in by the Court. In the Pacific case the question requiring consideration was whether the facts as found by the Board afforded a basis "for its conclusion that the policies of the act will be effectuated by the present order." The Court in this case briefly referred to its findings that showed the company had taken an active part in organizing the employees and had interfered with and even dominated the administration of the employees' group. The Court showed that even before the adoption of the National Labor Relations Act the company had tried to prevent the work of organization among the employees. It was further shown that "the attempt was met by persuasions and warnings of respondent's employees, by its officers, not to join the new union, and by threats of discharge if they should join." The Board found that the company had engaged in unfair labor practices in violation of the act.

In ordering withdrawal of recognition of the Association by the company, the Court quoted the Board as pointing out that an order to cease an unfair labor practice "would not set free the employee's impulse to seek the organization which would most effectively represent him" and that continued recognition of the association would provide the company "with a device by which its power may now be made effective unobtrusively, almost without further action on its part. Even though he would not have freely chosen" the association "as an initial proposition the employee, once having chosen, may by force of a timorous habit, be held firm to his choice. The employee must be released from these compulsions." And finally, the Supreme Court said that whether the continued recognition of the association by the company would be a continuing obstacle to the exercise of the right of self-organization was "an inference of fact which the Board

could draw if there was any evidence to support it." Neither Mr. Justice Cardozo nor Mr. Justice Reed took part in the consideration or decision of the case.



PICKETING CONSTRUED AS LABOR DISPUTE

THE United States Supreme Court recently reversed a lower court which held picketing did not constitute a labor dispute under the State or Federal anti-injunction law.¹ The case arose in Milwaukee, Wis., and concerned an employer who sought to enjoin picketing by a labor union for the purpose of coercing him to adopt a closed shop and to accept the union as the bargaining agency of the employees. Specifically, the petition sought "to restrain the petitioners from picketing the respondent's place of business; from coercing the respondent to discharge any of its employees who do not belong to the petitioning union, or to compel them to become members of the union and to accept it as their bargaining agent and representative; and from advertising that the respondent is unfair to organized labor or molesting customers or prospective customers or persuading them to cease patronizing it."

The District Court of the Seventh Circuit, after a hearing, granted a preliminary injunction. This was later affirmed by the Circuit Court of Appeals.

Majority Opinion

Mr. Justice Roberts, who delivered the opinion of the Supreme Court, reviewed the facts as found by the lower court. It appeared that the corporation operated five meat markets in Milwaukee, employing approximately 35 employees; that a labor union had demanded that the employer require the employees as a condition of their continued employment to become members of the union. The employer informed the employees that they were free to join and that the company would offer no objections if they did so. The employees, however, refused to join the union. The facts showed that, for the purpose of coercing the company to force its employees to affiliate, the union conspired to do many acts that would be detrimental to the business of the employer. The district court held that such actions did not constitute a labor dispute within the terms of the Federal or State anti-injunction law.

The United States Supreme Court consented to hear the case because of an alleged conflict with a decision of the Wisconsin Supreme Court, and a previous decision of the United States Supreme Court (*Senn v. Tile Layers Protective Union*, 301 U. S. 468).²

¹ *Lauf v. E. G. Shinner & Co. Inc.*, 58 Sup. Ct. 578.

² See *Monthly Labor Review*, July 1937 (p. 187).

The opinion of the Supreme Court held that the lower court erred in several respects. The court was in error, it was said, for holding that no labor dispute existed between the parties. A pertinent section of the Wisconsin Labor Code was cited as follows:

The term "labor dispute" includes any controversy concerning terms or conditions of employment, or concerning the association or representation of persons in negotiating, fixing, maintaining, changing, or seeking to arrange terms or conditions of employment, or concerning employment relations or any other controversy arising out of the respective interests of employer and employee, regardless of whether or not the disputants stand in the proximate relation of employer and employee.

It was held that the lower court was bound by the ruling of the supreme court of the State which held "a controversy indistinguishable from that here disclosed to be a labor dispute within the meaning of the statute."

In the opinion of the Supreme Court—

A Wisconsin court could not enjoin acts declared by the statute to be lawful; and the District Court has no greater power to do so. The error into which the court fell as to the existence of a labor dispute led it into the further error of issuing an order so sweeping as to enjoin acts made lawful by the State statute. The decree forbade all picketing, all advertising that the respondent was unfair to organized labor and all persuasion and solicitation of customers or prospective customers not to trade with respondent.

The Court also was of the opinion that the district court erred in granting an injunction in the absence of findings which the Federal anti-injunction law (Norris-LaGuardia Act) makes prerequisites to the exercise of jurisdiction. A section of this act defining a labor dispute was quoted, and the Court pointed out that the definition does not differ materially from that given in the State code, and "the facts of the instant case bring it within both." The court of appeals also erred in holding that the declaration of policy contained in the two acts placed the case outside the scope of the laws, since the company could not "accede to the petitioners' demands upon it without disregarding the policy declared by the statutes." Regarding this, the Court further said:

We find nothing in the declarations of policy which narrows the definition of a labor dispute as found in the statutes. The rights of the parties and the jurisdiction of the Federal courts are to be determined according to the express provisions applicable to labor disputes as so defined.

Minority Opinion

Mr. Justice Butler presented a dissenting opinion, concurred in by Mr. Justice McReynolds. The opinion of the dissenting Justices related briefly to the circumstantial basis of the action. In regard to the refusal of the company to meet the demand of the union, Mr. Justice Butler said that "every one who respects the lawful exercise of

individual liberty of action must regard the attitude of the respondent as being above criticism and beyond reproach." The dissenting opinion observed that the majority court had ignored the declared policy of Congress "that the worker should be free to decline association with his fellows, that he should have full freedom in that respect and in the designation of representatives and especially that he should be free from interference, restraint, or coercion of employers."

To say that a "labor dispute" is created by the mere refusal of respondent to comply with the demand that it compel its employees to designate the union as their representative unmistakably subverts this policy and consequently puts a construction upon the words contrary to the manifest congressional intent.

Since there was a lack of connection between the parties, the dissenters considered "the union was an intruder into the affairs of the employer and its employees." Mr. Justice Butler held that the union had the right to try to persuade but, failing, then "its right under the law in any manner to intermeddle came to an end."

The phrase "labor dispute," the opinion said, "is the basic element of the Act."

For unless there was such a dispute—that is to say, a "controversy"—the act does not even purport to limit the district court's jurisdiction in equity. The phrase must receive a sensible construction in harmony with the congressional intent and policy. There can be no dispute without disputants. Between whom was there a dispute here? There was none between the union and respondent's employees; for the latter were considered by the union mere pawns to be moved according to the arbitrary will of the union. There was none between respondent and its employees; for they were in full accord. And finally there was none between the union and respondent; for it would be utterly unreasonable to suppose Congress intended that the refusal of a conscientious employer to transgress the express policy of the law should constitute a "labor dispute" having the effect of bringing to naught not only the policy of the law, but the obligation of a court of equity to respect it and to restrain a continuing and destructive assault upon the property rights of the employer, as to which no adequate remedy at law existed.

The dissenting opinion then referred to the unwillingness on the part of the employees to have any connection with the union. "If that is a 'labor dispute' destructive of the historical power of equity to intervene," the opinion remarked—

then the Norris-LaGuardia Act attempts to legalize an arbitrary and alien state of affairs wholly at variance with those principles of constitutional liberty by which the exercise of despotic power hitherto has been curbed. And nothing is plainer under our decisions than that if the act does that, its effect will be to deprive the respondent of its property and business without due process of law, in contravention of the Fifth Amendment."

The dissenting Justices then were of the opinion that the Court of Appeals rightly held that there was no labor dispute within the meaning of the Federal act, and—

that the union's coercive attack upon respondent was unlawful under State law and in violation of the policy declared by the Federal statute, and was properly

enjoined; and that, there being no "labor dispute" as defined by that act, its provisions as to allegations, proof, and findings do not apply.

Mr. Justice Cardozo and Mr. Justice Reed took no part in the consideration or decision in this case.



STATE LAW REGULATING MOTORTRUCKS UPHELD

THE United States Supreme Court, on February 14, 1938, upheld a statute of South Carolina regulating the size and weight of motortrucks (*South Carolina State Highway Department v. Barnwell Brothers, Inc.* 58 Sup. Ct. 510).

The statute (Acts of 1933, No. 259) prohibited the use on the State highways of motortrucks and "semitrailer motortrucks" of width exceeding 90 inches and of weight (including load) exceeding 20,000 pounds.

An action was brought in the United States District Court for the Eastern District of South Carolina by certain truckers and interstate shippers against several State officials, to enjoin them from enforcing the act, on the ground that the State regulation had been superseded by the Federal Motor Carrier Act. It was also contended that the statute infringed the due-process clause of the fourteenth amendment and imposed an unconstitutional burden on interstate commerce. The principal question for determination, therefore, was whether the State regulations interfered with the Federal powers over interstate commerce.

Mr. Justice Stone in delivering the opinion took occasion to review the decision of the lower court. The district court based its opinion on a former decision of the State supreme court and ruled that the State statute had not been superseded by the Federal Motor Carrier Act, and that the provisions, being an exercise of the State's power to regulate the use of the highways so as to protect them from injury and to insure their safe and economical use, did not violate the fourteenth amendment. The court held, however, that the weight and width restrictions placed an unlawful burden on interstate motor traffic passing over specified highways of the State. It accordingly enjoined the enforcement of the weight provision against interstate motor carriers on the specified highways, and also the width limitation of 90 inches, except those vehicles exceeding 96 inches.

The lower court, in holding that the statute unreasonably burdened interstate commerce, did so on the basis of the findings that there was a large amount of interstate motortruck traffic in the southeastern part of the United States that would normally pass over the highways of South Carolina but which would be barred from the State by the restrictive legislation. Viewed in the light of the effect upon inter-

state commerce, the court concluded that these restrictions were unreasonable.

In reaching these conclusions, and at the same time holding that the State act did not infringe the fourteenth amendment, the lower court proceeded upon the assumption that the commerce clause imposed upon the State "regulations to secure the safe and economical use of highways, a standard of reasonableness which is more exacting when applied to the interstate traffic than that required by the fourteenth amendment as to all traffic." The court also assumed that a proper standard of weight and width for motor vehicles was an appropriate State regulation when applied to traffic within the State, but "may be prohibited because of its effect on interstate commerce, although the conditions attending the two classes of traffic with respect to safety and protection of the highways are the same."

Mr. Justice Stone, in delivering the opinion of the United States Supreme Court, called attention to the fact that South Carolina had built its highways, owned and maintained them, and had received Federal aid for the construction and improvement of such highways. But, as Mr. Justice Stone pointed out, the district court held that "Congress has not undertaken to regulate the weight and size of motor vehicles in interstate motor traffic, and has left undisturbed whatever authority in that regard the States have retained under the Constitution."

The Court again pointed out that "the commerce clause, by its own force, prohibits discrimination against interstate commerce, whatever its form or method," and further that the decisions of the Supreme Court "have recognized that there is scope for its like operation when State legislation, nominally of local concern, is in point of fact aimed at interstate commerce, or by its necessary operation is a means of gaining a local benefit by throwing the attendant burdens on those without the State." Mr. Justice Stone, after citing a number of former decisions and authorities, observed that the commerce clause has also been considered as having set its own limitation upon the control of interstate railroads by the State, "so as to preclude the subordination of the efficiency and convenience of interstate traffic to local service requirements."

"But," said the Court, "the present case affords no occasion for saying that the bare possession of power by Congress to regulate the interstate traffic forces the States to conform to standards which Congress might, but has not adopted, or curtails their power to take measures to insure the safety and conservation of their highways which may be applied to like traffic moving intrastate."

The Court pointed out that it has always been recognized that a State can build transportation facilities, and in the absence of congressional action "their regulation is peculiarly within its competence

even though interstate commerce is materially affected." Without action by Congress, State regulation of intrastate carriers has been upheld "regardless of its effect upon interstate commerce."

The Court, speaking through Mr. Justice Stone, alluded to the fact that Congress, by virtue of its constitutional control over interstate commerce, may determine whether the burdens imposed on it by a State law, otherwise permissible, are too great and may curtail to some extent the State's regulatory power. "But," the Court said, "that is a legislative, not a judicial function, to be performed in the light of the congressional judgment of what is appropriate regulation of interstate commerce, and the extent to which in that field State power and local interests should be required to yield to the national authority and interest." In the absence of such legislation, it was the Court's opinion that the judicial function stops with the inquiry whether the State legislature in adopting regulations has acted within its province, and whether the means of regulation chosen were reasonably adapted to the end sought.

In holding the South Carolina law valid, the Supreme Court said that the regulatory measures taken by the State were within its legislative power, and further that "they do not infringe the fourteenth amendment, and the resulting burden on interstate commerce is not forbidden."

Safety and Health

COMPENSATION FOR SILICOSIS IN FOREIGN COUNTRIES

SILICOSIS has been a problem of growing importance both from the standpoint of compensation and because of its medical aspects. The insidious nature of the disease, with its usual slow development, is responsible for some of the difficulties presented in providing compensation. The problem has been a matter of concern to the International Labor Office for many years, resolutions calling for compensation for silicosis having been presented by the International Stone Workers' Secretariat to the Office as far back as 1921. In 1925 this organization requested that pneumoconiosis should be added to the International Schedule of Occupational Diseases for Compensation, and this request was strongly endorsed by other international organizations of workers. An inquiry was accordingly instituted by the International Labor Office among a number of experts with special reference to the radiological diagnosis of the disease, the replies of the experts being submitted to the Correspondence Committee on Industrial Hygiene at its 1926 meeting. The medical specialists did not consider it advisable at that time to recommend the inclusion of silicosis in the International Schedule, in view of the fact that the problem was complex and difficult and a sufficiently definite scientific basis was lacking. It was recommended, however, that the study should be continued, particularly with reference to the early diagnosis of the disease and the assessment of the degree of incapacity for work. Other organizations took up the question and an International Conference on Silicosis, with specialists from eight countries participating, was held at Johannesburg, South Africa, in 1930. The questions of the medical aspects of silicosis, preventive measures, and compensation were on the agenda of the conference. In adopting its final report, the conference made recommendations as guides for future research, covering preventive measures; standardization of radiological technique and terminology; scientific research in regard to dust; medical research on the cause, pathology, and diagnosis of silicosis; and the collection and distribution of new data and of statistics. Suggestions

relative to the prevention of silicosis have been made from 1931 onward by the Governing Body of the Office to the various member governments. In 1934 the agenda of the International Labor Conference proposed the partial revision of the convention concerning workmen's compensation for industrial diseases, with a view to the inclusion of silicosis. This revision provided that in industries or processes recognized by national law or regulations as involving exposure to the risk of silicosis, compensation should be paid for silicosis, with or without pulmonary tuberculosis, provided that silicosis is an essential factor in causing the resultant incapacity or death.

A recent survey by the International Labor Office¹ of the compensation legislation at present in force in various countries showed that there are three general systems under which silicosis is covered, i. e.: special legislation; the general workmen's compensation law either under the schedule system, or one or several special schemes; or blanket coverage. Compensation for silicosis is provided in Australia, Canada, New Zealand, Great Britain and most of the countries of Europe, Mexico, several South American countries, Japan, and several States in this country. In order to illustrate the different types of systems, an analysis is given in the report of the system in the Union of South Africa (special legislation), Great Britain (special schemes), and Germany (schedule). The outline followed in the analysis in order to facilitate comparison is as follows: Legislation, scope of legislation, right to compensation, certification of the disease, benefits, review, procedure for settling disputes, administration of compensation, prevention.

Union of South Africa

Compensation for silicosis is provided under a law consolidating and amending the laws relating to miners' phthisis passed in 1925 with subsequent amendments and administrative regulations. The legislation applies only to scheduled gold mines in the Witwatersrand and to gazetted gold mines outside that area which produce silicosis but to a lesser extent. The mines covered are designated by the Minister of Mines, and the persons covered are those employed underground, or working about rock crushers or in a sample-crushing room or assay office. Compensation is granted for cases of silicosis with or without tuberculosis, or tuberculosis without silicosis.

Three stages of silicosis are recognized by the acts—ante-primary, primary, and secondary, based on the degree of incapacity or the presence of tuberculosis. In order to receive compensation for silicosis with or without tuberculosis, a miner must have worked underground in a scheduled mine for 5 years in the aggregate and, except in

¹ International Labor Office. *Workmen's Compensation for Silicosis in the Union of South Africa, Great Britain, and Germany.* Geneva, 1937.

designated territories, the claim must be presented within 5 years of leaving employment. Native workers have the same rights as other miners. In cases of tuberculosis the miner must have been employed underground for at least 12 months in the aggregate and the diagnosis of tuberculosis must be established within 12 months after leaving underground employment. The prescribed period for native laborers is 1 month's underground work and certification of the disease within 6 months of cessation of underground work. Compensation in case of death is granted to dependents of miners or native laborers when death is due to silicosis or when silicosis is present as a contributing or predisposing factor. Compensation is also paid for deaths from tuberculosis.

The law provides in the case of disease or death for a cash benefit, payable either as a lump sum or as a monthly payment varying according to the stage of development of the disease and also to the category of the beneficiaries (earnings, dependents, etc., of miners or native laborers). Funeral benefits not to exceed £25 may be granted and special grants may be made to a deceased miner's dependents.

The Miners' Phthisis Medical Bureau certifies cases to the Miners' Phthisis Board or the Director of Native Labor, according as to whether the patient is a miner or native laborer. The decisions of the Board upon any question of fact are final, but in the case of a grant or refusal of benefit or other function of the Board or the Director, appeal may be made to the Supreme Court upon the sole ground of illegality or gross irregularity. However, an appeal may be lodged with the Medical Board of Appeal by any miner (but not a native laborer) who is dissatisfied on medical grounds with the certificate granted by the Medical Bureau.

The system of insurance is based on the collective liability of employers, except in the case of native workers employed in scheduled mines, in which case the individual employer is responsible for the compensation. Employers operating gazetted mines, however, are collectively responsible for the compensation of native laborers. Four funds are maintained for the handling of claims and the expenses of sanatorium care.

Preventive measures include medical examinations on admission and periodically; assistance in the establishment and maintenance of sanatoriums for the care of silicotic patients; collection and compilation of statistics and information relating to the incidence and cause of silicosis and tuberculosis; and investigation of dust-prevention methods and working conditions affecting health.

Great Britain

Compensation for silicosis in Great Britain is provided by various "schemes" issued under the Workmen's Compensation Act, 1925, as

amended in 1930. The schemes in force in 1937 were in the metal grinding, refractories, and sandstone industries, and a group of "various industries," which included mining and quarrying of silica rock, metalliferous and coal mining, and processes in potteries, foundries and metal works, sand blasting, etc., where there is exposure to dust containing silica.

Compensation is payable for silicosis defined as fibrosis of the lungs due to silica dust, and for silicosis combined with tuberculosis, but not for tuberculosis alone. Compensation is provided for compulsory suspension from employment, total disablement, and death. If the worker has been employed for not less than 5 years in one of the industries or processes covered, the disease is considered to be due to his employment; in other cases the burden of proof that the disease is due to the employment is on the workman or dependents. In order to receive compensation the workman must, within 3 years prior to the date of injury, have been employed in an industry or process covered by the scheme. A workman who is certified as totally disabled or suspended from employment is obligated not to reengage in processes involving exposure to the risk of silicosis except so far as he may be allowed by certificates of the Medical Board. The date of suspension or of total disablement or death is considered as the date of injury. The 3-year limit does not apply to the refractories industries if the workman can prove that since leaving that employment he has not been employed in any of the industries covered by the other schemes. Right to compensation is forfeited when a workman leaves the sandstone industry, unless he can prove that since his last employment he has not been employed in any of the occupations covered by the other schemes.

In general, compensation can be claimed only on a certificate of the Silicosis Medical Board, but in the metal grinding and the "various industries" schemes the certificate is not required if the employer agrees that he is liable for the compensation payment. There is no charge to workmen for certificates issued as a result of an initial or periodic examination, but when the workman applies for a certificate a fee is charged the workman or his dependents, part of which is returned if the claim is allowed. The certificate of death is furnished by the Medical Board only after a post-mortem examination of the deceased workman, unless he was receiving payments under the compensation scheme at the time of death and the Board considers such examination unnecessary.

Benefits are substantially the same as the payments for disability and death from accidents and other industrial diseases. In case of suspension from work at an early stage of the disease without impairment of general physical capacity, benefits are paid for varying periods in the different industries if the workman is unable to obtain employ-

ment in other work at a rate of pay not less than he was earning in the prohibited employment.

There is provision for the review of cases from time to time because of change of circumstances, on the application of the beneficiary, the employer, or the compensation fund. The procedure for the settlement of disputes varies in the different schemes, the dispute being submitted to the Medical Board, the Secretary of State or a single arbitrator appointed by him, or a joint committee, according to the law governing the particular scheme.

Compensation is based on the principle of the employers' liability. In the metal grinding and various industries schemes the individual employer is liable for the compensation, while in the refractories industries and the sandstone industry there is a general compensation fund to which all employers are required to subscribe.

A medical board consisting of specially qualified medical practitioners appointed by the Secretary of State, under a chief medical officer, has charge of the medical arrangements under the acts. The members of the Board carry out the entrance and periodical medical examinations and issue certificates and reports required under the compensation schemes. The Board is financed from a special medical expense fund which is maintained by an annual State contribution and fees payable mainly by employers but in part by workmen and dependents applying for an examination.

Preventive measures include requirements under other laws for the prevention of dust, but the compensation schemes also provide for preventive and prophylactic measures. Through the physical examinations, both entrance and periodic, the employment of persons of defective physique who would be especially likely to contract silicosis is prevented, the transfer of men found to be suffering from tuberculosis or silicosis in its early stages to less dusty occupations is facilitated, and the spread of tuberculosis among other workers prevented.

Germany

Silicosis is compensated under the third Order of December 16, 1936, relative to the extension of accident insurance to cover occupational diseases. The schedule appended to the order provides for compensation for serious pneumoconiosis (silicosis) and pneumoconiosis (silicosis) occurring in conjunction with pulmonary tuberculosis, when the disease is of a serious nature and the pneumoconiotic lesions are the essential cause of the active and progressive development of tuberculosis.

Notification of the disease, by both the employer and the physician making the diagnosis, to the accident association responsible for the insurance, is required. Notification is also compulsory whenever the disease is discovered by a doctor in charge of a case, or one who is

called in to certify death or to make an autopsy. The notification is sent by the accident association to the district factory inspector and the Government medical inspector, the latter being required to examine the case. This includes examination of the sick worker at the expense of the accident association. If the occupational origin of the disease is not clear, a special inquiry is carried out.

Benefits which are of two types—benefits in kind and cash payments—are payable from the date of the outbreak of the disease; that is, the date of the first medical treatment. Benefits in kind cover medical treatment and vocational rehabilitation either to insure recovery or improvement of working capacity in the occupation involved or in a new occupation. Cash benefits, amounting to half the basic wage, are paid for 45 days by the sickness fund, beginning with the fourth day of sickness or with the day on which incapacity for work commences if this is later. The accident association pays the benefit from the forty-sixth day through the twenty-sixth week. The allowance is suspended during maintenance in hospital, but a family allowance may be paid to dependents. If invalidity continues, a pension for incapacity is granted. For total incapacity it amounts to two-thirds of annual earnings, and for partial incapacity to a proportion of the full pension corresponding to the extent of loss of earning capacity. In case of death, pensions are paid to survivors which may not exceed in all two-thirds of the annual earnings. Funeral expenses are equal to one-fifteenth of the annual earnings, with a maximum of 15 marks.

Provision is made for review of the pension allowances when an essential change occurs in the condition of beneficiaries. In cases in which there is disagreement as to whether a disease is entirely or partly occupational, an appeal may be made to the Federal Insurance Office.

The accident associations are financed by contributions of members assessed annually by the Federal Insurance Office. The assessment is based on the wages paid to members during the preceding financial year. Supplementary contributions may be imposed or rebates allowed in accordance with the number of cases which have occurred in an owner's establishment. Such an owner has the right of appeal within 60 days to the superior insurance office. Regulations for the prevention of occupational diseases contained in the Federal Insurance Code are enforced by the accident associations. The associations issue the necessary regulations regarding arrangements to be made and rules to be issued by members with a view to the prevention of occupational diseases in their establishments and the precautions to be observed by insured persons.

Industrial Disputes

TREND OF STRIKES

THE NUMBER of strikes in February 1938 was about the same as in January, according to preliminary estimates based on the limited data available as this report goes to press. The number of workers involved was about 28 percent greater than in January, however, and the number of man-days of idleness because of strikes approximately 30 percent greater. The increase in number of workers involved and man-days idle was due in part to (1) a stoppage of hosiery workers in Pennsylvania, New York, and New Jersey beginning February 28 and (2) a dispute at the plant of the Celanese Corporation of America in Cumberland, Md., which kept a large number of workers idle for a short time.

*Trend of Strikes, 1933 to February 1938*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
<i>1936</i>								
January.....	84	167	251	149	102	32,406	59,153	635,519
February.....	102	148	250	131	119	63,056	89,735	748,491
March.....	119	185	304	174	130	75,191	122,162	1,331,162
April.....	130	183	313	179	134	65,379	95,526	699,900
May.....	134	206	340	219	121	72,824	123,030	1,019,171
June.....	121	188	309	158	151	63,429	133,531	1,327,678
July.....	151	173	324	197	127	38,017	125,281	1,105,480
August.....	127	228	355	210	145	68,752	118,268	911,216
September.....	145	234	379	236	143	65,994	130,875	1,063,100
October.....	143	192	335	219	116	100,845	148,570	1,053,878
November.....	116	136	252	126	126	70,116	157,007	1,940,628
December.....	126	132	258	158	100	72,639	184,859	2,065,733
<i>1937</i>								
January.....	100	171	271	132	139	108,641	214,288	2,720,441
February.....	139	211	350	204	146	112,468	239,482	1,521,063
March.....	146	609	755	506	249	289,753	357,604	3,293,506
April.....	249	527	776	509	267	220,388	392,825	3,368,910
May.....	267	597	864	540	324	322,141	440,831	2,943,351
June.....	324	601	925	575	350	278,837	472,270	4,985,032
July.....	350	454	804	518	286	142,796	352,274	3,005,989
August.....	286	432	718	440	278	138,811	234,376	2,229,774
September.....	278	348	626	379	247	84,946	155,058	1,404,154
October.....	247	303	550	362	188	64,618	120,282	1,150,130
November.....	188	235	423	248	175	67,130	114,886	935,837
December.....	175	125	300	194	106	21,760	58,184	634,363
<i>1938</i>								
January.....	106	150	256	156	100	35,000	50,000	450,000
February.....	100	150	250	150	100	45,000	70,000	590,000

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 in January and February 1938 were somewhat greater than in December but considerably smaller than in any other month of 1937. As compared with February a year ago, February 1938 shows decreases of 29 percent in number of strikes, 60 percent in number of workers involved, and 61 percent in man-days of idleness.

As stated above, the data given for January and February are preliminary estimates. 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 1937¹

THERE were fewer strikes in December 1937 than in any other month of the year. Detailed information has been obtained on 125 strikes which began in December, involving a little less than 22,000 workers. The following analysis is based on these strikes plus 175 which continued into December from preceding months, making a total of 300 strikes in progress during the month. About 58,000 workers were involved in these disputes and there were 634,000 man-days of idleness during December as a result.

Of the 125 strikes which began during the month, 38 were in retail and wholesale trade, 18 were in the domestic and personal service industries (principally laundries, hotels, and restaurants), 13 were in the transportation industries, and 10 in building and construction. The strikes in these industries accounted for more than 60 percent of the total. Only 7 of the 125 strikes were in the textile and clothing industries—an unusually small proportion. Because of the 27 strikes in textiles which continued into December from preceding months, however, there were more man-days of idleness (99,266) in the textile industries than in any other group. Other industry groups affected by a comparatively large number of man-days idle during December were domestic and personal service (81,504), trade (65,773), transportation and communication (58,617), and the lumber industries (58,315).

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

TABLE 1.—*Strikes in December 1937, by Industry*

Industry	Beginning in December		In progress during December		Man-days idle during December
	Number	Workers involved	Number	Workers involved	
All industries.....	125	21,760	300	58,184	634,383
Iron and steel and their products, not including machinery.....	2	327	7	1,150	16,182
Blast furnaces, steel works, and rolling mills.....			1	311	5,598
Cast-iron pipe and fittings.....			1	110	990
Hardware.....			2	308	3,160
Steam and hot-water heating apparatus and steam fittings.....	1	140	1	140	2,100
Stoves.....	1	187	1	187	1,870
Structural and ornamental metal work.....			1	94	2,444
Machinery, not including transportation equipment.....	1	271	8	1,988	24,533
Electrical machinery, apparatus, and supplies.....			3	1,450	21,400
Foundry and machine-shop products.....	1	271	2	361	976
Radios and phonographs.....			1	17	17
Other.....			2	160	2,140
Transportation equipment.....			5	3,929	34,724
Automobiles, bodies and parts.....			5	3,929	34,724
Nonferrous metals and their products.....	1	62	4	161	1,939
Brass, bronze, and copper products.....			2	63	569
Jewelry.....			1	36	936
Other.....	1	62	1	62	434
Lumber and allied products.....	3	133	15	4,786	58,315
Furniture.....	2	53	6	900	2,306
Millwork and planing.....			1	55	1,265
Sawmills and logging camps.....	1	80	6	3,610	50,261
Other.....			2	221	4,483
Stone, clay, and glass products.....	2	236	9	2,089	33,594
Brick, tile, and terra cotta.....	1	76	2	226	4,280
Cement.....			2	515	13,370
Glass.....			2	885	8,815
Marble, granite, slate, and other products.....			1	175	4,025
Pottery.....	1	160	1	160	160
Other.....			1	128	2,944
Textiles and their products.....	7	1,314	34	6,911	99,266
Fabrics:					
Cotton goods.....			4	1,425	15,341
Dyeing and finishing textiles.....	1	140	3	299	4,451
Silk and rayon goods.....	2	262	4	394	3,780
Woolen and worsted goods.....	1	500	3	1,247	23,101
Other.....			1	70	840
Wearing apparel:					
Clothing, women's.....	2	112	9	930	10,455
Hats, caps, and millinery.....			2	617	6,957
Shirts and collars.....			1	190	2,470
Hosiery.....	1	300	3	782	15,586
Knit goods.....			1	28	728
Other.....			3	929	15,557
Leather and its manufactures.....	4	506	8	1,132	17,694
Boots and shoes.....	4	506	5	536	2,813
Leather.....			2	505	12,515
Other leather goods.....			1	91	2,366
Food and kindred products.....	8	829	20	2,496	27,456
Baking.....	1	20	4	306	5,226
Beverages.....	1	8	3	42	624
Canning and preserving.....	2	330	6	772	9,496
Confectionery.....	2	319	2	319	5,017
Flour and grain mills.....			1	115	2,990
Slaughtering and meat packing.....	2	152	4	942	4,103
Tobacco manufactures.....	1	6	2	646	11,532
Cigars.....	1	6	2	646	11,532
Paper and printing.....	6	479	14	1,818	23,072
Boxes, paper.....			1	371	9,646
Paper and pulp.....			2	123	1,254
Printing and publishing:					
Book and job.....	1	8	4	580	5,935
Newspapers and periodicals.....	2	22	3	287	3,792
Other.....	3	449	4	457	2,445

TABLE 1.—*Strikes in December 1937, by Industry—Continued*

Industry	Beginning in December		In progress during December		Man-days idle during December
	Number	Workers involved	Number	Workers involved	
Chemicals and allied products	1	227	5	2,229	41,381
Paint and varnishes.....	1	227	1	227	681
Petroleum refining.....			2	1,232	23,480
Other.....			2	770	17,220
Rubber products	1	420	2	570	1,860
Other rubber goods.....	1	420	2	570	1,860
Miscellaneous manufacturing	2	158	14	858	9,309
Electric light, power, and manufactured gas.....			2	78	1,354
Broom and brush.....			1	61	122
Furriers and fur factories.....			2	65	1,345
Other.....	2	158	9	654	6,488
Extraction of minerals	2	462	6	1,050	12,986
Coal mining, bituminous.....	2	462	5	1,014	12,158
Crude-petroleum producing.....			1	36	828
Transportation and communication	13	7,253	26	10,064	58,617
Water transportation.....	5	1,203	12	2,485	21,377
Motortruck transportation.....	3	762	6	905	8,386
Motorbus transportation.....			2	1,312	1,504
Taxicabs and miscellaneous.....	5	5,288	6	5,362	27,350
Trade	38	5,991	64	8,122	65,773
Wholesale.....	6	1,209	12	1,570	9,536
Retail.....	32	4,782	52	6,552	56,237
Domestic and personal service	18	918	31	5,547	81,504
Hotels, restaurants, and boarding houses.....	6	236	14	2,025	24,828
Personal service, barbers, beauty parlors.....	1	43	1	43	258
Laundries.....	8	584	12	3,402	55,869
Dyeing, cleaning, and pressing.....	2	35	3	57	409
Elevator and maintenance workers (when not attached to specific industry).....	1	20	1	20	140
Professional service			1	12	24
Professional.....			1	12	24
Building and construction	10	674	16	972	7,137
Buildings, exclusive of P. W. A.....	6	445	11	713	5,749
All other construction (bridges, docks, etc., and P. W. A. buildings).....	4	229	5	259	1,388
Agriculture and fishing	1	850	2	907	1,757
Agriculture.....	1	850	2	907	1,757
W. P. A., relief, and resettlement projects	1	456	1	456	2,738
Other nonmanufacturing industries	3	188	6	291	2,992

There were more new strikes (32) in New York in December than in any three other States. There were 14 in Pennsylvania, 10 in California, 7 in Massachusetts, and 6 each in Illinois and New Jersey. The most man-days of idleness were in New York (135,311), Pennsylvania (58,017), Oregon (40,077), Missouri (36,107), Texas (30,992), and California (27,977). The man-days idle in Missouri and Texas resulted from strikes which began in earlier months. In Missouri the largest strikes were those against the Ford Motor Co. in Kansas City and St. Louis. In Texas the largest strike was at the Shell Petroleum Corporation refinery at Deer Park.

Of the 300 strikes in progress during December, 8 extended into two or more States. The largest of these were the short strike of Greyhound bus drivers, extending into 16 States, which was settled December 1, and the strike of laundry workers in Cincinnati, Ohio, and northern Kentucky, which began in September and was settled just before Christmas.

TABLE 2.—*Strikes in December 1937 by States*

State	Beginning in December		In progress during December		Man-days idle during December
	Number	Workers involved	Number	Workers involved	
All States.....	125	21,760	300	58,184	634,363
Alabama.....	4	408	7	1,048	16,827
California.....	10	1,495	23	2,892	27,972
Colorado.....	1	13	1	500	1,950
Connecticut.....	2	27	3	534	4,715
District of Columbia.....	2	313	3	43	630
Florida.....	2	769	3	382	3,971
Illinois.....	6	314	9	1,576	19,353
Indiana.....	4	287	11	4,429	24,912
Iowa.....	4	20	5	317	2,682
Kentucky.....	1	20	2	95	605
Louisiana.....			1	145	1,740
Maine.....	1	45	1	45	180
Maryland.....			5	686	3,519
Massachusetts.....	7	1,046	14	1,843	20,032
Michigan.....	1	17	4	1,112	1,738
Minnesota.....	5	408	7	1,420	20,150
Mississippi.....			1	61	183
Missouri.....			5	3,070	36,107
Montana.....	2	486	3	518	3,772
New Hampshire.....	1	150	1	150	600
New Jersey.....	6	455	17	1,134	10,824
New York.....	32	10,755	78	15,121	135,311
North Carolina.....	1	300	3	1,164	8,158
Ohio.....	4	541	8	1,058	2,946
Oklahoma.....			2	130	3,272
Oregon.....	1	19	5	3,698	40,077
Pennsylvania.....	14	1,331	32	4,780	58,017
Rhode Island.....	3	276	5	812	13,809
South Carolina.....			1	175	4,025
Tennessee.....	1	62	6	1,092	23,308
Texas.....			6	1,652	30,992
Utah.....	1	19	1	19	152
Virginia.....	2	203	4	806	8,457
Washington.....	4	448	6	880	10,601
West Virginia.....			1	70	1,820
Wisconsin.....	2	98	8	924	15,360
Interstate.....	3	1,455	8	6,803	75,591

About 22 percent of the 125 strikes beginning in December were small—involving from 6 to 20 workers each. Thirty-nine percent involved from 20 to 100 workers each, and 33 percent involved 100 to 500 each. Only 7 strikes involved as many as 500 workers each. The average number of workers in the 125 strikes was 174.

TABLE 3.—*Strikes Beginning in December 1937, 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	10,000 and over
All industries.....	125	28	49	41	5	2	-----	-----
<i>Manufacturing</i>								
Iron and steel and their products, not including machinery.....	2	-----	-----	2	-----	-----	-----	-----
Machinery, not including transportation equipment.....	1	-----	-----	1	-----	-----	-----	-----
Nonferrous metals and their products.....	1	-----	1	-----	-----	-----	-----	-----
Lumber and allied products.....	3	1	2	-----	-----	-----	-----	-----
Stone, clay, and glass products.....	2	-----	1	1	-----	-----	-----	-----
Textiles and their products.....	7	-----	3	3	1	-----	-----	-----
Leather and its manufactures.....	4	1	1	2	-----	-----	-----	-----
Food and kindred products.....	8	1	4	3	-----	-----	-----	-----
Tobacco manufactures.....	1	1	-----	-----	-----	-----	-----	-----
Paper and printing.....	6	3	1	2	-----	-----	-----	-----
Chemicals and allied products.....	1	-----	-----	1	-----	-----	-----	-----
Rubber products.....	1	-----	-----	1	-----	-----	-----	-----
Miscellaneous manufactures.....	2	1	-----	1	-----	-----	-----	-----
<i>Nonmanufacturing</i>								
Extraction of minerals.....	2	-----	-----	2	-----	-----	-----	-----
Transportation and communication.....	13	-----	6	4	2	1	-----	-----
Trade.....	38	12	13	11	1	1	-----	-----
Domestic and personal service.....	18	5	9	4	-----	-----	-----	-----
Building and construction.....	10	2	6	2	-----	-----	-----	-----
Agriculture and fishing.....	1	-----	-----	-----	1	-----	-----	-----
W. P. A., relief, and resettlement projects.....	1	-----	-----	1	-----	-----	-----	-----
Other nonmanufacturing industries.....	3	1	2	-----	-----	-----	-----	-----

Union-organization matters were the major issues in 56 percent of the strikes beginning in December. These strikes included almost 69 percent of the total workers involved in all strikes. About 22 percent of the strikes, involving 15 percent of the workers, were principally over wage-and-hour issues. The proportions of strikes and workers concerned with miscellaneous issues (sympathy, union rivalry, jurisdiction, and miscellaneous grievances) were about the same as in the wage-and-hour group. (See table 4.)

TABLE 4.—*Major Issues Involved in Strikes Beginning in December 1937*

Major issues	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues.....	125	100.0	21,760	100.0
Wages and hours.....	28	22.4	3,345	15.4
Wage increase.....	12	9.6	1,328	6.1
Wage decrease.....	8	6.4	1,487	6.9
Wage increase, hour decrease.....	6	4.8	322	1.5
Wage decrease, hour increase.....	1	.8	8	(1)
Hour decrease.....	1	.8	200	.9
Union organization.....	70	56.0	14,954	68.7
Recognition.....	10	8.0	621	2.9
Recognition and wages.....	11	8.8	362	1.7
Recognition and hours.....	1	.8	11	(1)
Recognition, wages, and hours.....	28	22.4	11,445	52.5
Closed shop.....	12	9.6	1,500	6.9
Discrimination.....	3	2.4	350	1.6
Other.....	5	4.0	665	3.1
Miscellaneous.....	27	21.6	3,461	15.9
Sympathy.....	2	1.6	925	4.3
Rival unions or factions.....	4	3.2	515	2.4
Jurisdiction.....	7	5.6	675	3.1
Other.....	14	11.2	1,346	6.1

¹ Less than 1/10 of 1 percent.

Of the 300 strikes in progress during December, 194 (65 percent) were terminated during the month with an average duration of 28 calendar days. About one-third of these 194 strikes lasted less than a week, 36 percent lasted from a week to a month, and 31 percent had been in progress for a full month or more. Thirteen strikes had been in progress for 3 months or more (table 5). Practically all of these were small strikes against individual concerns.

TABLE 5.—Duration of Strikes Ending in December 1937

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	194	64	35	34	32	16	13
<i>Manufacturing</i>							
Iron and steel and their products, not including machinery	3				1	2	
Machinery, not including transportation equipment	6		1			1	2
Transportation equipment	2		1			1	
Nonferrous metals and their products	2		1	1			
Lumber and allied products	6	1	1	2	1	1	
Stone, clay, and glass products	4	1	1	2			
Textiles and their products	18	3	2	4	5	1	3
Leather and its manufactures	3	3					
Food and kindred products	15	6	2	3	2	1	1
Tobacco manufactures	1	1					
Paper and printing	10	3	1	1	3		2
Chemicals and allied products	3				2		1
Rubber products	2	2					
Miscellaneous manufactures	10	1	1	1	4	3	
<i>Nonmanufacturing</i>							
Extraction of minerals	3	2			1		
Transportation and communication	20	7	5	4	1	3	
Trade	42	16	12	7	4	2	1
Domestic and personal service	24	11	4	3	3	1	2
Professional service	1			1			
Building and construction	12	4	2	4	1		1
Agriculture and fishing	2	1		1			
W. P. A., relief, and resettlement projects	1		1				
Other nonmanufacturing industries	4	2			2		

The data in table 6 show how the 194 strikes were settled or terminated. About 81 percent of these strikes were terminated by some sort of formal settlements to the gain or loss of the workers involved, while 19 percent of the strikes were terminated without settlements. In the latter the employees returned to work and abandoned the fight or they lost their jobs entirely through replacement or discontinuation of the employers' business. Approximately 37 percent of the strikes were settled directly through negotiations between the employers and union representatives, and in 41 percent of the strikes, Government conciliators or labor boards assisted the parties in negotiating settlements.

TABLE 6.—Methods of Negotiating Settlements of Strikes Ending in December 1937

Negotiations toward settlements carried on by—	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total.....	194	100.0	39,718	100.0
Employers and workers directly.....	1	.5	32	.1
Employers and representatives of organized workers directly.....	71	36.6	15,374	38.7
Government conciliators or labor boards.....	79	40.7	13,130	33.1
Private conciliators or arbitrators.....	7	3.6	3,023	7.6
Terminated without formal settlement.....	36	18.6	8,159	20.5

About 37 percent of the strikes ending in December were compromised, 35 percent resulted in substantial gains to the workers, and 22 percent brought little or no gains to the workers. The proportion of workers in each of these three groups corresponded very closely to the proportion of total strikes resulting in the various settlements. (See table 7.)

TABLE 7.—Results of Strikes Ending in December 1937

Results	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total.....	194	100.0	39,718	100.0
Substantial gains to workers.....	67	34.5	14,002	35.3
Partial gains or compromises.....	71	36.6	14,574	36.6
Little or no gains to workers.....	43	22.2	9,100	22.9
Jurisdiction, rival union, or faction settlements.....	11	5.7	1,183	3.0
Indeterminate.....	2	1.0	859	2.2

In terms of number of strikes, table 8 indicates that the workers made gains in a larger proportion of wage-and-hour disputes than in disputes where union-organization matters were the main issues. Proportionately fewer organization disputes were compromised and more were lost than in the wage-and-hour group.

In terms of workers involved, the organization disputes appear to have been the more successful from the point of view of the employees. Of the total number of workers in the wage-and-hour disputes, 13 percent won their demands, 57 percent obtained compromises, and 30 percent gained little or nothing. Of those in the organization disputes, 43 percent won, 30 percent obtained compromise settlements, and 24 percent gained little or nothing.

TABLE 8.—Results of Strikes Ending in December 1937, in Relation to Major Issues Involved

Major issues	Total	Strikes resulting in—					Not reported
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdiction, rival union, or faction settlements	Indeterminate	
Number of strikes							
All issues.....	194	67	71	43	11	2	-----
Wages and hours.....	38	14	18	6	-----	-----	-----
Wage increase.....	20	6	10	4	-----	-----	-----
Wage decrease.....	3	1	1	1	-----	-----	-----
Wage increase, hour decrease.....	11	4	6	1	-----	-----	-----
Wage decrease, hour increase.....	1	1	-----	-----	-----	-----	-----
Hour decrease.....	3	2	1	-----	-----	-----	-----
Union organization.....	120	44	45	30	-----	1	-----
Recognition.....	19	7	4	8	-----	-----	-----
Recognition and wages.....	31	7	16	8	-----	-----	-----
Recognition and hours.....	2	1	1	-----	-----	-----	-----
Recognition, wages, and hours.....	38	18	12	8	-----	-----	-----
Closed shop.....	14	5	6	3	-----	-----	-----
Discrimination.....	6	3	2	1	-----	-----	-----
Other.....	10	3	4	2	-----	1	-----
Miscellaneous.....	36	9	8	7	11	1	-----
Sympathy.....	2	-----	1	-----	-----	1	-----
Rival unions or factions.....	6	-----	-----	-----	6	-----	-----
Jurisdiction.....	5	-----	-----	-----	5	-----	-----
Other.....	23	9	7	7	-----	-----	-----
Number of workers involved							
All issues.....	39,718	14,002	14,574	9,100	1,183	859	-----
Wages and hours.....	5,537	713	3,174	1,650	-----	-----	-----
Wage increase.....	4,078	358	2,382	1,338	-----	-----	-----
Wage decrease.....	458	8	150	300	-----	-----	-----
Wage increase, hour decrease.....	573	119	442	12	-----	-----	-----
Wage decrease, hour increase.....	8	8	-----	-----	-----	-----	-----
Hour decrease.....	420	220	200	-----	-----	-----	-----
Union organization.....	29,314	12,668	8,783	7,013	-----	850	-----
Recognition.....	4,118	1,644	43	2,431	-----	-----	-----
Recognition and wages.....	5,120	1,955	2,180	985	-----	-----	-----
Recognition and hours.....	276	265	11	-----	-----	-----	-----
Recognition, wages, and hours.....	12,600	7,572	2,073	2,955	-----	-----	-----
Closed shop.....	4,024	680	3,191	153	-----	-----	-----
Discrimination.....	561	318	97	146	-----	-----	-----
Other.....	2,615	234	1,188	343	-----	850	-----
Miscellaneous.....	4,867	621	2,617	437	1,183	9	-----
Sympathy.....	684	-----	675	-----	-----	9	-----
Rival unions or factions.....	842	-----	-----	-----	842	-----	-----
Jurisdiction.....	341	-----	-----	-----	341	-----	-----
Other.....	3,000	621	1,942	437	-----	-----	-----

CONCILIATION WORK OF DEPARTMENT OF LABOR, FEBRUARY 1938

DURING February 1938 conciliators of the Department of Labor handled 121 disputes, which involved directly and indirectly about 212,483 workers. This mediation service was requested by either one or both parties to the disputes. Some of these disputes had already developed into strikes before the Department of Labor was requested to intervene. In others, strikes were threatened but had not yet taken place. In some cases, although no strike was immediately threatened, a controversy between employer and workers had developed to such a stage that an outside mediator was deemed necessary.

The Department of Labor conciliators were successful in adjusting 49 of these disputes, 60 were pending at the end of the month, 1 was referred to other services, 7 were settled by disputants themselves before the arrival of the conciliator, and 4 could not be adjusted.

The majority of these disputes concerned demands for wage increases. Many were due to alleged discrimination against union members for union activity, others were for union recognition and the selection of a sole bargaining agency. Some involved hours, overtime rates of pay, vacation with pay, seniority rights, and general working conditions.

These 121 disputes were scattered among 31 States and the District of Columbia (see table 1). Workers involved in the disputes are classified by craft in table 2. Strikes numbered 42, and controversies 79.

TABLE 1.—*Disputes Handled by Conciliators, February 1938, by States*

State	Total disputes		Threatened strikes and controversies		Strikes	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
Alabama.....	3	¹ 1,375	3	¹ 1,375		
Arizona.....	3	¹ 409	2	¹ 309	1	100
California.....	7	¹ 2,894	4	¹ 517	3	2,377
Connecticut.....	1	500	1	500		
District of Columbia.....	5	370	3	114	2	256
Georgia.....	1	57	1	57		
Illinois.....	10	¹ 2,422	4	¹ 1,150	6	¹ 1,272
Indiana.....	5	¹ 2,777	4	¹ 2,628	1	149
Iowa.....	1	40			1	40
Kentucky.....	1	(¹)	1	(¹)		
Maine.....	1	(¹)	1	(¹)		
Maryland.....	1	5,500			1	5,500
Massachusetts.....	7	5,305	7	5,305		
Michigan.....	1	116			1	116
Minnesota.....	2	¹ 165	1	(¹)	1	165
Missouri.....	7	¹ 263	2	¹ 45	5	¹ 218
New Jersey.....	1	30	1	30		
New York.....	11	¹ 1,150	11	¹ 1,150		
North Carolina.....	1	660	1	660		
Ohio.....	11	¹ 1,841	7	¹ 1,520	4	¹ 321
Oklahoma.....	1	(¹)			1	(¹)

¹ The number not known.

TABLE 1.—Disputes Handled by Conciliators, February 1938, by States—Continued

State	Total disputes		Threatened strikes and controversies		Strikes	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
Oregon.....	2	1 40	2	1 40		
Pennsylvania.....	13	1 1,866	7	1 454	6	1 1,412
Puerto Rico.....	1	157,000			1	157,000
Rhode Island.....	1	113		113		
Tennessee.....	6	1 1,790	3	1 565	3	1,225
Texas.....	5	1 12,845	3	1 790	2	12,055
Virginia.....	3	1 74	2	1 30	1	44
Virgin Islands.....	1	12,000	1	12,000		
Washington.....	3	625	2	(1)	1	625
West Virginia.....	1	8	1	8		
Wisconsin.....	4	248	3	1 166	1	82
Total.....	121	1 212,483	79	1 29,526	42	1 182,957

¹ Exact number not known.

TABLE 2.—Disputes Handled by Conciliators, by Craft of Workers Involved, February 1938

Craft	Total disputes		Threatened strikes and controversies		Strikes	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
Agriculture.....	1	12,000	1	12,000		
Automobile workers.....	1	(1)	1	(1)		
Bakeries.....	1	35	1	35		
Barbers.....	1	800	1	800		
Bartenders.....	1	6	1	6		
Brick and clay workers.....	1	310			1	310
Building trades.....	11	1 1,979	7	1 40	4	1 1,939
Cask makers.....	1	150			1	150
Chemical workers.....	1	(1)	1	(1)		
Clerks.....	5	1 318	4	1 68	1	250
Cosmetologists.....	1	400	1	400		
Distillery workers.....	1	(1)	1	(1)		
Drivers.....	14	1 1,753	9	1 1,299	5	1 454
Electrical workers.....	2	1 165	1	(1)	1	165
Food handlers.....	7	1 12,728	5	728	2	1 12,000
Furniture workers.....	3	105	1	57	2	48
Garment workers.....	2	1 1,060	1	(1)	1	1,060
Hotel workers.....	4	1 47	2	1 30	2	17
Laundry workers.....	2	665			2	665
Leather workers.....	2	500	2	500		
Longshoremen.....	1	157,000			1	157,000
Lumber workers.....	1	(1)	1	(1)		
Machinists.....	6	1 210	3	1 150	3	1 60
Metal workers.....	3	267	1	45	2	222
Molders.....	2	1,200			2	1,200
Optical workers.....	1	(1)	1	(1)		
Painters.....	1	150	1	150		
Paper workers.....	2	110	1	82	1	28
Paving workers.....	1	300			1	300
Printing trades.....	3	1 137	1	(1)	2	137
Quarry workers.....	1	2,600	1	2,600		
Rubber workers.....	1	52			1	52
Shoe-repair workers.....	1	41	1	41		
Soap makers.....	1	1	1	1		
Steel and iron workers.....	7	1,643	7	1,643		
Street railways.....	1	90	1	90		
Telegraphers.....	1	750			1	750
Textiles.....	15	1 13,756	12	1 7,706	3	6,050
Tile makers.....	1	350	1	350		
Timber workers.....	1	(1)			1	(1)
Woodworkers.....	1	(1)	1	(1)		
Wool and sheep.....	1	100			1	100
Miscellaneous.....	6	1 705	5	1 705	1	(1)
Total.....	121	1 212,483	79	1 29,526	42	1 182,957

¹ Exact number not known.

Labor Turn-Over

LABOR TURN-OVER IN MANUFACTURING, JANUARY 1938

A MODERATE decline in the lay-off rate in manufacturing industries in January as compared with December was indicated by labor turn-over reports received by the Bureau of Labor Statistics of the Department of Labor.

The decrease in the lay-off rate from 7.77 in December to 5.45 per 100 employees was accompanied by an increase in the accession rate from 2.12 in December to 3.78 in January. The lay-off rate in January 1937 was 1.90 and the accession rate 4.60. The quit and discharge rates in January were lower than in the preceding month or in the corresponding month of last year. Total separations decreased compared with December but were much higher than in January 1937.

Lower lay-off rates than in December were indicated in 15 of the 20 industries for which separate rates are shown. The accession rates were higher in 18 instances. Compared with January 1937 higher lay-off rates prevailed in 16 industries. The accession rates were lower in 12.

All Manufacturing

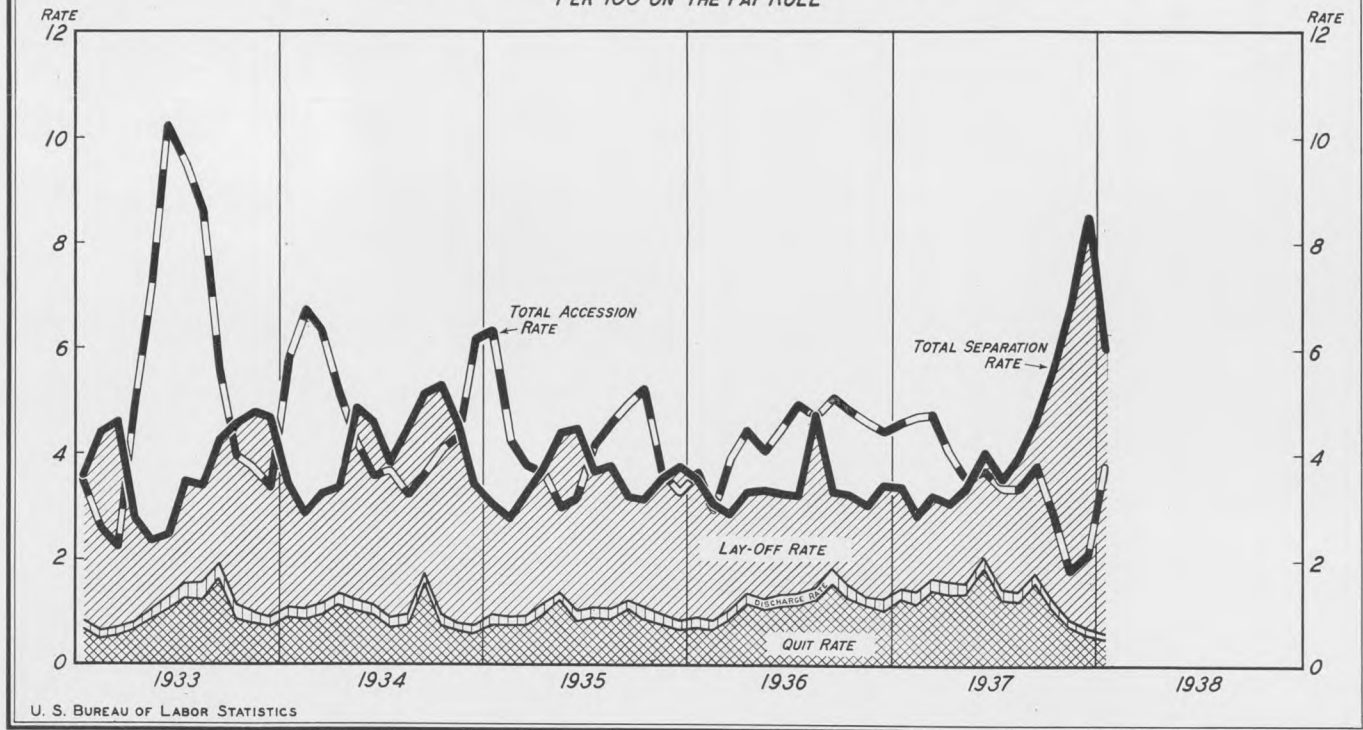
The Bureau of Labor Statistics' survey of labor turn-over covers more than 5,000 representative manufacturing establishments, which in January employed nearly 2,400,000 workers. The rates represent the number of changes in personnel per 100 employees on the pay rolls during the month.

The rates shown in table 1 are compiled from reports received from representative plants in 144 industries. In the 20 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.

Table 1 shows the total separation rate broken down into quit, discharge, and lay-off rates and the accession rate for each month of 1937 and for January 1938 for manufacturing as a whole. The average monthly rates for 1937 are also presented.

LABOR TURN-OVER RATES IN MANUFACTURING

PER 100 ON THE PAY ROLL



U. S. BUREAU OF LABOR STATISTICS

TABLE 1.—Monthly Labor Turn-Over Rates (per 100 Employees) in Representative Factories in 144 Industries

Class of rate and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
Quit:													
1938.....	0.52												
1937.....	1.27	1.19	1.43	1.38	1.37	1.89	1.25	1.23	1.59	1.05	0.72	0.60	1.25
Discharge:													
1938.....	.11												
1937.....	.21	.22	.24	.23	.21	.19	.21	.19	.19	.19	.16	.14	.20
Lay-off: ¹													
1938.....	5.45												
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 separation:													
1938.....	6.08												
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
Accession:													
1938.....	3.78												
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 Including temporary, indeterminate, and permanent lay-offs.

Twenty Industries

Detailed turn-over rates for 20 selected manufacturing industries are listed in the 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 1938 and December and January 1937.

TABLE 2.—Monthly Turn-Over Rates (per 100 Employees) in Specified Industries

Class of rates	January 1938	December 1937	January 1937	January 1938	December 1937	January 1937	January 1938	December 1937	January 1937
	Automobiles and bodies			Automobile parts			Boots and shoes		
Quit.....	0.37	0.55	1.40	0.43	0.45	1.91	0.66	0.98	0.98
Discharge.....	.07	.09	.30	.17	.14	.53	.11	.14	.21
Lay-off.....	13.50	12.77	5.20	16.71	23.09	5.25	1.48	4.29	1.55
Total separation.....	13.94	13.41	6.90	17.31	23.68	7.69	2.25	5.41	2.74
Accession.....	2.34	2.60	3.63	4.82	1.85	5.90	7.04	8.57	6.29
	Brick, tile, and terra cotta			Cigars and cigarettes			Cotton manufacturing		
Quit.....	0.51	1.06	0.65	1.13	0.79	1.77	0.85	0.74	1.68
Discharge.....	.13	.15	.13	.14	.12	.26	.16	.17	.30
Lay-off.....	11.05	17.18	5.18	6.81	7.91	4.16	4.93	5.50	.90
Total separation.....	11.69	18.39	5.96	8.08	8.82	6.19	5.94	6.41	2.88
Accession.....	6.79	1.79	5.82	5.15	1.58	5.96	3.92	1.78	4.67
	Electrical machinery			Foundries and machine shops			Furniture		
Quit.....	0.58	0.57	2.92	0.30	0.33	1.03	0.41	0.49	0.82
Discharge.....	.09	.13	.17	.13	.17	.27	.15	.21	.27
Lay-off.....	7.17	9.65	.73	6.04	6.25	1.30	8.98	8.85	2.28
Total separation.....	7.84	10.35	3.82	6.47	6.75	2.60	9.54	9.55	3.37
Accession.....	1.32	.94	4.80	1.53	.99	6.26	6.43	3.09	5.50
	Hardware			Iron and steel			Knit goods		
Quit.....	0.47	0.57	1.16	0.39	0.53	0.90	0.71	0.62	0.83
Discharge.....	.07	.15	.28	.11	.05	.09	.10	.08	.06
Lay-off.....	9.13	9.21	1.82	4.81	5.41	2.22	4.31	4.67	.92
Total separation.....	9.67	9.93	3.26	5.31	5.99	3.21	5.12	5.37	1.81
Accession.....	1.78	.31	6.12	1.15	0.46	3.55	2.75	1.15	3.75

TABLE 2.—Monthly Turn-Over Rates (per 100 Employees) in Specified Industries—Continued

Class of rates	Janu-ary 1938	Decem-ber 1937	Janu-ary 1937	Janu-ary 1938	Decem-ber 1937	Janu-ary 1937	Janu-ary 1938	Decem-ber 1937	Janu-ary 1937
	Men's clothing			Petroleum refining			Radios and phonographs		
Quit.....	0.60	0.60	1.08	0.23	0.26	0.41	0.75	0.83	(1)
Discharge.....	.05	.03	.07	.06	.18	.08	.15	.17	(1)
Lay-off.....	2.61	9.07	1.80	3.42	2.67	1.05	9.02	20.05	(1)
Total separation.....	3.26	9.70	2.95	3.71	3.11	1.54	9.92	21.05	(1)
Accession.....	10.83	8.26	5.88	2.05	1.26	3.16	5.41	1.25	(1)
	Rayon			Rubber tires			Sawmills		
Quit.....	0.58	0.43	1.01	0.53	0.56	0.59	0.88	2.20	1.18
Discharge.....	.14	.75	.23	.04	.05	.10	.14	.14	.27
Lay-off.....	6.90	13.11	.72	6.44	5.51	.19	5.76	15.37	5.84
Total separation.....	7.62	14.29	1.96	7.01	6.12	.88	6.78	17.71	7.29
Accession.....	11.99	.49	2.76	1.19	.72	1.36	6.72	4.14	8.37
	Slaughtering and meat packing			Woolen and worsted goods					
Quit.....	0.53	0.47	1.10	0.52	0.60	1.06			
Discharge.....	.16	.19	.26	.06	.04	.16			
Lay-off.....	5.69	8.13	6.56	7.47	6.01	.49			
Total separation.....	6.38	8.79	7.92	8.05	6.65	1.71			
Accession.....	10.84	8.21	9.36	7.99	7.17	4.20			

¹ No data available.



LABOR TURN-OVER IN SLAUGHTERING AND MEAT PACKING, 1936-37 ¹

EXCEPTIONALLY high total separation and accession rates are shown in the slaughtering and meat-packing industry. In 1936 the total separation rate was 88.96 and in 1937, 88.26 per 100 employees. The all-industry total separation rate was 40.35 in 1936 and 53.11 in 1937. In meat packing the accession rate was 102.51 in 1936 and 83.60 in 1937. In all-manufacturing the accession rates were 52.16 and 42.59, respectively. The quit rate (14.89) in meat-packing establishments was higher in 1936 than the all-manufacturing rate (13.02). The discharge rate for meat packing was higher than the all-manufacturing rate in 1936 and was slightly lower in 1937. In 1936, 71 employees and in 1937, 75 workers of every 100 on the pay roll were reported as lay-offs in meat-packing plants. In all-manufacturing in 1936, 25 and in 1937, 36 workers were reported in this class of separations. The 160 plants included in the survey employed an average of 78,106 workers in 1936 and an average of 79,988 in 1937.

Table 1 shows the annual total separation rates classified into quit, discharge, and lay-off rates and the accession rates in all manufacturing

¹ This is the second article published by the Bureau of Labor Statistics on labor turn-over in slaughtering and meat-packing establishments. The first appeared in the Monthly Labor Review, November 1934 (pp. 1164-1167).

and in 160 identical slaughtering and meat-packing establishments for 1936 and 1937.

TABLE 1.—Annual Labor Turn-Over Rates (per 100 Employees) in All Manufacturing and 160 Identical Slaughtering and Meat Packing Establishments, 1936 and 1937

Item	Quit rate		Discharge rate		Lay-off rate †		Total separation rate		Accession rate	
	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936
All manufacturing.....	14.97	13.02	2.38	2.63	35.76	24.70	53.11	40.35	42.59	52.16
Slaughtering and meat packing.....	10.80	14.89	2.35	2.98	75.11	71.09	88.26	88.96	83.60	102.51

† Including temporary, indeterminate, and permanent lay-offs.

Labor Turn-Over, by Rate Group

In 1936, 45 plants with 10,969 workers, and in 1937 the same number of establishments with 18,834 employees on the pay roll had a quit rate of less than 5 per 100 employees. In contrast there were 26 firms with 8,766 employees in 1936 and 22 plants with 6,404 workers in 1937 that showed a quit rate of 25 or over per 100 workers on the pay roll.

Fifty-seven plants employing 21,153 workers in 1936 and 53 firms with 33,013 employees in 1937 had a discharge rate of less than 1 per 100 on the pay roll. In the group of 9 or over there were 22 plants with 3,782 workers in 1936 and 20 establishments with 2,295 in 1937.

In 1936, 65 plants with 9,082 workers on the pay roll had lay-off rates of less than 10 per 100. In 1937, 57 establishments with 10,361 employees were in the same group. Twenty-two firms employing approximately 27 percent of the total number of employees in 1936 and 27 firms with 28 percent of the total number in 1937 registered a lay-off rate of 90 or over per 100 workers.

Nearly 8 percent of the total employees in 1936 and 9 percent in 1937 were reported by firms that had a total separation rate of less than 20 per 100. The group of 150 and over included 17 percent of the total employment in 1936 and 14 percent in 1937.

Plants with accession rates of less than 10 per 100 wage earners decreased from 16 with 4,375 workers in 1936 to 10 with 1,458 in 1937. The number of establishments reporting an accession rate of 70 or over decreased from 60 in 1936 to 43 in 1937. The number of employees in these groups decreased from 54,081 in 1936 to 31,517 in 1937. The percent of the total number of workers employed by firms in these groups was 69 in 1936 and 39 in 1937.

Table 2 shows the number of firms, number of employees, quits, discharges, lay-offs, total separations, and accessions in 160 identical slaughtering and meat-packing establishments, by rate groups, for the years 1936 and 1937.

TABLE 2.—Comparative Labor Turn-Over Experience (per 100 Employees) in the Slaughtering and Meat-Packing Industry, by Rate Groups, 1936-37

Rate group	Number of establishments		Number of employees		Percent of total employees	
	1937	1936	1937	1936	1937	1936
Quits						
Under 2.5.....	29	27	9, 110	3, 083	11.39	3.95
2.5 and under 5.....	16	18	9, 724	7, 886	12.16	10.10
5 and under 7.5.....	20	19	15, 653	10, 054	19.57	12.87
7.5 and under 10.....	19	15	18, 689	10, 955	23.37	14.03
10 and under 15.....	27	33	15, 680	27, 060	19.60	34.64
15 and under 20.....	15	10	3, 344	4, 970	4.18	6.36
20 and under 25.....	12	12	1, 384	5, 332	1.73	6.83
25 and under 30.....	9	9	1, 481	1, 062	1.85	1.36
30 and under 35.....	2	3	2, 138	1, 659	2.67	2.12
35 and over.....	11	14	2, 785	6, 045	3.48	7.74
Total.....	160	160	79, 988	78, 106	100.00	100.00
Discharges						
Under 0.5.....	36	45	14, 250	9, 634	17.82	12.33
0.5 and under 1.....	17	12	18, 763	11, 519	23.46	14.75
1 and under 2.....	35	21	20, 798	24, 044	26.00	30.80
2 and under 3.....	14	14	8, 842	9, 476	11.05	12.13
3 and under 4.....	9	14	4, 766	5, 361	5.96	6.86
4 and under 5.....	8	7	3, 327	5, 932	4.16	7.59
5 and under 7.....	17	14	6, 385	6, 111	7.98	7.82
7 and under 9.....	4	11	562	2, 247	0.70	2.88
9 and under 11.....	4	5	447	964	0.56	1.23
11 and over.....	16	17	1, 848	2, 818	2.31	3.61
Total.....	160	160	79, 988	78, 106	100.00	100.00
Lay-offs						
Under 5.....	41	49	6, 240	5, 944	7.80	7.61
5 and under 10.....	16	16	4, 121	3, 138	5.15	4.02
10 and under 20.....	16	18	4, 732	4, 245	5.92	5.43
20 and under 30.....	18	14	6, 535	6, 291	8.17	8.05
30 and under 40.....	10	14	4, 607	9, 139	5.76	11.70
40 and under 60.....	21	13	23, 271	10, 622	29.09	13.60
60 and under 90.....	11	14	8, 118	17, 238	10.15	22.08
90 and under 120.....	11	7	10, 447	6, 862	13.06	8.79
120 and under 150.....	5	4	1, 741	4, 392	2.18	5.62
150 and over.....	11	11	10, 176	10, 235	12.72	13.10
Total.....	160	160	79, 988	78, 106	100.00	100.00
Total separations						
Under 10.....	11	18	1, 295	2, 165	1.62	2.77
10 and under 20.....	21	24	6, 157	3, 963	7.70	5.07
20 and under 30.....	23	27	6, 019	5, 314	7.52	6.80
30 and under 40.....	15	13	2, 005	4, 725	2.51	6.05
40 and under 60.....	30	25	22, 535	10, 796	28.71	13.82
60 and under 90.....	24	15	14, 872	17, 961	18.59	23.01
90 and under 120.....	14	18	11, 379	15, 061	14.23	19.28
120 and under 150.....	8	6	4, 506	4, 704	5.63	6.02
150 and under 180.....	4	7	3, 755	7, 983	4.69	10.22
180 and over.....	10	7	7, 465	5, 434	9.34	6.96
Total.....	160	160	79, 988	78, 106	100.00	100.00

TABLE 2.—Comparative Labor Turn-Over Experience (per 100 Employees) in the Slaughtering and Meat-Packing Industry, by Rate Groups, 1936-37—Continued

Rate group	Number of establishments		Number of employees		Percent of total employees	
	1937	1936	1937	1936	1937	1936
	Accessions					
Under 5.....	1	4	37	3,063	0.05	3.92
5 and under 10.....	9	12	1,421	1,312	1.78	1.68
10 and under 20.....	19	19	4,029	2,051	5.04	2.63
20 and under 30.....	23	20	6,960	3,635	8.70	4.65
30 and under 40.....	15	17	10,385	4,261	12.98	5.46
40 and under 50.....	18	12	5,618	5,340	7.02	6.84
50 and under 70.....	32	16	20,021	4,363	25.03	5.59
70 and under 110.....	20	28	15,596	25,112	19.50	32.14
110 and under 150.....	11	16	5,184	14,309	6.48	18.32
150 and over.....	12	16	10,737	14,660	13.42	18.77
Total.....	160	160	79,988	78,106	100.00	100.00

Turn-Over Rates by Size of Establishment

Over the 2-year period total separations and accessions were not as numerous in firms employing less than 100 employees as in the larger firms. In 1936, the total separation rate in the smaller plants was 28.92 and in 1937, 44.82 per 100 employees. The larger establishments registered a total separation rate of 91.40 in 1936 and 90.11 in 1937. In 1936 the smaller firms showed an accession rate of 35.07 and in 1937, 47.30. The larger firms showed an accession rate of 105.26 in 1936 and 85.14 in 1937. In 1936 the smaller plants had fewer quits, but in 1937 the smaller number of quits was reported by the larger establishments. The discharge rates were much higher and the lay-off rates were lower in both years in establishments employing less than 100 workers. The smaller plants employed 3,060 workers in 1936 and 3,264 in 1937. Establishments with 100 or more workers had an average of 75,046 employees on the pay roll in 1936 and 76,724 in 1937.

TABLE 3.—Comparative Labor Turn-Over Rates (per 100 Employees) in the Slaughtering and Meat-Packing Industry, by Size of Establishment, 1936 and 1937

Class of rates	1937		1936	
	Rate per 100 employees in establishments employing—			
	Less than 100 employees	100 or more employees	Less than 100 employees	100 or more employees
Quit.....	14.19	10.66	11.21	15.04
Discharge.....	7.38	2.13	5.52	2.87
Lay-off.....	23.25	77.32	12.19	73.49
Total separation.....	44.82	90.11	28.92	91.40
Accession.....	47.30	85.14	35.07	105.26

Minimum Wages and Maximum Hours

LEGAL EIGHT-HOUR WORKING DAY IN PARAGUAY ¹

A MAXIMUM 8-hour day and 48-hour week for salaried and wage-earning employees of both sexes in industry, commerce, banking, State and municipal public works, construction, transportation, dock work, lumbering, and tannin and yerba mate enterprises were legally established in Paraguay by a decree effective January 6, 1938. Agriculture, stock raising, and domestic service are specifically exempted from the provisions of the decree, as are also managers, confidential employees, and watchmen.

Salaried and wage-earning employees may enter into agreements with their employers for Saturday afternoons off, in which case the working day may be lengthened during 5 days in the week in order to reach 48 hours for the week. Overtime, for which at least time and a half is to be paid, is allowed in case of actual or threatened accident, urgently needed repairs to machinery or work places, or temporary emergency, or when workers, in their labor contracts, agree to a working day longer than 8 hours; in no case may it exceed 10 hours.

When work must be done in unhealthful places or when the nature of the work is such as to endanger health, the working time shall not exceed 6 hours per day nor 36 hours per week. Whether or not such 6-hour working day is to be allowed is to be decided by the Department of Labor, with the advice of technical experts, upon petition of the interested party.

In all cases the working day is to be broken by a rest period of not less than 2 hours. For workers in shifts, rest hours are to be fixed by the parties in their labor contract.

Enterprises furnishing services of a public nature, in which the work must be continuous, shall arrange the work in shifts so as to comply with the maximum working-day requirement. The enterprises which are of this character are to be specified in the regulations issued by the Executive Authority. In industrial and commercial establishments

¹ Data are from report of Sherburne Dillingham, American vice consul at Asunción, Paraguay, January 11, 1938.

with continuous operation, a special wage is to be fixed for night work by agreement between the employers and the employees. Working hours agreed to in labor contracts signed before the effective date of this decree are to be adjusted to its terms within a month from the date of its publication.

Enforcement of the decree is entrusted to the inspectors of the Department of Labor. Owners, employers, or their representatives are subject to a fine of 500 to 5,000 pesos, legal currency, for each person affected by a violation of the provisions of this decree.

National Income

MONTHLY INCOME PAYMENTS, 1929-37

INCOME payments in 1937 totaled \$67,827,000,000, as compared with \$62,441,000,000 (revised figure) in 1936, according to estimates by the Department of Commerce. Compensation of employees in 1937, including salaried workers and recipients of income connected with work relief, totaled \$45,347,000,000, as compared with \$41,741,000,000 in 1936. The Department of Commerce has now supplemented its estimates of annual income with estimates of income by months. The monthly estimates include three principal types of payment (compensation of employees, dividends and interest, entrepreneurial withdrawals, and net rents and royalties). Compensation of employees is given by major industrial groups.¹

Total income payments as shown for December 1937 were larger than in other months of that year. This was due mainly to the fact that dividend and interest payments were larger in that month than in other months. Total compensation of employees in December was \$3,648,000,000 as compared with an average of \$3,779,000,000 for the 12 months. The comparatively slight decline during a period of recession was due in part to increases in wage rates during the year, and in part to various factors which usually tend to maintain employment and pay rolls at the end of the year at relatively high levels. The figures of compensation of employees include salaries and work-relief payments. Salaries are normally less subject to fluctuations than wages.

Monthly and yearly comparisons of total income payments with total compensation of employees (including salaried workers and recipients of work-relief payments) are given in the accompanying table; and the compensation of employees by major industrial groups is also shown.

¹ U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce. Survey of Current Business, February 1938, pp. 7-13: Monthly Income Payments in the United States, 1929-37, by Robert R. Nathan and Frederick M. Cone. Revised figures for 1937 are given in the March number of the Survey of Current Business, and it is announced that this journal will carry forward regularly the monthly estimates of income payments. Estimates of annual income for 1929-36, as made by the Bureau of Foreign and Domestic Commerce, were summarized in the Monthly Labor Review for August 1937 (pp. 409-411).

Total Income Payments, and Compensation of Employees by Major Industrial Groups, by Months, 1929-37

Year and month	Total income payments			Compensation of employees (including salaried workers)						Total	
	Millions	Index (monthly average 1929=100)		Manu- factur- ing, min- ing, and con- struction	Trans- porta- tion, and pub- lic uti- lities	Trade and fin- ance	Gov- ern- ment, serv- ice, and other	Work relief	Millions	Index with seasonal adjust- ment (month- ly av- erage 1929= 100)	
		With- out sea- sonal ad- just- ment	With sea- sonal ad- just- ment								Millions
1929	\$78,226	100.0	---	\$19,135	\$6,171	\$9,778	\$16,256	---	\$51,340	100.0	
January	6,732	103.3	98.1	1,482	490	787	1,295	---	4,054	97.6	
February	6,019	92.3	98.2	1,548	475	784	1,295	---	4,102	97.9	
March	6,231	95.6	98.7	1,562	501	798	1,318	---	4,179	98.7	
April	6,492	99.6	98.2	1,590	506	796	1,352	---	4,244	98.2	
May	6,333	97.1	99.6	1,615	521	803	1,386	---	4,325	100.1	
June	6,579	100.9	100.2	1,620	519	808	1,412	---	4,359	100.9	
July	6,897	105.8	101.2	1,601	533	809	1,324	---	4,267	101.7	
August	6,282	96.4	103.0	1,654	538	810	1,310	---	4,312	102.9	
September	6,573	100.8	101.9	1,670	527	829	1,386	---	4,412	102.1	
October	7,052	108.2	102.1	1,678	546	835	1,437	---	4,496	101.1	
November	6,467	99.2	100.4	1,588	514	833	1,395	---	4,330	100.2	
December	6,570	100.8	99.6	1,527	503	885	1,345	---	4,260	98.6	
1930	72,729	93.0	---	16,515	5,758	9,346	15,584	---	47,203	91.9	
January	6,918	106.1	98.6	1,439	496	813	1,301	---	4,049	97.5	
February	5,983	91.8	97.3	1,453	473	798	1,296	---	4,021	95.9	
March	6,088	93.4	96.4	1,446	492	799	1,305	---	4,042	95.5	
April	6,296	96.6	95.6	1,461	494	798	1,326	---	4,079	94.4	
May	6,109	93.7	95.7	1,444	500	802	1,348	---	4,094	94.8	
June	6,256	96.0	94.7	1,428	489	798	1,352	---	4,067	94.2	
July	6,317	96.9	92.6	1,363	487	769	1,257	---	3,876	92.4	
August	5,617	86.2	91.7	1,353	483	747	1,227	---	3,810	90.9	
September	5,806	89.1	90.4	1,352	475	753	1,300	---	3,880	89.8	
October	6,085	93.3	88.3	1,333	477	754	1,330	---	3,894	87.5	
November	5,615	86.1	87.4	1,249	448	747	1,294	---	3,737	86.4	
December	5,638	86.5	85.7	1,193	445	768	1,247	---	3,653	84.6	
1931	61,459	78.6	---	12,408	4,949	8,204	14,167	---	39,728	77.4	
January	5,881	90.2	84.2	1,089	429	718	1,196	---	4,049	82.7	
February	5,096	78.2	83.3	1,111	414	715	1,190	---	3,431	81.8	
March	5,226	80.2	83.3	1,115	432	718	1,205	---	3,470	81.9	
April	5,390	82.7	81.7	1,110	430	710	1,222	---	3,471	80.3	
May	5,164	79.2	81.4	1,098	429	705	1,236	---	3,467	80.2	
June	5,302	81.3	80.1	1,063	425	702	1,240	---	3,429	79.3	
July	5,369	82.4	78.8	1,026	421	676	1,137	---	3,261	77.8	
August	4,723	72.5	76.8	1,018	413	656	1,107	---	3,194	76.2	
September	4,793	73.5	74.8	993	404	655	1,168	---	3,219	74.5	
October	5,078	77.9	73.2	967	401	653	1,192	---	3,213	72.2	
November	4,711	72.3	73.1	919	379	648	1,157	---	3,103	71.8	
December	4,725	72.5	71.5	899	372	650	1,116	---	3,037	70.3	
1932	48,329	61.8	---	8,505	3,815	6,519	12,192	---	31,032	60.4	
January	4,877	74.8	70.2	807	357	605	1,076	---	2,846	68.6	
February	4,159	63.8	68.7	808	336	589	1,063	---	2,796	66.7	
March	4,163	63.9	67.2	782	343	582	1,058	---	2,765	65.3	
April	4,261	65.4	64.6	744	331	571	1,061	---	2,706	62.6	
May	4,037	61.9	63.6	708	327	566	1,067	---	2,668	61.8	
June	4,111	63.1	61.4	671	317	540	1,063	---	2,591	60.0	
July	4,062	62.3	59.0	641	306	521	941	---	2,408	57.4	
August	3,556	54.5	58.4	650	304	505	919	---	2,378	56.7	
September	3,725	57.1	58.5	676	302	508	986	---	2,471	57.2	
October	3,994	61.3	57.8	696	307	514	1,014	---	2,531	56.9	
November	3,679	56.4	57.7	670	295	507	989	---	2,461	56.9	
December	3,705	56.8	56.4	652	291	511	957	---	2,411	55.7	
1933	44,955	57.5	---	8,436	3,465	5,795	10,983	\$669	29,349	57.2	
January	4,015	61.6	56.8	828	282	485	923	21	2,331	55.9	
February	3,375	51.8	55.5	639	273	462	916	24	2,314	55.2	
March	3,367	51.7	54.1	594	277	446	913	30	2,259	52.3	
April	3,525	54.1	53.8	606	271	453	910	30	2,271	52.7	
May	3,514	53.9	57.2	636	282	455	928	40	2,341	54.3	
June	3,766	57.8	57.2	680	288	461	958	47	2,435	56.2	

Total Income Payments, and Compensation of Employees by Major Industrial Groups, by Months, 1929-37—Continued

Year and month	Total income payments			Compensation of employees (including salaried workers)						Total	
	Mil- lions	Index (monthly average 1929=100)		Manu- factur- ing, and con- struc- tion	Trans- porta- tion, and public utili- ties	Trade and finance	Gov- ern- ment, serv- ice, and other	Work relief	Mil- lions	Index with seasonal adjust- ment (month- ly aver- age 1929= 100)	
		With- out seasonal ad- just- ment	With seasonal ad- just- ment								Millions
1933—Continued.											
July.....	\$3,928	60.3	57.2	\$714	\$296	\$463	\$828	\$48	\$2,349	56.0	
August.....	3,550	54.5	58.4	775	302	484	835	50	2,446	58.2	
September.....	3,787	58.1	59.7	811	300	503	921	44	2,579	59.5	
October.....	4,196	64.3	59.7	812	306	524	968	51	2,662	60.1	
November.....	3,852	59.1	60.0	780	296	522	953	75	2,627	60.7	
December.....	4,084	62.6	61.4	769	292	537	928	208	2,734	63.3	
1934											
January.....	51,219	65.5	-----	10,590	3,764	6,482	11,842	1,489	34,167	66.5	
February.....	4,577	70.2	64.8	784	295	518	930	274	2,802	67.1	
March.....	3,977	61.0	64.4	840	291	520	944	194	2,790	66.5	
April.....	4,072	62.5	64.8	890	311	527	953	161	2,841	67.1	
May.....	3,953	60.6	63.6	913	308	540	974	84	2,819	65.4	
June.....	4,033	61.9	64.9	926	319	542	1,005	85	2,876	66.6	
July.....	4,350	66.7	65.2	912	318	542	1,022	80	2,874	66.3	
August.....	4,531	69.5	65.0	879	322	541	938	93	2,772	66.0	
September.....	4,023	61.7	65.9	900	325	532	936	103	2,795	66.5	
October.....	4,278	65.6	65.3	866	320	543	1,010	93	2,833	65.4	
November.....	4,711	72.3	66.1	897	329	552	1,056	102	2,936	66.3	
December.....	4,196	64.4	66.9	880	314	553	1,047	112	2,906	67.2	
1935											
January.....	4,520	69.3	66.3	904	312	574	1,026	108	2,924	67.8	
February.....	54,946	70.2	-----	11,649	4,051	6,845	12,725	1,430	36,700	71.5	
March.....	4,577	70.2	68.6	916	321	548	1,013	122	2,921	70.0	
April.....	4,243	65.1	68.9	957	314	552	1,015	112	2,950	70.3	
May.....	4,447	68.2	69.4	970	327	560	1,025	104	2,986	70.5	
June.....	4,632	71.1	68.9	965	331	567	1,051	107	3,022	70.1	
July.....	4,331	66.4	69.2	949	338	566	1,066	116	3,035	70.3	
August.....	4,507	69.1	69.2	947	337	570	1,081	108	3,043	70.2	
September.....	4,472	68.6	68.6	924	343	565	997	111	2,941	70.0	
October.....	4,352	66.8	70.4	969	346	559	1,005	109	2,988	71.1	
November.....	4,718	72.4	70.9	999	345	579	1,087	101	3,111	71.8	
December.....	5,012	76.9	71.6	1,024	358	581	1,131	116	3,209	72.6	
1936											
January.....	4,618	70.8	73.1	1,003	345	583	1,129	140	3,200	74.0	
February.....	5,037	77.3	74.5	1,026	346	613	1,125	184	3,295	76.4	
March.....	62,441	79.8	-----	13,508	4,493	7,299	13,981	2,462	41,741	81.3	
April.....	4,964	76.1	75.2	991	349	579	1,110	198	3,227	77.3	
May.....	4,666	71.6	75.4	1,015	355	579	1,115	204	3,268	77.9	
June.....	4,945	75.9	76.7	1,050	362	593	1,133	214	3,352	79.0	
July.....	5,065	77.7	76.7	1,070	364	599	1,158	210	3,401	79.0	
August.....	4,872	74.7	77.8	1,093	372	602	1,184	211	3,463	80.2	
September.....	5,246	80.5	79.3	1,108	375	606	1,208	201	3,498	80.8	
October.....	5,206	79.9	80.4	1,113	384	602	1,114	199	3,413	81.3	
November.....	4,859	74.5	80.5	1,156	385	602	1,105	203	3,451	82.0	
December.....	5,377	82.5	80.7	1,169	387	613	1,191	202	3,562	82.3	
1937											
January.....	5,595	85.8	81.6	1,227	397	623	1,230	213	3,689	83.5	
February.....	5,185	79.5	83.4	1,237	378	637	1,220	210	3,682	85.1	
March.....	6,461	99.1	84.6	1,279	384	664	1,215	196	3,735	86.6	
April.....	67,827	86.7	-----	15,819	4,853	7,958	14,855	1,862	45,347	88.3	
May.....	5,434	83.4	85.0	1,235	380	629	1,190	179	3,613	86.6	
June.....	5,131	78.7	85.8	1,282	379	639	1,196	179	3,675	87.6	
July.....	5,600	85.9	87.9	1,337	405	648	1,212	179	3,781	89.0	
August.....	5,707	87.5	87.5	1,365	401	655	1,237	177	3,835	89.2	
September.....	5,407	82.9	87.9	1,377	409	665	1,261	178	3,890	90.1	
October.....	5,951	91.3	88.0	1,366	412	669	1,281	167	3,895	89.9	
November.....	5,766	88.5	88.4	1,348	416	664	1,191	144	3,763	89.7	
December.....	5,391	82.7	88.9	1,384	423	666	1,183	133	3,789	90.1	
1938											
January.....	5,909	90.6	87.5	1,356	419	672	1,268	128	3,843	88.8	
February.....	5,917	90.8	86.8	1,358	422	680	1,296	131	3,887	87.9	
March.....	5,301	81.3	85.4	1,246	399	676	1,274	133	3,728	86.2	
April.....	6,313	96.8	84.3	1,165	388	695	1,266	134	3,648	84.6	

Wages and Hours of Labor

EARNINGS AND HOURS IN THE FIREWORKS INDUSTRY, OCTOBER 1937¹

THE hourly earnings of all wage earners in the fireworks industry averaged 41.3 cents in October 1937. With an average workweek of 40.4 hours, these employees earned on the average \$16.68 during the week covered. These facts were made known by a detailed survey of the industry recently completed by the Bureau of Labor Statistics.

Scope of Industry and of Study

The establishments comprising the fireworks, or "pyrotechnic" industry, may be divided into three distinct groups: (1) The commercial fireworks group, which includes those plants which are engaged solely in the manufacture of various types of fireworks; (2) the display fireworks group, which includes those plants which, in addition to manufacturing fireworks, also undertake the assembly of exhibitions and the actual display of fireworks; (3) the fusee division, which manufactures such products as flares or fusees for use on highways, railroads and ships, railroad torpedoes, and safety fuses and squibs for use in mining.

The term "fireworks" has been defined to include all such articles producing an audible or visible display. Aside from fusees, which have a utilitarian purpose, the principal products of the industry are paper caps, sparklers, colored flares, salutes, Roman candles, sky-rockets, pin-wheels, triangles, sky bombs, fountains, and firecrackers of all kinds.

The fireworks industry is small. According to the Census of Manufactures, it had 52 plants whose product was valued at \$5,000 or more in 1935. They employed an average of 1,587 wage earners in that year. The present survey included 41 establishments, with a total of 1,384 employees.² Of these, 19 plants with 988 workers are

¹ Prepared by J. Perlman, P. L. Jones, and O. R. Witmer, of the Bureau's Division of Wages, Hours, and Working Conditions, in cooperation with the Division of Public Contracts of the U. S. Department of Labor.

² The survey excluded establishments with fewer than 5 wage earners. This accounts partly for the smaller number of plants and employees covered by the survey as compared with the number in the Census of Manufactures in 1935. Another reason for the lower coverage in number of workers is that the survey was made during a slack season in the display fireworks division.

in the commercial division, 7 establishments with 86 employees are in the display division, and 15 plants with 310 workers are in the fusee division.

CHARACTERISTICS OF INDUSTRY

The plants in the fireworks industry are relatively small. The 41 establishments covered in the survey averaged 34 employees each. The distribution of these plants by size shows that 1 had 5 workers, 24 from 6 to 20, 9 from 21 to 50, 5 from 51 to 100, and 2 from 101 to 250 employees.

The fireworks industry is decentralized. The establishments are scattered throughout the northern and western United States. Of the 41 plants covered, there were 9 in Ohio, 6 in New Jersey, 6 in Pennsylvania, 4 in Connecticut, 3 in Illinois, 3 in Maryland, 2 in California, 2 in Massachusetts, 2 in Missouri, 1 in Colorado, 1 in Delaware, 1 in New York, and 1 in Washington.³

Although the fireworks plants buy their materials from large companies in the explosives industry, they are independent and unaffiliated organizations. Because of the hazard involved, as well as because of restrictive municipal or State legislation, a great many of the plants are located outside of city limits; hence their wages, hours, and working conditions are influenced largely by local conditions.

The industry is highly competitive, though an attempt was made during the N. R. A. to regulate the conditions of competition. There is also competition from the importation of fireworks from China, Japan, and the Philippine Islands.

In the fusee division of the industry employment is not particularly subject to seasonal variation. The plants in this division are engaged in the production of articles for the transportation and mining industries so that employment in them depends largely upon general economic conditions in the country. On the other hand, there is a strong seasonal element in employment in the other two divisions of the industry. Thus, the establishments making commercial fireworks depend almost entirely on the demands for the Fourth of July and Christmas. Their production peaks are in the months of May and June in preparation for the Fourth of July, and in the autumn in preparation for Christmas. The demand for display fireworks, emanating from exhibitions, fairs, and pageants, naturally comes during the summer and early fall months. The remaining part of the year constitutes the dull season for this branch of the industry.

The information obtained in this survey relates to a pay-roll period in October 1937, though for a few scattered establishments the data

³ According to the Census of Manufactures, there was only 1 plant located in a southern State in 1935.

cover either a prior or a later date. This seems to be a representative pay-roll period for the commercial fireworks and fusee divisions. It is not entirely representative for the display fireworks division, although in several instances information for this branch was obtained for a previous pay-roll period.

The industry has decreased in size considerably in the past few years. Thus, according to the Census of Manufactures, the number of establishments declined from 61 in 1929 to 52 in 1935. The reduction in number of wage earners was from 2,448 to 1,588, while wages dropped from \$2,706,512 to \$1,309,493 during the same period. The value of products in the industry declined from \$11,651,785 in 1929 to \$6,504,443 in 1935.

The employees in this industry are not generally organized. Only one establishment was reported as having a contract with a trade-union.

NATURE OF DATA COLLECTED

In every plant visited, the field representative of the Bureau obtained from pay-roll and other records for each worker (exclusive of higher supervisory and office employees) the skill and occupation, color, sex, total hours actually worked, and total earnings for one pay-roll period. In addition, there was obtained for each plant general information on certain topics, such as on full-time hours, overtime rates, and methods of wage payment.

In obtaining the occupation for each employee, the foreman or some other person in charge at the plant was asked to designate the worker's job as skilled, semiskilled, or unskilled. This information was used as a basis for classifying the occupations according to skill, as determined by the consensus of opinion from the various plants visited. In some cases, there was difference of opinion as to the skill of a given occupation.

Using the data collected, the Bureau computed average hourly earnings, weekly hours, and weekly earnings for the entire industry, as well as by sex, skill, occupation, and product. In all cases, the average used was the arithmetic mean. These data were supplemented, whenever necessary, by tables showing the distribution of employees by wage classes.

Average Hourly Earnings

METHODS OF WAGE PAYMENT

In 16 of the 41 establishments covered, all of the wage earners were paid on a straight time-rate basis. In only 2 plants were all workers paid on a straight piece-rate basis. In 19 establishments, part of the employees were paid time rates, while others were paid piece rates.

In the other 4 establishments, some of the workers were paid on a time basis, while others were given a bonus, provided their units of production exceeded a required standard.

The only plant dealing with a trade-union in this industry had a provision in the agreement prohibiting overtime for all except two workers. In 3 establishments, overtime at the rate of time and one-half was paid to all except a few salaried workers. In the remaining 37 plants, when overtime occurred, most of the employees were paid at the regular rate.

AVERAGE HOURLY EARNINGS OF ALL WORKERS

In October 1937, as mentioned previously, the average hourly earnings of the 1,384 wage earners covered in the survey amounted to 41.3 cents (table 1).

One-half of the employees were concentrated within a relatively narrow range, from 27.5 to 42.5 cents an hour. Nearly 15 percent earned less than 27.5 cents. Hence, the number paid less than 42.5 cents, which is slightly above the average, accounts for almost 65 percent of the total working force. On the other hand, the remaining 35 percent were scattered over a fairly wide range of wage classes, although the number receiving high hourly earnings was relatively small.

TABLE 1.—*Distribution of Employees in Fireworks Industry According to Average Hourly Earnings in October 1937, by Sex*

Average hourly earnings	Total			Males			Females		
	Number of employees	Simple percentage	Cumulative percentage	Number of employees	Simple percentage	Cumulative percentage	Number of employees	Simple percentage	Cumulative percentage
Under 12.5 cents.....	11	0.8	0.8	.....	.....	.....	11	1.7	1.7
12.5 and under 17.5 cents.....	37	2.7	3.5	3	0.4	0.4	34	5.1	6.8
17.5 and under 22.5 cents.....	37	2.6	6.1	4	.6	1.0	33	5.0	11.8
22.5 and under 27.5 cents.....	119	8.6	14.7	29	4.0	5.0	90	13.5	25.3
27.5 and under 32.5 cents.....	225	16.3	31.0	41	5.7	10.7	184	27.8	53.1
32.5 and under 37.5 cents.....	215	15.5	46.5	43	5.9	16.6	172	25.9	79.0
37.5 and under 42.5 cents.....	246	17.8	64.3	165	22.9	39.5	81	12.3	91.3
42.5 and under 47.5 cents.....	133	9.6	73.9	106	14.7	54.2	27	4.0	95.3
47.5 and under 52.5 cents.....	119	8.6	82.5	109	15.1	69.3	10	1.5	96.8
52.5 and under 57.5 cents.....	48	3.5	86.0	43	6.0	75.3	5	.8	97.6
57.5 and under 62.5 cents.....	54	3.9	89.9	38	5.3	80.6	16	2.4	100.0
62.5 and under 67.5 cents.....	19	1.4	91.3	19	2.6	83.2	.....	.....	.....
67.5 and under 72.5 cents.....	33	2.3	93.6	33	4.6	87.8	.....	.....	.....
72.5 and under 77.5 cents.....	27	2.0	95.6	27	3.7	91.5	.....	.....	.....
77.5 and under 82.5 cents.....	21	1.5	97.1	21	3.0	94.5	.....	.....	.....
82.5 and under 87.5 cents.....	8	.6	97.7	8	1.1	95.6	.....	.....	.....
87.5 and under 92.5 cents.....	7	.5	98.2	7	.9	96.5	.....	.....	.....
92.5 and under 100.0 cents.....	8	.6	98.8	8	1.1	97.6	.....	.....	.....
100.0 and under 110.0 cents.....	11	.8	99.6	11	1.6	99.2	.....	.....	.....
110.0 cents and over.....	6	.4	100.0	6	.8	100.0	.....	.....	.....
Total.....	1,384	100.0	.....	721	100.0	.....	663	100.0	.....
Average for all employees.....	\$0.413			\$0.491			\$0.318		

AVERAGE HOURLY EARNINGS OF MALE WORKERS

The 721 males, who constituted somewhat more than one-half of the total coverage in the industry, averaged 49.1 cents an hour in October 1937.

The male distribution resembles very closely that for all workers, except that the concentration of male earnings is at a higher level. Thus, more than one-half (52.7 percent) of the male employees were found within the relatively narrow spread of 37.5 and 52.5 cents. About one-sixth were paid under 37.5 cents, which means that nearly 70 percent earned less than 52.5 cents, or 3.4 cents above the group average. In view of the fact that the higher-paid workers in the industry were practically all males, there is very little difference in the latter part of the distribution between males and all workers.

Of the 721 male employees, about one-fifth (141) were classed as skilled, three-fifths (438) as semiskilled, and the remaining one-fifth (142) as unskilled. (See table 2.)

TABLE 2.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings in Fireworks Industry, October 1937, by Sex, Skill, and Occupation

Sex, skill, and occupation	Number of employees	Average hourly earnings	Average weekly hours	Average weekly earnings
All male employees	721	\$0.491	42.4	\$20.82
Skilled males	141	.650	42.6	27.29
Powder mixers	42	.518	41.7	21.62
Foremen, working	55	.802	41.7	33.47
Maintenance and power, skilled	44	.588	42.5	24.99
Semiskilled males	438	.479	41.4	19.86
Loaders, fireworks, machine	51	.522	38.7	20.20
Loaders, fireworks, hand	93	.486	43.6	21.20
Paper fabricators, miscellaneous	53	.408	42.9	17.50
Assemblers and finishers, fireworks	89	.493	39.7	19.56
Fireworks makers, miscellaneous	58	.497	39.7	19.75
Miscellaneous semiskilled	94	.469	42.7	20.02
Unskilled males	142	.379	45.8	17.39
Material carriers and productive helpers	65	.428	41.6	17.81
Laborers	41	.365	42.8	15.62
Watchmen	36	.328	56.8	18.63
All female employees ¹	663	.318	38.3	12.18
Semiskilled females:				
Loaders, fireworks, hand	55	.283	40.8	11.56
Tube rollers, hand	49	.326	40.9	13.32
Paper fabricators, miscellaneous	38	.344	40.1	13.78
Assemblers and finishers, fireworks	360	.305	37.6	11.46
Packers, fireworks	109	.324	38.1	12.37
Miscellaneous semiskilled ²	52	.408	37.3	15.24

¹ Include all semiskilled and 14 unskilled employees.

² Include 14 unskilled employees.

There is wide divergence in the average hourly earnings of the three occupations classed as skilled. These averages were 80.2 cents for working foremen, 58.8 cents for skilled mechanics in the maintenance and power departments, and 51.8 cents for powder mixers. The relatively high earnings of working foremen are undoubtedly due to the skill and responsibility required of them in supervising an industry with a predominance of semiskilled and unskilled employees.

The distribution of the skilled employees in table 3 discloses three widely separated modal concentrations—namely, in the classes of 47.5 and under 52.5 cents an hour, 67.5 and under 77.5 cents, and \$1 and under \$1.10.

The semiskilled male workers as a group averaged 47.9 cents an hour. An examination of the occupational averages in table 2 shows that the leading occupations, with the exception of the miscellaneous paper fabricators (40.8 cents), ranged from 48.6 cents for hand loaders of fireworks to 52.2 cents for machine loaders. It is believed that machine loaders earn more than hand loaders primarily because of greater productivity rather than differences in skill. It should also be noted that the hourly earnings of machine loaders of fireworks averaged slightly more than those of powder mixers, which is generally classified by the industry as a skilled occupation.

An examination of the distribution covering all semiskilled workers shows that 15.1 percent earned under 37.5 cents an hour, 57.7 percent 37.5 and less than 52.5 cents, and 27.2 percent 52.5 cents or over. The 2 principal modal classes were 37.5 and under 42.5 cents and 47.5 and under 52.5 cents.

The hourly earnings of all unskilled male employees averaged 37.9 cents per hour, the earnings for the three individual occupations shown being 42.8 cents for material carriers and productive helpers, 36.5 cents for laborers, and 32.8 cents for watchmen. The material carriers and productive helpers, it will be noted, averaged 2 cents more than the semiskilled occupation of miscellaneous paper fabricators. The former do heavier work than the wage earners in the latter occupation.

As in the case of the skilled workers, the distribution for the unskilled shows 3 modal concentrations; namely, in the classes of 27.5 and under 32.5 cents an hour, 37.5 and under 42.5 cents, and 67.5 and under 72.5 cents. The last concentration is minor in character, but the first and second concentrations are of major importance. Taking the distribution as a whole, it will be seen that about one-third of the unskilled employees were paid less than 37.5 cents, more than one-half 37.5 and under 47.5 cents, and about one-sixth 47.5 cents and over.

TABLE 3.—Percentage Distribution of Males in the Fireworks Industry According to Average Hourly Earnings, October 1937, by Skill

Average hourly earnings	All employees	Skilled employees	Semiskilled employees	Unskilled employees
12.5 and under 17.5 cents.....	0.4	-----	0.2	1.4
17.5 and under 22.5 cents.....	.6	-----	.3	2.1
22.5 and under 27.5 cents.....	4.0	-----	3.8	8.5
27.5 and under 32.5 cents.....	5.7	1.4	4.4	14.1
32.5 and under 37.5 cents.....	5.9	2.9	6.4	7.7
37.5 and under 42.5 cents.....	22.9	7.8	25.1	31.0
42.5 and under 47.5 cents.....	14.7	9.9	14.4	20.4
47.5 and under 52.5 cents.....	15.1	14.9	18.2	5.6
52.5 and under 57.5 cents.....	6.0	8.5	6.0	3.6
57.5 and under 62.5 cents.....	5.3	7.1	6.1	.7
62.5 and under 67.5 cents.....	2.6	4.9	2.5	.7
67.5 and under 72.5 cents.....	4.6	8.6	3.9	2.8
72.5 and under 77.5 cents.....	3.7	8.5	3.0	1.4
77.5 and under 82.5 cents.....	3.0	5.6	3.0	-----
82.5 and under 87.5 cents.....	1.1	2.2	1.1	-----
87.5 and under 92.5 cents.....	.9	3.5	.5	-----
92.5 and under 100.0 cents.....	1.1	3.6	.6	-----
100.0 and under 110.0 cents.....	1.6	6.3	.5	-----
110.0 cents and over.....	.8	4.3	-----	-----
Total.....	100.0	100.0	100.0	100.0
Average for all employees.....	\$0.491	\$0.650	\$0.479	\$0.379

AVERAGE HOURLY EARNINGS OF FEMALE WORKERS

The 663 females covered in the survey formed 48 percent of the total labor force. Nearly all of them were semiskilled workers, there being none in occupations regarded by the industry as skilled and only 14 unskilled employees. Moreover, well over one-half of them were assemblers and finishers of fireworks, while one-sixth were found in the occupation of fireworks packers.

The average hourly earnings of all female employees were 31.8 cents in October 1937. If the miscellaneous workers are excluded, it will be seen from table 2 that the occupational averages were fairly close together, ranging from 28.3 cents for hand fireworks loaders to 34.4 cents for miscellaneous paper fabricators. The leading occupation of fireworks assemblers and finishers averaged 30.5 cents an hour.

The distribution of the earnings of female employees, which appears in table 1, covers a fairly small range of wage classes. That some of the females received extremely low earnings may be seen from the fact that nearly 7 percent were paid less than 17.5 cents an hour. As many as one-fourth of the total earned under 27.5 cents. Considerably more than half of the employees were found in the narrow range of 27.5 and under 37.5 cents. This leaves only about one-fifth of the females earning 37.5 cents or over. It will be further seen that less than 9 percent earned 42.5 cents and over, and none were paid as much as 62.5 cents.

VARIATIONS IN EARNINGS BY SEX

Differences in the hourly earnings of males and females for the same skill and occupations must be examined with certain reservations. It

frequently happened that although the same occupational designation was used for both males and females, the latter were not performing exactly the same duties as the men. At times extra duties, such as lifting heavy burdens, are imposed upon the male employees, which affect their earnings. Nevertheless, a comparison of averages and frequency distributions between the sexes for the same occupations and skill sheds some light on the question of wage differences.

In the same occupations, it will be seen that the male workers earned on the average, considerably more than the females in every instance. The difference was particularly large in the case of hand fireworks loaders, the average earnings per hour being 28.3 cents for females and 48.6 cents for males. For the fireworks assemblers and finishers, the respective averages were 30.5 and 49.3 cents, a difference of 18.8 cents—almost as great as that found among the hand fireworks loaders. The combined average for female hand tube rollers and miscellaneous paper fabricators was 33.4 cents. This may be compared with 40.8 cents for male miscellaneous paper fabricators (including a few hand tube rollers). Thus, the difference in hourly earnings of the two sexes for this occupation amounted to only 7.4 cents. The averages for all semiskilled workers amounted to 47.9 cents for males and 31.8 cents for females.

Comparing the distribution of semiskilled workers for males with that for all females, it is seen that hardly any of the former earned less than 17.5 cents an hour, while nearly 7 percent of the females did. Less than 5 percent of the males were paid under 27.5 cents, as against one-fourth of the female workers. On the other hand, 15 percent of the semiskilled males earned 62.5 cents or over, but not one female worker earned as much as that amount.

GEOGRAPHICAL VARIATIONS IN EARNINGS

It has already been pointed out that the plants in the industry are fairly well scattered over the northern and western parts of the country, with hardly any establishments found in the southern territory.

In a majority of the States included in the survey, there are only one or two establishments, so that separate figures cannot be presented for these States without disclosing information for individual plants. An examination of the State averages discloses considerable variation, but there is no evidence to indicate the existence of wage levels along regional lines. In other words, there is apt to be just as much variation between two adjoining States as between States that are far apart. The reason for such variation lies partly in the fact that many of the plants are located outside of city limits, with the result that their wages, hours, and working conditions are apt to be governed largely by local conditions.

Taking the States with 3 or more establishments, the average hourly earnings amounted to 53.5 cents for Connecticut, 45.2 cents for Illinois, 43.5 cents for New Jersey, 41.8 cents for Ohio, 35.3 cents for Pennsylvania, and 33.3 cents for Maryland. These State averages combine commercial and display plants and fusee plants in unequal proportion. As will be seen later, there is a considerable difference between these branches of the industry. However, there are not enough plants in the industry to present a simultaneous break-down by State and product.

DATA BY DIVISIONS OF INDUSTRY

An examination of the data indicates the existence of significant variations among the three divisions of the industry. Thus, considering all employees, the average hourly earnings were 38.3 cents for commercial fireworks, 41.5 cents for display fireworks, and 51.7 cents for the fusee division. Because the difference between the commercial and display fireworks divisions is small, and because of the small number of employees in the display division, these two divisions have been combined. Their average amounts to 38.6 cents an hour. This is 13.1 cents less than the average for the fusee division.⁴ The difference for males between these two divisions was 17.1 cents, while for females it amounted to 8.6 cents (table 4).

TABLE 4.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Employees in Fireworks Industry, October 1937, by Division and Sex

Sex	Commercial and display fireworks divisions	Fusee division
Average hourly earnings.....	\$0. 386	\$0. 517
Males.....	. 457	. 628
Females.....	. 300	. 386
Average weekly hours.....	41. 5	36. 8
Males.....	43. 7	37. 9
Females.....	39. 1	35. 5
Average weekly earnings.....	\$16. 02	\$18. 99
Males.....	19. 96	23. 80
Females.....	11. 74	13. 72

Comparing the frequency distribution of male employees in the commercial and display fireworks divisions and in the fusee division (see table 5), it will be seen that the number earning less than 37.5 cents amounted to 19.5 percent in the former as against 6.8 percent in the latter. The number earning under 47.5 cents constituted considerably more than half (61.7 percent) in commercial and display fireworks, which may be compared with 28.4 percent in the fusee

⁴ If the two highest-paid plants are left out, the average for the fusee division is 44.1 cents, thus reducing the spread between it and the commercial and display fireworks divisions to 5.5 cents.

division. On the other hand, the number earning 67.5 cents and over amounted to only 7.9 percent for the commercial and display divisions, but in the fusee division it was 47.5 percent.

TABLE 5.—Percentage Distribution of Employees in Fireworks Industry, According to Average Hourly Earnings, October 1937, by Division and Sex

Average hourly earnings	Commercial and display fireworks divisions			Fusee division		
	All employees	Males	Fe-males	All employees	Males	Fe-males
Under 12.5 cents.....	1.0		2.1			
12.5 and under 17.5 cents.....	3.4	0.5	6.4	0.3		0.7
17.5 and under 22.5 cents.....	2.9	.6	5.5	2.0	0.6	3.4
22.5 and under 27.5 cents.....	9.6	4.6	14.9	5.1	1.9	8.7
27.5 and under 32.5 cents.....	18.7	6.6	31.9	7.8	2.4	13.6
32.5 and under 37.5 cents.....	16.6	7.2	27.0	11.6	1.9	22.2
37.5 and under 42.5 cents.....	18.3	26.8	8.9	16.1	9.2	23.7
42.5 and under 47.5 cents.....	9.1	15.4	2.3	11.3	12.4	10.1
47.5 and under 52.5 cents.....	9.5	17.5	.8	5.5	6.8	4.1
52.5 and under 57.5 cents.....	2.6	4.9	.2	6.4	9.9	2.7
57.5 and under 62.5 cents.....	2.7	5.2		8.1	5.5	10.8
62.5 and under 67.5 cents.....	1.5	2.8		1.0	1.9	
67.5 and under 72.5 cents.....	1.2	2.4		6.4	12.3	
72.5 and under 77.5 cents.....	1.0	1.9		5.2	9.9	
77.5 and under 82.5 cents.....	.7	1.3		4.5	8.6	
82.5 and under 87.5 cents.....	.3	.5		1.6	3.1	
87.5 and under 92.5 cents.....	.2	.4		1.6	3.1	
92.5 and under 100.0 cents.....	.1	.3		2.0	3.7	
100.0 and under 110.0 cents.....	.4	.7		2.2	4.3	
110.0 cents and over.....	.2	.4		1.3	2.5	
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
Average for all employees.....	\$0.386	\$0.457	\$0.300	\$0.517	\$0.628	\$0.386

As regards female workers, the proportion earning less than 27.5 cents was 28.9 percent for commercial and display fireworks and 12.8 percent for the fusee division. Furthermore, as many as 87.8 percent earned less than 37.5 cents in the commercial and display fireworks divisions, but in the fusee division this proportion was 48.6 percent. Only 12.2 percent earned 37.5 cents and over in the commercial and display fireworks divisions, which may be compared with 51.4 percent in the fusee division.

An analysis of the averages for individual establishments shows that in the commercial and display fireworks divisions one plant averaged less than 20 cents an hour, 4 plants 20 and less than 30 cents, 9 plants 30 and less than 40 cents, and 12 plants 40 and less than 50 cents. In the fusee division, the averages for individual establishments were distributed over a much wider range, so that one plant averaged 20 and under 30 cents, 3 plants 30 and under 40 cents, 5 plants 40 and under 50 cents, 2 plants 50 and under 60 cents, 2 plants 60 and under 70 cents, and 2 plants 70 and under 80 cents.

PROPORTION OF FORCE EARNING LESS THAN CODE RATES

The difference in wage levels between the commercial-fireworks, display-fireworks, and fusee divisions of the industry was recognized

by the N. R. A. code in the setting of minimum rates. The figures obtained in the present survey offer an opportunity to determine the extent to which these minima are still being observed by each branch of the fireworks industry.

In the commercial-fireworks division, the N. R. A. code set an hourly minimum of 37.5 cents for males and 32.5 cents for females. At the time of this survey, however, there were 93 males out of a total of 488 (19.1 percent) earning less than 37.5 cents, and among the females, 302 out of 500 (60.4 percent) were paid less than 32.5 cents per hour.

In the display-fireworks division, the code minima were 40 cents for males and 35 cents for females. Of 71 males, however, 24 earned less than 40 cents an hour at the time of this survey and of the 15 females, all but 1 earned less than 35 cents.

In the fusee division, the minimum set by the code was 40 cents for all employees. Only 11 males out of 162 (6.8 percent) covered in October 1937 earned less than 40 cents an hour. This may be compared with 78 females out of a total of 148, or 52.7 percent, who earned less than 40 cents.

No similar survey was made during the life of the code to determine the extent of compliance with code minimum wages in this industry.

COMPARISONS WITH OTHER MANUFACTURING INDUSTRIES

It is interesting to compare the average earnings per hour (41.3 cents) in the fireworks industry, as obtained in this survey, with the averages in other manufacturing industries based on employment and pay-roll reports of the Bureau of Labor Statistics in October 1937.⁵

Of the 89 manufacturing industries for which such figures are available, only cottonseed oil, cake, and meal, men's furnishings, and shirts and collars paid less than the fireworks industry, the respective figures being 24.5, 37.6, and 40.8 cents. The cottonseed oil, cake, and meal industry employs hardly any females, but it is located almost entirely in the South. The men's furnishings industry employs a larger proportion of females than does the fireworks industry, and like the fireworks industry it is practically all located in the northern territory. The shirts and collars industry also employs many more females than the fireworks industry, and three-fourths of it is located in the North. The average of the cotton-goods industry, 42.4 cents, is slightly above that of the fireworks industry. The cotton-goods industry, however, has a slightly smaller proportion of female workers, but three-fourths of this industry is located in the southern territory.

Unskilled male workers in the fireworks industry averaged 37.9 cents and laborers 36.5 cents in October 1937. These figures are considerably below the average hourly entrance rate of 55.3 cents for northern

⁵ Because of the small size of the industry, no figures are published for fireworks.

adult male common laborers in 20 industries, which is based on a survey made by the Bureau of Labor Statistics as of July 1937.

Weekly Hours

FULL-TIME WEEKLY HOURS

Of the 41 plants covered, 19 had scheduled hours of exactly 40 per week at the time of the survey. Only 3 establishments had a workweek of less than 40 hours, their full-time hours being respectively $32\frac{1}{2}$, 35, and $36\frac{1}{4}$. The remaining plants were distributed as follows: 1 at $41\frac{1}{4}$, 1 at $42\frac{1}{2}$, 5 at 44, 1 at 45, 7 at 48, 1 at $49\frac{1}{2}$, and 3 at 50 hours per week. A few of these establishments had somewhat shorter full-time hours for females. A number of the plants had extended their full-time hours considerably during the busy season prior to July.

ACTUAL WEEKLY HOURS

As stated before, the actual weekly hours of all employees in the fireworks industry averaged 40.4 in October 1937. The averages were 42.4 for males and 38.3 for females.

According to the distribution in table 6, about one-third of the male employees worked exactly 40 hours per week, and one-fifth of them had a workweek of less than 40 hours. There were 8.6 percent of the males with a workweek of 56 hours and over. Many of these, however, were watchmen, whose average hours amounted to 56.8 per week.

Among the females, one-third of the employees worked less than 40 hours per week, and about 30 percent had a workweek of exactly 40 hours. More than one-fifth of the females worked 44 hours and over, and nearly one-tenth had a workweek of 48 hours and over.

TABLE 6.—*Distribution of Employees in the Fireworks Industry According to Weekly Hours, October 1937, by Sex*

Weekly hours	Total			Males			Females		
	Number of employees	Simple percentage	Cumulative percentage	Number of employees	Simple percentage	Cumulative percentage	Number of employees	Simple percentage	Cumulative percentage
Under 16 hours.....	33	2.4	2.4	19	2.6	2.6	14	2.1	2.1
16 and under 24 hours.....	42	3.0	5.4	20	2.8	5.4	22	3.3	5.4
24 and under 32 hours.....	57	4.1	9.5	19	2.6	8.0	38	5.8	11.2
32 and under 36 hours.....	123	8.9	18.4	30	4.2	12.2	93	14.0	25.2
36 and under 40 hours.....	121	8.8	27.2	63	8.7	20.9	58	8.7	33.9
Exactly 40 hours.....	439	31.7	58.9	245	34.0	54.9	194	29.3	63.2
Over 40 and under 44 hours.....	172	12.4	71.3	67	9.3	64.2	105	15.8	79.0
44 and under 48 hours.....	127	9.2	80.5	47	6.5	70.7	80	12.1	91.1
Exactly 48 hours.....	207	14.9	95.4	65	9.1	79.8	58	8.7	99.8
Over 48 and under 56 hours.....				84	11.6	91.4			
56 and under 62 hours.....	30	2.2	97.6	29	4.0	95.4	1	.2	100.0
62 hours and over.....	33	2.4	100.0	33	4.6	100.0	-----	-----	-----
Total.....	1,384	100.0	-----	721	100.0	-----	663	100.0	-----
Average weekly hours for all employees.....	40.4			42.4			38.3		

It is interesting to note that the average weekly hours in the commercial and display fireworks divisions exceeded those in the fusee division, the respective averages being 41.5 and 36.8. (See table 4.) Males in the commercial and display fireworks divisions averaged 43.7 hours per week, which may be compared with 37.9 hours in the fusee division. Females averaged 39.1 hours in the commercial and display fireworks divisions and 35.5 hours in the fusee division.

Weekly Earnings

As stated at the outset, the average weekly earnings of all employees in the fireworks industry were \$16.68 in October 1937.

For males, the average earnings were \$20.82 per week. According to table 7, one-fourth of them earned \$16 and less than \$20, and one-fifth \$20 and under \$24. Almost one-fourth of the males were paid less than \$16. About one-third of the employees received \$24 or more, and less than one-tenth earned as much as \$32 or over.

TABLE 7.—Distribution of Male and Female Employees in Fireworks Industry According to Weekly Earnings, October 1937

Weekly earnings	Males			Weekly earnings	Females		
	Number of employees	Simple percentage	Cumulative percentage		Number of employees	Simple percentage	Cumulative percentage
Under \$4.....	14	1.9	1.9	Under \$2.....	2	0.3	0.3
\$4 and under \$8.....	24	3.4	5.3	\$2 and under \$4.....	18	2.7	3.0
\$8 and under \$12.....	29	4.0	9.3	\$4 and under \$6.....	37	5.6	8.6
\$12 and under \$16.....	100	13.9	23.2	\$6 and under \$8.....	37	5.6	14.2
\$16 and under \$20.....	180	24.9	48.1	\$8 and under \$10.....	88	13.3	27.5
\$20 and under \$24.....	148	20.6	68.7	\$10 and under \$12.....	108	16.2	43.7
\$24 and under \$28.....	109	15.1	83.8	\$12 and under \$14.....	142	21.5	65.2
\$28 and under \$32.....	54	7.5	91.3	\$14 and under \$16.....	136	20.5	85.7
\$32 and under \$36.....	25	3.4	94.7	\$16 and under \$18.....	54	8.1	93.8
\$36 and under \$40.....	13	1.8	96.5	\$18 and under \$20.....	19	2.9	96.7
\$40 and under \$44.....	17	2.4	98.9	\$20 and under \$22.....	12	1.8	98.5
\$44 and under \$48.....	4	.5	99.4	\$22 and under \$24.....	9	1.3	99.8
\$48 and over.....	4	.6	100.0	\$24 and under \$26.....	1	.2	100.0
Total.....	721	100.0	-----	Total.....	663	100.0	-----

Among the male employees, the working foremen showed the highest average weekly earnings, \$33.47, the next highest average being \$24.99 for the skilled mechanics of the maintenance and power departments. With the exception of miscellaneous paper fabricators, all of the semiskilled occupations averaged about the same weekly earnings, namely from about \$20 to \$21, which were slightly less than that received by the skilled powder mixers. The average of the semiskilled occupation of miscellaneous paper fabricators, \$17.50, was within the range of the average weekly earnings of the unskilled occupations. Among the latter, the lowest average, \$15.62, was reported for laborers. It will be remembered that watchmen earned

the lowest hourly earnings, but the longer hours worked by them increased their weekly earnings to \$18.63, or the highest in the unskilled group. (See table 2.)

In the case of females, the average earnings per week amounted to only \$12.18. Looking at the distribution in table 7, it will be seen that almost 15 percent of them received less than \$8, and an equal number earned \$16 or over. More than 70 percent of the females earned \$8 and under \$16, with about 30 percent concentrated in the classes of \$8 and less than \$12 and the remaining 40 percent in the classes of \$12 and under \$16.

The average weekly earnings of female employees ranged from \$11.46 for fireworks assemblers and finishers to \$13.78 for miscellaneous paper fabricators, if no account is taken of the miscellaneous semiskilled and unskilled workers.

Comparing the average weekly earnings of male and female employees for similar occupations, it will be seen that the former received considerably more than the latter in every case. In fact, the sex variations are greater for average weekly earnings than for average earnings per hour, due to the fact that in every instance the females worked shorter hours than the males.

Since the employees in the fusee division worked shorter hours than those in the commercial and display fireworks divisions, the difference between these branches of the industry in average weekly earnings is not so great as in average hourly earnings. Thus, the workers in the fusee division averaged \$18.99 per week, as compared with \$16.02 in the commercial and display fireworks divisions. For males, the difference amounted to \$3.84, the average being \$23.80 for the fusee division and \$19.96 for commercial and display fireworks. The averages for females were respectively \$13.72 and \$11.74.

AVERAGE HOURLY EARNINGS IN COTTON-GOODS INDUSTRY, 1937¹

THE AVERAGE hourly earnings of wage earners in the cotton-goods industry were 40.9 cents in April 1937, according to a survey of this industry recently completed by the United States Bureau of Labor Statistics. The averages by types of skill were as follows: Skilled, 51.6 cents; semiskilled, 38.6 cents; unskilled, 33.2 cents. In the Northern States, the average hourly earnings of all employees were 48.9 cents, as compared with 38.1 cents in the Southern States.

Scope and Method of Study

DEFINITION OF INDUSTRY

The United States Census of Manufactures in 1935 covered the following distinct branches under the related-industry group of "cotton manufactures":

Cotton woven goods (over 12 inches in width).—(Included in "cotton goods" industry in former censuses.) Establishments whose principal products are plain and fancy woven fabrics in the gray, in the piece or otherwise, over 12 inches in width, and cotton felts, all widths.

Cotton yarn and thread.—(Included in "cotton goods" industry in former censuses.) Manufacturers of yarn in the gray, thread in the gray, and dyed and finished yarn and thread, made for sale or on commission. Includes establishments engaged primarily in spooling, twisting, warping, or winding cotton yarn.

Cotton narrow fabrics.—(Formerly "cotton small wares.") Establishments engaged primarily in the manufacture of narrow woven fabrics, in the gray or in finished form, chiefly not over 12 inches in width, and of braids. The products include woven belting and hose, elastic and nonelastic webbing, tape, trimmings, edgings, bindings, shoe and corset laces, wicks and wicking, etc.

Fish nets and seines.

The survey of the Bureau of Labor Statistics, for periods in April, May, and June 1937, covers the first two branches, which prior to 1935 constituted in the Census of Manufactures the cotton-goods industry and are the largest branches in the industry group.

In conformity with the practice followed by the Census of Manufactures in 1935, this survey excluded the bleaching, dyeing, and finishing departments of mills engaged in finishing piece goods,² but it included the dyeing departments of yarn mills. The survey and census, however, differed in two respects. The survey excluded the

¹ Prepared by the Bureau's Division of Wages, Hours, and Working Conditions.

² Such departments have been classified by the Census of Manufactures in the related-industry group of "dyeing and finishing cotton, rayon, and silk."

mercerizing and finishing departments of thread mills, whereas these operations were included in the census of 1935 under "cotton yarn and thread." On the other hand, the survey included the yarn departments of knitting, tire fabric, and other mills, whereas these departments do not appear in the census data for cotton yarn and thread, but are found in the totals for "knitted goods" and other industries consuming cotton yarn.

Some of the mills in the cotton-goods industry manufacture mixed fabrics, which consist of cotton and silk or cotton and rayon. Such mixed fabrics having a cotton warp were classified by the Census of Manufactures in 1935 with "cotton woven goods over 12 inches wide" (and "cotton narrow fabrics"). Essentially the same procedure was followed in the present survey, which included only those establishments making mixed fabrics with less than 50 percent by weight of noncotton fibers (i. e., silk, rayon, and wool), or making fabrics of different fibers not more than half of which by weight were of cotton fiber.

PAY-ROLL PERIOD COVERED

In 213 of the 244 establishments included in the survey, the data were obtained for a pay-roll period generally during the last half of April 1937. In 15 plants the information covered a period chiefly in May, and in the remaining 16 plants it was in most cases for one in June 1937.

The selection of pay-roll periods beginning with the latter half of April 1937 was made in order that weekly earnings and hours worked might be measured during a season which is normally one of good volume. As regards hourly earnings, they follow the last advance of a general nature (10 percent), which went into effect on April 1. Hence, these gains are embodied in the data obtained in the survey. A number of scattering increases took place subsequently. In some cases, these were reflected in reports obtained for May and June, but average hourly earnings continued to advance from April until the fall as additional plants fell into line with wage increases that most mills had made in April.

The survey was made at a time when the level of employment and pay rolls in the industry was at its highest in the last 10 years. According to the Bureau's Division of Employment Statistics, the April 1937 index numbers, using the 3-year average of 1923-25 as a base or 100, stood at 105.7 for employment and 107.6 for pay rolls, which figures were respectively higher than in any month since November 1927. The index numbers in May 1937 were 105.6 for employment and 106.5 for pay rolls, the respective figures having dropped to 103.0 and 101.2 in June 1937.

ANALYSIS OF SAMPLE

The 244 mills, together with their affiliated plants in the same communities, employed at the time of the survey approximately one-third of the total workers in the industry. In selecting the sample, an attempt was made to cover as many of the large firms as possible, so that the widest representation in number of workers in the industry could be obtained. However, in order not to overweigh the sample with these large plants, their representation was reduced approximately to the same proportion as found in the total industry. Hence, the number of employees actually included in the survey was 91,970 (see table 1). This may be compared with an estimated total employment of 454,391 wage earners in April 1937, which means that the coverage was 20.2 percent.

TABLE 1.—*Number of Employees Covered in Sample of Cotton-Goods Industry, by Region, Sex, and Skill, 1937*

Region and sex	All employees	Skilled	Semiskilled	Unskilled
United States.....	91,970	23,324	48,048	20,598
Males.....	56,453	18,401	23,324	14,728
Females.....	35,517	4,923	24,724	5,870
North.....	23,500	7,399	11,012	5,089
Males.....	13,272	5,520	4,415	3,337
Females.....	10,228	1,879	6,597	1,752
South.....	68,470	15,925	37,036	15,509
Males.....	43,181	12,881	18,909	11,391
Females.....	25,289	3,044	18,127	4,118

In selecting the sample, the Bureau exercised great care to make it representative of the industry as to geographical distribution, size of city, corporate affiliation, size of establishment, kind of product, and type of mill.

Since the geographical factor is of primary interest in the industry, a wider State representation was sought in 1937 than in 1934. Altogether 18 States were covered in 1937, as compared with 15 States in 1934. The States added were Arkansas, Mississippi, and Oklahoma, in recognition of the growing importance of the industry in that section of the country.

The chief cotton-manufacturing States were represented in the sample generally in proportion to the total wage earners as given by the Census of Manufactures in 1935. In addition to a representative coverage by State, an endeavor was made to secure dispersion within each State, so that the different sections and the varying sizes of communities might be properly represented. The same principle was applied in the selection of plants within State lines according to size of establishment and corporate affiliation.

Every effort was made to secure a representative and balanced sample of mills on the basis of fabrics produced. In a few States, the sample in the State may also be balanced as regards product, but in general, because of the scarcity of certain products in given geographical regions, it must be recognized that such products tend to be either under- or over-represented in the smaller cotton-textile States.

The classification by type of mill, which appears for the first time in this survey, differentiates between independent yarn mills and yarn departments or mills of integrated plants engaged in both spinning and weaving. Similarly, a distinction is made between the weaving departments or mills of integrated establishments and those plants which do weaving only and have no yarn departments. Thus, "independent" yarn mills, as designated in this report, are those which produce chiefly (over 50 percent by weight) yarns for sale in the open market. Occasionally, an "affiliated" yarn mill is found in this group, when more than half the mill's production is for sale and less than half is diverted into the weaving mills of the parent organization. "Integrated" yarn mills or departments are those whose product is consumed chiefly in the weaving mills of the parent company, or more often in the weaving department of the same mill. The integrated textile mill is the type of mill which was most common in the sample. In Georgia, for example, 23 mills were of the integrated type, whereas only 8 independent yarn mills are included in the sample for that State. In the weaving division, the integrated mills again were far more numerous than the mills which buy their yarns and do weaving only. The latter type of mill is still common in the Middle Atlantic district, is generally small in size, and commonly engages in the production of woven textile specialties. A fourth type of mill, called the "consumer" mill, was also included in the survey. The products of these mills, consisting largely of knitted goods, but also including many other products such as thread, twine, and fish nets, are outside the scope of the present survey as far as finished products are concerned. However, the yarn departments of 10 of these establishments were covered, since they may be a competitive factor in yarn production, and because the yarns produced by them are essentially the same as those manufactured by other yarn mills or departments covered by the survey.

NATURE OF DATA COLLECTED

The data collected in this survey covered wages and hours, changes in occupational descriptions since 1934, and certain general plant information.

In the case of wages and hours, the data were obtained from plant pay rolls or other records maintained by the employer. The information for each employee included occupation, sex, color, method of wage payment, total hours actually worked, and total earnings for one pay-

roll period. These figures were used to compute averages and frequency distributions for hourly earnings, weekly hours, and weekly earnings.³ The present report, however, is confined to the data on average hourly earnings.

The general plant information covered a description of the plant as to type and various products manufactured, full-time or scheduled hours of work, overtime, methods of wage payment, vacations and holidays, and employer-employee relations. This information will be summarized in a forthcoming publication of the Bureau.

Geographical Differences

DATA FOR INDUSTRY AS A WHOLE

Taking the cotton-textile industry as a whole, hourly earnings averaged 40.9 cents in April 1937. In this industry, as in most, the over-all average covers large variations. Thus, hourly earnings ranged from an average of 30.4 cents for unskilled female workers in the southern cotton mills to 62.6 cents for skilled male workers in the northern mills (see table 2). Around each of these averages in turn there are, as would be expected, further variations in the earnings of individuals.

TABLE 2.—Average Hourly Earnings in Cotton-Goods Industry, by Region, Sex, and Skill, 1937

Sex and skill	All employees			Males			Females		
	United States	North	South	United States	North	South	United States	North	South
Total.....	\$0.409	\$0.489	\$0.381	\$0.425	\$0.521	\$0.396	\$0.380	\$0.445	\$0.352
Skilled.....	.516	.597	.481	.532	.626	.494	.454	.506	.422
Semiskilled.....	.386	.458	.365	.396	.479	.377	.376	.443	.351
Unskilled.....	.332	.397	.311	.334	.403	.313	.328	.383	.304

The extent of variation in average hourly earnings among individual employees in the entire industry may best be seen from the frequency distribution in table 3.

While there is a wide range of individual earnings, an outstanding characteristic of the distribution of average hourly earnings for the cotton-textile industry as a whole is the concentration of earnings for most employees. Thus, more than a fourth (27.4 percent) of all workers were found to earn 32.5 and under 37.5 cents an hour. Three-fifths (60.2 percent) were concentrated within a 15-cent range, earning between 32.5 and 47.5 cents. The range for four-fifths (80.8 percent) of the employees was between 30 and 57.5 cents.

³ The average hourly earnings for each worker were computed by dividing the total earnings by the actual hours worked during the pay-roll period covered. If the period exceeded 1 week, the actual hours worked in 1 continuous week within this period were also obtained, which multiplied by the average hourly earnings gave the weekly earnings.

The great majority of employees tend to concentrate in the relatively low-earnings groups. One-sixth of the employees (16.8 per cent) earned less than 32.5 cents an hour, and two-thirds (65.0 per cent) were paid less than 42.5 cents. More than nine-tenths (91.8 per cent) earned under 57.5 cents. Only 8.2 percent received 57.5 cents or more, and less than 1 percent were paid as much as 82.5 cents.

TABLE 3.—*Distribution of Cotton-Goods Workers According to Average Hourly Earnings, 1937*

Average hourly earnings	Number of employees	Simple percentage	Cumulative percentage
Under 12.5 cents	168	0.2	0.2
12.5 and under 17.5 cents	660	.7	.9
17.5 and under 22.5 cents	1,861	2.0	2.9
22.5 and under 27.5 cents	4,797	5.2	8.1
27.5 and under 30.0 cents	2,657	2.9	11.0
30.0 and under 32.5 cents	5,311	5.8	16.8
32.5 and under 37.5 cents	25,211	27.4	44.2
37.5 and under 42.5 cents	19,073	20.8	65.0
42.5 and under 47.5 cents	11,071	12.0	77.0
47.5 and under 52.5 cents	7,935	8.6	85.6
52.5 and under 57.5 cents	5,709	6.2	91.8
57.5 and under 62.5 cents	3,438	3.8	95.6
62.5 and under 67.5 cents	1,345	1.4	97.0
67.5 and under 72.5 cents	835	.9	97.9
72.5 and under 77.5 cents	687	.8	98.7
77.5 and under 82.5 cents	571	.6	99.3
82.5 and under 87.5 cents	346	.4	99.7
87.5 and under 92.5 cents	192	.2	99.9
92.5 and under 97.5 cents	41	(1)	99.9
97.5 cents and over	62	.1	100.0

¹ Less than $\frac{1}{10}$ of 1 percent.

A third characteristic of the distribution is the sharpness with which the modal class of 32.5 and under 37.5 cents an hour stands out. There is a minor secondary mode at about 25 cents, but essentially the distribution presents a single mode of great concentration substantially below the average. This is somewhat surprising in view of the fact that the total distribution embraces numerous differences based on region, skill, occupation, sex, product, etc. It may be partly explained by the heavy concentration of the cotton-goods industry in the South. With virtually three-quarters of the workers now employed by the southern mills,⁴ the earnings distribution in this region overshadows that for the North in the total figures.

REGIONAL DIFFERENCES

In terms of hourly earnings, the cotton operatives in the North had a large advantage over those in the South in April 1937. Against an average of 48.9 cents an hour for all operatives in the North, the average for the southern workers was 38.1 cents, a difference of nearly 11 cents. The difference in hourly earnings is greater in the

⁴ Monthly Labor Review, January 1938 (p. 41): Regional Differences in Cotton-Textile Wages, 1928 to 1937, by N. A. Tolles.

case of skilled workers (11.6 cents) than in the case of semiskilled (9.3 cents) or unskilled workers (8.6 cents). In percentage terms, however, skilled and semiskilled workers in the North average about 25 percent more than the corresponding groups in the South, while unskilled workers average about 28 percent more.

The greatest difference is shown for male workers, whose hourly earnings averaged 52.1 cents in the North as against 39.6 cents in the South, or a difference of 12.5 cents. For the female operatives, the margin in favor of the northern workers was somewhat narrower, hourly earnings averaging 44.5 cents in the North and 35.2 cents in the South, which is a difference of 9.3 cents.

The advantage of workers in northern mills is further illustrated in table 4.

TABLE 4.—Percentage Distribution of Cotton-Goods Workers According to Average Hourly Earnings, by Region, Sex, and Skill, 1937

Average hourly earnings	North				South			
	Total	Skilled	Semi-skilled	Unskilled	Total	Skilled	Semi-skilled	Unskilled
All employees								
Under 12.5 cents.....					0.2	(1)	0.1	0.9
12.5 and under 17.5 cents.....	(1)	(1)	(1)	0.1	.9	0.1	.5	3.0
17.5 and under 22.5 cents.....	0.2	(1)	0.1	.5	2.7	.6	2.4	5.3
22.5 and under 27.5 cents.....	.5	0.2	.3	1.2	6.9	1.2	5.0	17.2
27.5 and under 30.0 cents.....	.5	.1	.2	1.6	3.7	1.3	3.8	5.9
30.0 and under 32.5 cents.....	1.0	.3	.7	2.8	7.4	2.1	8.7	9.7
32.5 and under 37.5 cents.....	6.0	2.1	4.8	14.0	34.8	9.5	39.6	49.1
37.5 and under 42.5 cents.....	29.0	6.4	29.6	60.5	17.9	16.6	23.1	6.9
42.5 and under 47.5 cents.....	20.3	9.4	30.3	14.2	9.2	15.2	10.0	1.2
47.5 and under 52.5 cents.....	14.1	14.6	18.6	3.7	6.7	17.8	4.5	.6
52.5 and under 57.5 cents.....	9.1	14.6	9.2	.9	5.2	18.7	1.5	.1
57.5 and under 62.5 cents.....	7.3	17.3	3.9	.4	2.5	9.7	.4	(1)
62.5 and under 67.5 cents.....	3.1	8.0	1.2	.1	.9	3.5	.2	(1)
67.5 and under 72.5 cents.....	2.2	6.3	.5	-----	.5	1.9	(1)	-----
72.5 and under 77.5 cents.....	2.3	7.0	.1	-----	.2	.9	(1)	-----
77.5 and under 82.5 cents.....	2.2	6.8	.2	-----	.1	.3	(1)	-----
82.5 and under 87.5 cents.....	1.3	4.1	.1	-----	(1)	.2	-----	-----
87.5 and under 92.5 cents.....	.6	1.8	.1	-----	.1	.3	(1)	-----
92.5 and under 97.5 cents.....	.1	.4	(1)	-----	(1)	(1)	(1)	-----
97.5 cents and over.....	.2	.6	.1	-----	(1)	(1)	-----	-----
Males								
Under 12.5 cents.....					0.1	-----	-----	0.3
12.5 and under 17.5 cents.....	(1)	(1)	-----	0.1	.7	(1)	0.2	2.2
17.5 and under 22.5 cents.....	0.1	(1)	-----	.3	2.1	0.5	1.5	5.2
22.5 and under 27.5 cents.....	.2	0.1	0.1	.5	6.6	1.1	3.8	17.3
27.5 and under 30.0 cents.....	.5	.1	.1	1.6	3.5	1.0	3.3	6.6
30.0 and under 32.5 cents.....	1.1	.2	.9	3.0	6.7	1.7	7.8	10.7
32.5 and under 37.5 cents.....	4.6	.9	3.3	12.6	31.3	7.8	36.6	49.3
37.5 and under 42.5 cents.....	23.4	4.3	22.3	56.3	16.3	13.9	23.9	6.3
42.5 and under 47.5 cents.....	17.8	6.8	30.7	18.8	10.1	14.5	12.5	1.2
47.5 and under 52.5 cents.....	12.3	11.7	18.8	4.9	8.7	18.5	6.8	.7
52.5 and under 57.5 cents.....	10.2	13.8	12.5	1.2	7.3	20.7	2.4	.2
57.5 and under 62.5 cents.....	9.8	17.9	6.5	.6	3.8	11.5	.8	(1)
62.5 and under 67.5 cents.....	4.6	9.4	2.1	.1	1.4	4.3	.3	(1)
67.5 and under 72.5 cents.....	3.5	7.5	1.1	-----	.7	2.4	.1	-----
72.5 and under 77.5 cents.....	3.9	9.1	.4	-----	.3	1.1	(1)	-----
77.5 and under 82.5 cents.....	3.9	9.0	.4	-----	.1	.3	(1)	-----
82.5 and under 87.5 cents.....	2.3	5.3	.2	-----	.1	.3	-----	-----
87.5 and under 92.5 cents.....	1.1	2.5	.2	-----	.1	.3	(1)	-----
92.5 and under 97.5 cents.....	.3	.6	.1	-----	(1)	(1)	(1)	-----
97.5 cents and over.....	.4	.8	.3	-----	(1)	.1	-----	-----

Less than 1/10 of 1 percent.

TABLE 4.—Percentage Distribution of Cotton-Goods Workers According to Average Hourly Earnings, by Region, Sex, and Skill, 1937—Continued

Average hourly earnings	North				South			
	Total	Skilled	Semi-skilled	Unskilled	Total	Skilled	Semi-skilled	Unskilled
Females								
Under 12.5 cents.....					0.5	(1)	0.2	2.6
12.5 and under 17.5 cents.....	0.1		0.1	0.1	1.4	0.2	.7	5.4
17.5 and under 22.5 cents.....	.3		.2	.9	3.6	1.4	3.4	5.7
22.5 and under 27.5 cents.....	.8	0.5	.4	2.6	7.4	1.7	6.2	16.7
27.5 and under 30.0 cents.....	.5	.1	.3	1.7	4.1	2.2	4.4	4.1
30.0 and under 32.5 cents.....	.9	.7	.6	2.3	8.5	3.7	9.7	6.9
32.5 and under 37.5 cents.....	7.6	5.5	5.8	16.7	40.6	16.8	42.8	48.7
37.5 and under 42.5 cents.....	36.1	12.3	34.4	68.3	20.7	27.9	22.3	8.6
42.5 and under 47.5 cents.....	23.5	17.3	30.0	5.5	7.7	18.4	7.4	1.1
47.5 and under 52.5 cents.....	16.4	23.1	18.5	1.4	3.4	14.9	2.2	.2
52.5 and under 57.5 cents.....	7.7	17.0	7.0	.3	1.7	10.2	.6	(1)
57.5 and under 62.5 cents.....	4.2	15.5	2.1	.1	.3	1.9	.1	
62.5 and under 67.5 cents.....	1.1	3.9	.5	.1	.1	.4	(1)	
67.5 and under 72.5 cents.....	.6	2.8	.1		(1)	.1		
72.5 and under 77.5 cents.....	.1	.8			(1)	.1		
77.5 and under 82.5 cents.....	(1)	.1			(1)	(1)		
82.5 and under 87.5 cents.....	.1	.4						
87.5 and under 92.5 cents.....								
92.5 and under 97.5 cents.....					(1)	(1)		
97.5 cents and over.....								

¹ Less than 1/10 of 1 percent.

Nearly 15 percent of the workers in southern mills received less than 30 cents an hour, as compared with slightly more than 1 percent in the North. More than half (56.6 percent) of the operatives in the South earned under 37.5 cents; in the North 8.2 percent were found under that limit. On the other hand, more than one-fourth (28.4 percent) of the employees in northern mills were paid 52.5 cents or more, whereas in the South less than one-tenth (9.5 percent) earned as much. The number of employees receiving 62.5 cents and over amounted to 12.0 percent in the North, as against less than 2 percent in the southern territory.

The distributions indicate the surviving influence of the N. R. A. codes. It should be noted that prevailing practice and opinion in the North tended to hold to 32.5 cents as an absolute minimum and that in general minimum rates had been lifted nearly to 40 cents by two increases of 10 percent each. Thus, in April 1937, 68.3 percent of the unskilled females in the North averaged 37.5 to 42.5 cents an hour. The distribution cut off quite sharply at 32.5 cents, although there is perhaps an unimportant modal concentration at about 25 cents. A similar dominant modal concentration for unskilled males in the North exists between 37.5 and 42.5 cents. The lower part of the distribution cuts off even more sharply at 32.5 cents, and in the case of unskilled males there is a greater tendency for hourly earnings to be above the mode than below it. This same tendency for earnings to hold rigidly above 32.5 cents and to be above rather than below the mode is found in the case of both male and female semiskilled workers.

In neither of these cases, however, is there the overwhelming dominance of a minimum standard, and the modal concentration is less intense than in the case of the unskilled. The mode for females probably falls near 42.5 cents, and in the case of males in the class interval 42.5 to 47.5 cents.

In the case of skilled workers in the North, there is no evidence of concentration caused by any form of minimum-wage practice. For females, the mode falls at about 50 cents, with a fairly symmetrical distribution that includes all but about 5 percent of the workers within the limits of 32.5 to 67.5 cents. For skilled males, the mode is at about 60 cents. Slightly more workers are found above this level than below it, but those who fall below the modal group tend to concentrate above 47.5 cents, while those who receive more than the skilled modal earnings range evenly up to 82.5 cents, and 9.2 percent of all skilled males earn more than this amount.

The N. R. A. code and wage-rate changes also influenced prevailing practice in the South in April 1937. The code minimum adjusted to a 10-percent wage increase still dominates the wage distribution in the South, although the 30-cent minimum appears to have had less restraining influence than the figure of 32.5 cents in the North. Among unskilled southern males and females, nearly half were concentrated in the class interval of 32.5 to 37.5 cents. In both distributions, there is a small scattering of individuals who earned more than 42.5 cents. But by and large those who did not fall in this modal class were paid at substantially lower rates. There is for both groups a well-defined secondary mode in the class interval of 22.5 to 27.5 cents, below which wages diminish to less than 12.5 cents. For semiskilled workers also, the mode is pronounced at 32.5 to 37.5 cents for both males and females. Whether or not the former minimum of 30 cents plays a significant role, it is impossible to tell from the distribution. In the case of females, and possibly in the case of male semiskilled workers, there is again a secondary mode at about 25 cents. For neither group is it as pronounced as in the case of unskilled workers. Furthermore, in the case of the semiskilled females, approximately one-third are above the modal group, while about one-quarter fall below it. In the case of male semiskilled workers in the South, three times as many are above the modal class interval as are below it.

The distribution of earnings for skilled workers in the South shows a more normal type of modal concentration less dominated by a prevailing minimum. The modal class containing somewhat more than one-quarter of the skilled female operatives is 37.5 to 42.5 cents. About an equal number fall below 37.5; but the distribution is cut down sharply at 32.5 cents, indicating possibly a survival at 33 cents of a time-rate guaranteed minimum. Below this level earnings decrease in a manner which would be normal if there were no guaran-

teed hourly rates in connection with relatively low piece rates. The distribution of skilled male earnings in the South shows a modal group at 52.5 to 57.5 cents and very few workers getting less than the former code minimum. In the South, as in the North, the former minimum adjusted for wage-rate changes tends to be the absolute lower limit of earnings for skilled males. But in the South, the distribution lacks higher-earnings groups found in the North. Those who do not fall in the modal group tend to concentrate in three class intervals below the mode or in the first class above it, whereas in the North they tend to fall only two classes below the mode and to rise four classes.

COMPARISONS BY STATES

Although average hourly earnings varied from State to State in April 1937, the differences between States in the North were relatively small. New Jersey showed the highest average for all employees, 50.6 cents, although Connecticut with 49.7 cents and Massachusetts with 49.4 cents were not far behind. In the South, South Carolina showed the highest average, 40 cents, and Mississippi reported the lowest, 28.8 cents. (See table 5.)

For practical purposes the New England and Middle Atlantic States may be grouped together without obscuring any significant variations in earnings, the extreme difference in the averages for all employees being less than 4 cents an hour. In fact, this range is found within the Middle Atlantic States, the spread for the New England States amounting only to 2.1 cents.

TABLE 5.—Average Hourly Earnings in Cotton-Goods Industry, by State and Sex, 1937

Region, district, and State	All employees	Males	Females	Region, district, and State	All employees	Males	Females
<i>North</i>				<i>South</i>			
<i>New England States:</i>				<i>Southeastern States:</i>			
Connecticut.....	\$0.497	\$0.526	\$0.448	Alabama.....	\$0.350	\$0.392	\$0.358
Maine.....	.487	.525	.440	Georgia.....	.377	.392	.349
Massachusetts.....	.494	.522	.451	North Carolina.....	.376	.390	.350
New Hampshire.....	.483	.522	.436	South Carolina.....	.400	.418	.366
Rhode Island.....	.476	.505	.442	Tennessee.....	.392	.407	.366
<i>Middle Atlantic States:</i>				Virginia.....	(1)	(1)	(1)
New Jersey.....	.506	.547	.470	<i>Southwestern States:</i>			
New York.....	.470	.497	.435	Arkansas.....	(1)	(1)	(1)
Pennsylvania.....	.470	.519	.381	Mississippi.....	.288	.302	.267
				Oklahoma.....	(1)	(1)	(1)
				Texas.....	.304	.316	.279

¹ Too few plants to permit the presentation of an average.

This similarity in averages, however, is not found in the South. Although average hourly earnings within the Southeastern States show as great similarity as was found in New England, they are all distinctly above those found in Texas and Mississippi. The averages in the Southeastern States ranged only from 37.6 cents in North

Carolina to 40.0 cents in South Carolina. The 30.4 cents average for Texas, which is 1.6 cents higher than the average for Mississippi, falls more than 7 cents below the level of North Carolina, the State showing the lowest hourly average in the Southeast.

It is interesting to note that within the Northern States the highest average is found in New Jersey, while the lowest occurs in the adjacent States of New York and Pennsylvania. In the southeastern area a similar situation exists, with the highest average appearing in South Carolina, and the lowest averages being found in the adjoining States of North Carolina and Georgia. In part, these differences are of the sort that would result from differences between products.

Generally speaking, the similarities found in average hourly earnings for all workers apply also to the State averages for male and female employees. There is only one notable exception, namely, that the earnings of woman employees in Pennsylvania compare more closely with those in the South than with those in the Northern States.

Differences by Type of Mill and Product

GENERAL

It has been claimed that, in view of the large variety of manufactured products, the cotton-textile industry should be considered as consisting of numerous small industries, each of which is specializing in the production of certain products that require employees of different skills and are affected by totally different competitive conditions, which give rise to wage differences. It has been especially emphasized that in studying wage variations on a geographical basis comparisons should be made on the basis of the same or similar products or groups of products.

In studying the question of wage differences by product and type of mill, it has been first found necessary to eliminate employees in the maintenance, power, and service departments of the various mills.⁵ Thus, the comparisons are restricted to workers engaged more or less directly in the productive processes of the mills, although indirect labor in the mill (such as laborers, cleaners, truckers, and oilers) was retained in the division in which employed. The employees were then classified as to those working in the spinning and weaving divisions of the mill, including in the former such departments as carding, spinning, and winding, and in the latter such departments as warp preparation, weaving, and the cloth room. It should be emphasized here again that the survey did not cover the departments engaged in dyeing and finishing piece goods, although it did include the dyeing of raw stock and yarn. In other words, as far as piece goods are concerned, the survey is limited to goods in the grey.

⁵ Such workers cannot be allocated in an integrated mill as between the yarn and weaving divisions.

In the case of the spinning division of the industry, the product break-down consisted of coarse carded, medium carded, medium combed, and fine combed yarn. Fine carded yarn was found only in two plants, and no separate figures were shown for this product. It will be recognized that many mills weave yarns that fall in several of these categories. To assign such a spinning division to some single category on the basis of the average count of the yarn is, of course, only an approximation. It does, however, eliminate largely the confusion which, it has been alleged, results from a single average of widely dissimilar yarn counts. In every case, the product was classified by type of mill to distinguish between independent yarn mills, the yarn department of consumer mills, and the yarn department of integrated piece-goods mills. Figures are presented if the coverage was sufficiently large so as not to disclose the identity of individual plants.

With respect to the weaving division, the product classification includes ducks and osnaburgs, denims, other colored yarn fabrics, print cloth, narrow sheeting, wide bed sheeting, wide industrial sheeting, fine goods, and such specialties as towels, bedspreads, corduroys and velveteens, upholstery and drapery fabrics, flannels, and blankets. Separate figures were not shown for other specialties, due to the small coverage involved and the desire not to disclose the identity of individual establishments. Owing to the relatively small number of independent weaving plants, it has been found impossible to make comparisons between these and integrated plants.

The results of this survey indicate that a type of mill and product analysis aids substantially in interpreting small differences in hourly earnings. Thus, the existence of lower average hourly earnings in North Carolina than in South Carolina appears to be due partly to the presence of a large independent yarn industry in the former State. Such lower earnings also persist wherever comparison can be made for similar products, namely in the yarn departments of integrated mills making coarse yarns and medium yarns, and in the weaving divisions of print-cloth mills.

A product analysis also serves to modify the interpretation of apparently large differences. Thus, the spinning division of the industry averages lower hourly earnings than the industry as a whole. In the North, the respective figures were 45.9 cents and 48.5⁶ cents in April 1937; in the South, 36.4 cents and 38.0⁶ cents. Such a variation between spinning alone and the industry as a whole will influence the regional difference, in view of the fact that independent yarn production is largely located in the South. Thus, also the fact that a larger proportion of the weaving is on fine goods in the North than in the South makes it important to realize that a part of the

⁶ Exclusive of employees in maintenance, power, and service departments.

over-all spread of 10.8 cents is accounted for by a difference in the weaving division based on product. In this connection, it will be seen that fine goods in New England average 52.4 cents, as compared with 50.1 cents in the weaving division of print cloth mills.

YARN DIVISION

Fundamentally, however, the product analysis does not change the picture of regional differences. By way of illustration, the average for all spinning divisions in the sample, irrespective of product or type of mill, is 46.0 cents in New England and 36.7 cents in the southeastern States, a difference of 9.3 cents. In the case of integrated mills working on coarse carded and fine combed yarns, the difference between the averages is about 6 cents. The spread for medium carded yarn in integrated mills is 9.1 cents, reflecting the fact that New England mills average hourly earnings as high on medium carded yarn as on fine combed, while in the Southeast the former average 3 cents less than fine combed yarn. (See table 6.)

TABLE 6.—Average Hourly Earnings in Spinning Division¹ of Cotton-Goods Industry, by Skill, District, Type of Mill, and Kind of Yarn, 1937

District, type of mill, and kind of yarn	All employees		Skilled		Semiskilled		Unskilled	
	Number	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings
New England States:								
Independent mills:								
Fine combed yarn.....	1,091	\$0.464	75	(²)	798	\$0.471	218	\$0.393
Consumer mills:								
Fine combed yarn.....	1,007	.485	60	(²)	734	.493	213	.417
Integrated mills:								
Coarse carded yarn.....	1,410	.450	125	\$0.585	990	.446	295	.395
Medium carded yarn.....	1,674	.460	144	.603	1,138	.461	392	.399
Fine combed yarn.....	3,782	.459	318	.585	2,753	.460	711	.389
Middle Atlantic States:								
Integrated mills:								
Coarse carded yarn.....	332	.397	47	(²)	196	.408	89	(²)
Medium carded yarn.....	505	.447	42	(²)	329	.457	134	.374
Southeastern States:								
Independent mills:								
Coarse carded yarn.....	3,506	.326	217	.436	2,645	.332	644	.260
Medium carded yarn.....	4,269	.321	240	.405	3,354	.323	675	.282
Medium combed yarn.....	2,217	.367	156	.446	1,723	.368	338	.322
Fine combed yarn.....	2,504	.346	147	.419	2,041	.347	316	.302
Integrated mills:								
Coarse carded yarn.....	13,322	.388	1,045	.523	9,574	.391	2,703	.322
Medium carded yarn.....	12,387	.369	902	.525	9,388	.369	2,097	.292
Fine combed yarn.....	1,471	.399	104	.555	1,151	.395	216	.326
Southwestern States:								
Integrated mills:								
Coarse carded yarn.....	898	.274	69	(²)	689	.273	140	.229
Medium carded yarn.....	485	.311	32	(²)	378	.313	75	(²)

¹ Exclusive of employees of maintenance, power, and service departments.

² Too few employees to permit the computation of an average.

The varying differences in the yarn division of the industry seem to be the result of market conditions rather than of underlying technology. Thus, New England, with a relatively compact labor market, with its mills often located in the same cities as other mills making

different kinds of products, and with an ample supply of skilled labor, averages as high hourly earnings for fine combed yarn in independent yarn mills as in the yarn division of integrated mills. Again, in New England there is virtually no difference between average hourly earnings in the yarn divisions of integrated mills on fine combed yarn and on medium carded yarn. In the southeastern States, on the other hand, there is a spread of 5 or 6 cents between the yarn divisions of integrated mills and independent mills working on similar yarns, whether carded or combed. Again, throughout the southeastern States, as far as analysis is possible, there is a decided difference in favor of coarse carded as compared with medium carded yarn. In North Carolina, for both integrated and independent mills, it amounts to 4.5 cents an hour, in South Carolina for integrated mills to 3.4 cents, and in Alabama for integrated mills to 1.6 cents.⁷ The one exception to this general tendency is found in the integrated mills of Georgia, where the average for medium carded yarn is about the same as in South Carolina and for coarse carded about the same as in Alabama but decidedly lower than in South Carolina. In the Southwestern States, the average earnings are slightly higher in medium carded yarn than in coarse carded, if allowance is made for the inclusion in the former average, as shown in the table, of an Oklahoma mill that pays higher earnings than prevail in the other States in that region. (See table 7.)

TABLE 7.—Average Hourly Earnings in Spinning Division¹ of Cotton-Goods Industry, by Skill, State, Type of Mill, and Kind of Yarn, 1937

State, type of mill, and kind of yarn	All employees		Skilled		Semiskilled		Unskilled	
	Number	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings
Alabama:								
Integrated mills:								
Coarse carded yarn.....	2,917	\$0.373	229	\$0.522	2,099	\$0.374	589	\$0.308
Medium carded yarn.....	744	.357	53	(²)	557	.358	134	.296
Georgia:								
Independent mills:								
Coarse carded yarn.....	1,609	.308	99	(²)	1,203	.313	307	.246
Integrated mills:								
Coarse carded yarn.....	3,375	.376	286	.528	2,460	.372	629	.311
Medium carded yarn.....	2,234	.381	176	.516	1,552	.392	506	.296
North Carolina:								
Independent mills:								
Coarse carded yarn.....	1,393	.356	92	(²)	1,075	.358	226	.310
Medium carded yarn.....	2,948	.311	151	.389	2,338	.312	459	.277
Medium combed yarn.....	1,722	.361	130	.435	1,323	.361	269	.321
Fine combed yarn.....	2,504	.346	147	.419	2,041	.347	316	.302
Integrated mills:								
Coarse carded yarn.....	3,926	.395	288	.507	2,754	.402	884	.333
Medium carded yarn.....	2,745	.350	166	.474	2,199	.349	380	.292
South Carolina:								
Integrated mills:								
Coarse carded yarn.....	1,893	.413	173	.545	1,447	.412	273	.326
Medium carded yarn.....	6,204	.379	476	.552	4,767	.375	961	.296

¹ Exclusive of employees in maintenance, power, and service departments.

² Too few employees to permit the computation of an average.

⁷ In Alabama, the average for coarse carded yarn is decidedly lower than in South Carolina.

The payment of lower hourly earnings in independent yarn mills appears to have little if any relationship to technology or to types of skill required, but it does relate to the marketing set-up. Prices available for the products of such mills are limited by the cost of establishing a yarn division within, for example, a knitting mill. An integrated knitting mill need not necessarily pay more for spinning labor than an integrated cotton-goods mill. The independent yarn mill, on the other hand, has selling costs for its yarn that the integrated company does not have.⁸ It is to be expected in such a situation that independent yarn mills tend to locate in areas where part of the cost of selling can be offset by lowered labor costs.

So far as yarn is concerned, in other words, there is little evidence that yarn count determines regional differences. In a newly developing region, there is some evidence that a premium is paid by mills working on the finer counts to secure the most skilled supply of labor available. But as the labor supply becomes more developed, wage variations by yarn count tend to disappear. Thus, historically, interregional competition first develops intensively in the coarser yarns.

While the aspect of regional differences is not fundamentally modified by a consideration of product variations in the case of yarn, the location of yarn production by count may essentially be determined by the difference. This influence may be more clearly seen from table 8, which gives the average hourly earnings throughout the country for different kinds of yarn produced in various types of mill. Carded yarns average about 33 cents in independent mills and 38 cents in integrated mills. Combed yarns average about 38 cents in independent and 44 cents in integrated mills. But, as has already been noted, New England mills appear to average about the same earnings whether they are independent or integrated or whether working on coarse or fine yarn. Independent carded-yarn mills could not have survived in New England, paying 46 cents as against 33 cents in independent southern mills. On the other hand, the integrated fine-goods mill in New England has tended to survive longest, because there is a smaller competitive disadvantage in the fine combed yarn.

Comparisons on a product basis shed some light on wage spreads between States in the southeastern territory. As regards integrated mills, the averages for coarse carded yarn amounted to 41.3 cents for South Carolina, 39.5 cents for North Carolina, 37.6 cents for Georgia, and 37.3 cents for Alabama, while for medium carded yarn the averages were 38.1 cents for Georgia, 37.9 cents for South Carolina, 35.7 cents for Alabama, and 35.0 cents for North Carolina. It

⁸ Federal Trade Commission. *Textile Industries in the First Half of 1936: Part I.—The Cotton-Textile Industry*. From data on pp. 20-21, it may be estimated that selling, administrative, and general expenses of finished cloth are about 10 cents on the dollar higher for nonintegrated spinning and weaving companies together than they are for integrated companies.

should be also noted that workers in independent plants on coarse carded yarn averaged 35.6 cents in North Carolina, as against only 30.8 cents in Georgia.

TABLE 8.—Average Hourly Earnings in Spinning Division¹ of Cotton-Goods Industry, by Sex, Type of Mill, and Kind of Yarn, 1937

Type of mill and kind of yarn	All employees		Males		Females	
	Number	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings
Independent mills:						
Coarse carded yarn.....	3, 822	\$0. 336	2, 091	\$0. 346	1, 731	\$0. 323
Medium carded yarn.....	4, 269	. 321	2, 348	. 327	1, 921	. 313
Medium combed yarn.....	2, 627	. 380	1, 513	. 385	1, 114	. 374
Fine combed yarn.....	3, 595	. 381	2, 062	. 385	1, 533	. 376
Consumer mills:						
Fine combed yarn.....	1, 588	. 473	599	. 477	989	. 471
Integrated mills:						
Coarse carded yarn.....	15, 962	. 386	9, 471	. 398	6, 491	. 366
Medium carded yarn.....	15, 051	. 380	8, 228	. 399	6, 823	. 355
Fine combed yarn.....	5, 253	. 443	2, 755	. 458	2, 498	. 426

¹ Exclusive of employees in maintenance, power, and service departments.

WEAVING DIVISION

In the case of the weaving division of the cotton-textile industry, there was not a sufficient number of independent weaving mills to present the data on a geographical basis by type of mill. The regional figures are, therefore, limited to comparisons by product alone. Comparisons between New England and the Southeastern States are possible for print cloth, print cloth and sheeting in combination, and fine goods. In each case the average hourly earnings are considerably higher in New England, the actual differences amounting respectively to 9.3, 9.3, and 8.3 cents. In only one instance is it possible to compare the Middle Atlantic States with each of these districts. This is in the case of print cloth and sheeting combined, for which the average hourly earnings of employees in the Middle Atlantic States is 1.6 cents below the New England average. (See table 9.)

As regards individual States in the southeastern district it is seen that South Carolina paid slightly higher wages on the average than either Georgia or Alabama in plants making narrow sheeting, the respective averages being 40.9, 39.8, and 39.7 cents. In print-cloth establishments, the average earnings per hour amounted to 42.1 cents for South Carolina and 37.1 cents for North Carolina. The average for North Carolina (41.2 cents) was slightly higher than that (40.3 cents) in Georgia for colored yarn fabrics other than denims.

The average earnings per hour of employees were much higher in the Southeastern than in the Southwestern States for each product for which a comparison is available. The variations amounted to 11.7 cents for ducks and osnaburgs, 9.6 for colored yarn fabrics, 7.1 for

print cloth and sheeting, and 10.7 for narrow sheeting. The narrower spread in the case of print cloth and sheeting is due to the inclusion of an Oklahoma mill in a sample that is dominated by lower-wage plants in other States.

TABLE 9.—Average Hourly Earnings in Weaving Division¹ of Cotton-Goods Industry, by Skill, Kind of Goods, District, and State, 1937

Type of woven goods and district and State	All employees		Skilled		Semiskilled		Unskilled	
	Number	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings
Ducks and osnaburgs:								
Southeastern States.....	1,385	\$0.410	626	\$0.478	282	\$0.380	477	\$0.335
Southwestern States.....	292	.293	157	.323	45	(2)	90	(2)
All colored yarn fabrics:								
Southeastern States.....	4,835	.413	2,454	.470	1,187	.384	1,194	.329
Southwestern States.....	282	.317	150	.373	49	(2)	83	(2)
Colored yarn fabrics other than denims:								
Georgia.....	1,075	.403	517	.472	248	.375	310	.311
North Carolina.....	1,489	.412	819	.452	347	.377	251	.327
Print cloth and sheeting:								
New England States.....	1,925	.499	828	.612	429	.422	668	.407
Middle Atlantic States.....	477	.483	189	.603	98	(2)	190	.389
Southeastern States.....	11,761	.406	5,505	.484	2,040	.366	4,216	.321
Southwestern States.....	426	.335	229	.392	66	(2)	131	.249
Print cloth:								
New England States.....	761	.501	332	.614	147	.418	282	.407
Southeastern States.....	6,254	.408	3,149	.483	952	.361	2,153	.315
North Carolina.....	1,078	.371	531	.439	202	.334	345	.286
South Carolina.....	4,294	.421	2,260	.496	601	.366	1,433	.322
Narrow sheeting:								
Southeastern States.....	3,956	.401	1,594	.485	803	.369	1,559	.330
Alabama.....	1,618	.397	566	.494	354	.360	698	.337
Georgia.....	1,086	.398	441	.493	205	.367	440	.315
South Carolina.....	1,252	.409	587	.471	244	.384	421	.335
Southwestern States.....	291	.294	157	.350	46	(2)	88	(2)
Fine goods:								
New England States.....	5,763	.524	3,734	.589	1,095	.424	934	.390
Southeastern States.....	1,545	.441	834	.523	323	.367	388	.326

¹ Exclusive of employees of maintenance, power, and service departments.

² Too few employees to permit the computation of an average.

In newly developing areas, hourly earnings in the weaving division of mills appear to be adjusted to assure the manufacturer of finer fabrics of the more skilled supply of labor. Thus, in the Southwest the average of skilled workers on ducks and osnaburgs in the sample was 32.3 cents, on narrow sheetings 35.0 cents, and on colored yarn fabrics 37.3 cents. Differences of approximately this order in the Southwest are indicated by the hourly earnings of weavers and loom fixers, the two largest occupations classed as skilled. On the other hand, semiskilled and unskilled workers appear to be hired at local rates, which may be higher or lower for mills on coarse goods than for the others. Similarly, in the Southeastern States skilled workers on print cloth and sheeting average 48.4 cents, while on fine goods they average 52.3 cents. This difference is supported in the average hourly earnings of weavers and loom fixers, but there is no difference as between these fabrics in the average for semiskilled and unskilled workers.

In established areas, the wage spread for particular occupations tends to disappear. Thus, it is impossible to distinguish significant

variations in the average earnings of weavers or loom fixers in the Southeastern States, whether working on ducks and osnaburgs, narrow sheetings, print cloth, or colored yarn fabrics, unless it be a tendency toward lower earnings in print-cloth mills. In New England, the averages of loom fixers on fine goods are 4 cents higher than in the print-cloth sample. The average for weavers is actually lower on fine goods, as is also the average of the unskilled groups.

It remains, therefore, to explain the fact that, while New England fine-goods mills generally pay less for a given type of labor than the print-cloth mills in the sample, the over-all average for the weaving division on fine goods is 52.4 cents while that for print cloth is 50.1 cents. The answer lies in a different balance of occupations—44 percent of the workers on print cloth are in occupations listed as skilled, while 65 percent in fine goods are skilled.

Table 10 presents the average hourly earnings by product, including selected specialties, on a national basis. It will be seen that in the case of the various products the average varied from 38.6 cents for ducks and osnaburgs to 59.8 for upholstery and drapery fabrics. Next to upholstery and drapery fabrics, the highest averages were reported for fine goods and corduroys and velveteens, each of which requires considerable skill on the part of the workers in the production of the woven goods. Moreover, these products are largely produced in the New England and Middle Atlantic States, so that the higher wages paid may also be explained by the geographical variation.

TABLE 10.—Average Hourly Earnings in Weaving Division¹ of Cotton-Goods Industry, by Sex and Kind of Goods, 1937

Kind of woven goods	All employees		Males		Females	
	Number	Average hourly earnings	Number of employees	Average hourly earnings	Number of employees	Average hourly earnings
Ducks and osnaburgs.....	1,677	\$0.386	1,179	\$0.399	498	\$0.353
All colored yarn fabrics.....	5,416	.407	3,565	.422	1,851	.378
Denims.....	1,482	.427	1,040	.435	442	.406
Other colored yarn fabrics.....	3,934	.400	2,525	.417	1,409	.369
Print cloth and sheeting.....	14,589	.419	9,320	.437	5,269	.385
Print cloth.....	7,185	.418	4,738	.437	2,447	.378
Narrow sheeting.....	4,688	.404	2,993	.418	1,695	.380
Wide bed sheeting.....	2,182	.459	1,258	.487	924	.420
Wide industrial sheeting.....	534	.390	331	.408	203	.358
Fine goods.....	7,308	.507	4,719	.539	2,589	.448
All specialties ²	4,732	.468	3,453	.489	1,279	.409
Towels.....	1,462	.440	1,018	.461	444	.392
Bedspreads.....	842	.480	642	.493	200	.436
Corduroys and velveteens.....	846	.522	517	.573	329	.438
Upholstery and drapery fabrics.....	398	.598	327	.637	71	(³)
Flannels.....	452	.426	301	.437	151	.405
Blankets.....	483	.439	440	.449	43	(³)

¹ Exclusive of employees in maintenance, power, and service departments.

² Including tire fabrics and miscellaneous specialties, for which no separate figures are shown, due to a relatively small coverage.

³ Too few employees to permit the computation of an average.

The following tendencies are revealed in these data: (1) In the early stages of development, a premium is paid for workers on the higher counts to secure the best of the local labor supply; (2) the difference occasioned by product, even in developing areas, occurs only in the wages of skilled occupations and does not appear to exist as regards the unskilled; (3) as an ample supply of skilled labor is developed, this variation by product tends to disappear, while regional differences tend to persist; (4) therefore, in the competition of a newly developing region with an established producing area, the regional differences in wages make competition most intense on coarser goods; (5) at the present stage of development, there appear to be no significant differences in earnings in New England as regards the whole range of products and in the Southeast as regards carded yarns; (6) the Southeast faces competition from the Southwest that is most intense in the coarser carded yarns; (7) New England has a slightly greater disadvantage on fabrics of medium carded yarn than is indicated by a general comparison of earnings in cotton mills; (8) at the present stage of development of the fine-goods industry in the Southeast, the wage spread between New England and the Southeast is perhaps about three-fourths as large on fabrics of fine combed yarn as the general average would indicate.

Historical Comparison, 1934 to 1937

Because of differences between mills and possibly between occupations within mills, an analytical inquiry into the changes as compared with August 1934, or the period of the last field survey in this industry, is of especial interest.

In order to make a fair comparison with earnings in August 1934 when the industry was operating under the code, it is necessary to exclude from the tabulation the plants in the three States—Arkansas, Mississippi, and Oklahoma—which were included in the 1937 survey but not in the 1934 survey. With these States excluded, the results are thoroughly comparable. (See table 11.) Quantitatively, they are comparable in that 90,610 workers were covered in the 1937 canvass as against 99,402 in the preceding survey. The principal qualitative difference between the two surveys is the increase in the proportion of southern workers. In the 1934 survey, the number of southern workers comprised slightly less than two-thirds of all workers included, but in the 1937 survey virtually three-fourths of the workers included were employed by the southern mills, which accords closely with the distribution shown by the Census of Manufactures and currently indicated by active spindle hours.

TABLE 11.—Number of Employees Covered in Sample of Cotton-Goods Industry, by Sex and Region, 1934 and 1937

Region	1934			1937		
	All employees	Males	Females	All employees	Males	Females
United States.....	99,402	61,725	37,677	90,610	55,645	34,965
North.....	35,055	20,164	14,891	23,500	13,272	10,228
South.....	64,347	41,561	22,786	67,110	42,373	24,737

Under the cotton-textile code the minimum hourly wage rates, with minor exceptions, were 30 cents in the South and 32½ cents in the North. Although code rates affected the low-paid much more than the higher paid occupations, the net effect of the code was to raise average hourly earnings for the industry as a whole by 64.5 percent between July 1933 and July 1934.⁹ Moreover, the spread between the earnings of workers in the North and the South was narrowed materially. Compared with a weighted average difference of nearly 39 percent in favor of the northern cotton-mill worker in July 1933, the spread shrank to an average of somewhat less than 18 percent in August 1934.¹⁰ The narrowing of the North-South differences during this period was caused chiefly by large increases that the code brought to the low-paid workers employed by the southern mills.

A bird's-eye view of the principal changes that have occurred since the N. R. A. is supplied by table 12. Overshadowing all other features of the table is the fact that average hourly earnings of both male and female workers in both the North and the South increased substantially between August 1934 and April 1937. The most conspicuous increase is shown for male workers in the North, whose average earnings rose from 44.7 cents an hour in 1934 to 52.1 cents in 1937, a gain of 16.6 percent. An increase almost as pronounced is indicated for the northern female operatives, whose earnings advanced 15.6 percent and in April 1937 averaged 44.5 cents an hour. In the South, the increases during this interval were considerably less, hourly earnings in 1937 averaging 39.8 cents for male workers and 35.5 cents for female workers. Compared with 1934, these averages represent increases of 7.9 percent for the male operatives and 7.3 percent for the female.

⁹ Monthly Labor Review, March 1935 (p. 613): Wage Rates and Weekly Earnings in the Cotton-Textile Industry, 1933-34, by A. F. Hinrichs.

¹⁰ Monthly Labor Review, May 1935 (p. 1173): Historical Review of Wage Rates in the Cotton-Textile Industry, by A. F. Hinrichs and Ruth Clem.

TABLE 12.—Average Hourly Earnings in Cotton-Goods Industry, by Sex and Region, 1934 and 1937¹

Year and sex	United States	North	South
All employees:			
1934.....	\$0.381	\$0.422	\$0.356
1937.....	\$0.411	\$0.489	\$0.383
Percentage change.....	+7.9	+15.9	+7.6
Males:			
1934.....	\$0.396	\$0.447	\$0.369
1937.....	\$0.427	\$0.521	\$0.398
Percentage change.....	+7.8	+16.6	+7.9
Females:			
1934.....	\$0.354	\$0.385	\$0.331
1937.....	\$0.381	\$0.445	\$0.355
Percentage change.....	+7.6	+15.6	+7.3

¹ The 1937 data are exclusive of Arkansas, Mississippi, and Oklahoma, in order to make them comparable with those of 1934.

WIDENING OF NORTH-SOUTH VARIATIONS

Hardly less striking than the substantial gains in average earnings is the fact that the spread between earnings in the North and South has widened appreciably since 1934. In August 1934, when the cotton-textile code was in effect, the average earnings of all cotton-mill operatives in the North were 42.2 cents an hour, compared with an average of 35.6 cents for those in the South. In April 1937, by contrast, the over-all average was 48.9 cents for the northern workers and 38.3 cents for the southern. In other words, the difference between the regional averages increased from 6.6 cents to 10.6 cents during the 3-year interval. Not only is the difference greater today than it was in 1934 during the operation of the cotton-textile code, but it is somewhat greater than it was in the months immediately preceding the adoption of the code, though in percentage terms the difference is less than that which prevailed during the late twenties and early thirties, when the regional differences were generally declining.¹¹ In the early months of 1932, for example, the difference between the regional averages was 8.4 cents, and in July 1933 the average hourly earnings of operatives in the North was only 7.1 cents higher than the average for those in the South.

Although the spread between the regional averages of both male and female workers increased between 1934 and 1937, the spread increased most in the case of the average earnings of male operatives. For the female workers, the difference between the regional averages increased from 5.4 cents an hour in August 1934 to 9.0 cents in April 1937. During the same period, the North-South difference in the hourly earnings of male workers increased from 7.8 cents to 12.3 cents. This shift in relationships indicates that the largest gains through the wage increases since 1934 accrued to the male operatives in the North.

It will be recalled that between July 1933 and August 1934 the code, which raised most the wages of the lowest-paid workers, had the effect of somewhat narrowing the customary differences which had

¹¹ Monthly Labor Review, January 1938 (p. 36): Regional Differences in Cotton-Textile Wages, 1928 to 1937, by N. A. Tolles.

prevailed between skilled and unskilled occupations in the cotton-textile industry.¹² The maintenance of occupational variations had been one of the issues facing the industry in 1934. Rate changes since 1934 should, therefore, be examined, bearing in mind the possibility that they may have moved in the direction of restoring established customary relationships.

CHANGES IN WAGE DISTRIBUTION

Crude averages, however, frequently lead to conclusions that are not borne out by fact. They furnish no clue as to the proportion of the workers that have been affected by the changes in the wage structure of the industry, nor do they suggest the specific wage groups that have been affected. Reports to the Bureau of Labor Statistics indicate that upward revisions of wage rates were widespread in the industry in the closing quarter of 1936 and the early months of 1937,¹³ but they fail to offer persuasive evidence that all workers shared alike in the adjustments. In the cotton-textile industry, where the greatest proportion of the working force falls within the low-wage brackets, the incidence of wage revision is of particular significance. In order to throw light on this question, table 13 shows by region and sex the percentage distribution of the workers covered by the 1934 and 1937 surveys that received specified hourly earnings.

An outstanding feature of the 1934 survey was the small percentage of the workers who received payments of less than the basic minima provided by the code. In the North, only 3.5 percent of the workers for whom information was obtained were receiving less than 32½ cents an hour, and subminimal rates of less than 30 cents an hour were reported for less than 7 percent of the workers in the South. Moreover, approximately three-fourths of the workers who were paid less than the basic minima were in occupations that were subject to exemption.¹⁴ Although the minimum rates established by the code did not tend to become the maximum, the table shows that in 1934 there was a heavy concentration of earnings at or near the minimum. In August of that year, 37.6 percent of the northern workers received from 32.5 to 37.5 cents an hour, and 42.2 percent of the southern workers received from 30 to 32.5 cents an hour. Furthermore, roughly three-fourths of both the northern and southern workers covered by the 1934 survey fell within the relatively narrow range of earnings above the minimum: 32.5 to 47.5 cents in the north and 30.0 to 42.5 cents in the South. Finally, it will be noted that in August 1934 slightly less than a fourth of the workers in the North and only 8.1

¹² U. S. Bureau of Labor Statistics. Textile Report: Part I.—Wage Rates and Weekly Earnings in the Cotton-Goods Industry from July 1933 to August 1934, (mimeographed), pp. 40-42.

¹³ *Idem*, Employment and Pay Rolls, October 1936-June 1937.

¹⁴ *Idem*, Wage Rates and Weekly Earnings in the Cotton-Goods Industry from July 1933 to August 1934. (Mimeographed report (2d ed.), p. 23.)

percent of those in the South were receiving 47.5 cents an hour or more. In both regions, moreover, the overwhelming majority of the operatives who were in the higher-wage brackets were male workers.

TABLE 13.—Percentage Distribution of Cotton-Goods Workers According to Average Hourly Earnings, by Region and Sex, 1934 and 1937¹

Average hourly earnings	United States					
	All employees		Males		Females	
	1934	1937	1934	1937	1934	1937
Under 12.5 cents.....	(²)	0.2	(²)	0.1	(²)	0.3
12.5 and under 17.5 cents.....	0.1	.6	0.1	.4	0.1	.9
17.5 and under 22.5 cents.....	.4	1.7	.4	1.4	.4	2.3
22.5 and under 27.5 cents.....	3.9	5.1	5.0	4.9	2.2	5.3
27.5 and under 30.0 cents.....	.7	2.9	.8	2.8	.5	3.0
30.0 and under 32.5 cents.....	27.9	5.7	24.4	5.3	33.5	6.2
32.5 and under 37.5 cents.....	28.1	27.5	23.2	25.3	36.0	31.4
37.5 and under 42.5 cents.....	15.5	20.9	15.4	18.1	15.7	25.4
42.5 and under 47.5 cents.....	9.5	12.1	11.6	12.0	6.1	12.4
47.5 and under 52.5 cents.....	5.3	8.7	6.8	9.6	2.9	7.3
52.5 and under 57.5 cents.....	3.2	6.3	4.0	8.0	1.7	3.4
57.5 and under 62.5 cents.....	2.2	3.8	3.3	5.2	.5	1.5
62.5 and under 67.5 cents.....	1.5	1.5	2.3	2.2	.2	.4
67.5 and under 72.5 cents.....	.6	.9	1.0	1.4	.1	.2
72.5 and under 77.5 cents.....	.4	.8	.6	1.2	(²)	(²)
77.5 and under 82.5 cents.....	.2	.6	.3	1.0	(²)	(²)
82.5 and under 87.5 cents.....	.1	.4	.2	.6	(²)	(²)
87.5 and under 92.5 cents.....	.1	.2	.2	.3	(²)	(²)
92.5 and under 97.5 cents.....	.1	(²)	.1	.1	(²)	(²)
97.5 cents and over.....	.2	.1	.3	.1	(²)	(²)
North						
Under 12.5 cents.....	(²)		(²)		(²)	
12.5 and under 17.5 cents.....	0.1	(²)	0.1	(²)	0.1	0.1
17.5 and under 22.5 cents.....	.3	0.2	.1	0.1	.4	.3
22.5 and under 27.5 cents.....	.9	.5	.8	.2	.9	.8
27.5 and under 30.0 cents.....	.7	.5	1.0	.5	.4	.5
30.0 and under 32.5 cents.....	1.5	1.0	1.1	1.1	2.0	.9
32.5 and under 37.5 cents.....	37.6	6.0	29.4	4.6	48.9	7.6
37.5 and under 42.5 cents.....	21.9	29.0	18.9	23.4	26.0	36.1
42.5 and under 47.5 cents.....	12.7	20.3	14.4	17.8	10.5	23.5
47.5 and under 52.5 cents.....	7.6	14.1	9.3	12.3	5.4	16.4
52.5 and under 57.5 cents.....	5.3	9.1	6.6	10.2	3.7	7.7
57.5 and under 62.5 cents.....	4.6	7.3	7.3	9.8	1.0	4.2
62.5 and under 67.5 cents.....	3.5	3.1	5.8	4.6	.4	1.1
67.5 and under 72.5 cents.....	1.4	2.2	2.2	3.5	.2	.6
72.5 and under 77.5 cents.....	.9	2.3	1.6	3.9	.1	.1
77.5 and under 82.5 cents.....	.3	2.2	.4	3.9	(²)	(²)
82.5 and under 87.5 cents.....	.1	1.3	.2	2.3	(²)	(²)
87.5 and under 92.5 cents.....	.3	.6	.4	1.1	(²)	(²)
92.5 and under 97.5 cents.....	.1	.1	.1	.3	(²)	(²)
97.5 cents and over.....	.2	.2	.3	.4	(²)	(²)
South						
Under 12.5 cents.....	(²)	0.2	(²)	0.1	(²)	0.5
12.5 and under 17.5 cents.....	0.1	.8	0.1	.6	0.1	1.3
17.5 and under 22.5 cents.....	.5	2.3	.5	1.8	.4	3.1
22.5 and under 27.5 cents.....	5.6	6.7	7.0	6.3	3.0	7.2
27.5 and under 30.0 cents.....	.7	3.7	.7	3.5	.6	4.1
30.0 and under 32.5 cents.....	42.2	7.3	35.7	6.6	54.1	8.4
32.5 and under 37.5 cents.....	22.9	35.2	20.4	31.7	27.5	41.1
37.5 and under 42.5 cents.....	12.1	18.1	13.8	16.4	9.0	21.0
42.5 and under 47.5 cents.....	7.8	9.3	10.3	10.2	3.3	7.7
47.5 and under 52.5 cents.....	4.1	6.8	5.6	8.8	1.2	3.5
52.5 and under 57.5 cents.....	2.0	5.3	2.8	7.4	.4	1.7
57.5 and under 62.5 cents.....	.9	2.5	1.3	3.8	.2	.3
62.5 and under 67.5 cents.....	.4	.9	.6	1.4	.1	.1
67.5 and under 72.5 cents.....	.2	.5	.3	.7	(²)	(²)
72.5 and under 77.5 cents.....	.1	.2	.2	.3	(²)	(²)
77.5 and under 82.5 cents.....	.1	.1	.2	.1	(²)	(²)
82.5 and under 87.5 cents.....	.1	(²)	.1	.1	(²)	(²)
87.5 and under 92.5 cents.....	.1	.1	.1	.1	(²)	(²)
92.5 and under 97.5 cents.....	(²)	(²)	.1	(²)	(²)	(²)
97.5 cents and over.....	.1	(²)	.2	(²)	(²)	(²)

¹ The 1937 data are exclusive of Arkansas, Mississippi, and Oklahoma, in order to make them comparable with those of 1934.

² Less than 1/10 of 1 percent.

How has the picture been altered in the period since 1934? Most significant of all is the fact that in both the North and the South, wage increases have shifted the center of gravity of the distributions, or the modal concentrations, to a higher level in 1937. This aspect has already been discussed in connection with the averages. But a more detailed study shows that this has not been a bodily shift of the entire distribution. Wages have tended to spread out, with an increased proportion earning extremely low amounts and with somewhat greater opportunity for higher earnings.

The heavy concentration at the minimum rates established by the code has disappeared. Insofar as minima prevailed in 1937, they were the code rates adjusted for a widespread 10 percent increase in the South and for two such increases in the North. In other words, in both the North and the South there is still some observance of conventional minimum wages that distinguishes the distribution of earnings in the cotton-textile industry in 1937 from that which existed prior to the N. R. A.

In the North, the lack of concentration at the old code minimum rates is due almost entirely to an upward shift of wages. In 1934, payments of less than 32½ cents an hour were reported for 3.5 percent of the northern workers, but only slightly more than 2 percent received less than this amount in 1937. It is also noteworthy that fewer females, as well as fewer males, in the northern sample are now earning less than 32½ cents an hour. But while an upward shift was widespread, the dispersal of the concentration at the minimum has been contributed to by the lagging of rates in some plants. Thus, in 1937, 8.2 percent of the workers in the North received less than 37.5 cents, a substantially larger proportion than formerly received less than the minimum. Finally, in isolated situations, as has been indicated in the discussion of the Pennsylvania distribution, rates appear to have been reduced.

In the South, on the other hand, there has been more dispersion from the old 30-cent minimum. The industry in general moved to a higher rate. But the proportion of southern workers who received less than 30 cents an hour has almost doubled, rising from less than 7 percent in August 1934 to 13.7 percent in April 1937. The most important factor contributing to this change has been the sharp rise in the ratio of female workers with subminimal earnings, which has increased from slightly more than 4 percent in 1934 to 16.2 percent in 1937. But the ratio of subminimal male workers in the South has also increased during the interval, 12.3 percent receiving less than 30 cents an hour in 1937 as against 8.3 percent in 1934.

In considering the increased spread in the distribution of earnings, it must be emphasized that there is a larger percentage at the relatively higher income levels. This is especially marked in the case of males in the North.



SALARIES IN COLLEGE AND SCHOOL LIBRARIES, 1936-37

IN COLLEGE and university libraries in 1936-37 the salaries of librarians ranged from \$1,615 to \$10,000; of professional assistants from \$600 to \$5,250; and of subprofessional assistants from \$480 to \$1,800. In small colleges, for the year covered, salaries of librarians ranged from \$900 to \$5,400; of professional assistants from \$660 to \$3,400; and of subprofessional assistants from \$420 to \$1,500. These and other salaries in college and school libraries are reported in the following table:¹

TABLE 1.—Salaries in University, College, and School Libraries, 1936-37

Library and salary classification	Number of employees (full-time equivalent)		Salaries of—				
	Total	Professional	Librarians	Professional assistants ¹		Subprofessional assistants	
				Minimum	Maximum	Minimum	Maximum
College and university:							
High.....	126	77	\$10,000	² \$5,250	\$4,500	\$1,400	\$1,800
Median.....	30	19	4,290	-----	-----	1,006	1,320
Low.....	2	2	1,615	600	714	480	720
Small college:							
High.....	14	12	5,400	² 3,400	2,340	1,300	1,500
Median.....	3 ³ / ₁₆	3	2,307	-----	-----	700	960
Low.....	1 ¹ / ₄	1	900	660	³ 900	420	660
Teachers college and normal school:							
High.....	9 ¹ / ₂	9 ¹ / ₂	3,500	2,053	2,200	1,636	-----
Median.....	2 ¹ / ₂	2	2,085	-----	-----	945	-----
Low.....	1	1	1,540	675	1,200	270	-----
Junior and senior high school:							
High.....	-----	-----	4,200	2,225	3,200	960	1,800
Median.....	-----	-----	4,350	1,240	1,800	930	1,438
Low.....	-----	-----	4,431	590	1,200	675	855

¹ Includes associate or assistant chief librarians, department heads, and professional assistants; where only one salary is shown for any one of these classifications it is included in the minimum column.

² One salary—that of assistant chief. See footnote 1.

³ \$950 in detailed table.

⁴ Maximum paid high-school librarians in various cities. Salaries of library supervisors: High, \$4,250; median, \$3,054; low, \$2,254.

Salaries in various college and university libraries in 1936-37 as reported in the following tabulation show enormous differences, the Michigan University paying its chief librarian \$9,600 and the acting chief of the North Dakota University Library receiving only \$1,615.

¹ Bulletin of the American Library Association, Chicago, February 1938, p. 125.

TABLE 2.—Salaries in University and College Libraries in Effect May 1, 1937

Library	Chief librarian	Department heads			Order department—professional workers			Catalog department—professional workers			
		Number	Minimum	Maximum	Number	Minimum	Maximum	Number	Minimum	Maximum	
All libraries:											
High.....	\$10,000	11	\$2,700	\$4,500	13	\$1,800	\$3,000	23	\$2,100	\$3,250	
Median.....	4,290	4	1,660	2,328	3	1,271	1,845	4½	1,237½	1,826	
Low.....	1,615	1	720	1,500	1	918	1,173	1	720	1,140	
Arizona.....	4,560	2	1,200	1,838				2	1,140	1,140	
Baylor.....	3,000	(1)									
California (Berkeley).....	5,000	4	2,300	3,000	7½	1,500	2,144	12½	1,500	2,300	
Chicago.....	8,750	3	1,800	2,700	3¾	1,242	1,890	17¾	1,296	2,160	
Cincinnati.....	4,632	2	2,079	2,356	1	1,421		5	1,147	1,611	
Colgate.....	3,800							1	2,000		
Colorado State.....	3,600										
Dartmouth.....	6,300	7	1,320	2,025	1	1,080		7½	1,200	1,710	
Denver.....	(1)	6	720	1,500				1	720		
Duke.....	(2)	3	(2)	(2)	4	(2)	(2)	13	(2)	(2)	
Illinois.....	6,400	6	2,620	3,200	13	1,200	2,000	18½	1,200	2,440	
Iowa.....		8	1,360	2,500	7	918	1,173	8½	1,402	1,826	
Iowa State.....	4,675	4	1,500	2,025	1	1,200		6	1,000	1,785	
Kansas.....	3,600	11	1,100	2,125				1	1,100		
Louisiana.....	5,000	10	1,700	2,700	1	1,800		5	1,200	2,000	
Michigan.....	9,600	9	2,400	2,900	6½	1,440	2,236	19	1,380	2,400	
Missouri.....	4,500	4	1,900	2,300	2	1,300	1,700	3	1,500	1,700	
New York.....	(1)	4	2,060	3,100	2	1,700	1,900	7	1,600	2,100	
North Carolina.....	4,450	8	1,445	1,887	1	1,360		2	1,275	1,530	
North Dakota.....	6,165	2	1,500	1,515							
Oklahoma.....	3,804				3	1,392	1,800	4	1,392	2,508	
Oregon.....	7 3,379	5½	1,516	2,296		2½	1,189	1,351	3	1,102	1,605
Oregon State.....	3,755	3½	1,722	2,162	3½	1,189	1,351	3	1,171	1,427	
Pennsylvania.....	5,000	6	1,620	3,000				7	1,440	2,160	
Pennsylvania State.....	4,600	4	1,540	1,900	1	1,200		3	960	1,450	
Pittsburgh.....	(2)	5	(2)	(2)				1	(2)		
Princeton.....	(2)	6	2,500	4,500	3	1,700	2,500	10	1,200	2,200	
Rochester.....	(2)	5	1,620	2,800				5	1,608	2,100	
Smith.....	(2)	2	(2)	(2)	2	(2)	(2)	4	(2)	(2)	
Southern Methodist.....	2,669	3	1,335	1,602							
Syracuse.....	10 5,700	4	1,800	1,800	5	1,200	1,560	4	1,200	1,740	
Texas.....	4,200	11	1,300	2,400				5	1,300	1,680	
Vassar.....	4,000	4	1,900	3,000				3	2,100	2,400	
Washington (Seattle).....	4,380	4	1,920	2,220	4	1,380	1,740	4	1,620	1,740	
Wayne.....	3,600	5	2,700	3,500							
Wellesley.....	(2)	1	(2)		1	(2)		2	(2)	(2)	
Yale.....	(2)	5	(2)	(2)	9	1,144	3,000	23	1,100	3,250	

¹ Not reported.

² Salary confidential or not for publication.

³ Serves also as director of library school.

⁴ Director of libraries, \$10,000. Also 7 librarians of individual libraries at \$1,800 to \$5,800.

⁵ Includes \$625 paid as director of library school.

⁶ Acting chief librarian.

⁷ Plus director of libraries, Oregon State System of Higher Education, who is paid ¼ of salary by University of Oregon.

⁸ Receives ¼ of salary as director of libraries, Oregon State System of Higher Education.

⁹ ¼ of salary paid by University of Oregon and ½ by Oregon State College.

¹⁰ Plus \$400 for summer session. Serves also as director of library school.

WAGE INCREASE FOR NORWEGIAN SEAMEN, JANUARY 1938

ON THE basis of the sliding scale in force in Norway, seamen's wages were increased by 6.2 percent in foreign trade and by 7.5 percent for the steward's department in coastal trade, as from January 7, 1938.¹

¹ International Transportworkers' Federation (Amsterdam). Press Report for January 31, 1938.

The new rates of wages in the deck and engine room and steward's department are as follows:

<i>Deck and engine room department</i>		<i>Kroner¹ per month</i>
Carpenters.....	-----	187
Boatswains.....	-----	187
Able seamen.....	-----	170
Ordinary seamen.....	-----	97
Light hands.....	-----	63
Deck boys.....	-----	42
Electricians:		
Tank ships.....	-----	266
Ships with not more than 10 winches.....	-----	312
Ships with more than 10 winches.....	-----	346
Pump attendants.....	-----	199
Donkeymen and motor attendants.....	-----	188
Firemen.....	-----	176
Trimmers and greasers.....	-----	101
Engine-room boys.....	-----	42
 <i>Steward's department</i> 		
Cargo ships, tramp and liner trade:		
Stewards, ships with crew, apart from galley staff, of—		
Not exceeding 20.....	-----	277
Exceeding 20 but not 30.....	-----	294
Exceeding 30.....	-----	322
Cooks, ships with crew, apart from galley staff, of—		
Not exceeding 20.....	-----	191
Exceeding 20.....	-----	211
Messroom boys and galley boys.....	-----	55
Passenger ships trading to Great Britain, France, Belgium, Holland, Germany, and Iceland:		
Chief stewards.....	-----	386-407
Chief cooks.....	-----	304-361
Second cooks.....	-----	198
Cook's mates.....	-----	55

¹ Average exchange rate of krone in November 1937=25.1 cents.

Under a recent agreement between the Norwegian Shipowners' Association and the Norwegian Seamen's Union, crews of ships trading in American waters will receive a supplement to their wages. The agreement applies to ships operating at least 2 months consecutively between ports located between 50° and 140° western longitude and the Equator and 40° northern latitude. Able seamen and members of the crew with higher ratings will receive a supplement of 33 kroner a month and those with lower ratings 25 kroner a month. Payment of the supplement is contingent on at least 2 months' service in the trade in question.

Employment Offices

OPERATIONS OF UNITED STATES EMPLOYMENT SERVICE, FEBRUARY 1938

ACTIVITIES of the offices of the United States Employment Service continued at peak levels during the month of February. Registrations for unemployment-compensation benefits and applications for work by job seekers throughout the country placed one of the heaviest loads on Employment Service facilities which has been handled during any comparable period in the history of the organization, over 8,500,000 personal calls being received. Over 1,125,000 applications for jobs were received, 750,000 of which represented persons who had never previously registered with the Employment Service. More than 640,000 original claims for benefits and over 4,200,000 continued claims for benefits were handled during the short 4-week month. In addition, placement activity was continued, 131,500 placements being reported.

The inauguration of unemployment-compensation benefit payments in 22 States beginning in January, coupled with the release of workers as a result of the recession, brought large volumes of job seekers to the employment offices. During January this flood of applicants reached peak proportions with 1,556,435 applications. In February some moderation in volume was felt, 1,162,112 applications being registered. Of this total, new applicants who had never previously registered with the Employment Service numbered 747,435, of whom 548,713 were men and 198,722 women. The daily number of new applicants handled during February was 12.8 percent less than in January. The greatest part of this decline occurred in States in which unemployment-compensation benefit payments were inaugurated in January, the daily volume of applicants in these States dropping 15.5 percent. In States in which the registration of workers as a condition for receiving unemployment-compensation benefits was not a factor, the decrease was 4.9 percent.

The requirement that claimants for unemployment-compensation benefits must be registered in an office of the United States Employ-

ment Service is clearly reflected in the increased number of job seekers included in the active files of the Service. At the end of February 6,745,702 persons were actively seeking work through employment offices, compared to a total of 4,874,631 at the end of December. The effect of registration for unemployment-compensation benefits is reflected in the fact that the increase in the active file during the two months equaled 56.4 percent in the States which inaugurated benefit payments in January and only 18.0 percent in the remaining States. The greatest part of this increase occurred in January. In February the gain was 15.1 percent in the new benefit-paying States. A general increase in the number of persons seeking employment, quite apart from the requirements of unemployment-compensation registration, is reflected by a 6.3 percent increase in the active file during February in the States which did not begin unemployment-compensation benefit payments at the first of the year. The February active file included 5,326,922 men and 1,418,780 women.

Tentative reports reveal that 3,182,350 original claims for unemployment-compensation benefits and 9,305,984 continued claims for benefits had been cleared through the Employment Service offices in the 11 weeks from January 1 through March 19. During February 643,106 original claims and 4,200,050 continued claims were cleared.

Despite the heavy volume of registration and claims activities carried on by the offices, the slight recession in the intensity of the load was utilized by the employment offices to expand placement activity. In the 4 weeks of February 86,079 field visits were made, a gain of 33.9 percent in the daily volume of such activity. During the same period a total of 131,500 jobs were filled, of which 84,222 represented placements of men and 47,278 placements of women. The daily volume of placements was 6.1 percent higher than in January.

Placements in private jobs numbered 91,342, a rise of 8.9 percent in daily volume over January. Private jobs of regular duration numbered 43,876, an increase of 22.6 percent in daily volume. Temporary jobs filled with private employers numbered 47,466, a drop of 1.3 percent in the daily volume. Placements in public prevailing-wage employment aggregated 38,479, slightly higher than the rate prevailing during January, while assignments on security-wage relief jobs dropped to 1,679. Men were placed in 45,431 of the private jobs and women in 45,911. It is encouraging to note that the largest increase in February was in the placement of men in private jobs of regular duration. Here a gain of 41.7 percent in the daily rate of placements occurred over January.

Table 1 summarizes the principal operating activities during February.

TABLE 1.—Summary of Operations of United States Employment Service, February 1938

Activity	Number	Percent of change from—			
		January 1938		February 1937	February 1936
		Monthly total	Rate per working day		
Total applications.....	1, 162, 112	-25.3	-18.2	+107.7	+79.7
New applications.....	747, 435	-20.4	-12.8	+185.0	+110.4
Renewals.....	414, 677	-32.8	-26.4	+39.5	+42.2
Total placements.....	131, 500	-3.1	+6.1	-47.5	-66.1
Private.....	91, 342	-.6	+8.9	-42.1	-62.2
Public.....	38, 479	-8.0	-.8	-53.3	-52.8
Relief.....	1, 679	-17.0	-9.1	-83.3	-99.3
Active file.....	6, 745, 702	+11.4	-----	+10.3	-27.1

A slightly greater increase in the volume of private placements of veterans occurred during February than for nonveterans. Registration and placement activities carried on in connection with veterans are shown in table 2.

TABLE 2.—Summary of Veterans' Activities, February 1938

Activity	Number	Percent of change from—			
		January 1938		February 1937	February 1936
		Monthly total	Rate per working day		
New applications.....	24, 946	-19.3	+1.5	+137.3	+121.8
Total placements.....	6, 674	-13.9	-5.7	-56.7	-74.8
Private.....	3, 268	+.7	+10.3	-56.9	-7.7
Public.....	3, 182	-23.7	-16.4	-55.9	-64.0
Relief.....	224	-32.5	-26.1	-63.4	-98.4
Active file.....	346, 410	+8.8	-----	+2.5	-37.1

TABLE 3.—Operations of United States Employment Service, February 1938

Division and State	TOTAL							New applications		Active file	
	Placements										
	Total ¹	Private			Public		Number	Percent of change from January	Feb. 28, 1938	Percent of change from Jan. 31, 1938	
		Number	Percent of change from January	Regular (over 1 month)	Temporary (1 month or less)	Number					Percent of change from January
United States	131,500	91,342	-0.6	43,876	47,466	38,479	-8.0	747,435	-20.4	6,745,702	+11.4
New England	4,650	3,785	+15.4	2,475	1,310	807	-46.1	54,556	-47.4	654,733	+10.0
Maine	336	199	-11.6	142	57	137	-47.9	8,087	-21.5	50,497	+17.5
New Hampshire	702	629	+2.9	413	216	70	-42.1	5,292	-56.2	46,465	+14.1
Vermont	312	266	-18.2	170	96	45	-40.8	1,804	-66.0	20,399	+13.1
Massachusetts	991	709	-2.1	479	230	282	-6.3	22,026	-16.3	321,750	+8.2
Rhode Island	431	387	+11.2	229	158	17	-77.9	1,510	-60.2	57,168	+6.0
Connecticut	1,878	1,595	+52.3	1,042	553	256	-61.2	15,837	-65.6	158,454	+11.2
Middle Atlantic	16,651	12,522	+11.5	6,885	5,637	3,402	-1.8	274,322	-3.4	1,760,588	+17.8
New York	7,545	5,983	-3.3	2,738	3,245	1,272	-14.7	188,469	+1.4	617,530	+32.5
New Jersey	2,124	1,921	-16.5	936	985	198	+8.2	13,050	-22.2	216,316	+4.8
Pennsylvania	6,982	4,618	+68.4	3,211	1,407	1,932	+8.1	72,803	-10.5	926,742	+12.7
East North Central	24,570	19,000	-6.7	8,964	10,036	5,199	-10.6	116,790	-4.7	1,179,192	+8.9
Ohio	5,786	4,476	-12.2	2,121	2,355	1,245	-11.8	30,545	-3.9	358,375	+11.0
Indiana	2,207	1,955	+3.6	1,327	628	251	+57.9	14,043	+7.1	122,596	+10.4
Illinois	11,692	8,650	-6.0	3,302	5,348	2,963	+1.9	19,044	-9.1	330,487	+4.8
Michigan	1,750	1,325	-20.9	678	647	323	-37.3	40,134	+9.4	228,473	+25.4
Wisconsin	3,135	2,594	+4.3	1,536	1,058	417	-49.2	13,024	-35.0	139,261	-8.1
West North Central	12,517	8,887	-11.6	4,413	4,474	3,390	-30.3	32,899	-14.6	590,903	+5.3
Minnesota	2,500	2,039	-20.5	1,203	836	449	-29.0	12,627	-16.0	164,231	+11.4
Iowa	3,351	2,357	-4.6	1,099	1,258	784	-16.6	4,388	-4.3	70,529	+4.7
Missouri	2,723	2,102	-3.4	1,094	1,008	620	-37.0	8,343	-16.5	171,532	+6.3
North Dakota	788	753	-30.5	366	387	32	-77.0	700	-34.8	28,279	-5.3
South Dakota	650	376	-23.1	121	255	260	-43.4	1,166	-13.7	47,235	-6.2
Nebraska	1,218	614	-16.5	288	326	604	-14.8	2,403	-13.6	47,023	+1.1
Kansas	1,287	646	+20.1	242	404	641	-36.2	3,272	-11.6	62,064	+1.0
South Atlantic	17,325	8,876	+7.8	5,259	3,617	8,333	-5.9	81,482	-42.8	813,267	+11.6
Delaware	435	355	+4.4	147	208	72	-17.2	890	-19.9	12,788	+4.0
Maryland	1,207	813	+12.1	487	326	394	-26.8	15,507	-6.3	96,950	+23.4
District of Columbia	1,248	1,200	-19.2	606	594	48	-90.2	3,604	-65.1	42,573	-1.0
Virginia	2,712	1,786	+34.4	1,405	381	914	-1.2	14,272	-33.4	91,733	+17.1
West Virginia	1,132	592	-4.5	348	244	519	+36.6	17,161	-53.8	156,097	+16.3
North Carolina	4,028	2,523	+25.5	1,439	1,084	1,504	+11.5	16,773	-51.5	153,898	+12.5
South Carolina	1,231	256	+11.8	121	135	971	+19.0	3,999	-37.4	66,906	+8.1
Georgia	4,204	1,351	-9.7	706	645	2,848	-4.9	6,662	-43.1	120,796	+4.6
Florida	1,128	0	-----	0	0	1,063	-16.8	2,614	-17.2	71,556	+4.2
East South Central	8,814	3,422	+22.3	2,385	1,037	5,340	+23.4	36,806	-28.2	468,435	+9.0
Kentucky	1,072	566	-26.8	341	225	488	-36.5	5,059	+34.4	111,627	+5.6
Tennessee	2,346	1,762	+35.0	1,314	448	584	-10.0	8,771	+10.2	137,023	+7.6
Alabama	2,236	892	+60.1	549	343	1,326	+13.9	16,045	-48.1	145,016	+15.2
Mississippi	3,160	202	+23.9	181	21	2,942	+68.4	6,731	-19.1	74,769	+5.5
West South Central	27,531	21,547	-6.9	6,235	15,312	5,912	-4.1	56,028	-32.4	520,281	+8.1
Arkansas	1,428	1,106	-7.4	336	770	286	+30.6	2,684	-61.6	57,359	-1.4
Louisiana	2,763	1,713	-21.8	1,189	524	1,050	-9.9	12,658	-33.8	102,030	-14.3
Oklahoma	1,702	1,036	-18.0	337	699	666	-39.8	5,087	-17.6	112,067	+6.6
Texas	21,638	17,692	-4.3	4,373	13,319	3,910	+3.4	35,599	-29.7	248,825	+8.8
Mountain	6,082	3,640	-5.5	2,018	1,624	2,409	-17.6	14,612	-19.6	206,481	+4.3
Montana	411	195	-57.0	102	93	210	-34.8	1,829	+3.7	30,065	+13.0
Idaho	706	516	-13.9	299	217	190	+34.8	1,181	-41.5	18,929	-3.4
Wyoming	410	256	+9.4	145	111	152	+56.7	793	+18.5	8,831	+13.3
Colorado	1,705	1,087	+10.5	581	506	607	-41.7	4,059	-17.7	64,523	-4.4
New Mexico	742	308	-29.2	208	100	430	+7.0	1,158	-18.1	28,392	+6.4
Arizona	1,382	847	+20.1	486	361	526	-3.5	3,202	-17.7	23,651	+3.3
Utah	310	148	-3.9	38	110	161	+32.0	1,856	-30.5	27,379	+14.0
Nevada	416	283	-1.0	157	126	133	-47.4	534	-35.4	4,711	-3.5
Pacific	13,353	9,657	+7.7	5,239	4,418	3,686	-6.0	79,445	-16.7	551,333	+13.8
Washington	1,248	635	-5.8	307	228	706	+12.1	6,149	-25.6	90,503	+6.9
Oregon	1,631	1,104	+86.2	786	318	524	-19.5	10,933	-42.3	90,569	+14.0
California	10,474	8,018	+2.8	4,146	3,872	2,456	-7.0	62,563	-8.6	370,261	+15.6
Hawaii ²	7	6	-----	5	1	1	-----	495	-----	489	-----

¹ Includes 1,679 security-wage placements on work-relief projects.² Activities reported through Feb. 19 only. Service to public inaugurated Feb. 7.

TABLE 3.—Operations of United States Employment Service, February 1938—Continued

Division and State	MEN								New applications		Active file	
	Placements						Number	Percent of change from January	Feb. 28, 1938	Percent of change from Jan. 31, 1938		
	Private				Public							
	Total ¹	Number	Percent of change from January	Regular (over 1 month)	Temporary (1 month or less)	Number	Percent of change from January	Number	Percent of change from January			
United States	84,222	45,431	+4.1	18,236	27,195	37,274	-6.6	548,713	-22.1	5,326,922	+11.4	
New England	2,402	1,604	+25.8	993	611	754	-41.2	34,258	-47.1	475,664	+9.6	
Maine	210	77	-20.6	38	39	133	-48.8	4,872	-25.1	39,254	+13.3	
New Hampshire	411	342	+5.2	183	159	67	-40.7	3,018	-56.7	33,034	+12.2	
Vermont	162	118	-19.7	58	60	44	-38.9	1,150	-68.0	16,150	+12.0	
Massachusetts	565	286	+26.0	197	89	279	-5.7	14,424	-15.3	234,437	+8.4	
Rhode Island	160	129	-3.0	71	58	15	-75.8	838	-57.9	39,804	+6.6	
Connecticut	894	652	+88.4	446	206	216	-55.0	9,956	-65.3	112,985	+11.0	
Middle Atlantic	7,863	4,127	+19.4	2,506	1,621	3,037	+11.5	200,923	-7.9	1,395,837	+17.1	
New York	3,413	1,953	-7.8	1,032	921	1,173	+7.8	137,284	-6.2	480,289	+30.2	
New Jersey	587	386	-27.4	240	146	197	+7.7	8,883	-26.8	173,602	+4.4	
Pennsylvania	3,863	1,788	+121.8	1,234	554	1,667	+14.8	54,756	-5.3	741,946	+12.9	
East North Central	13,040	7,608	-4.4	3,102	4,506	5,102	-10.3	92,953	-8.3	971,862	+10.0	
Ohio	8,306	1,563	-7.1	612	951	1,217	-10.2	24,622	-4.8	298,599	+12.4	
Indiana	898	570	+3.8	336	234	237	+65.7	10,445	+7.0	101,090	+11.7	
Illinois	6,802	3,796	-7.1	1,275	2,521	2,951	+2.1	12,359	-15.5	263,044	+5.0	
Michigan	913	504	-27.4	195	309	309	-38.1	36,094	+8.4	200,533	+27.2	
Wisconsin	1,681	1,175	+23.9	684	491	388	-51.7	9,433	-35.4	108,596	-8.9	
West North Central	7,631	4,094	-12.2	1,583	2,511	3,308	-30.9	22,137	-17.5	478,730	+5.2	
Minnesota	1,214	766	-32.4	418	348	437	-30.1	8,399	-17.8	129,941	+10.6	
Iowa	2,126	1,161	-4.1	451	710	758	-17.1	2,886	-8.0	57,757	+5.1	
Missouri	1,579	963	+5.4	362	601	615	-37.4	5,708	-22.1	138,821	+6.8	
North Dakota	405	380	-30.4	163	217	22	-83.1	423	-29.6	22,316	-2.2	
South Dakota	468	211	-23.0	40	171	250	-44.6	762	-16.3	40,257	-7.0	
Nebraska	903	310	-8.6	88	222	593	-15.0	1,644	-16.4	38,388	+5.1	
Kansas	936	303	+22.7	61	242	633	-35.7	2,315	-13.1	51,250	+1.4	
South Atlantic	12,420	4,151	+35.6	2,215	1,936	8,195	-5.1	59,078	-44.1	615,438	+12.0	
Delaware	184	105	+52.2	47	58	72	-16.3	637	-19.6	9,817	+4.7	
Maryland	776	384	+70.7	212	172	392	-21.4	10,969	-6.0	75,767	+21.6	
District of Columbia	331	295	-12.2	147	148	36	-92.1	2,214	-69.8	30,288	+5.5	
Virginia	1,865	955	+75.6	743	212	905	-3.0	10,637	-31.5	67,939	+18.6	
West Virginia	625	146	+15.9	79	67	460	+45.6	14,246	-56.9	134,404	+16.0	
North Carolina	2,630	1,154	+58.5	525	629	1,476	+12.1	10,317	-49.2	103,076	+12.6	
South Carolina	1,122	151	+30.2	48	103	969	+19.6	3,125	-38.6	50,204	+9.2	
Georgia	3,792	961	+4.8	414	547	2,830	-4.8	5,103	-46.2	91,085	+5.5	
Florida	1,095	0	0	0	0	1,055	-16.9	1,830	-19.8	52,858	+4.2	
East South Central	7,178	1,859	+35.0	1,258	603	5,276	+33.9	27,113	-28.4	364,959	+9.0	
Kentucky	677	194	-36.8	70	124	472	-35.7	3,433	+39.2	89,187	+5.5	
Tennessee	1,468	890	+57.2	676	214	578	-9.4	6,082	+10.6	106,587	+7.3	
Alabama	1,940	638	+52.3	388	250	1,285	+12.5	12,312	-47.2	114,260	+15.3	
Mississippi	3,093	137	+61.2	122	15	2,941	+68.6	5,286	-19.4	54,925	+6.3	
West South Central	20,830	14,907	-3.6	2,905	12,002	8,855	-3.7	43,196	-35.6	415,537	+8.7	
Arkansas	1,028	713	-6.6	77	636	279	+31.6	1,729	-70.1	47,358	-1.8	
Louisiana	2,003	955	-26.4	632	323	1,048	-5.0	10,121	-38.2	84,905	+14.9	
Oklahoma	1,131	487	-4.3	65	422	644	-39.6	4,021	-13.5	92,184	+7.2	
Texas	16,668	12,752	-1.1	2,131	10,621	3,884	+3.7	27,325	-32.2	191,090	+9.7	
Mountain	4,152	1,775	-9.2	952	823	2,356	-18.5	11,488	-20.8	173,994	+5.1	
Montana	325	123	-64.2	52	71	197	-38.1	1,499	+3.7	25,423	+14.3	
Idaho	417	229	-23.7	117	112	188	+36.2	940	-44.9	17,010	-3.0	
Wyoming	269	115	+9.5	76	39	152	+61.7	650	+27.7	7,508	+16.4	
Colorado	1,090	486	+1.3	225	261	601	-42.2	2,975	-16.5	51,824	-1.1	
New Mexico	548	138	-47.5	80	58	409	+2.5	905	-16.2	23,693	+7.0	
Arizona	982	452	+92.3	276	176	521	-3.0	2,707	-18.9	21,039	+2.4	
Utah	204	46	-8.0	14	32	157	+33.1	1,382	-36.7	23,325	+13.6	
Nevada	317	186	+5.1	112	74	131	-47.4	430	-35.9	4,102	-9.9	
Pacific	8,699	5,300	+20.2	2,719	2,581	3,390	-5.1	57,153	-20.1	434,563	+13.5	
Washington	958	253	-4.2	104	149	699	+12.7	4,929	-28.9	79,415	+7.2	
Oregon	1,294	781	+158.6	562	219	510	-18.1	8,751	-46.7	76,910	+13.4	
California	6,447	4,266	+10.9	2,053	2,213	2,181	-6.4	43,473	-9.8	278,238	+15.5	
Hawaii ²	7	6		5	1	1		414		408		

¹ Includes 1,517 security-wage placements on work-relief projects.

² Activities reported through Feb. 19 only. Service to public inaugurated Feb. 7.

TABLE 3.—Operations of United States Employment Service, February 1938—Continued

Division and State	Placements					New applica- tions		Active file	
	Total ¹	Private				Number	Percent of change from January	Feb. 28, 1938	Percent of change from Jan. 31, 1938
		Number	Percent of change from January	Regular (over 1 month)	Tempo- rary (1 month or less)				
United States.....	47,278	45,911	-4.9	25,640	20,271	198,722	-15.3	1,418,780	+11.1
New England.....	2,248	2,181	+8.8	1,482	699	20,298	-48.0	179,069	+10.9
Maine.....	126	122	-4.7	104	18	3,215	-15.2	11,243	+34.0
New Hampshire.....	291	287	+1.3	230	57	2,274	-55.5	13,431	+18.8
Vermont.....	150	148	-16.9	112	36	654	-62.0	4,249	+17.3
Massachusetts.....	426	423	-14.9	282	141	7,602	-18.2	87,313	+7.8
Rhode Island.....	271	258	+20.0	158	100	672	-62.8	17,364	+4.8
Connecticut.....	984	943	+34.5	596	347	5,881	-66.0	45,469	+11.7
Middle Atlantic.....	8,788	8,395	+8.1	4,379	4,016	73,399	+11.6	364,751	+20.7
New York.....	4,132	4,030	-9	1,706	2,324	51,185	+29.6	137,241	+41.0
New Jersey.....	1,537	1,535	-13.2	696	839	4,167	-10.0	42,714	+6.3
Pennsylvania.....	3,119	2,830	+46.2	1,977	853	18,047	-16.8	184,796	+12.2
East North Central.....	11,530	11,392	-8.1	5,862	5,530	23,837	-2.3	207,330	+4.0
Ohio.....	2,950	2,913	-14.8	1,509	1,404	5,923	-1	59,776	+4.5
Indiana.....	1,399	1,385	+3.5	991	394	3,598	+7.5	21,506	+4.8
Illinois.....	4,890	4,854	-5.2	2,027	2,827	6,685	+5.8	67,443	+3.9
Michigan.....	837	821	-16.4	483	338	4,040	+19.9	27,940	+14.0
Wisconsin.....	1,454	1,419	-7.8	852	567	3,591	-34.0	30,665	-4.9
West North Central.....	4,886	4,793	-11.1	2,830	1,963	10,762	-8.0	112,173	+5.9
Minnesota.....	1,286	1,273	-11.0	785	488	4,228	-12.0	34,290	+14.8
Iowa.....	1,225	1,196	-5.0	648	548	1,502	+3.9	12,782	+2.8
Missouri.....	1,144	1,139	-9.7	732	407	2,635	-1.4	32,711	+4.3
North Dakota.....	383	373	-30.5	203	170	277	-41.4	5,963	-1.6
South Dakota.....	182	165	-23.3	81	84	404	-8.4	6,978	-1.3
Nebraska.....	315	304	-23.2	200	104	759	-7.0	8,635	+5.1
Kansas.....	351	343	+17.9	181	162	957	-7.9	10,814	-5
South Atlantic.....	4,905	4,725	-8.7	3,044	1,681	22,404	-39.2	197,829	+10.2
Delaware.....	251	250	-7.7	100	150	253	-20.7	2,671	+1.8
Maryland.....	431	429	-14.2	275	154	4,538	-7.1	21,183	+30.2
District of Columbia.....	917	905	-21.2	459	446	1,390	-53.5	12,285	-4.3
Virginia.....	847	831	+5.9	662	169	3,635	-38.2	23,794	+13.3
West Virginia.....	507	446	-9.7	269	177	2,915	-28.4	21,693	+18.2
North Carolina.....	1,398	1,369	+6.8	914	455	6,456	-54.8	50,792	+12.3
South Carolina.....	109	105	-7.1	73	32	874	-32.7	16,702	+5.1
Georgia.....	412	390	-32.6	292	98	1,559	-30.3	29,711	+2.0
Florida.....	33	0	-----	0	0	784	-10.4	18,698	+4.2
East South Central.....	1,636	1,563	+10.0	1,129	434	9,493	-27.7	103,476	+8.8
Kentucky.....	395	372	-20.2	271	101	1,626	+25.4	22,440	+5.9
Tennessee.....	878	872	+18.0	638	234	2,689	+9.2	30,436	+8.6
Alabama.....	296	254	+84.1	161	93	3,733	-50.9	30,756	+15.2
Mississippi.....	67	65	-16.7	59	6	1,445	-18.1	19,844	+3.4
West South Central.....	6,701	6,640	-13.4	3,330	3,310	12,832	-19.0	104,744	+5.8
Arkansas.....	400	393	-8.8	259	134	955	-20.5	10,001	+7
Louisiana.....	760	758	-15.0	557	201	2,537	-7.6	17,125	+11.2
Oklahoma.....	571	549	-27.3	272	277	1,066	-30.2	19,883	+3.9
Texas.....	4,970	4,940	-11.7	2,242	2,698	8,274	-20.1	57,735	+5.9
Mountain.....	1,930	1,865	-1.6	1,064	801	3,124	-15.3	32,557	+3
Montana.....	86	72	-33.9	50	22	330	+3.8	4,642	+6.6
Idaho.....	289	287	-4.0	182	105	241	-23.2	1,919	-6.5
Wyoming.....	141	141	+9.3	69	72	143	-10.6	1,323	-1.5
Colorado.....	615	601	+19.2	356	245	1,084	-20.6	12,699	-1.5
New Mexico.....	194	170	-1.2	128	42	253	-24.3	4,699	+3.5
Arizona.....	400	395	-16.0	210	185	495	-10.3	2,612	-14.2
Utah.....	106	102	-1.9	24	78	474	-3.1	4,054	+16.5
Nevada.....	99	97	-11.0	45	52	104	-33.3	609	-17.8
Pacific.....	4,654	4,357	-4.3	2,520	1,837	22,492	-6.7	116,770	+14.8
Washington.....	290	282	-7.2	203	79	1,220	-8.9	11,088	+5.0
Oregon.....	337	323	+11.0	224	99	2,182	-13.6	13,659	+17.3
California.....	4,027	3,752	-5.2	2,093	1,659	19,090	-5.7	92,023	+15.7
Hawaii ²	0	0	-----	0	0	81	-----	81	-----

¹ Includes 1,205 public placements and 162 security-wage placements on work-relief projects.² Activities reported through Feb. 19 only. Service to public inaugurated Feb. 7.

TABLE 4.—Operations of United States Employment Service, February 1938

VETERANS

Division and State	Placements					New applications		Active file			
	Total ¹	Private			Public		Number	Percent of change from January	Feb. 28, 1938	Percent of change from Jan. 31, 1938	
		Number	Percent of change from January	Regular (over month)	Temporary (1 month or less)	Number					Percent of change from January
United States.....	6,674	3,268	+0.7	1,162	2,106	3,182	-23.7	24,946	-19.3	346,410	+8.8
New England.....	214	117	+44.4	74	43	69	-79.1	1,779	-38.3	35,742	+7.0
Maine.....	10	5	-16.7	4	1	5	-70.6	222	-20.4	2,608	+7.3
New Hampshire.....	25	20	+33.3	12	8	5	-28.6	181	-53.9	2,359	+10.6
Vermont.....	7	5	-28.6	3	2	2	+100.0	55	-59.3	788	+14.7
Massachusetts.....	37	17	+13.3	15	2	20	-39.4	824	-14.5	21,215	+6.1
Rhode Island.....	21	16	+23.1	10	6	3	-86.4	38	-57.3	2,332	+1.7
Connecticut.....	114	54	+116.0	30	24	34	-86.4	459	-55.0	6,440	+9.6
Middle Atlantic.....	481	222	-9	103	119	215	-11.2	6,082	-5.2	77,450	+12.3
New York.....	169	88	-17.0	35	53	67	-25.6	3,296	-5.3	20,720	+22.3
New Jersey.....	41	24	-42.9	16	8	13	-31.6	433	-29.1	12,222	+3.5
Pennsylvania.....	271	110	+44.7	52	58	135	+1.5	2,353	+1.3	44,508	+10.6
East North Central.....	1,278	658	-4.6	244	414	592	-25.3	5,139	-2.6	67,370	+8.4
Ohio.....	316	154	+7	48	106	158	+24.4	1,345	+4.8	20,732	+11.6
Indiana.....	73	49	-9.3	25	23	24	+242.9	671	+13.2	7,620	+9.3
Illinois.....	669	324	-9.7	94	230	341	-38.4	584	-23.9	19,117	+3.6
Michigan.....	67	38	-22.4	16	22	18	-47.1	1,849	+3.2	12,137	+25.6
Wisconsin.....	153	93	+24.0	60	33	51	-28.2	690	-18.0	7,764	-8.4
West North Central.....	846	405	-18.5	127	278	333	-36.7	1,357	-19.8	37,355	+4.3
Minnesota.....	120	69	-41.5	20	49	50	-29.6	479	-6.8	10,460	+8.3
Iowa.....	354	169	-15.9	41	128	78	-42.2	208	-5.9	5,011	+5.3
Missouri.....	116	64	-19.0	31	33	52	-43.5	383	-39.9	11,134	+6.9
North Dakota.....	30	25	+8.7	13	12	5	-83.3	21	-54.3	1,377	+4
South Dakota.....	47	24	-11.1	3	21	23	-37.8	31	-22.5	2,580	-14.3
Nebraska.....	75	20	-16.7	9	11	55	-17.9	111	-4.3	2,900	+5.2
Kansas.....	104	34	+36.0	10	24	70	-25.5	124	+4.2	3,893	+1.1
South Atlantic.....	812	301	+21.9	158	143	508	-14.2	2,496	-35.5	34,796	+9.7
Delaware.....	16	11	+120.0	3	8	5	-50.0	41	0	671	+4.8
Maryland.....	67	35	+84.2	17	18	32	-36.0	463	-6.7	4,861	+18.2
District of Columbia.....	40	36	-14.3	13	23	4	-96.0	194	-53.6	3,004	+5
Virginia.....	139	79	+16.2	59	20	59	-20.3	467	-26.9	3,629	+18.1
West Virginia.....	87	14	-6.7	7	7	72	+118.2	619	-39.3	6,783	+15.2
North Carolina.....	139	56	+75.0	25	31	83	0	327	-41.9	4,520	+11.0
South Carolina.....	66	16	+433.3	7	9	50	-5.7	111	-47.1	2,512	+7.6
Georgia.....	208	54	-14.3	27	27	154	+38.7	196	-45.7	4,295	+4.2
Florida.....	50	0	0	0	0	49	-38.0	78	-34.5	4,521	+5
East South Central.....	386	83	+12.2	41	42	300	+5.3	1,113	-27.4	18,792	+9.2
Kentucky.....	85	26	+23.8	4	22	58	-25.6	146	+8.1	4,865	+8.2
Tennessee.....	88	29	+70.6	18	11	59	+15.7	305	0	6,171	+7.1
Alabama.....	102	26	-16.1	17	9	74	-8.6	444	-47.8	5,636	+13.4
Mississippi.....	111	2	-60.0	2	0	109	+45.3	218	-10.7	2,120	+7.7
West South Central.....	1,235	782	+15.6	169	593	465	-9.9	2,085	-35.8	23,673	+6.4
Kansas.....	69	39	-30.4	3	36	28	+33.3	110	-60.0	2,838	-4.4
Louisiana.....	174	93	+25.7	61	32	81	-12.9	442	-40.6	5,233	+8.3
Oklahoma.....	118	62	-25.3	4	58	56	-36.4	230	-1.7	5,329	+7.9
Texas.....	874	568	+27.4	101	467	300	-4.5	1,303	-34.7	10,273	+8.0
Mountain.....	469	152	-35.0	60	92	316	-9.2	839	-9	12,470	+6.1
Montana.....	30	4	-87.5	3	1	25	-37.5	112	+9	1,775	+16.4
Idaho.....	76	33	-36.5	9	24	43	-115.0	76	-47.9	1,295	-1.8
Wyoming.....	33	5	-70.6	3	2	28	+460.0	56	+47.4	605	+17.7
Colorado.....	95	32	-31.9	12	20	63	-38.2	277	+53.0	3,842	+3.9
New Mexico.....	69	10	-16.7	7	3	59	+13.5	35	-22.2	1,517	+3.7
Arizona.....	90	39	-4.9	15	24	51	+24.4	194	-8.1	1,579	+1.2
Utah.....	42	8	+33.3	1	7	34	-10.5	60	-13.0	1,570	+10.1
Nevada.....	34	21	-22.2	10	11	13	-74.0	29	-37.0	287	+17.6
Pacific.....	951	566	+5.2	184	382	384	-28.6	4,004	-22.1	38,712	+10.0
Washington.....	142	44	+63.0	13	31	97	+32.9	309	-36.7	7,031	+7.6
Oregon.....	123	67	+97.1	41	26	56	-70.8	617	-49.8	6,978	+9.5
California.....	686	455	-4.5	130	325	231	-15.4	3,078	-10.2	24,703	+10.9
Hawaii ²	2	2	-----	2	0	0	-----	52	-----	50	-----

¹ Includes 224 security-wage placements on work-relief projects.

² Activities reported through Feb. 19 only. Service to public inaugurated Feb. 7.

Trend of Employment and Pay Rolls

SUMMARY OF REPORTS FOR FEBRUARY 1938

THERE was a further employment decline in February in the manufacturing and nonmanufacturing industries surveyed monthly by the United States Bureau of Labor Statistics. The estimated reduction in the number of workers employed in these industries was 113,000. Weekly pay rolls were estimated as being \$600,000 larger than in January.

Comparisons with February 1937 showed estimated decreases in these industries of 1,650,000 in the number of workers employed and \$48,200,000 in weekly pay rolls.

Class I railroads employed 927,435 workers in February, exclusive of executives, officials, and staff assistants, according to a preliminary report by the Interstate Commerce Commission. This represented a reduction of 2.1 percent or 19,725 employees.

Employment in the military service of the Federal Government was greater in February than in the preceding month, while employment in the executive and legislative services decreased, and in the judicial service remained virtually the same. An increase in the employment level occurred on projects operated by the Works Progress Administration and on work projects of the National Youth Administration. Decreases in the number of workers employed occurred on P. W. A. construction projects, projects financed from regular Federal appropriations, projects financed by the Reconstruction Finance Corporation, and on Federal projects under The Works Program. There was a decrease in the number of workers in the Civilian Conservation Corps.

Industrial and Business Employment

Employment gains between January and February were reported by 45 of the 89 manufacturing industries surveyed monthly and by 2 of the 16 nonmanufacturing industries covered. Pay-roll increases were shown by 57 of the manufacturing and by 4 of the nonmanufacturing industries.

For manufacturing as a whole there was virtually no change in employment and a gain of 2.2 percent or \$3,200,000 in weekly wages. This gain was, however, less than the usual seasonal increase for February. The gain in pay rolls reflected an increase in working

time following customary shut-downs for holidays, inventory taking' and repairs.

The increases were more evident in the nondurable-goods group of industries than in the durable-goods group. Of the 45 durable-goods industries covered, 15 showed employment gains and 24 showed pay-roll increases, the group as a whole falling off 2.4 percent (79,200 workers) in employment and 0.2 percent (\$100,000) in weekly pay rolls. The nondurable-goods group advanced 2.1 percent (78,300 workers) in employment and 4.5 percent (\$3,300,000) in weekly pay rolls, with 30 of the 44 industries covered showing more workers on their pay rolls and 33 paying out more in weekly wages.

Marked increases in employment, primarily seasonal, were recorded for the following manufacturing industries: Men's furnishings (17.9 percent), shirts and collars (16.1 percent), stoves (15.8 percent), cigars and cigarettes (15.0 percent), men's clothing (14.2 percent), fertilizers (13.1 percent), women's clothing (12.3 percent), millinery (11.3 percent), marble, granite, and slate (10.0 percent), carpets and rugs (8.4 percent), boots and shoes (4.9 percent), millwork (4.7 percent), rayon and allied products (4.4 percent), and knit goods (4.4 percent).

Employment declines were more in evidence among the durable-goods industries, notably locomotives (8.2 percent), wirework (6.7 percent), electrical machinery (6.3 percent), steam-railroad repair shops (6.0 percent), smelting and refining (5.3 percent), electric- and steam-railroad car building (5.2 percent), automobiles (4.5 percent), hardware (4.5 percent), shipbuilding (4.0 percent), textile machinery (4.0 percent), machine tools (4.0 percent), structural metal work (4.0 percent), foundries and machine shops (3.5 percent), and blast furnaces, steel works, and rolling mills (1.9 percent).

Two of the nonmanufacturing industries surveyed, anthracite mining and year-round hotels, showed small employment increases over the month. The remaining 14 industries had fewer employees on their pay rolls in February than in January. For wholesale trade, there was a seasonal decline of 0.7 percent, the largest reductions in number of workers having been made by firms dealing in farm products (5.6 percent), hardware (1.4 percent), paper and paper products (1.7 percent), food products (0.8 percent), and groceries (0.5 percent).

Retail stores reported a reduction of 1.8 percent in the number of employees since January 15 and a 2.3 percent decline in weekly pay rolls. These declines were somewhat larger than seasonal. Retail dealers in farmer's supplies reported gains of 3.1 percent in employment and 2.9 percent in pay rolls. For the remaining lines of retail trade employment recessions were widespread.

Metalliferous mines layed off 6.0 percent of their employees between January and February indicating reduced operations, which were due

in part to declines in the prices of certain metals, and continuing the recession which began in October.

Employment in building construction (excluding projects financed from public funds) fell 4.8 percent and pay rolls dropped 4.7 percent. These declines, based on reports from 11,317 firms, were somewhat smaller than is usual for this time of year.

The remaining 10 nonmanufacturing industries showed employment declines ranging from 0.1 to 2.7 percent.

A preliminary tabulation by the Interstate Commerce Commission showed 927,435 employees, exclusive of executives, officials, and staff assistants, working for class I railroads in February. This number was 19,725 or 2.1 percent lower than the January figure. February pay-roll totals were not available when this report was prepared. For January the wage disbursements were \$142,328,575, a decrease since December of 5.8 percent or \$8,697,007.

Hours and earnings.—The average hours worked per week by factory wage earners were 34.3 in February, an increase of 3.2 percent since January. Average hourly earnings fell 0.9 percent to 65.7 cents, but average weekly earnings advanced 2.3 percent to \$23.33 because of the longer hours worked. Wage-rate reductions affecting more than 40,000 wage earners were reported by approximately 100 of the 25,000 manufacturing establishments that report monthly employment statistics to this Bureau. About two-thirds of the employees affected were in cotton mills and most of the remainder were in plants manufacturing silk and rayon goods, woolen and worsted goods, knit goods, shoes, and rubber goods, and in dyeing and finishing textile establishments.

Of the 14 nonmanufacturing industries for which man-hour data are available, 10 reported gains since January in the average number of hours worked per week and 7 reported higher hourly earnings. Ten of the 16 nonmanufacturing industries covered reported higher weekly earnings.

Previous to January 1938, the wording of the definition on the schedules for public utilities, wholesale and retail trade, hotels, and brokerage and insurance firms called for the inclusion of higher-salaried employees such as corporation officers, executives, and others whose duties are mainly supervisory. These employees have, for the most part, always been excluded from employment reports for other industries, and beginning with that month it was requested that they be omitted also from the industries named above. For this reason, the average hours worked per week, average hourly earnings, and average weekly earnings for these industries are not comparable with the figures appearing in issues of this Review dated earlier than April 1938, except for the January figures appearing in the March issue.

The following table presents employment and pay-roll indexes and average weekly earnings in February 1938 for all manufacturing industries combined, for selected nonmanufacturing industries, and for class I railroads, with percentage changes over the month and year intervals except in the few industries for which data are not available.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, February 1938 (Preliminary Figures)*

Industry	Employment			Pay roll			Average weekly earnings		
	Index, February 1938	Percentage change from—		Index, February 1938	Percentage change from—		Average in February 1938	Percentage change from—	
		January 1938	February 1937		January 1938	February 1937		January 1938	February 1937
All manufacturing industries combined ¹	(1923-25 = 100) 82.2	0.0	-17.0	(1923-25 = 100) 73.2	+2.2	-23.6	\$22.33	+2.3	-8.0
Class I steam railroads ²	52.6	-2.0	-14.3	(³)	(³)	(³)	(³)	(³)	(³)
Coal mining:	(1929 = 100)			(1929 = 100)					
Anthracite ⁴	60.0	+7	-5.6	46.1	-1.0	+3.4	24.86	-1.6	+9.6
Bituminous ⁴	95.4	-1.4	-8.9	74.0	+5.3	-23.2	20.59	+6.9	-15.8
Metalliferous mining.....	63.4	-6.0	-8.9	55.9	-5.0	-11.7	27.48	+1.1	-3.0
Quarrying and nonmetallic mining.....	38.2	-1.3	-18.1	28.9	+2.6	-23.6	19.19	+4.0	-6.7
Crude-petroleum producing.....	74.6	-.9	+1.4	69.4	+1.9	+8.3	34.43	+2.8	+6.8
Public utilities:									
Telephone and telegraph.....	75.7	-2.7	+1.3	89.5	-4.5	+8.9	\$30.19	-1.9	+7.5
Electric light and power and manufactured gas.....	92.9	-1.2	+7	98.5	-.4	+5.2	\$33.60	+8	+4.5
Electric-railroad and motorbus operation and maintenance.....	71.1	-1.6	-1.9	70.5	-.5	+2.6	\$32.23	+1.1	+4.7
Trade:									
Wholesale.....	90.4	-.7	-1.8	75.3	-.2	+1.6	\$29.08	+5	+3.5
Retail.....	82.6	-1.8	-3.1	68.5	-2.3	+9	\$21.63	-.5	+4.0
General merchandising.....	89.7	-2.0	-4.5	81.5	-3.7	-1.7	\$18.50	-1.8	+2.9
Other than general merchandising.....	80.7	-1.7	-2.6	65.8	-2.0	+1.5	\$24.03	-.3	+4.2
Hotels (year-round) ⁴	94.4	+1	+5	83.5	+2.4	+6.4	\$15.16	+2.3	+5.8
Laundries ⁴	95.7	-1.1	-2.8	79.1	-1.3	+1.2	16.96	-.2	+4.1
Dyeing and cleaning ⁴	95.4	-1.3	-2.7	65.0	-.5	+2.2	18.98	+9	+5.0
Brokerage.....	(³)	-2.3	-14.8	(³)	-2.3	-17.5	\$36.11	-.1	-3.2
Insurance.....	(³)	-.1	+2.0	(³)	-2.0	-5.1	\$36.29	-1.9	-7.0
Building construction.....	(³)	-4.8	-19.8	(³)	-4.7	-16.0	28.56	+(⁷)	+4.8

¹ Revised indexes. Adjusted to 1933 Census of Manufactures.

² Preliminary. Source: Interstate Commerce Commission.

³ Not available.

⁴ Indexes adjusted to 1935 census. Comparable series back to January 1929 presented elsewhere in this issue.

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 Cash payments only; the additional value of board, room, and tips cannot be computed.

⁷ Less than 1/10 of 1 percent.

Public Employment

In the period from mid-January to mid-February, approximately 92,000 employees were working on P. W. A. construction projects. This was a decline of 5,000 from the preceding month. Of the total number of employees 24,000 were working on Federal and non-

Federal projects financed from N. I. R. A. funds and 68,000 on projects financed from E. R. A. A. 1935, 1936, and 1937 funds. Pay-roll disbursements on all P. W. A. projects totaled \$7,282,000.

During the period ending in mid-February 145,000 employees were working on construction projects financed from regular Federal appropriations, the lowest employment level on these projects since April 1937. When compared with January, this was a decrease of slightly more than 9,000. Decreases in employment were shown on all types of projects with the exception of residential building construction and ship construction other than naval vessels. Pay-roll disbursements amounted to \$14,017,000 and were \$1,689,000 less than in the preceding month.

Approximately 3,500 men were at work on construction projects financed by the Reconstruction Finance Corporation during the period from mid-January to mid-February. All types of projects registered decreases in the number working. Pay-roll disbursements for the period amounted to \$514,000.

With a net increase of 172,000 workers on projects of The Works Program in February, employment on this program, exclusive of Student Aid, amounted to 2,372,000. Of this number 147,000 were at work on Federal projects under The Works Program, 2,074,000 on projects operated by the Works Progress Administration, and 151,000 on work projects of the National Youth Administration. Beginning with February and for each month hereafter, data for Student Aid will be shown in the report for the following month. Exclusive of Student Aid, pay rolls on The Works Program totaled \$112,089,000 in February.

An increase in employment in the regular services of the Federal Government was reported in the military service; decreases in employment were reported in the executive and legislative services; and employment in the judicial service showed virtually no change. Of the 809,000 employees in the executive service in February, 113,000 were working in the District of Columbia and 696,000 outside the District. Force-account employees (day labor hired by the Federal Government for construction work) formed 7.3 percent of the total number of employees in the executive service. The most marked increase in employment occurred in the Post Office Department. Among the departments reporting decreases were the War Department and the Department of Agriculture.

The number of workers employed in the Civilian Conservation Corps was 328,000, a decrease of 7,000 as compared with January. Decreases in employment were registered for all classes of workers with the exception of nurses. Of the total number in camps during February 284,000 were enrolled workers, 5,000 reserve officers, 300 nurses, 1,600 educational advisers, and 37,000 supervisory and tech-

nical employees. The monthly pay roll for all classes of workers was in excess of \$15,062,000.

Continued seasonal reductions in employment on State road construction work reduced the total number of men engaged during the month ending February 15 to 128,000, a decline of 14,000 compared with January. Of the total number employed 12,000, or 9.4 percent, were at work on new road construction and nearly 116,000, or 90.6 percent, on maintenance and repairs to existing roads. Pay-roll disbursements for both types of work totaled \$8,789,000.

A summary of Federal employment and pay-roll statistics for January and February is given in table 2.

TABLE 2.—Summary of Federal Employment and Pay Rolls, February 1938¹ (Preliminary Figures)

Class	Employment		Per-centage change	Pay rolls		Per-centage change
	February	January		February	January	
Federal services:						
Executive ²	803,951	³ 812,271	-0.4	\$120,793,886	³ \$122,979,743	-1.8
Judicial.....	2,156	³ 2,158	-1	520,473	518,126	+5
Legislative.....	5,154	5,183	-6	1,194,905	1,201,451	-5
Military.....	333,624	328,643	+1.5	24,996,798	25,183,692	-7
Construction projects:						
Financed by P. W. A. ⁴	91,581	96,725	-5.3	7,281,549	7,836,628	-7.1
Financed by R. F. C. ⁵	3,481	3,739	-6.9	513,923	549,058	-6.4
Financed by regular Federal appropriations.....	144,776	153,864	-5.9	14,016,649	15,705,838	-10.8
Federal projects under The Works Program.....	147,182	157,827	-6.7	7,325,807	7,973,494	-8.1
Projects operated by W. P. A.....	2,073,759	1,898,162	+9.3	102,096,059	92,960,662	+9.8
National Youth Administration:						
Work projects.....	151,406	144,797	+4.6	2,667,226	2,549,914	+4.6
Student Aid.....	(⁶)	306,341	-----	(⁶)	1,992,810	-----
Civilian Conservation Corps.....	328,044	335,244	-2.1	15,062,322	15,444,234	-2.5

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 92,271 employees and pay-roll disbursements of \$11,884,645 for February and 104,180 employees and pay-roll disbursements of \$12,690,435 for January.

³ Revised.

⁴ Data covering P. W. A. projects financed from E. R. A. A. 1935, 1936, and 1937 funds are included. These data are not shown under The Works Program. Includes 67,949 wage earners and \$5,034,059 pay roll for February; 67,967 wage earners and \$5,176,438 pay roll for January covering P. W. A. projects financed from E. R. A. A. 1935, 1936, and 1937 funds.

⁵ Includes 107 employees and pay-roll disbursements of \$12,984 for February and 113 employees and pay-roll disbursements of \$9,991 for January on projects financed by the RFC Mortgage Co.

⁶ Not available.

DETAILED REPORTS FOR JANUARY 1938

Industrial and Business Employment

A MONTHLY report on employment 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.

Monthly reports on employment and pay rolls are available for the following groups: 89 manufacturing industries; 16 nonmanufacturing industries, including private building construction; and class I 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, and in virtually all industries the samples are large enough to be entirely representative. 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

Indexes of employment and pay rolls as well as average hours worked per week, average hourly earnings, and average weekly earnings for November 1937, December 1937, and January 1938, are presented in table 1 where available. The November and December figures may differ in some instances from those previously published because of revisions necessitated by the inclusion of late reports and other causes.

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 in the following table 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.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, January 1938, December 1937, and November 1937*

MANUFACTURING

[Indexes are based on 3-year average 1923-25=100 and are adjusted to 1933 Census of Manufactures. Not comparable to indexes published in pamphlets prior to October 1936. Comparable series available on request.]

Industry	Employment index			Pay-roll index			Average weekly earnings ¹			Average hours worked per week ¹			Average hourly earnings ¹		
	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937
All manufacturing industries.....	82.2	88.6	94.7	71.6	80.9	89.5	\$21.88	\$22.93	\$23.92	33.2	34.4	35.4	Cents 66.3	Cents 66.6	Cents 66.7
Durable goods.....	75.1	84.3	92.4	63.8	77.0	89.9	23.26	24.95	26.80	32.3	34.4	36.4	72.7	72.9	73.3
Nondurable goods.....	89.9	93.3	97.3	81.5	85.8	89.0	20.47	20.68	20.54	34.0	34.3	34.4	60.2	60.0	59.6
<i>Durable goods</i>															
Iron and steel and their products, not including machinery.....	81.2	90.0	98.1	59.2	71.9	85.7	20.43	22.49	24.64	27.7	30.1	32.6	75.5	76.1	76.3
Blast furnaces, steel works, and rolling mills..	90.5	99.6	108.6	61.7	75.5	92.9	20.17	22.47	25.33	24.9	27.3	30.7	81.8	82.8	82.8
Bolts, nuts, washers, and rivets.....	63.2	73.5	80.5	49.1	66.1	78.7	17.62	20.39	22.34	25.3	29.7	32.3	69.7	68.9	69.2
Cast-iron pipe.....	55.3	60.2	57.9	36.0	44.3	42.6	17.26	19.65	19.68	29.3	33.7	33.5	58.2	58.1	58.5
Cutlery (not including silver and plated cutlery) and edge tools.....	77.7	83.9	88.3	63.0	74.6	80.5	20.24	22.32	22.94	33.6	37.5	38.9	62.5	61.2	60.2
Forgings, iron and steel.....	52.3	60.6	64.7	36.3	49.0	55.8	21.22	24.60	26.22	28.6	33.7	35.6	74.7	73.3	74.1
Hardware.....	70.8	84.0	91.5	56.3	80.6	99.9	17.94	21.63	24.55	27.4	32.2	35.4	65.1	67.2	69.4
Plumbers' supplies.....	78.9	79.8	89.6	56.0	55.3	63.5	21.45	21.96	22.45	32.3	32.3	33.6	66.5	67.9	66.8
Steam and hot-water heating apparatus and steam fittings.....	56.6	61.8	66.3	43.4	49.1	53.1	22.21	22.90	23.18	31.1	32.8	33.1	70.9	69.6	69.8
Stoves.....	63.8	77.2	91.1	43.9	56.0	65.0	20.21	21.26	21.02	31.8	33.3	32.3	65.0	65.4	65.5
Structural and ornamental metalwork.....	63.8	69.5	75.0	58.5	68.2	74.5	25.74	27.59	27.99	35.8	38.4	39.3	72.1	72.0	71.4
Tin cans and other tinware.....	85.7	91.3	96.8	88.1	94.4	99.8	22.93	23.10	23.07	36.7	37.6	37.5	63.2	62.2	61.9
Tools (not including edge tools, machine tools, files, and saws).....	81.5	87.6	91.7	75.9	82.4	90.3	21.60	21.96	22.95	34.7	35.2	36.7	62.0	62.2	62.2
Wirework.....	135.1	161.2	179.5	108.4	136.1	162.3	20.36	21.47	23.00	30.7	31.5	33.5	66.4	68.2	68.7
Machinery, not including transportation equipment.....	104.0	113.1	121.4	95.5	110.6	121.2	25.52	27.25	27.79	34.4	36.9	37.9	73.2	73.1	72.6
Agricultural implements.....	138.4	139.6	143.0	172.1	173.5	184.5	27.73	27.67	28.74	37.1	37.3	38.9	74.8	74.4	74.1
Cash registers, adding machines, and calculating machines.....	126.8	129.0	133.6	128.5	137.9	141.2	30.71	33.05	32.61	37.8	39.6	39.7	81.6	84.1	82.7

See footnotes at end of table.

TABLE 1.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, January 1938, December 1937, and November 1937—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937
<i>Durable goods—Continued</i>															
Machinery—Continued.															
Electrical machinery, apparatus, and supplies.	95.9	104.7	113.1	88.1	102.9	114.3	\$25.17	\$27.01	\$27.74	33.5	36.1	37.2	Cents 74.9	Cents 74.8	Cents 74.6
Engines, turbines, tractors, and water wheels.	130.4	141.2	147.8	128.2	143.6	155.0	30.15	31.32	32.38	36.3	37.9	39.3	83.2	82.9	82.8
Foundry and machine-shop products.	90.3	98.1	104.8	79.1	93.0	101.8	24.46	26.47	27.12	34.1	37.0	38.3	71.4	71.3	70.8
Machine tools.	139.2	148.1	153.9	131.5	149.0	157.9	29.01	31.03	31.63	39.7	42.2	42.9	73.2	73.5	73.8
Radios and phonographs.	97.1	124.0	156.7	76.2	98.7	123.0	20.81	20.90	20.74	32.7	33.2	33.2	63.8	63.0	62.5
Textile machinery and parts.	68.6	73.7	77.7	53.4	63.4	70.2	21.27	23.53	24.50	32.8	35.7	37.0	65.0	66.1	66.6
Typewriters and parts.	117.7	127.0	138.4	76.8	106.6	106.0	17.41	22.40	20.43	27.1	35.2	32.5	64.1	63.7	62.7
Transportation equipment.	84.3	105.5	121.8	68.6	92.4	120.0	26.23	27.40	31.03	29.7	31.2	35.1	88.7	88.1	88.9
Aircraft.	771.5	781.0	795.0	674.9	700.7	725.3	27.79	28.06	27.89	39.4	39.8	39.7	71.3	70.4	70.2
Automobiles.	86.8	112.9	133.2	63.8	90.8	125.8	25.15	26.44	31.23	27.4	29.2	34.3	91.9	90.5	91.3
Cars, electric- and steam-railroad.	44.5	55.8	65.8	48.9	65.0	81.1	26.41	27.93	29.61	35.4	36.9	38.5	74.6	75.7	76.9
Locomotives.	52.2	59.5	61.6	37.7	53.7	51.4	28.11	35.15	32.47	36.4	43.5	41.4	77.2	80.8	78.5
Shipbuilding.	99.2	104.8	105.9	114.2	126.5	121.4	31.21	32.69	31.02	36.1	37.9	36.9	84.8	85.0	83.8
Railroad repair shops.	47.6	62.7	57.4	47.3	55.7	63.3	28.87	30.48	31.61	39.4	41.5	43.0	72.8	73.3	73.6
Electric railroad.	63.1	63.5	63.1	68.4	70.1	68.2	30.61	31.38	30.63	43.5	44.8	43.6	69.4	68.6	68.5
Steam railroad.	46.4	51.9	57.0	45.9	54.7	63.0	28.52	30.33	31.78	39.0	41.2	43.0	73.1	73.7	74.1
Nonferrous metals and their products.	88.4	98.9	108.4	73.3	86.5	99.9	22.49	23.49	24.63	33.1	35.1	37.3	67.6	66.5	65.9
Aluminum manufactures.	103.9	114.1	123.5	96.9	110.7	127.8	23.11	24.18	25.82	33.5	35.3	38.5	69.1	68.6	67.2
Brass, bronze, and copper products.	89.1	97.0	105.5	71.4	80.3	92.1	22.73	23.36	24.77	30.8	31.9	33.7	73.8	73.0	73.4
Clocks and watches and time-recording devices.	99.8	115.3	125.0	88.8	105.3	122.3	20.42	20.72	22.22	33.6	35.4	38.6	60.7	58.5	57.6
Jewelry.	82.2	89.9	100.3	60.5	70.6	78.8	22.52	23.53	24.09	36.3	38.2	40.3	61.9	61.3	58.9
Lighting equipment.	69.2	87.1	95.6	52.7	72.1	94.4	19.54	21.31	25.07	28.8	31.7	38.3	67.9	67.5	65.4
Silverware and plated ware.	69.3	76.1	79.3	54.0	67.7	72.6	21.11	24.18	24.84	33.2	37.7	38.8	63.6	64.1	64.1
Smelting and refining—copper, lead, and zinc.	81.1	85.3	88.0	74.0	80.2	83.8	26.92	27.73	27.90	39.1	40.2	39.9	68.9	69.0	69.8
Stamped and enameled ware.	105.2	122.6	144.0	88.6	114.7	141.5	20.64	21.69	22.76	31.8	35.0	37.1	64.6	61.8	61.2
Lumber and allied products.	53.7	58.1	63.5	42.5	48.4	55.1	17.66	18.62	19.48	34.6	36.3	37.2	51.6	51.3	52.8
Furniture.	68.5	74.5	79.5	49.4	60.0	65.8	17.16	19.27	19.66	31.8	36.0	37.0	53.8	53.7	53.2
Lumber:															
Millwork.	44.1	47.6	51.2	36.5	42.8	46.3	18.85	20.38	20.58	34.0	37.0	37.7	55.3	55.2	54.7
Sawmills.	39.7	42.8	47.6	31.5	33.9	40.4	17.70	17.56	18.99	36.5	36.4	37.3	49.3	48.8	52.0
Stone, clay, and glass products.	55.1	63.2	68.2	43.4	54.5	63.6	16.97	21.86	23.71	31.1	33.8	36.5	65.1	64.9	64.4
Brick, tile, and terra cotta.	35.3	41.1	45.5	24.3	30.8	36.4	16.53	17.95	19.18	31.2	33.8	35.8	54.1	53.5	53.4
Cement.	50.2	60.5	66.1	44.4	58.0	67.3	22.45	24.34	25.73	32.8	36.1	38.2	68.4	67.4	67.4

Glass.....	87.6	100.0	106.7	76.2	95.8	111.9	20.89	23.01	25.21	29.8	32.4	35.8	70.4	71.2	70.5
Marble, granite, slate, and other products.....	31.9	38.0	42.1	23.7	30.8	34.6	22.26	23.64	23.88	32.9	35.1	36.2	57.9	67.5	66.3
Pottery.....	69.7	74.1	76.9	51.3	59.7	78.0	19.43	21.19	24.05	32.1	34.9	37.9	64.0	63.1	63.1
<i>Nondurable goods</i>															
Textile and their products.....	84.6	88.2	92.0	65.3	68.7	71.5	15.31	15.42	15.37	30.2	30.3	30.6	51.1	51.1	50.9
Fabrics.....	80.6	84.0	87.2	64.8	68.9	71.5	15.02	15.36	15.24	30.7	31.4	31.5	48.9	49.0	49.2
Carpets and rugs.....	66.9	78.3	85.7	45.6	54.4	49.7	16.24	16.50	13.77	24.6	25.6	21.2	65.9	64.4	64.9
Cotton goods.....	86.6	89.0	91.1	70.3	74.1	76.8	12.73	13.13	13.25	30.2	30.9	31.5	42.0	42.3	42.1
Cotton small wares.....	78.8	84.9	91.2	67.9	74.9	79.0	15.96	16.47	16.10	33.1	33.5	33.1	48.7	50.0	50.0
Dyeing and finishing textiles.....	103.6	105.3	108.8	83.9	86.5	89.0	19.59	19.81	19.87	34.2	34.0	34.4	56.9	58.0	57.6
Hats, fur-felt.....	82.7	83.5	83.0	65.2	64.9	61.0	21.40	21.13	19.97	31.2	30.8	28.2	72.0	70.6	71.6
Knit goods.....	98.8	103.3	111.9	89.7	95.1	112.3	15.64	16.00	17.40	30.8	31.7	33.7	51.9	51.3	52.4
Silk and rayon goods.....	57.8	63.2	67.6	40.4	48.1	50.8	13.55	14.75	14.54	29.5	32.0	31.7	45.5	46.0	46.2
Woolen and worsted goods.....	59.1	61.1	59.8	45.9	49.6	42.8	18.97	18.69	16.43	32.0	31.7	27.7	59.4	59.2	59.4
* Wearing apparel.....	91.7	95.6	101.0	63.7	65.2	68.6	16.13	15.60	15.74	28.9	28.2	28.0	55.8	55.3	54.3
Clothing, men's.....	83.2	84.0	90.7	58.2	55.5	61.1	16.44	15.61	15.82	26.7	25.2	26.1	62.1	62.4	61.1
Clothing, women's.....	128.3	131.0	134.9	82.8	86.0	84.2	17.87	17.85	17.25	29.9	29.4	29.2	56.8	56.8	55.5
Corsets and allied garments.....	84.4	87.6	88.1	74.7	79.7	82.1	14.99	14.85	15.52	32.3	32.0	33.6	46.9	46.7	46.0
Men's furnishings.....	97.6	118.8	130.4	66.5	89.8	103.8	12.05	13.16	14.36	29.2	31.5	32.8	37.8	36.6	37.3
Millinery.....	50.1	44.1	43.8	34.4	27.4	26.7	20.02	18.00	17.40	-----	-----	-----	-----	-----	-----
Shirts and collars.....	89.3	106.3	114.6	70.9	87.3	102.6	11.87	12.11	13.14	30.3	30.2	33.1	41.7	41.0	40.4
Leather and its manufactures.....	85.8	81.8	80.3	65.6	58.4	53.8	17.96	18.61	15.48	33.4	31.1	28.6	53.6	53.6	54.5
Boots and shoes.....	89.3	83.8	80.8	63.1	53.2	46.0	16.94	15.25	13.72	32.9	30.1	26.9	51.4	51.1	52.3
Leather.....	76.6	78.6	82.9	76.9	78.5	82.7	22.43	22.23	22.13	35.4	35.2	35.2	63.8	63.8	62.8
Food and kindred products.....	102.7	107.3	114.6	106.4	110.4	115.9	25.22	24.93	24.46	40.4	40.5	40.3	61.8	61.2	60.2
Baking.....	129.6	131.6	135.2	125.0	127.4	130.3	25.18	25.22	25.10	41.5	41.4	41.4	61.2	61.3	61.1
Beverages.....	186.2	187.4	194.3	199.8	202.0	212.7	31.33	31.65	32.22	37.7	37.9	38.8	83.8	84.4	84.2
Butter.....	80.5	81.6	83.7	65.7	65.8	67.2	22.54	22.27	22.42	-----	-----	-----	-----	-----	-----
Canning and preserving.....	81.9	89.1	118.7	79.4	86.6	111.4	16.12	16.22	15.74	34.3	33.6	33.8	48.3	49.6	47.8
Confectionery.....	76.4	87.2	91.8	73.8	86.8	89.8	17.58	18.11	17.63	36.8	39.7	38.7	48.0	45.6	45.6
Flour.....	73.7	75.1	76.0	73.3	74.0	76.7	25.86	25.52	26.10	43.4	42.7	43.7	58.6	58.9	58.8
Ice cream.....	61.3	63.7	65.1	57.8	60.4	61.5	29.24	29.25	29.16	45.4	46.6	46.5	62.6	61.7	61.3
Slaughtering and meat packing.....	92.8	90.9	90.5	108.3	104.7	102.3	29.30	28.89	28.31	42.7	42.2	41.1	68.8	68.0	68.1
Sugar, beet.....	33.9	146.1	252.1	40.8	135.8	267.4	28.37	21.98	25.09	38.8	40.4	49.6	76.0	55.6	50.8
Sugar refining, cane.....	65.6	65.0	70.4	58.9	72.4	66.8	23.72	26.87	26.41	38.1	43.0	40.9	59.6	60.8	62.8
Tobacco manufactures.....	51.9	75.8	62.9	44.6	55.7	57.2	15.85	16.88	16.72	33.3	37.1	37.4	47.6	45.5	44.9
Chewing and smoking tobacco and snuff.....	57.2	56.9	56.7	66.6	67.9	63.8	17.31	18.11	17.06	34.7	35.8	33.5	50.3	51.1	51.1
Cigars and cigarettes.....	51.1	61.2	63.6	41.9	54.2	56.4	15.48	16.62	16.66	33.1	37.3	37.9	47.2	44.4	44.2
Paper and printing.....	101.0	104.1	106.4	95.6	100.8	101.5	26.96	27.62	27.48	36.8	37.6	37.7	76.2	76.5	75.7
Boxes, paper.....	89.3	96.9	103.3	83.1	92.8	102.6	19.25	19.78	20.42	35.2	37.3	39.0	55.1	53.4	52.8
Paper and pulp.....	108.2	109.4	113.6	98.0	98.8	105.4	22.41	22.47	23.26	35.9	35.6	36.9	62.4	63.1	63.2
Printing and publishing:															
Book and job.....	95.8	98.0	98.3	91.0	95.9	93.1	29.95	30.75	29.96	38.4	39.7	38.7	70.3	78.3	78.5
Newspapers and periodicals.....	103.1	106.6	107.0	100.8	108.4	106.1	36.75	38.45	37.42	36.7	37.7	37.1	96.9	99.1	97.1
Chemicals and allied products, and petroleum refining.....	112.5	116.3	122.7	117.4	124.4	132.1	27.19	27.93	28.07	36.6	38.0	38.5	75.2	74.3	73.8
Other than petroleum refining.....	111.0	115.4	122.4	112.2	120.3	129.6	24.22	25.06	25.59	37.1	38.5	39.5	66.8	66.2	65.8
Chemicals.....	118.3	122.6	129.8	124.8	130.4	141.7	29.25	29.51	30.25	36.8	37.4	38.7	79.7	78.9	78.2

TABLE 1.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, January 1938, December 1937, and November 1937—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937	January 1938	December 1937	November 1937
<i>Nondurable goods—Continued</i>															
Chemicals and allied products—Continued.															
Other than petroleum refining—Continued.															
Cottonseed—oil, cake, and meal.....	104.4	109.9	121.0	96.8	104.8	113.0	\$13.18	\$13.48	\$13.18	53.2	55.0	53.5	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Druggists' preparations.....	105.9	110.5	112.5	118.4	124.0	125.8	24.37	24.40	24.33	39.0	39.8	39.2	60.0	57.7	58.3
Explosives.....	90.2	94.7	95.4	82.3	100.3	106.6	26.11	29.48	31.64	33.0	37.8	39.7	79.0	78.0	79.8
Fertilizers.....	82.6	81.6	75.3	78.5	82.3	77.4	16.17	16.74	17.02	37.6	38.2	38.6	43.0	43.9	44.1
Paints and varnishes.....	116.3	121.1	128.0	106.4	116.1	124.8	25.16	26.40	26.95	35.9	37.8	38.8	70.1	69.9	69.6
Rayon and allied products.....	315.2	336.8	374.0	275.5	313.5	360.3	21.58	22.98	23.79	32.9	35.3	37.0	65.7	65.1	64.4
Soap.....	94.0	94.6	100.4	109.2	111.2	116.9	28.65	28.58	28.23	38.4	38.7	39.2	74.8	74.3	72.4
Petroleum refining.....	118.8	120.2	123.9	134.3	137.9	140.4	34.31	34.88	34.42	35.2	36.3	35.8	98.1	97.1	97.0
Rubber products.....	78.3	86.0	90.9	65.9	77.1	82.0	22.41	23.90	24.11	29.0	31.1	31.6	79.2	78.9	79.0
Rubber boots and shoes.....	59.2	68.0	71.9	44.3	54.6	62.1	18.76	20.08	21.70	30.7	33.6	35.9	61.1	59.8	60.4
Rubber goods, other than boots, shoes, tires, and inner tubes.....	108.6	120.9	128.2	94.9	110.9	121.7	19.99	21.15	21.93	32.9	34.5	36.0	60.7	61.3	60.9
Rubber tires and inner tubes.....	71.3	76.6	80.8	61.1	70.8	72.9	25.09	26.91	26.26	26.0	28.0	27.2	96.7	96.7	97.2

NONMANUFACTURING

[Indexes are based on 12-month average 1929=100]

Coal mining:																
Anthracite ²	59.6	61.4	60.9	46.5	51.3	49.0	\$25.27	\$27.02	\$26.00	27.2	28.9	28.3	91.7	92.0	90.7	
Bituminous ²	96.8	99.4	101.4	70.2	95.1	91.1	19.26	25.49	24.00	21.6	29.1	26.9	87.1	86.6	87.8	
Metalliferous mining.....	67.3	70.4	75.4	59.0	65.1	71.6	27.80	29.43	30.05	41.4	43.1	43.1	67.5	68.6	69.9	
Quarrying and nonmetallic mining.....	38.8	43.9	49.9	28.2	33.4	41.7	18.66	19.32	21.48	33.4	34.7	38.9	55.8	55.8	55.0	
Crude petroleum producing.....	75.6	76.5	77.2	68.0	69.8	70.2	33.70	34.11	34.12	39.7	40.1	39.9	85.3	83.8	84.3	
Public utilities:																
Telephone and telegraph ³	77.8	78.0	78.9	93.8	94.7	91.4	31.02	31.19	(*)	39.9	39.5	(*)	82.2	83.4	(*)	
Electric light and power and manufactured gas ³	94.0	96.1	97.3	98.9	102.4	103.8	33.47	33.91	(*)	39.3	40.4	(*)	85.5	84.2	(*)	
Electric-railroad and motorbus operation and maintenance ³	72.2	72.8	73.2	70.9	71.9	71.8	32.11	32.29	(*)	45.0	45.8	(*)	70.0	69.4	(*)	

INDEXES OF EMPLOYMENT AND PAY ROLLS

Indexes of employment and pay rolls are given in tables 2 and 3 for all manufacturing industries combined, for the durable- and non-durable-goods groups of manufacturing industries, and for 13 non-manufacturing industries, including 2 subgroups under retail trade, by months, from January 1937 to January 1938, inclusive. The indexes for anthracite and bituminous-coal mining, year-round hotels, laundries, and dyeing and cleaning, have been adjusted to 1935 census figures.¹

The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to January 1938.

The indexes of factory employment and pay rolls are computed from returns supplied by representative establishments in 89 manufacturing industries and cover wage earners only. The base used in computing these indexes is the 3-year average 1923-25 as 100. In January 1938 reports were received from 24,957 manufacturing establishments employing 3,982,188 workers, whose weekly earnings were \$87,130, 609. The employment reports received from these establishments 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 89 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, dyeing and cleaning, and building construction cover wage earners only, but the figures for public utilities, trade, hotels, brokerage, and insurance 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.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the pay period ending nearest the 15th of the month.

¹ The complete series of monthly figures as adjusted to the 1935 census from January 1929 is given in the January 1938 report on Employment and Pay Rolls, copy of which will be furnished upon request to the Bureau.

EMPLOYMENT & PAY ROLLS ALL MANUFACTURING INDUSTRIES 1923-25=100



TABLE 2.—*Indexes of Employment and Pay Rolls in All Manufacturing Industries Combined and in the Durable- and Nondurable-Goods Groups*¹

[Adjusted to 1933 Census of Manufactures—3-year average 1923-25=100]

Month	Manufacturing											
	Total				Durable goods ²				Nondurable goods ³			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938
January	96.5	82.2	90.7	71.6	90.4	75.1	86.6	63.8	103.0	89.9	96.0	81.5
February	99.0	-----	95.8	-----	93.2	-----	92.5	-----	105.2	-----	99.9	-----
March	101.1	-----	101.1	-----	96.4	-----	100.0	-----	106.1	-----	102.6	-----
April	102.1	-----	104.9	-----	98.6	-----	106.4	-----	105.9	-----	102.9	-----
May	102.3	-----	105.2	-----	99.9	-----	107.5	-----	104.8	-----	102.3	-----
June	101.1	-----	102.9	-----	98.8	-----	104.6	-----	103.5	-----	100.8	-----
July	101.4	-----	100.4	-----	98.9	-----	100.7	-----	104.1	-----	100.0	-----
August	102.3	-----	103.8	-----	98.1	-----	104.0	-----	106.9	-----	103.5	-----
September	102.1	-----	100.1	-----	97.3	-----	99.4	-----	107.3	-----	100.9	-----
October	100.5	-----	100.1	-----	97.6	-----	101.7	-----	103.6	-----	98.2	-----
November	94.7	-----	89.5	-----	92.4	-----	89.9	-----	97.3	-----	89.0	-----
December	88.6	-----	80.9	-----	84.3	-----	77.0	-----	93.3	-----	85.8	-----
Average	99.3	-----	98.0	-----	95.5	-----	97.5	-----	103.4	-----	98.5	-----

¹ Comparable indexes for earlier years will be found in the April 1937 issue of the Monthly Labor Review.² Includes the following groups of manufacturing industries: Iron and steel; machinery; transportation equipment; railroad repair shops; nonferrous metals; lumber and allied products; and stone, clay, and glass products.³ Includes the following groups of manufacturing industries: 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.TABLE 3.—*Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries, January 1937 to January 1938*¹

[12-month average 1929=100]

Month	Anthracite mining				Bituminous-coal mining				Metalliferous mining				Quarrying and non-metallic mining			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938
January	65.2	59.6	46.4	46.5	104.5	96.8	93.6	70.2	66.8	67.3	58.4	59.0	45.7	38.8	34.6	28.2
February	63.6	-----	44.6	-----	104.7	-----	96.4	-----	69.6	-----	63.4	-----	46.7	-----	37.8	-----
March	59.0	-----	41.1	-----	106.1	-----	103.5	-----	73.1	-----	70.6	-----	49.1	-----	41.3	-----
April	65.1	-----	69.4	-----	89.7	-----	63.6	-----	76.2	-----	76.9	-----	53.1	-----	48.1	-----
May	61.5	-----	48.2	-----	96.1	-----	79.4	-----	78.5	-----	79.8	-----	54.9	-----	51.4	-----
June	61.6	-----	55.3	-----	96.2	-----	83.3	-----	79.5	-----	77.7	-----	55.4	-----	52.6	-----
July	54.3	-----	38.2	-----	93.7	-----	77.7	-----	82.0	-----	77.8	-----	55.5	-----	50.8	-----
August	49.7	-----	29.6	-----	97.4	-----	86.3	-----	83.4	-----	83.0	-----	54.9	-----	53.2	-----
September	58.1	-----	34.2	-----	99.4	-----	90.9	-----	84.1	-----	82.2	-----	54.7	-----	50.1	-----
October	61.5	-----	55.4	-----	102.4	-----	100.7	-----	82.9	-----	81.7	-----	53.3	-----	49.3	-----
November	60.9	-----	49.0	-----	101.4	-----	91.1	-----	75.4	-----	71.6	-----	49.9	-----	41.7	-----
December	61.4	-----	51.3	-----	99.4	-----	95.1	-----	70.4	-----	65.1	-----	43.9	-----	33.4	-----
Average	60.2	-----	46.9	-----	99.3	-----	88.5	-----	76.8	-----	74.0	-----	51.4	-----	45.4	-----

¹ Comparable indexes for earlier years for all of these industries, except anthracite and bituminous-coal mining, year-round hotels, laundries, and dyeing and cleaning, will be found in the February 1935 and subsequent issues of the Monthly Labor Review. Indexes for anthracite and bituminous-coal mining, year-round hotels, laundries, and dyeing and cleaning from January 1929 forward have been adjusted to the 1935 census and are given in the January 1938 report of Employment and Pay Rolls, copy of which will be furnished upon request to the Bureau.

TABLE 3.—Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries, January 1937 to January 1938—Continued

Month	Crude-petroleum producing				Telephone and telegraph				Electric light and power, and manufactured gas				Electric-railroad and motorbus operation and maintenance ¹			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938
January	72.7	75.6	61.2	68.0	74.4	77.8	83.6	93.8	92.1	94.0	92.3	98.9	72.5	72.2	68.0	70.9
February	73.5		64.1		74.8		82.2		92.2		93.6		72.5		68.7	
March	74.2		63.9		75.4		87.2		92.4		94.8		72.6		69.2	
April	75.8		67.7		76.6		86.3		93.1		95.5		72.9		69.4	
May	76.7		68.2		77.7		89.5		94.6		97.9		73.3		70.1	
June	78.5		70.4		78.5		88.6		96.3		100.4		73.3		71.1	
July	78.5		70.5		79.7		92.1		97.5		102.2		73.4		70.8	
August	79.3		70.8		79.8		92.1		98.3		102.6		73.4		73.1	
September	78.2		71.2		79.8		92.3		98.6		104.0		73.7		71.6	
October	77.5		69.9		79.6		94.9		98.5		105.3		73.4		71.4	
November	77.2		70.2		78.9		91.4		97.3		103.8		73.2		71.8	
December	76.5		69.8		78.0		94.7		96.1		102.4		72.8		71.9	
Average	76.5		68.2		77.8		89.6		95.6		99.6		73.1		70.6	

Month	Wholesale trade				Total retail trade				Retail trade—general merchandising				Retail trade—other than general merchandising			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938
January	90.7	90.9	72.6	75.3	85.4	84.1	68.0	70.1	95.1	91.5	83.8	84.6	82.9	82.1	64.7	67.1
February	92.0		74.1		85.2		67.9		93.9		82.9		82.9		64.8	
March	92.1		75.0		88.5		70.5		100.3		87.6		85.4		67.0	
April	91.9		75.4		88.8		71.9		99.6		89.1		86.0		68.3	
May	90.8		76.1		89.9		73.5		102.1		91.5		86.7		69.8	
June	90.3		76.3		90.5		74.4		102.9		92.5		87.2		70.6	
July	90.6		76.9		87.6		72.8		95.9		87.3		85.4		69.8	
August	91.8		79.0		86.2		72.3		93.8		85.7		84.2		69.5	
September	93.0		78.3		90.7		74.4		103.7		92.4		87.3		70.7	
October	94.0		79.3		92.1		75.9		108.1		96.2		87.9		71.7	
November	93.5		78.3		91.7		75.3		109.8		97.1		86.9		70.8	
December	93.3		77.8		100.4		80.6		145.9		123.3		88.5		71.8	
Average	92.0		76.6		89.8		73.1		104.3		92.5		85.9		69.1	

Month	Year-round hotels				Laundries				Dyeing and cleaning			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938
January	92.9	94.3	76.2	81.5	98.3	96.7	78.2	80.1	98.8	96.7	64.7	65.3
February	93.9		78.5		98.4		78.1		98.0		63.6	
March	94.4		78.7		98.5		79.3		104.3		71.8	
April	96.1		80.7		98.3		80.4		109.2		80.1	
May	95.3		79.7		100.3		83.3		113.9		86.1	
June	94.4		80.1		103.9		87.5		118.5		92.2	
July	93.6		79.4		105.8		89.0		111.0		79.5	
August	94.3		80.5		104.7		88.0		110.3		81.3	
September	95.7		82.4		104.1		86.4		112.8		85.7	
October	96.9		84.1		99.9		83.4		110.5		83.6	
November	96.6		84.3		97.8		81.1		103.5		73.7	
December	94.9		82.6		97.0		81.1		99.2		68.6	
Average	94.9		80.6		100.6		83.0		107.5		77.6	

¹ Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, table 1.

TREND OF INDUSTRIAL AND BUSINESS EMPLOYMENT, BY STATES

A comparison of employment and pay rolls, by States and geographic divisions, in December 1937 and January 1938, is shown in table 4 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 89 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.

TABLE 4.—Comparison of Employment and Pay Rolls in Identical Establishments in December 1937 and January 1938, 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 1938	Percentage change from December 1937	Amount of pay roll (1 week) January 1938	Percentage change from December 1937	Number of establishments	Number on pay roll January 1938	Percentage change from December 1937	Amount of pay roll (1 week) January 1938	Percentage change from December 1937
				<i>Dollars</i>					<i>Dollars</i>	
New England.....	13, 150	791, 489	-4.6	17, 122, 221	-5.9	3, 547	537, 025	-3.8	10, 919, 002	-6.5
Maine.....	730	47, 120	-2.5	923, 067	-1.3	285	39, 047	-8.8	742, 447	-1.1
New Hampshire.....	561	32, 774	+1.9	598, 206	+1.1	203	27, 597	+3.3	484, 068	+2.4
Vermont.....	418	13, 323	-6.3	267, 046	-10.0	147	8, 697	-5.9	168, 387	-12.0
Massachusetts.....	¹ 8, 256	<i>444, 435</i>	-3.8	<i>10, 050, 463</i>	-4.5	<i>1, 747</i>	<i>249, 435</i>	-2.6	<i>5, 212, 708</i>	-4.8
Rhode Island.....	873	73, 630	-7.4	1, 516, 259	-6.5	415	60, 062	-6.2	1, 181, 210	-6.5
Connecticut.....	2, 312	180, 207	-7.0	3, 767, 180	-10.8	750	152, 187	-6.6	3, 130, 182	-11.5
Middle Atlantic.....	30, 149	1, 939, 000	-7.8	48, 482, 629	-9.6	5, 442	1, 121, 935	-6.0	26, 421, 443	-9.1
New York.....	19, 502	862, 607	-8.7	23, 657, 952	-7.8	² 2, 283	<i>404, 520</i>	-5.7	<i>10, 500, 018</i>	-7.2
New Jersey.....	3, 616	307, 597	-7.1	7, 658, 548	-7.4	³ 832	<i>234, 706</i>	-5.0	<i>5, 789, 705</i>	-6.7
Pennsylvania.....	7, 031	768, 796	-7.0	17, 146, 129	-12.8	² 327	<i>432, 709</i>	-6.6	<i>10, 131, 720</i>	-11.5
East North Central.....	23, 144	1, 951, 525	-11.3	46, 717, 576	-15.7	8, 328	1, 466, 671	-12.1	34, 358, 288	-19.0
Ohio.....	7, 095	528, 836	-11.2	12, 068, 848	-16.9	2, 529	390, 848	-10.5	8, 801, 213	-17.8
Indiana.....	² 432	<i>222, 593</i>	-12.0	<i>4, 759, 426</i>	-18.6	¹ 916	<i>178, 803</i>	-11.2	<i>5, 752, 851</i>	-20.0
Illinois.....	⁵ 6, 125	<i>569, 973</i>	-7.1	<i>14, 512, 862</i>	-8.5	² 412	<i>398, 601</i>	-6.1	<i>9, 708, 185</i>	-8.5
Michigan.....	3, 664	409, 337	-17.7	10, 116, 326	-24.4	986	<i>349, 929</i>	-21.7	<i>8, 316, 143</i>	-31.8
Wisconsin.....	³ 3, 828	<i>220, 796</i>	-8.4	<i>5, 260, 114</i>	-9.8	⁷ 1, 485	<i>154, 490</i>	-6.7	<i>3, 659, 916</i>	-9.9
West North Central.....	10, 789	382, 322	-6.0	9, 009, 096	-5.3	2, 373	197, 372	-3.9	4, 664, 062	-3.5
Minnesota.....	2, 074	76, 975	-8.2	1, 950, 658	-8.4	426	38, 197	-4.1	984, 376	-6.4
Iowa.....	1, 721	59, 560	-3.5	1, 371, 481	-3.8	398	35, 529	-1.2	851, 251	-2.3
Missouri.....	2, 784	153, 326	-6.1	3, 505, 910	-4.9	853	85, 630	-4.7	1, 842, 141	-2.9
North Dakota.....	503	4, 559	-5.9	109, 369	-6.1	55	627	-4.0	18, 165	-3.6
South Dakota.....	446	7, 443	-1.8	194, 464	-2.3	37	2, 219	(⁹)	59, 469	-8
Nebraska.....	1, 205	28, 334	-8.4	652, 499	-6.4	152	10, 296	-11.9	265, 549	-7.7
Kansas.....	⁹ 2, 056	<i>52, 105</i>	-10	<i>1, 224, 705</i>	-5.1	<i>452</i>	<i>24, 874</i>	-1.2	<i>643, 111</i>	-6
South Atlantic.....	10, 111	779, 375	-5.5	13, 897, 683	-11.2	2, 795	530, 427	-4.5	8, 656, 382	-9.0
Delaware.....	205	13, 237	-6.4	312, 475	-8.6	86	10, 384	-5.2	244, 616	-8.8
Maryland.....	1, 638	124, 098	-8.0	2, 787, 843	-9.4	604	84, 515	-5.0	1, 807, 729	-7.8
District of Columbia.....	1, 056	36, 339	-12.9	954, 927	-8.9	38	3, 183	-4.7	105, 791	-7.8

See footnotes at end of table.

TABLE 4.—Comparison of Employment and Pay Rolls in Identical Establishments in December 1937 and January 1938, by Geographic Divisions and by States—Continued

Geographic division and State	Total—All groups				Manufacturing					
	Number of establishments	Number on pay roll January 1938	Percentage change from December 1937	Amount of pay roll (1 week) January 1938	Percentage change from December 1937	Number of establishments	Number on pay roll January 1938	Percentage change from December 1937	Amount of pay roll (1 week) January 1938	Percentage change from December 1937
South Atlantic—Continued				<i>Dollars</i>				<i>Dollars</i>		
Virginia.....	1,998	106,145	-5.9	1,908,061	-8.6	464	76,370	-3.7	1,367,307	-6.9
West Virginia.....	1,127	133,758	-7.9	2,751,492	-22.6	252	49,214	-11.7	1,011,911	-19.5
North Carolina.....	1,249	145,359	-2.7	2,057,792	-4.3	565	135,495	-1.6	1,896,578	-3.9
South Carolina.....	687	74,945	-1.9	977,832	-5.4	215	68,389	-1.4	868,074	-5.4
Georgia.....	1,272	101,659	-5.5	1,428,382	-9.8	374	82,748	-4.5	1,052,591	-10.5
Florida.....	924	43,835	-3.8	718,879	-6.8	197	20,129	-11.3	301,785	-15.5
East South Central	3,518	256,767	-7.1	4,259,553	-11.5	1,016	163,328	-7.1	2,634,112	-9.1
Kentucky.....	1,159	77,399	-4.8	1,470,693	-11.9	294	32,514	-4.8	651,219	-3.3
Tennessee.....	1,188	89,345	-7.1	1,425,823	-9.9	379	67,410	-5.9	1,050,941	-9.2
Alabama.....	777	73,832	-9.5	1,140,988	-13.7	246	51,277	-10.5	768,008	-13.9
Mississippi.....	394	16,191	-6.7	222,049	-7.0	97	12,127	-4.5	163,944	-5.2
West South Central	5,385	210,021	-4.2	4,671,518	-4.5	1,280	101,611	-2.5	2,144,862	-2.6
Arkansas.....	¹¹ 790	28,600	-5.0	484,325	-5.8	267	16,928	-6.6	270,758	-7.0
Louisiana.....	908	44,455	-3.4	820,254	-3.8	238	26,272	-8	438,495	-1.2
Oklahoma.....	1,227	39,119	-2.9	954,925	-3.1	141	11,762	-1	287,129	+2.1
Texas.....	¹² 2,460	97,947	-4.9	2,412,014	-5.1	694	46,649	-2.4	1,148,510	-3.2
Mountain	3,977	119,353	-12.1	3,015,011	-14.2	580	31,616	-24.5	789,402	-22.8
Montana.....	665	17,631	-10.4	518,194	-10.0	86	4,188	-24.9	111,363	-22.1
Idaho.....	442	9,505	-19.4	239,644	-18.1	60	2,033	-46.5	44,242	-43.7
Wyoming.....	301	8,933	-8.6	232,077	-21.3	40	1,622	-25.9	52,115	-22.7
Colorado.....	1,145	40,209	-13.8	971,444	-15.0	186	13,180	-24.5	320,868	-22.6
New Mexico.....	2,85	6,383	-5.0	132,339	-10.1	34	719	-6.5	12,744	-4.1
Arizona.....	436	15,229	-7.8	403,994	-7.6	38	2,823	-7.3	72,055	-5.4
Utah.....	556	18,843	-13.9	446,473	-17.7	117	6,292	-23.4	154,715	-24.5
Nevada.....	147	2,620	-5.1	70,846	-14.6	19	759	-10.0	21,300	-14.0
Pacific	9,346	394,450	-7.6	10,871,663	-7.5	2,458	203,937	-6.5	5,257,774	-8.5
Washington.....	2,873	81,184	-9.6	2,055,748	-8.2	572	42,258	-8.0	1,011,717	-7.2
Oregon.....	¹³ 1,297	42,077	-7.5	1,039,517	-5.2	310	23,598	-7.8	540,452	-5.5
California.....	¹³ 5,176	271,189	-6.9	7,776,398	-7.6	1,576	158,081	-5.8	3,705,605	-9.2

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 Includes laundries.

⁴ Weighted percentage change.

⁵ Includes automobiles, and miscellaneous services, restaurants, and building and contracting.

⁶ Includes construction but not public works.

⁷ Does not include logging.

⁸ Less than 1/10 of 1 percent.

⁹ Includes financial institutions, miscellaneous services, and restaurants.

¹⁰ Weighted percentage change including hired farm labor.

¹¹ Includes automobile dealers and garages, and sand, gravel, and building stone.

¹² Includes business and personal service.

¹³ Includes banks, insurance, and office employment.

INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL METROPOLITAN AREAS

A comparison of employment and pay rolls in December 1937 and January 1938 is made in table 5 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 as data concerning them are tabulated separately and are available on request. Footnotes in 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.

TABLE 5.—Comparison of Employment and Pay Rolls in Identical Establishments in December 1937 and January 1938, by Principal Metropolitan Areas

Metropolitan area	Number of establishments	Number on pay-roll January 1938	Percentage change from December 1937	Amount of pay roll (1 week) January 1938	Percentage change from December 1937
New York ¹	13,908	569,631	-8.9	\$15,034,181	-7.9
Chicago ²	4,299	443,205	-5.7	11,869,653	-6.6
Philadelphia ³	1,936	181,755	-6.3	4,721,939	-9.3
Detroit, Mich.....	1,583	255,056	-19.0	6,752,747	-26.4
Los Angeles ⁴	2,640	142,988	-7.2	3,929,592	-7.0
Cleveland, Ohio.....	1,672	117,869	-12.2	2,810,092	-15.1
St. Louis, Mo.....	1,443	117,819	-7.4	2,751,351	-6.2
Baltimore, Md.....	1,130	95,279	-8.9	2,146,097	-9.9
Boston ⁵	1,660	103,713	-8.8	2,759,983	-7.1
Pittsburgh, Pa.....	1,033	184,615	-7.8	4,018,121	-16.8
San Francisco ⁶	1,555	78,445	-7.8	2,263,479	-8.9
Buffalo, N. Y.....	769	52,632	-9.2	1,380,620	-8.1
Milwaukee, Wis.....	1,068	95,798	-8.5	2,448,583	-11.7

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 Figures relate to city of Boston only.

⁶ Does not include Oakland, Calif.

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, FEBRUARY 1938 ¹

IN FEBRUARY there was a decrease of 43.5 percent in the value of permits issued for all classes of building construction. The decline in new residential and nonresidential construction was 67.1 and 19.7 percent, respectively. Additions, alterations, and repairs increased 0.7 percent. However, when data for New York City were excluded from the February figures increases were shown in the value of permits issued for each class of building construction, the gain for all classes combined amounting to 27.9 percent. The decline in the estimated cost of building construction as measured by the value of permits issued in New York City was anticipated for February. In December and January the volume of new permits issued in New York City had been unusually large because of the new building code which became effective late in January.

Compared with the corresponding month of 1937, the value of residential buildings for which permits were issued in reporting cities, including New York, declined 49.5 percent. There was also a decline in the value of additions, alterations, and repairs, amounting to 18.5 percent. The value of new nonresidential buildings increased 15.3 percent.

Comparison of February 1938 with January 1938

A summary of building construction in 2,031 identical cities in January and February 1938 is given in table 1.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,031 Identical Cities, January and February 1938*

Class of construction	Number of buildings			Permit valuation		
	February 1938	January 1938	Percent-age change	February 1938	January 1938	Percent-age change
All construction.....	35, 178	34, 187	+2.9	\$100, 746, 556	\$178, 349, 977	-43. 5
New residential.....	7, 400	8, 575	-13. 7	32, 868, 043	99, 990, 482	-67. 1
New nonresidential.....	5, 640	5, 493	+2. 7	43, 534, 833	54, 188, 244	-19. 7
Additions, alterations, and repairs.....	22, 138	20, 119	+10. 0	24, 343, 680	24, 171, 251	+0. 7

¹ More detailed information by geographic divisions and individual cities is given in a separate pamphlet entitled "Building Construction, February 1938," copies of which will be furnished upon request.

Comparison of February 1938 with February 1937

Table 2 presents a summary of the number of buildings and value of permits issued in 1,610 identical cities in February 1938 compared with the corresponding month of 1937.

TABLE 2.—Summary of Building Construction for Which Permits Were Issued in 1,610 Identical Cities, February 1937 and February 1938

Class of construction	Number of buildings			Permit valuation		
	February 1938	February 1937	Percentage change	February 1938	February 1937	Percentage change
All construction.....	34,466	37,367	-7.8	\$99,085,549	\$130,349,495	-24.0
New residential.....	7,142	9,117	-21.7	32,118,818	63,575,690	-49.5
New nonresidential.....	5,474	6,130	-10.7	42,786,803	37,093,161	+15.3
Additions, alterations, and repairs.....	21,850	22,120	-1.2	24,179,928	29,680,644	-18.5

A summary of permit valuations of housekeeping dwellings and the number of families provided for in new dwellings in 2,031 identical cities, having a population of 1,000 and over, is shown in table 3 for February compared with January 1938.

TABLE 3.—Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 2,031 Identical Cities, January and February 1938

Type of dwelling	Permit valuation of housekeeping dwellings			Number of families provided for in new dwellings		
	February 1938	January 1938	Percentage change	February 1938	January 1938	Percentage change
All types.....	\$32,838,043	\$99,565,482	-67.0	9,617	30,308	-68.3
1-family.....	25,353,492	26,444,887	-4.1	6,752	7,332	-7.9
2-family ¹	1,848,614	2,879,506	-35.8	721	1,243	-42.0
Multifamily ²	5,635,937	7,241,089	-22.0	2,144	21,733	-90.1

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

Table 4 shows a comparison of the value of permits issued for housekeeping dwellings and the number of families provided for in new dwellings in 1,610 identical cities with a population of 2,500 and over in February 1938 with the corresponding month of the preceding year.

TABLE 4.—Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 1,610 Identical Cities, February 1937 and February 1938

Type of dwelling	Permit valuation of housekeeping dwellings			Number of families provided for in new dwellings		
	February 1938	February 1937	Percentage change	February 1938	February 1937	Percentage change
All types.....	\$32,088,818	\$62,879,455	-49.0	9,347	16,214	-42.4
1-family.....	24,655,343	36,753,417	-32.9	6,505	8,235	-21.0
2-family ¹	1,812,038	2,503,521	-27.6	705	902	-21.8
Multifamily ²	5,621,437	23,622,517	-76.2	2,137	7,077	-69.8

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

Analysis by Size of City, February 1938

Table 5 shows the value of permits issued for building construction in February 1938 compared with January 1938 and February 1937, by size of city and by class of construction.

TABLE 5.—Permit Valuation of Building Construction for Which Permits Were Issued, by Size of City

Size of city	Number of cities	Total construction			New residential buildings		
		Permit valuation, February 1938	Percentage change from—		Permit valuation, February 1938	Percentage change from—	
			January 1938	February 1937		January 1938	February 1937
Total, all reporting cities.....	2,031	\$100,746,556	-43.5	1-24.0	\$32,868,043	-67.1	1-49.5
500,000 and over.....	14	37,255,327	-69.3	-41.9	8,532,587	-89.4	-73.5
100,000 and under 500,000.....	79	22,927,288	+45.1	+5.7	8,709,305	+46.4	-6.5
50,000 and under 100,000.....	97	9,397,157	+26.0	-10.6	2,933,816	-2.6	-35.2
25,000 and under 50,000.....	160	8,360,077	-1.5	-22.6	2,987,070	+38.5	-23.4
10,000 and under 25,000.....	439	13,807,060	+37.5	+7.4	4,697,569	+27.6	-36.2
5,000 and under 10,000.....	371	4,271,153	-54.2	-28.4	2,521,640	+3.6	-36.0
2,500 and under 5,000.....	450	3,067,487	+12.1	-30.4	1,736,831	+39.6	-24.9
1,000 and under 2,500.....	421	1,661,007	-44.9	-----	749,225	-42.2	-----

Size of city	New nonresidential buildings			Additions, alterations, and repairs			Population (census of 1930)
	Permit valuation, February 1938	Percentage change from—		Permit valuation, February 1938	Percentage change from—		
		January 1938	February 1937		January 1938	February 1937	
Total, all reporting cities.....	\$43,534,833	-19.7	1+15.3	\$24,343,680	+0.7	1-18.5	60,194,035
500,000 and over.....	18,918,395	-38.3	+10.4	9,804,345	-7.4	-33.6	21,449,853
100,000 and under 500,000.....	7,822,244	+51.5	+16.2	6,395,739	+36.3	+13.2	15,015,922
50,000 and under 100,000.....	3,855,467	+129.5	+30.2	2,607,874	-5.7	-13.7	6,427,410
25,000 and under 50,000.....	3,452,656	-19.1	-24.9	1,920,351	-6.9	-16.5	5,662,760
10,000 and under 25,000.....	6,876,788	+60.0	+119.4	2,232,703	+8.1	-5.2	6,744,225
5,000 and under 10,000.....	978,687	-82.8	-5.7	770,826	-36.2	-21.9	2,601,437
2,500 and under 5,000.....	882,566	-12.4	-40.8	448,090	-7.4	-25.8	1,617,308
1,000 and under 2,500.....	748,030	-46.8	-----	163,752	-47.1	-----	675,120

¹ Based on 1,610 reporting cities.

The permit valuation of housekeeping dwellings in the 2,031 identical cities reporting for January and February 1938, together with the number of family-dwelling units provided in new dwellings, by size of city, is given in table 6.

TABLE 6.—Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 2,031 Identical Cities, by Size of City, February 1938

Size of city	Permit valuation of housekeeping dwellings			Number of families provided for in—							
	February 1938	January 1938	Percentage change	All types		1-family dwellings		2-family dwellings ¹		Multi-family dwellings ²	
				February 1938	January 1938	February 1938	January 1938	February 1938	January 1938	February 1938	January 1938
Total, all reporting cities.....	\$32,838,043	\$99,565,482	-67.0	9,617	30,308	6,752	7,332	721	1,243	2,144	21,733
500,000 and over.....	8,532,587	80,093,115	-89.3	2,303	24,183	1,243	2,451	140	694	920	21,038
100,000 and under 500,000.....	8,709,305	5,948,327	+46.4	2,524	1,827	1,562	1,400	218	204	744	223
50,000 and under 100,000.....	2,933,816	2,770,121	+5.9	880	836	653	585	107	92	120	159
25,000 and under 50,000.....	2,962,070	2,156,185	+37.4	913	735	764	610	82	83	72	42
10,000 and under 25,000.....	4,695,069	3,650,120	+28.6	1,378	1,127	1,138	933	72	59	168	135
5,000 and under 10,000.....	2,521,640	2,431,148	+3.7	751	754	669	612	43	46	39	96
2,500 and under 5,000.....	1,734,331	1,235,010	+40.4	593	425	476	379	43	35	74	11
1,000 and under 2,500.....	749,225	1,281,456	-41.5	270	421	247	362	16	30	7	29

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

Construction During 2 Months, 1937 and 1938

Cumulative totals for the first 2 months of 1938 compared with the same months of the preceding year are shown in table 7. The data are based on reports received from cities having a population of 2,500 and over.

TABLE 7.—Permit Valuation of Building Construction, First 2 Months of 1937 and of 1938, by Class of Construction

Class of construction	Permit valuation of building construction, first 2 months of—		
	1938	1937	Percentage change
All construction.....	\$274,010,100	\$228,021,926	+20.2
New residential.....	130,756,297	106,638,231	+22.6
New nonresidential.....	95,425,857	69,051,229	+38.2
Additions, alterations, and repairs.....	47,827,946	52,332,466	-8.6

Table 8 presents the permit valuation of housekeeping dwellings and number of family-dwelling units provided in cities with a population of 2,500 and over for the first 2 months of 1937 and 1938.

TABLE 8.—Permit Valuation of Housekeeping Dwellings and Number of Family-Dwelling Units, First 2 Months of 1937 and of 1938, by Type of Dwelling

Type of dwelling	Permit valuation of housekeeping dwellings			Number of families provided for		
	First 2 months of—		Percent- age change	First 2 months of—		Percent- age change
	1938	1937		1938	1937	
All types.....	\$130,310,457	\$105,679,796	+23.3	39,224	27,259	+43.9
1-family.....	49,832,937	69,079,962	-27.9	13,463	15,556	-13.5
2-family ¹	4,634,794	4,579,882	+1.2	1,919	1,707	+12.4
Multifamily ²	75,842,726	32,019,952	+136.9	23,842	9,996	+138.5

¹ Includes 1- and 2-family dwellings with stores.
² Includes multifamily dwellings with stores.

The information on building permits issued January and February 1938 is based on reports received by the Bureau of Labor Statistics from 2,031 identical cities having a population of 1,000 and over. The data for February 1937 and 1938 are based on reports from 1,610 identical cities with a population of 2,500 and over.

The information is collected by the Bureau of Labor Statistics direct 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. In addition to permits issued for private building construction, the statistics include the value of contracts for Federal and State buildings in the cities covered. Information concerning public building is collected by the Bureau from various Federal and State agencies having the power to award contracts for building construction. These data are then added to the data concerning private construction received from local building officials. In February 1938 the value of Federal and State buildings for which contracts were awarded in cities included in the report amounted to \$9,858,000; in January 1938, to \$2,115,000; and in February 1937, to \$14,937,000.

Construction From Public Funds

The value of contracts awarded and force-account work started during February 1938, January 1938, and February 1937 on construction projects financed from various Federal funds is shown in table 9.

TABLE 9.—Value of Contracts Awarded and Force-Account Work Started on Projects Financed from Federal Funds, January and February 1938 and February 1937¹

Federal agency	Value of contracts awarded and force-account work started—		
	February 1938	January 1938 ²	February 1937 ²
Total.....	\$94,434,759	\$86,137,390	\$97,217,415
Public Works Administration:			
Federal.....	128,290	341,470	2,809,634
Non-Federal:			
N. I. R. A.....	518,817	2,026,947	4,749,519
E. R. A. A.....	25,169,021	35,579,344	26,890,819
Federal projects under The Works Program.....	1,076,752	7,488,431	11,817,289
Regular Federal appropriations.....	67,541,879	40,701,198	50,950,154

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 1938, January 1938, and February 1937 is shown in table 10.

TABLE 10.—Value of Public-Building and Highway-Construction Awards Financed Wholly From State Funds

Type of project	Value of contracts		
	February 1938	January 1938	February 1937
Public building.....	\$3,007,624	\$1,666,145	\$2,639,841
Highway construction.....	2,059,613	2,870,821	2,033,570

Retail Prices

SUMMARY OF FOOD AND COTTON CLOTHING AND TEXTILE PRICES

SEASONAL reductions in the cost of eggs and dairy products together with the continued decline in the cost of meats were largely responsible for a decrease of 2.3 percent in the cost of food between January and February. The decreases were country wide.

Price changes for cotton clothing and textile furnishings were relatively small between September and December, with a general downward tendency.

FOOD PRICES IN FEBRUARY 1938

FOOD costs, which have moved steadily downward since September 1937 declined 2.3 percent between January 18 and February 15. Lower costs reported for meats, dairy products, and eggs were due in part to seasonal factors. Other commodity groups showed relatively little change over a month ago, although there were marked price changes for some of the items. Food costs declined in each of the 51 cities included in the index.

The index for all foods for February 15 was 78.4 percent of the 1923-25 average. It was 7.2 percent lower than for the corresponding period in 1937 when the index was 84.5, and was below the level of any reporting period during the past 12 months. The most significant change over a year ago is the decline of 26.8 percent in the cost of fresh fruits and vegetables.

Details by Commodity Groups

The index for cereals and bakery products remained unchanged during the month. There were no significant price changes for items in the group. The price of flour decreased 0.1 percent and both white

and whole wheat bread remained unchanged. The greatest relative price changes were declines of 1.8 percent for corn flakes and 1.2 percent for hominy grits.

The decrease of 3.4 percent in the cost of meats was a continuation of the downward movement which began 5 months ago. The decrease for beef between January and February was 4.9 percent; for pork it was 1.2 percent. The decline for pork was less marked than for any month since the downward movement began. The decrease of 9.1 percent in the cost of lamb was in part seasonal.

The decrease of 2.4 percent in the index for dairy products was slightly more than the usual seasonal decline. This was due to markedly lower prices for butter in each of the 51 cities with decreases ranging from 2.0 to 12.1 percent. The price of fresh milk was 0.1 percent lower. Buffalo reported a decrease of 1 cent per quart. Both cream and cheese showed price declines but the price of evaporated milk remained unchanged.

The seasonal decline in egg prices amounted to 15.2 percent for the country as a whole. Prices were lower in every city. The February average for eggs was 8.6 percent below that of a year ago.

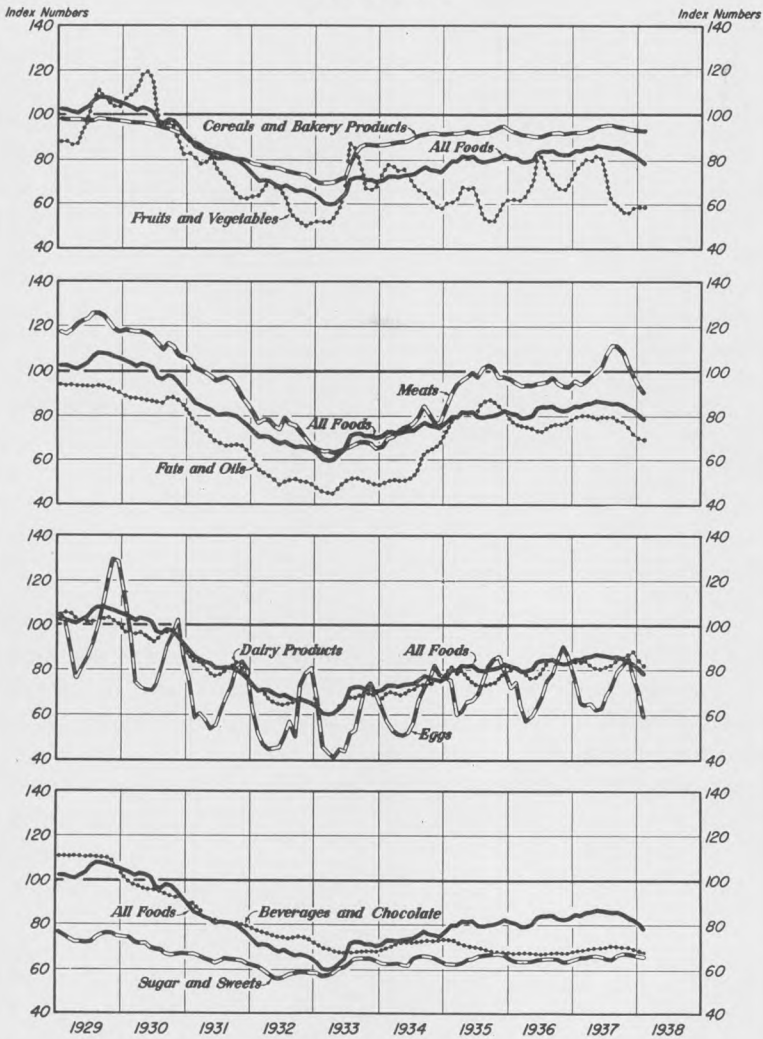
The index for fruits and vegetables remained unchanged. The cost of the fresh items, which account for about 85.0 percent of the total, for the group, advanced 0.1 percent. Potatoes advanced 2.2 percent, cabbage 16.2 percent, and onions 6.8 percent. These are three of the most important items in this group. Prices of apples, oranges, and lemons decreased. The cost of canned fruits and vegetables declined 0.5 percent. The only important price change for this subgroup was a decrease of 1.5 percent for canned corn, which has shown a steady and gradual price decline for the past 7 months. The dried items showed a decrease of 1.1 percent, with price declines of 1.9 percent for prunes, 1.6 percent for lima beans, and 1.9 percent for navy beans. Prices of all dried items except raisins are very much lower than a year ago, with decreases ranging from 8.4 percent for dried peaches to 37.1 percent for navy beans.

The cost of beverages and chocolate declined 0.9 percent, due to a drop of 1.9 percent in the average price of coffee; chocolate advanced 0.7 percent, while cocoa decreased 0.6 percent. No change was recorded for tea.

The index for fats and oils showed a decrease of 1.1 percent. Lower prices were reported for every item in the group. The price of lard fell off 2.3 percent and was 22.7 percent less than a year ago. Vegetable shortening declined 1.0 percent. Other price changes were relatively small.

RETAIL COST OF FOOD

1923-25=100



UNITED STATES BUREAU OF LABOR STATISTICS

Price decreases for all items in the sugar and sweets group resulted in a decline of 0.4 percent in the group index. The price declines amounted to 0.3 percent for sugar, 0.7 percent for molasses, and 0.2 percent for corn sirup and strawberry preserves.

Indexes of retail food costs for February and January 1938, together with indexes for February 1937, 1933, and 1929 are shown in table 1. The accompanying chart shows trends in the cost of all foods and of each major commodity group for the period January 1929 to February 1938, inclusive.

TABLE 1.—Indexes of Retail Food Costs in 51 Large Cities Combined,¹ by Commodity Groups

February and January 1938, and February 1937, 1933, 1929

[1923-25=100]

Commodity group	1938		1937, Feb. 16	1933, Feb. 15	1929, Feb. 15
	Feb. 15 ²	Jan. 18			
All foods.....	78.4	80.3	84.5	60.1	102.3
Cereals and bakery products.....	93.2	93.2	92.6	69.2	98.2
Meats.....	90.6	93.8	94.3	63.9	116.7
Dairy products.....	81.9	83.9	83.0	60.7	105.7
Eggs.....	59.4	70.1	65.0	45.3	101.0
Fruits and vegetables.....	58.8	³ 58.8	78.2	52.1	88.7
Fresh.....	56.9	56.8	77.7	51.3	86.9
Canned.....	79.4	79.8	82.2	65.5	96.6
Dried.....	60.6	61.3	74.5	48.0	100.2
Beverages and chocolate.....	67.7	68.3	68.9	69.5	110.8
Fats and oils.....	69.5	70.2	80.1	45.2	93.7
Sugar and sweets.....	65.9	66.2	65.6	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.

³ Revised.

The prices of 60 of the 84 items included in the index declined between January and February 1938, 20 increased, and 4 showed no change. Compared with a year ago, the February prices were lower for 64 items and higher for 20 items.

Average prices of each of the 84 foods for 51 cities combined are shown in table 2 for February and January 1938, and for February 1937.

TABLE 2.—Average Retail Prices of 84 Foods in 51 Large Cities Combined ¹

February and January 1938 and February 1937

[*Indicates the 42 foods included in indexes prior to Jan. 1, 1935]

Article	1938		1937
	Feb. 15 ²	Jan. 18	Feb. 16
Cereals and bakery products:			
Cereals:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
*Flour, wheat.....pound.....	4.3	4.3	5.0
*Macaroni.....do.....	15.0	14.9	15.4
*Wheat cereal.....28-oz. package.....	24.4	24.4	24.2
*Corn flakes.....8-oz. package.....	7.5	7.6	8.1
*Corn meal.....pound.....	4.8	4.8	5.4
*Hominy grits.....24-oz. package.....	9.1	9.2	9.7
*Rice.....pound.....	8.0	8.0	8.5
*Rolled oats.....do.....	7.3	7.2	7.5
Bakery products:			
*Bread, white.....do.....	8.9	8.9	8.4
Bread, whole-wheat.....do.....	9.8	9.8	9.5
Bread, rye.....do.....	10.1	10.0	9.8
Cake.....do.....	24.8	24.8	25.3
Soda crackers.....do.....	16.4	16.5	18.1
Meats:			
Beef:			
*Sirloin steak.....do.....	33.9	36.2	39.7
*Round steak.....do.....	31.0	32.8	35.4
*Rib roast.....do.....	27.5	29.1	30.3
*Chuck roast.....do.....	22.0	22.4	23.5
*Plate.....do.....	13.8	15.6	15.8
Liver.....do.....	24.4	24.4	25.4
Veal:			
Cutlets.....do.....	42.9	43.8	42.0
Pork:			
*Chops.....do.....	28.9	29.3	32.2
Loin roast.....do.....	23.4	23.7	26.3
*Bacon, sliced.....do.....	37.7	³ 38.4	39.8
Bacon, strip.....do.....	31.6	32.1	34.3
*Ham, sliced.....do.....	45.1	45.4	49.1
Ham, whole.....do.....	28.2	28.2	30.7
Salt pork.....do.....	21.1	21.7	25.0
Lamb:			
Breast.....do.....	11.8	13.3	12.1
Chuck.....do.....	20.4	22.8	20.7
*Leg.....do.....	26.2	28.4	26.6
Rib chops.....do.....	32.6	36.0	33.2
Poultry:			
*Roasting chickens.....do.....	35.5	35.9	40.2
Fish:			
Salmon, pink.....16 oz. can.....	14.2	14.2	12.8
*Salmon, red.....do.....	27.1	27.0	24.6
Dairy products:			
*Butter.....pound.....	37.7	40.4	40.7
*Cheese.....do.....	28.4	29.0	29.2
Cream..... $\frac{1}{2}$ pint.....	15.0	15.0	15.3
Milk, fresh (delivered and store) ⁴.....quart.....	12.5	12.5	12.3
*Milk, fresh (delivered).....do.....	12.7	12.7	12.5
*Milk, evaporated.....14 $\frac{1}{2}$ -oz. can.....	7.5	7.5	7.8
*Eggs.....dozen.....	30.3	35.8	33.9
Fruits and vegetables:			
Fresh:			
Apples.....pound.....	4.4	4.5	6.6
*Bananas.....do.....	6.4	6.3	6.7
Lemons.....dozen.....	29.0	32.9	33.9
*Oranges.....do.....	24.1	25.0	35.4
Beans, green.....pound.....	14.5	14.4	15.6
*Cabbage.....do.....	5.1	4.4	3.8
Carrots.....bunch.....	5.4	³ 5.6	5.6
Celery.....stalk.....	8.3	8.8	9.3
Lettuce.....head.....	7.2	7.5	9.9
*Onions.....pound.....	5.1	4.8	3.7
*Potatoes.....do.....	2.0	2.0	3.8
Spinach.....do.....	6.9	8.5	7.2
Sweetpotatoes.....do.....	3.9	3.8	4.6

¹ Prices for individual cities are combined with the use of population weights.² Preliminary.³ Revised.⁴ Average prices of milk delivered by dairies and sold in grocery stores, weighted according to the relative proportion distributed by each method.

TABLE 2.—Average Retail Prices of 84 Foods in 51 Large Cities Combined—Continued

February and January 1938 and February 1937—Continued

[*Indicates the 42 foods included in indexes prior to Jan. 1, 1935]

Article	1938		1937
	Feb. 15	Jan. 18	Feb. 16
Fruits and vegetables—Continued.			
Canned:			
Peaches.....No. 2½ can..	Cents 19.4	Cents 19.5	Cents 18.8
Pears.....do.....	21.7	21.6	22.3
Pineapple.....do.....	23.2	23.1	22.6
Asparagus.....No. 2 can..	30.5	30.2	27.3
*Beans, green.....do.....	11.4	11.5	12.3
*Beans with pork.....16-oz. can..	7.6	7.6	7.6
*Corn.....No. 2 can..	11.8	12.0	13.1
*Peas.....do.....	15.9	15.9	16.3
*Tomatoes.....do.....	9.0	9.0	9.5
Tomato soup.....10¼-oz. can..	7.5	7.4	8.1
Dried:			
Peaches.....pound..	15.8	15.8	17.6
*Prunes.....do.....	9.4	9.6	10.6
*Raisins.....15-oz. package	10.1	10.1	9.9
Black-eyed peas.....pound..	8.0	8.1	9.9
Lima beans.....do.....	9.3	9.4	11.9
*Navy beans.....do.....	6.5	6.6	10.3
Beverages and chocolate:			
*Coffee.....do.....	23.8	24.2	25.0
*Tea.....¼ pound..	17.6	17.6	17.9
Cocoa.....8-oz. can..	9.1	9.1	10.3
Chocolate.....8-oz. package	16.2	16.1	16.5
Fats and oils:			
*Lard.....pound..	13.5	13.8	17.6
Lard compound.....do.....	13.3	13.4	16.2
*Vegetable shortening.....do.....	19.7	19.9	21.8
Salad oil.....pint..	24.9	25.0	25.5
Mayonnaise.....½ pint..	17.5	17.5	16.9
*Oleomargarine.....pound..	17.4	17.5	19.8
Peanut butter.....do.....	18.8	18.8	19.2
Sugar and sweets:			
*Sugar.....do.....	5.5	5.5	5.7
Corn sirup.....24-oz. can..	14.1	14.2	14.4
Molasses.....18-oz. can..	14.0	14.1	14.4
Strawberry preserves.....pound..	22.2	22.2	21.3

⁵ Converted to quarter pound for comparison with 1938.

Details by Regions and Cities

The cost of food declined 2.3 percent between January and February for the 51 cities combined and was lower in each of these cities, with declines of 2.0 percent or more for 30 cities.

For each regional area, decreases were recorded for meats, dairy products, and eggs. On the other hand, fruits and vegetables, which showed no change for all cities combined, were lower in six of the nine areas but advanced in the Middle Atlantic and the North Central areas.

Indexes of retail costs of food by cities and regions are given in table 3 for February and January 1938 and for February of earlier years.

TABLE 3.—Indexes of the Average Retail Cost of All Foods, by Regions and Cities ¹

February and January 1938, February 1937, 1936, 1933, 1932, 1929

[1923-25=100]

Region and city	1938		1937	1936	1933	1932	1929
	Feb. 15 ²	Jan. 18	Feb. 16	Feb. 11	Feb. 15	Feb. 15	Feb. 15
United States.....	78.4	80.3	84.5	80.6	60.1	70.4	102.3
New England.....	76.5	³ 78.3	81.6	78.9	60.6	71.0	101.4
Boston.....	74.6	76.7	78.8	77.2	59.6	69.7	101.3
Bridgeport.....	81.4	83.4	86.3	83.9	63.7	74.6	101.1
Fall River.....	79.7	³ 81.9	84.4	79.6	59.2	69.9	101.5
Manchester.....	79.0	80.0	84.9	81.6	59.6	68.9	100.4
New Haven.....	80.7	82.0	87.1	82.8	63.5	75.6	102.9
Portland, Maine.....	77.1	78.7	82.5	79.3	61.2	72.6	101.9
Providence.....	75.2	77.1	82.9	78.3	60.4	69.0	99.6
Middle Atlantic.....	79.0	³ 81.0	84.1	81.5	61.3	71.4	102.2
Buffalo.....	77.2	80.4	82.8	79.9	59.1	67.2	103.4
Newark.....	80.6	82.9	85.1	82.3	63.1	73.8	101.7
New York.....	79.9	81.9	84.1	82.7	63.7	73.0	102.2
Philadelphia.....	79.8	81.8	86.3	82.5	60.9	71.7	101.3
Pittsburgh.....	77.2	79.3	81.6	79.2	57.0	67.9	104.3
Rochester.....	78.5	79.8	84.9	79.3	57.8	68.8	100.8
Scranton.....	74.2	75.4	81.3	77.9	59.6	70.6	103.7
East North Central.....	79.2	80.9	85.4	81.1	58.7	69.6	104.0
Chicago.....	79.3	81.8	86.1	81.6	60.8	72.8	105.4
Cincinnati.....	79.7	81.7	89.2	83.9	60.4	71.4	106.6
Cleveland.....	78.6	80.2	83.1	79.6	56.9	68.3	101.6
Columbus, Ohio.....	77.8	79.3	86.8	81.8	57.8	68.0	103.0
Detroit.....	80.3	³ 80.5	84.2	81.0	55.3	64.2	102.7
Indianapolis.....	77.8	79.7	86.5	79.9	57.4	68.6	104.3
Milwaukee.....	82.4	84.2	88.7	83.9	63.5	73.0	104.6
Peoria.....	79.4	80.5	87.5	81.6	58.6	69.2	103.0
Springfield, Ill.....	75.3	77.8	86.7	78.5	57.9	67.1	102.3
West North Central.....	80.9	82.3	90.0	83.5	59.1	70.7	103.9
Kansas City.....	79.7	80.8	89.6	81.0	61.9	70.2	104.1
Minneapolis.....	83.7	85.5	94.6	87.2	58.1	72.3	105.2
Omaha.....	76.4	76.5	85.2	80.2	56.4	68.6	101.4
St. Louis.....	82.7	84.6	90.6	85.0	59.0	71.2	104.4
St. Paul.....	80.5	82.0	89.5	83.7	59.9	71.1	103.7
South Atlantic.....	77.5	79.2	83.7	80.1	58.9	68.7	100.5
Atlanta.....	72.5	73.7	81.9	77.2	55.9	64.6	102.8
Baltimore.....	82.8	84.7	87.4	84.5	61.4	70.4	99.5
Charleston, S. C.....	79.1	80.6	84.1	80.2	58.3	71.2	99.7
Jacksonville.....	76.5	78.4	80.2	76.9	54.6	63.8	94.3
Norfolk.....	76.3	79.2	85.2	80.6	58.0	73.8	105.4
Richmond.....	72.6	74.4	81.4	76.7	55.9	67.1	99.2
Savannah.....	77.9	³ 79.5	83.4	80.2	58.8	68.4	101.7
Washington, D. C.....	79.8	80.9	84.3	81.8	63.1	71.0	102.2
East South Central.....	73.6	75.5	81.5	75.1	55.6	65.2	102.2
Birmingham.....	69.3	71.3	76.3	70.6	53.2	61.8	99.3
Louisville.....	82.5	84.8	92.4	84.3	59.6	69.9	108.7
Memphis.....	75.6	76.9	84.0	77.1	57.1	69.8	102.5
Mobile.....	73.7	75.1	79.5	74.9	57.4	65.8	99.2
West South Central.....	77.1	³ 78.8	82.9	78.4	57.9	69.0	102.1
Dallas.....	72.9	³ 75.7	81.0	77.8	57.2	67.6	103.3
Houston.....	77.8	78.8	82.7	77.2	55.4	67.5	99.5
Little Rock.....	75.2	76.5	83.1	77.4	54.6	63.7	104.5
New Orleans.....	82.4	83.7	85.7	82.0	63.0	74.5	103.3
Mountain.....	80.6	83.4	90.8	82.7	59.8	69.8	99.8
Butte.....	76.6	77.8	84.7	77.6	58.6	70.8	101.5
Denver.....	83.1	86.1	93.9	84.8	62.4	71.1	99.9
Salt Lake City.....	77.3	80.0	87.0	80.2	55.7	67.2	99.3
Pacific.....	76.5	78.6	84.4	77.8	62.1	71.8	100.2
Los Angeles.....	71.4	74.0	81.6	72.8	59.5	68.8	98.3
Portland, Oreg.....	79.9	80.9	87.4	80.2	60.1	70.1	100.6
San Francisco.....	80.9	83.1	85.4	82.0	66.3	75.8	102.4
Seattle.....	78.5	80.1	88.5	80.7	60.6	71.6	100.0

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.

³ Revised.

The Bureau of Labor Statistics collects prices in eight cities that cannot be included in the food-cost indexes, since no prices are available for the 1923-25 base period. These cities were selected from areas which were not adequately represented by the 51 cities in the current food-cost indexes.

Average prices for each of these cities for which data were available have been released since June 1935. Consumption weights have been provided for these cities, making it possible to measure changes in food costs from one period to another. Percentage changes in food costs between January and February 1938 are shown in table 4 for seven of these eight cities.

TABLE 4.—Percentage Changes in Retail Food Costs for Specified Cities
February 1938 Compared with January 1938

Region and city	Percentage change Feb. 15, 1938, compared with Jan. 18, 1938								
	All foods	Cereals and bakery products	Meats	Dairy products	Eggs	Fruits and vegetables	Beverages and chocolate	Fats and oils	Sugar and sweets
West North Central:									
Cedar Rapids.....	-1.4	-0.1	-2.3	-2.0	-21.9	+2.6	-2.6	-0.6	-0.7
Sioux Falls.....	-1.6	-.4	-.8	-1.7	-25.5	-1.6	+1.5	+1.2	+1.1
Wichita.....	-2.7	+1.1	-.5	-1.4	-29.4	-3.6	-1.0	-1.2	+2.2
South Atlantic: Winston-Salem.....	+4	-.8	-2.1	-1.1	-9.1	+7.3	-.7	-1.2	+2
East South Central: Jackson.....	-4.4	+2.9	-7.8	-4.6	-33.6	-.9	+1.7	-1.7	-2.6
West South Central:									
El Paso.....	-2.1	+2	-4.0	-1.8	-15.9	+1.0	-.6	-.1	0
Oklahoma City.....	-2.9	-.4	+2	-.6	-10.8	-9.3	-2.4	-.1	-2.3

COTTON CLOTHING AND TEXTILE FURNISHINGS

Average Prices—March 1935 to December 1937, inclusive

AVERAGE prices of the clothing items listed below were presented in the report on Retail Prices for March 1937. These prices are now collected quarterly for March, June, September, and December. This report presents average prices for each price-reporting period from March 1935, through December 1937.

Men's clothing:

Shirts
Pajamas
Overalls

Women's clothing:

House dresses
Nightgowns
Union suits (light and medium)

Two items of textile furnishings, sheets and terry woven towels, have been included in this report for the first time.

These articles have been selected because they are widely used throughout the country and quality changes have not been so great that comparisons over a period of time would be invalidated. The average prices for these articles are presented in table 5.

Prices of these articles are collected quarterly in 32 large cities by personal visits of the Bureau's retail price field representatives. Approximately four quotations are obtained in each city from retail outlets doing a large volume of business. The averages as shown in this report were computed by weighting the average prices in each city by the population of the metropolitan area where the retail price information was collected and of adjacent areas.

Prior to March 1935, each store reporting to the Bureau quoted the price for that grade of each item which was its "volume seller" to wage earners and lower-salaried workers. Beginning with March 1935, pricing has been done on the basis of written specifications, in order that the comparability of prices would be better maintained from city to city and from period to period. The continuity of the series was maintained by obtaining from each dealer prices of articles of identical or similar quality from one pricing period to another. Certain necessary substitutions, due to changes in quality and construction, did not materially affect the average prices.

TABLE 5.—Average Retail Prices of Selected Articles of Cotton Clothing and Textile Furnishings, in 32 Large Cities Combined
March 1935 to December 1937, inclusive

Item	1935			1936					1937			
	March	July	October	January	April	July	September	December	March	June	September	December ¹
<i>Men's cotton clothing</i>												
Shirt, business, collar attached, combed yarn broadcloth.....	\$1.78	\$1.69	\$1.62	\$1.59	\$1.59	\$1.59	\$1.60	\$1.61	\$1.64	\$1.65	\$1.65	\$1.64
Pajamas, combed yarn broadcloth.....	1.67	1.64	1.68	1.67	1.68	1.70	1.71	1.79	² 1.90	1.94	1.96	1.96
Overalls, 2:20 white backed denim, bib style, 43-46 yards to the dozen.....	1.63	1.56	1.49	1.50	1.47	1.53	1.57	1.58	² 1.63	1.67	1.69	1.66
<i>Women's cotton clothing</i>												
<i>Housedress:</i>												
Cotton sheers.....	1.92	1.84	-----	-----	1.94	² 1.88	-----	-----	³ 1.95	³ 1.94	-----	-----
Cotton prints, 80 by 80 percale, or 100 by 60 broadcloth.....	-----	-----	1.88	1.88	-----	-----	² 1.89	² 1.89	-----	-----	³ 1.93	1.94
Nightgown, nainsook, batiste, or crepe.	1.12	1.12	1.11	1.10	1.09	1.08	1.08	1.09	1.12	1.13	1.16	1.16
<i>Union suit, rib knit, combed yarn:</i>												
Lightweight.....	.84	.86	-----	-----	.88	.86	-----	-----	² .89	² .88	-----	-----
Mediumweight.....	-----	-----	.97	.98	-----	-----	² .98	1.00	-----	-----	³ 1.00	1.02
<i>Textile furnishings</i>												
Towel, terry, size 22 by 44 inches, weight 5½ pounds per dozen.....	.34	.33	.34	.33	.32	.31	.32	.32	.34	.34	.34	.32
Sheet, muslin, size 81 by 99 inches:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
64 by 64 construction.....	1.20	1.17	1.20	1.13	1.19	1.18	1.19	1.22	1.30	1.33	1.31	1.27
68 by 72 construction.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1.64	1.62

¹ Preliminary.

² Revised.

³ Prices of these items are collected on a seasonal basis and are subject to revision when later data become available.

Wholesale Prices

WHOLESALE PRICES, FEBRUARY 1938

WHOLESALE commodity prices on the average declined 1.4 percent during February continuing the trend which began last August. The all-commodity index, 79.8, represents the lowest level reached since June 1936. Price decreases during the month were widespread, and all groups except fuel and lighting materials shared in the decline.

The largest drop, 3.7 percent, was recorded in the foods group. Farm products decreased 2.5 percent, hides and leather products 2.1 percent, textile products 1.6 percent, building materials 0.8 percent, metals and metal products and chemicals and drugs 0.6 percent, miscellaneous commodities 0.5 percent, and housefurnishing goods 0.3 percent. Fuel and lighting materials advanced 0.3 percent.

Principally because of lower prices for agricultural commodities the raw materials group index declined 1.7 percent to the lowest point reached since December 1934. Wholesale prices of semimanufactured commodities decreased 1.0 percent during the month, and finished products prices fell 1.2 percent.

According to the index for "All commodities other than farm products" nonagricultural commodity prices declined 1.1 percent during February. Industrial commodity prices, as measured by the index for the group "All commodities other than farm products and foods," decreased 0.6 percent from January to February.

A comparison of the February 1938 level of wholesale commodity prices with January 1938 and February 1937 is shown in table 1.

TABLE 1.—Comparison of Index Numbers of Wholesale Prices for February 1938 With January 1938 and February 1937

[1926=100]

Commodity group	Febru- ary 1938	January 1938	Change from a month ago	Febru- ary 1937	Change from a year ago
			Percent		Percent
All commodities.....	79.8	80.9	-1.4	86.3	-7.5
Farm products.....	69.8	71.6	-2.5	91.4	-23.6
Foods.....	73.5	76.3	-3.7	87.0	-15.5
Hides and leather products.....	94.7	96.7	-2.1	102.7	-7.8
Textile products.....	68.6	69.7	-1.6	77.5	-11.5
Fuel and lighting materials.....	78.5	78.3	+3	76.8	+2.2
Metals and metal products.....	96.0	96.6	-.6	91.7	+4.7
Building materials.....	91.1	91.8	-.8	93.3	-2.4
Chemicals and drugs.....	79.1	79.6	-.6	87.8	-9.9
Housefurnishing goods.....	88.0	88.3	-.3	87.9	+1
Miscellaneous.....	74.8	75.2	-.5	77.3	-3.2
Raw materials.....	73.6	74.9	-1.7	88.3	-16.6
Semimanufactured articles.....	76.1	76.9	-1.0	85.5	-11.0
Finished products.....	83.3	84.3	-1.2	85.4	-2.5
All commodities other than farm products.....	81.9	82.8	-1.1	85.0	-3.6
All commodities other than farm products and foods.....	83.0	83.5	-.6	84.1	-1.3

Wholesale Price Level in February

The February all-commodity index fell 1.4 percent to 79.8 percent of the 1926 average, the first time in 19 months that the index has fallen below 80. Sharp declines in prices of farm products, foods, hides and leather products, and textile products largely accounted for the decrease. Since February 1937 the all-commodity index has decreased 7.5 percent and it is 9.3 percent below the 1937 high point (April) when the index stood at 88.0.

Each of the 10 major commodity groups except fuel and lighting materials declined during the month. The decreases ranged from 0.3 percent for the housefurnishing goods group to 3.7 percent for foods. Fuel and lighting materials advanced 0.3 percent.

The number of items for which prices increased, decreased, or remained unchanged during February are shown in table 2.

TABLE 2.—*Number of Items Changing in Price from January to February 1938*

Commodity group	Increases	Decreases	No change
All commodities.....	71	255	487
Farm products.....	18	48	1
Foods.....	27	58	37
Hides and leather products.....	1	14	26
Textile products.....	12	34	68
Fuel and lighting materials.....	4	10	10
Metals and metal products.....	2	25	119
Building materials.....	3	25	58
Chemicals and drugs.....	2	11	76
Housefurnishing goods.....	0	10	51
Miscellaneous.....	2	20	41

Raw material prices at wholesale declined 1.7 percent and are 16.6 percent below a year ago. Semimanufactured commodity prices decreased 1.0 percent and are 11.0 percent lower than in February 1937. Although finished products prices fell 1.2 percent during January they are only 2.5 percent below the corresponding month of last year.

Nonagricultural commodity prices, as measured by the index for "All commodities other than farm products," declined 1.1 percent between January and February and are 3.6 percent below the February 1937 level. Fluctuations in prices of industrial commodities have been less pronounced, according to the index for "All commodities other than farm products and foods." The index decreased 0.6 percent from January to February and is only 1.3 percent below February a year ago.

Wholesale food prices dropped 3.7 percent during the month largely because of decreases of 6.0 percent in dairy products, 5.1 percent in meats, and 4.0 percent in the "Other foods" subgroup,

including coffee, copra, salt mackerel, oleomargarine, and oleo oil. Additional individual food items for which lower prices were reported were fresh beef, lamb, mutton, dressed poultry, butter, cheese, powdered milk, hominy grits, corn meal, and dried apricots. The cereal products and fruits and vegetables subgroups advanced 0.2 percent. Higher prices were reported for rye flour, rice, raisins, smoked salmon, and pepper. The February 1938 food index, 73.5, is the lowest since July 1934, and is 15.5 percent below the index for February of last year.

The farm products group index dropped below 70 during February for the first time since August 1934. There was a decline in the group index of 2.5 percent from the preceding month, largely because of a 2.7 percent decrease in grains, principally corn and oats, together with a 0.5 percent decline in the livestock and poultry subgroup, including calves, steers, sheep, and live poultry. Sharp declines were also reported in prices of eggs, apples, lemons, hay, fresh milk in the Chicago and New York markets, peanuts, sweet potatoes, and wool. Quotations were higher for hogs, cotton, oranges, hops, and onions. The February farm products index, 69.8, is 23.6 percent below the level of a year ago.

Continued weakness in prices of hides, skins, and leather, together with a minor decrease in average wholesale prices of shoes, caused the hides and leather products group index to decline 2.1 percent during February. Since August 1937 hides and skins prices have dropped nearly 40 percent and leather prices have decreased more than 15 percent. Average wholesale prices of leather manufactures, such as harness, belting, gloves, and luggage, remained steady.

Decreases of 3.3 percent in hosiery and underwear and woolen and worsted goods, 1.4 percent in silk and rayon, 0.9 percent in cotton goods, and 0.6 percent in clothing caused the textile products group index to fall 1.6 percent. Lower prices were reported for work clothing, denim, cotton flannel, ticking, women's silk hosiery, underwear, rayon yarns, serge, top coating, woolen yarns, and hemp. The group index, 68.6, is at the lowest level reached since July 1933.

Wholesale building material prices declined 0.8 percent largely as a result of lower prices for clay drain tile, oak and poplar lumber, yellow pine flooring, paint materials, naval stores, and prepared roofing. Average wholesale prices of cement and structural steel remained steady.

During February the metals and metal products group index declined 0.6 percent because of weakening prices for malleable iron castings, scrap steel, babbitt metal, electrolytic copper, pig lead, quicksilver, pig zinc, solder and copper, and brass manufactures. No changes were reported in prices of agricultural implements, farm machinery, motor vehicles, and plumbing and heating fixtures.

Lower prices for copper sulphate, fats, oils, and mixed fertilizers caused the chemicals and drugs group index to decline 0.6 percent. Fertilizer material prices rose 0.3 percent because of higher prices for sulphate of ammonia.

Wholesale prices of cattle feed dropped 5.3 percent during February, crude rubber decreased 1.0 percent, and paper and pulp declined 0.3 percent. No changes were reported in prices of automobile tires and tubes.

The index for housefurnishing goods receded 0.3 percent to 88.0 percent of the 1926 average, largely as a result of lower prices for blankets, sheets, pillow cases, and galvanized iron tubs and pails. Average wholesale prices of furniture were stationary.

Fuel and lighting materials was the only group which registered an increase. The advance of 0.3 percent in the group index was caused by higher prices for gas and electricity. Wholesale prices of gasoline and kerosene declined sharply and a fractional decrease was recorded in anthracite. Bituminous coal and coke prices remained unchanged at the January level.

Index numbers for the groups and subgroups of commodities for January and February 1938 and for February of each of the past 7 years are shown in table 3.

TABLE 3.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities

Group and subgroup	February 1938	January 1938	February 1937	February 1936	February 1935	February 1934	February 1933	February 1932	February 1931
All commodities.....	79.8	80.9	86.3	80.6	79.5	73.6	59.8	66.3	76.8
Farm products.....	69.8	71.6	91.4	79.5	79.1	61.3	40.9	50.6	70.1
Grains.....	73.0	75.0	111.5	78.3	87.4	63.2	32.7	46.1	60.4
Livestock.....	78.1	78.5	89.9	90.3	78.4	48.2	40.1	50.3	69.6
Other farm products.....	63.5	66.1	86.3	72.7	76.8	68.3	44.2	52.7	73.6
Foods.....	73.5	76.3	87.0	83.2	82.7	66.7	53.7	62.5	78.0
Dairy products.....	78.3	83.3	88.7	85.7	87.0	69.1	52.4	64.1	83.0
Cereal products.....	83.2	83.0	89.3	88.5	91.9	85.7	60.4	69.6	75.5
Fruits and vegetables.....	56.8	56.7	87.8	82.4	63.6	71.7	52.4	61.8	74.2
Meats.....	78.4	82.6	90.3	92.1	87.9	53.3	50.2	59.5	83.6
Other foods.....	66.7	69.5	78.8	78.1	77.2	64.1	54.1	59.4	71.1
Hides and leather products.....	94.7	96.7	102.7	96.1	86.0	89.6	68.0	78.3	86.9
Shoes.....	104.6	104.7	101.4	100.5	97.2	98.4	83.3	88.5	95.0
Hides and skins.....	74.6	82.3	114.9	96.7	69.6	78.0	40.9	46.1	57.7
Leather.....	84.4	86.6	95.5	86.0	74.6	80.1	55.3	76.5	89.0
Other leather products.....	102.4	102.4	101.7	95.4	84.6	86.9	77.9	98.8	102.0
Textile products.....	68.6	69.7	77.5	71.0	70.1	76.9	51.2	59.5	70.9
Clothing.....	85.8	86.3	84.2	80.7	78.5	87.2	61.2	69.4	79.1
Cotton goods.....	67.6	68.2	91.3	78.1	83.3	88.6	49.1	56.4	73.1
Hosiery and underwear.....	60.9	63.0	64.7	62.0	63.6	67.0	48.3	55.8	64.5
Silk and rayon.....	28.5	28.9	33.7	31.6	28.1	31.0	25.6	36.5	47.0
Woolen and worsted goods.....	81.0	83.8	93.1	82.8	73.6	84.3	53.2	63.1	73.5
Other textile products.....	67.0	67.7	65.9	67.2	68.6	77.8	66.2	69.7	77.8
Fuel and lighting materials.....	78.5	78.3	76.8	76.1	72.5	72.4	63.6	68.3	72.5
Anthracite.....	79.8	80.1	81.6	82.6	82.3	81.2	88.7	94.8	88.9
Bituminous coal.....	103.2	103.2	97.4	100.1	96.4	91.1	79.4	84.3	87.8
Coke.....	105.5	105.5	97.6	93.7	88.8	83.5	75.2	80.4	83.8
Electricity.....	(1)	(1)	80.8	86.2	90.3	91.8	102.9	104.8	94.5
Gas.....	(1)	81.8	80.7	82.1	87.7	89.3	96.6	98.0	95.8
Petroleum products.....	58.0	58.8	59.1	55.7	48.7	50.3	34.3	38.6	50.2

¹ Data not available.

TABLE 3.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities—Continued

Group and subgroup	Feb- ruary 1938	Jan- uary 1938	Feb- ruary 1937	Feb- ruary 1936	Feb- ruary 1935	Feb- ruary 1934	Feb- ruary 1933	Feb- ruary 1932	Feb- ruary 1931
Metals and metal products.....	96.0	96.6	91.7	86.7	85.8	87.0	77.4	80.9	86.5
Agricultural implements.....	96.2	96.2	93.1	94.9	93.6	85.2	83.1	85.1	94.3
Farm machinery.....	97.7	97.7	92.8	92.4	91.6	(1)	(1)	(1)	(1)
Iron and steel.....	99.3	99.6	92.0	86.9	86.1	86.2	77.3	79.3	85.6
Motor vehicles ¹	95.6	95.6	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Nonferrous metals.....	72.1	75.0	89.4	69.7	67.2	65.8	46.2	52.7	68.4
Plumbing and heating.....	79.6	79.6	77.4	73.8	67.1	72.7	59.4	65.8	86.6
Building materials.....	91.1	91.8	93.3	85.5	85.0	86.6	69.8	73.4	82.5
Brick and tile.....	91.5	91.8	91.0	88.4	90.6	87.2	75.1	79.3	86.3
Cement.....	95.5	95.5	95.5	95.5	93.9	93.9	81.8	75.3	87.9
Lumber.....	91.0	92.6	99.0	82.3	80.5	87.3	56.4	62.9	74.0
Paint and paint materials.....	79.2	80.1	83.4	79.5	78.8	79.3	68.0	75.1	80.5
Plumbing and heating.....	79.6	79.6	77.4	73.8	67.1	72.7	59.4	65.8	86.6
Structural steel.....	114.9	114.9	104.7	92.0	92.0	86.8	81.7	77.9	84.3
Other building materials.....	95.3	95.8	95.0	89.5	90.3	90.3	78.5	80.2	87.8
Chemicals and drugs.....	79.1	79.6	87.8	80.1	80.4	75.5	71.3	75.5	83.3
Chemicals.....	83.6	84.1	95.6	87.0	86.5	78.8	79.0	80.8	86.6
Drugs and pharmaceuticals.....	73.9	74.0	83.0	73.2	73.1	71.5	54.8	60.1	65.2
Fertilizer materials.....	72.3	72.1	70.7	64.5	66.2	69.2	61.5	69.8	81.1
Mixed fertilizers.....	72.3	73.4	71.7	68.8	72.8	72.5	62.4	73.7	89.1
Housefurnishing goods.....	88.0	88.3	87.9	81.5	80.7	81.0	72.3	77.5	88.1
Furnishings.....	92.2	92.8	91.2	85.0	84.1	83.0	72.9	75.9	84.6
Furniture.....	83.7	83.7	84.5	77.9	77.2	79.2	71.9	79.5	92.0
Miscellaneous.....	74.8	75.2	77.3	68.1	70.1	68.5	59.2	64.7	71.5
Automobile tires and tubes.....	57.4	57.4	53.1	45.0	47.5	43.5	42.6	39.5	46.9
Cattle feed.....	86.7	91.6	129.4	68.1	109.0	73.4	40.6	48.2	71.6
Paper and pulp.....	89.7	90.0	87.5	79.9	80.9	82.7	72.1	76.7	83.1
Rubber, crude.....	30.2	30.5	44.3	32.0	26.2	21.4	6.1	8.6	16.1
Other miscellaneous.....	82.2	82.4	84.2	80.6	81.0	83.2	73.3	84.4	89.3
Raw materials.....	73.6	74.9	88.3	79.1	77.4	66.0	48.4	56.9	70.6
Semimanufactured articles.....	76.1	76.9	85.5	74.6	71.7	74.8	56.3	61.9	73.0
Finished products.....	83.3	84.3	85.4	82.2	81.5	77.0	65.7	71.4	80.3
All commodities other than farm products.....	81.9	82.8	85.0	80.7	79.4	76.1	63.7	69.6	78.2
All commodities other than farm products and foods.....	83.0	83.5	84.1	79.0	77.4	78.7	66.0	71.3	78.3

¹ Data not available.² Preliminary revision.*Index Numbers By Commodity Groups, 1926 to February 1938*

Index numbers of wholesale prices by commodity groups, by years from 1926 to 1937, inclusive, and by months from January 1937 to February 1938, inclusive, are shown in table 4.

TABLE 4.—Index Numbers of Wholesale Prices, by Groups of Commodities

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and 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
1927	99.4	96.7	107.7	95.6	88.3	96.3	94.7	96.8	97.5	91.0	95.4
1928	105.9	101.0	121.4	95.5	84.3	97.0	94.1	95.6	95.1	85.4	96.7
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6	95.3
1930	88.3	90.5	100.0	80.3	78.5	92.1	89.9	89.1	92.7	77.7	86.4
1931	64.8	74.6	86.1	66.3	67.5	84.5	79.2	79.3	84.9	69.8	73.0
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
1934	65.3	70.5	86.6	72.9	73.3	86.9	86.2	75.9	81.5	69.7	74.9
1935	78.8	83.7	89.6	70.9	73.5	86.4	85.3	80.5	80.6	68.3	80.0
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
By months:											
1937:											
January	91.3	87.1	101.7	77.5	76.6	90.9	91.3	87.7	86.5	76.2	85.9
February	91.4	87.0	102.7	77.5	76.8	91.7	93.3	87.8	87.9	77.3	86.3
March	94.1	87.5	104.2	78.3	76.2	96.0	95.9	87.5	88.4	79.5	87.8
April	92.2	85.5	106.3	79.5	76.8	96.5	96.7	86.9	89.0	81.1	88.0
May	89.8	84.2	106.7	78.7	77.2	95.8	97.2	84.5	89.3	80.5	87.4
June	88.5	84.7	106.4	78.2	77.5	95.9	96.9	83.6	89.5	79.4	87.2
July	89.3	86.2	106.7	78.3	78.1	96.1	96.7	83.9	89.7	79.0	87.9
August	86.4	86.7	108.1	77.1	78.4	97.0	96.3	82.2	91.1	77.3	87.5
September	85.9	88.0	107.6	75.3	78.7	97.1	96.2	81.4	91.1	77.0	87.4
October	80.4	85.5	106.7	73.5	78.5	96.4	95.4	81.2	91.0	76.2	85.4
November	75.7	83.1	101.4	71.2	78.2	96.8	93.7	80.2	90.4	75.4	83.3
December	72.8	79.8	97.7	70.1	78.4	96.3	92.5	79.5	89.7	75.0	81.7
1938:											
January	71.6	76.3	96.7	69.7	78.3	96.6	91.8	79.6	88.3	75.2	80.9
February	69.8	73.5	94.7	68.6	78.5	96.0	91.1	79.1	88.0	74.8	79.8

The price trend since 1926 is shown in table 5 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 1937 issue of the Wholesale Price pamphlet.

TABLE 5.—Index Numbers of Wholesale Prices, by Special Groups of Commodities

[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Finished products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured articles	Finished products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	1937—Continued.					
1927	96.5	94.3	95.0	94.6	94.0	March	90.1	89.6	86.4	86.3	85.5
1928	99.1	94.5	95.9	94.8	92.9	April	88.7	89.5	87.4	86.9	86.5
1929	97.5	93.9	94.5	93.3	91.6	May	87.1	87.5	87.5	86.7	86.3
1930	84.3	81.8	88.0	85.9	85.2	June	86.1	86.8	87.7	86.8	86.1
1931	65.6	69.0	77.0	74.6	75.0	July	86.5	87.0	88.8	87.5	86.3
1932	55.1	59.3	70.3	68.3	70.2	August	84.8	86.6	89.0	87.6	86.1
1933	56.5	65.4	70.5	69.0	71.2	September	84.4	85.3	89.1	87.6	85.9
1934	68.6	72.8	78.2	76.9	78.4	October	80.7	82.5	88.1	86.4	85.1
1935	77.1	73.6	82.2	80.2	77.9	November	77.2	79.8	86.7	84.8	84.3
1936	79.9	75.9	82.0	80.7	79.6	December	75.4	77.7	85.3	83.5	83.6
1937	84.8	85.3	87.2	86.2	85.3	1938:					
1937:						January	74.9	76.9	84.3	82.8	83.5
January	88.1	85.4	84.9	84.6	83.4	February	73.6	76.1	83.3	81.9	83.0
February	88.3	85.5	85.4	85.0	84.1						

Weekly Fluctuations

Except for a slight upward tendency between the weeks ended February 19 and 26, wholesale commodity prices fell steadily throughout the month. The cumulative decline in the all-commodity index from the last week of January to the last week of February was 0.9 percent.

Hides and leather products and textile products averaged lower during each of the 4 weeks, registering decreases of 1.8 percent and 1.6 percent, respectively. Although wholesale prices of foods strengthened toward the latter part of the month, a decrease of 1.5 percent was recorded between the weeks ended January 29 and February 26. Following a fractional rise early in February the farm products group dropped 1.1 percent and 0.7 percent during the weeks ended February 12 and 19. A pronounced upward movement was evidenced in agricultural commodity prices late in February, but the index registered a drop of 0.8 percent from the last week of January to the last week of February. Housefurnishing goods prices averaged 1.2 percent lower during the 4-week period and building materials dropped 0.8 percent. Price changes from week to week in the fuel and lighting materials, chemicals and drugs, and miscellaneous commodity groups were comparatively slight and had little effect on the all-commodity index.

Weekly price variations in the major group classifications during February are shown by the index numbers in table 6. The percentage changes from week to week are given in table 7.

TABLE 6.—Weekly Index Numbers of Wholesale Prices, by Commodity Groups, January and February 1938

[1926=100]

Commodity group	Feb.	Feb.	Feb.	Feb.	Jan.	Jan.	Jan.	Jan.	Jan.
	26, 1938	19, 1938	12, 1938	5, 1938	29, 1938	22, 1938	15, 1938	8, 1938	1, 1938
All commodities.....	79.6	79.4	79.6	80.1	80.3	80.8	81.0	80.8	81.0
Farm products.....	70.2	69.6	70.1	70.9	70.8	71.8	73.4	72.7	73.0
Foods.....	73.5	73.3	73.2	74.5	74.6	76.1	76.8	76.8	77.8
Hides and leather products.....	94.6	94.9	95.6	95.9	96.3	97.1	97.4	97.9	98.3
Textile products.....	67.8	68.1	68.2	68.5	68.9	69.0	69.3	69.2	69.4
Fuel and lighting materials.....	78.9	78.6	78.7	78.8	79.0	79.1	78.8	78.8	78.7
Metals and metal products.....	96.2	96.2	96.2	96.1	96.3	96.5	96.5	96.1	96.1
Building materials.....	91.1	91.1	91.2	91.6	91.8	92.0	92.1	92.3	92.4
Chemicals and drugs.....	78.9	78.8	78.9	79.0	79.2	79.5	79.5	79.2	79.2
Housefurnishing goods.....	89.6	89.7	89.7	90.5	90.7	90.7	90.8	90.8	91.2
Miscellaneous.....	74.7	74.6	74.6	74.7	75.2	75.1	75.0	74.5	74.6
Raw materials.....	73.6	73.2	73.4	74.0	74.1	74.7	75.9	75.3	75.5
Semimanufactured articles.....	76.0	75.9	76.2	76.5	77.0	77.5	77.6	77.0	77.2
Finished products.....	83.4	83.2	83.3	83.8	84.1	84.5	84.4	84.3	84.6
All commodities other than farm products.....	81.7	81.6	81.7	82.1	82.4	82.8	82.8	82.6	82.8
All commodities other than farm products and foods.....	83.1	83.0	83.1	83.2	83.5	83.7	83.6	83.5	83.6

TABLE 7.—Weekly Changes (Percent) During February 1938, by Groups of Commodities

Commodity group	Percentage change from—				
	Jan. 29 to Feb. 26	Feb. 19 to Feb. 26	Feb. 12 to Feb. 19	Feb. 5 to Feb. 12	Jan. 29 to Feb. 5
All commodities.....	-0.9	+0.3	-0.3	-0.6	-0.2
Farm products.....	-8	+9	-7	-1.1	+1
Foods.....	-1.5	+3	+1	-1.7	-1
Hides and leather products.....	-1.8	-3	-7	-3	-4
Textile products.....	-1.6	-4	-1	-4	-6
Fuel and lighting materials.....	-1	+4	-1	-1	-3
Metals and metal products.....	-1	0	0	+1	-2
Building materials.....	-8	0	-1	-4	-2
Chemicals and drugs.....	-4	+1	-1	-1	-3
Housefurnishing goods.....	-1.2	-1	0	-9	-2
Miscellaneous.....	-7	+1	0	-1	-7
Raw materials.....	-7	+5	-3	-8	-1
Semimanufactured articles.....	-1.3	+1	-4	-4	-6
Finished products.....	-8	+2	-1	-6	-4
All commodities other than farm products.....	-8	+1	-1	-5	-4
All commodities other than farm products and foods.....	-5	+1	-1	-1	-4

Monthly Average Wholesale Prices and Index Numbers of Individual Commodities

The table showing average wholesale prices and index numbers of individual commodities formerly appearing monthly in the Wholesale Price pamphlet is now published semiannually in the June and December issues. The December 1937 issue showed the data for the year 1937 and for the last 6 months of 1937. The monthly figures will be furnished currently upon request.

New Commodity Specifications

Surveys of wholesale prices for several items and/or industries have been completed, and reports covering the findings have been issued or are in preparation. Beginning with January 1938 certain items formerly included in the Bureau's weighted index numbers of wholesale prices have been replaced by other items, for which specifications and related pertinent information are given in a mimeographed report. Copies of this report are available upon request.

The groups and subgroups affected are:

Textile products.—Hosiery and underwear (formerly "Knit goods", changes in underwear items).

Metals and metal products.—Agricultural implements—Farm machinery.

Miscellaneous.—Paper and pulp (changes in boxboard items) and Other miscellaneous (changes in soap items).



WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

INDEX NUMBERS of wholesale prices of the Bureau of Labor Statistics of the United States Department of Labor, and those in certain foreign countries, have been brought together in the following table, in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the original sources from which the information has been drawn. In certain countries the base is the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods and the kind and number of articles included, there are important differences in the composition of the index numbers themselves. Indexes are shown for the years 1926-37, inclusive, and by months from January 1936 through January 1938.

Index Numbers of Wholesale Prices in the United States and in Foreign Countries

Country.....	United States	Argentina	Australia	Austria	Belgium	Bulgaria	Canada	Chile	China
Computing agency.....	Bureau of Labor Statistics	National Bank, Bureau of Economic Research	Bureau of Census and Statistics	Federal Statistical Bureau	Ministry of Labor and Social Welfare	General Statistical Bureau	Dominion Bureau of Statistics	General Statistical Bureau	National Tariff Commission, Shanghai
Base period.....	1926 (100)	1926 (100)	1911 (1,000)	January-June 1914 (100)	April 1914 (100)	1926 (100)	1926 (100)	1913 (100)	1926 (100)
Commodities.....	784	105	92	47	(Paper) 125	(Gold) 55	567 ¹	(Paper)	(Silver) 155 ²
1926.....	100.0	100.0	1,832	123	744	100.0	100.0	-----	100.0
1927.....	95.4	98.1	1,817	133	847	102.4	97.7	-----	104.4
1928.....	96.7	98.5	1,792	130	843	109.8	96.4	195.5	101.7
1929.....	95.3	96.4	1,803	130	851	117.0	95.6	192.4	104.5
1930.....	86.4	92.2	1,596	117	744	94.6	86.6	166.9	114.8
1931.....	73.0	89.0	1,428	108	626	79.1	72.1	152.2	126.7
1932.....	64.8	89.5	1,411	112	532	70.3	66.7	230.4	112.4
1933.....	65.9	85.6	1,409	108	501	61.8	67.1	346.0	103.8
1934.....	74.9	98.2	1,471	110	473	63.6	71.6	343.6	97.1
1935.....	80.0	97.0	1,469	110	537	65.1	72.1	343.3	96.4
1936.....	80.8	-----	1,543	109	588	67.5	74.6	-----	108.5
1937.....	86.3	-----	-----	113	684	75.5	84.5	-----	-----
<i>1936</i>									
January.....	80.6	98.9	1,475	108	581	65.8	72.9	335.7	104.3
February.....	80.6	97.9	1,466	107	582	65.2	72.5	355.2	105.4
March.....	79.6	98.2	1,485	107	578	64.7	72.4	359.5	106.4
April.....	79.7	98.0	1,515	108	574	66.4	72.2	359.8	107.3
May.....	78.6	97.8	1,521	108	569	66.3	71.8	367.8	105.8
June.....	79.2	97.6	1,523	109	570	66.0	72.3	374.4	106.1
July.....	80.5	98.8	1,552	110	576	66.6	74.4	382.2	107.2
August.....	81.6	100.5	1,585	109	582	67.7	76.2	389.8	107.4
September.....	81.6	100.3	1,573	110	594	68.8	76.4	402.0	107.0
October.....	81.5	99.9	1,591	111	602	70.4	77.1	405.4	109.7
November.....	82.4	100.4	1,620	111	615	71.2	77.2	399.2	113.0
December.....	84.2	102.6	1,611	111	637	71.5	79.7	405.6	118.8
<i>1937</i>									
January.....	85.9	104.5	1,644	112	658	72.0	81.3	421.2	121.6
February.....	86.3	106.4	1,618	112	675	72.0	82.9	435.6	122.9
March.....	87.8	110.6	1,652	112	693	72.2	85.5	457.5	123.0
April.....	88.0	113.1	1,657	113	696	73.1	86.1	463.5	123.9
May.....	87.4	114.4	1,660	115	693	73.3	85.1	465.4	125.1
June.....	87.2	114.6	1,663	115	697	73.4	84.6	462.4	126.1
July.....	87.9	115.8	1,703	116	702	76.6	87.5	465.4	-----
August.....	87.5	115.0	1,720	114	700	77.4	85.6	472.0	-----
September.....	87.4	115.4	1,706	113	690	78.1	85.0	471.2	-----
October.....	85.4	-----	-----	113	683	79.1	84.7	460.3	-----
November.....	83.3	-----	-----	111	663	78.8	83.1	-----	-----
December.....	81.7	-----	-----	111	659	78.9	82.7	-----	-----
<i>1938</i>									
January.....	80.9	-----	-----	111	660	-----	83.8	-----	-----

¹ Revised for commodities since January 1934.² Quotations, 154 since January 1932.

Index Numbers of Wholesale Prices in the United States and in Foreign Countries—Continued

Country.....	Czecho- slovakia	Den- mark	Finland	France	Ger- many	India	Italy	Japan	Nether- lands
Computing agency..	Central Bureau of Sta- tistics	Statisti- cal De- part- ment	Central Bureau of Sta- tistics	General Statisti- cal Bu- reau	Federal Statisti- cal Bu- reau	Depart- ment, etc., ³ Calcutta	Central Institute of Sta- tistics	Bank of Japan, Tokio	Central Bureau of Sta- tistics
Base period.....	July 1914 (100)	1931 (100)	1926 (100)	1913 (100)	1913 (100)	July 1914 (100)	1928 (100)	October 1900 (100)	1926-30 (100)
Commodities.....	69	161	120	(Paper) 126	400	72	293	56	269 (plus)
1926.....	943	143	100	695	134.4	148	-----	236.7	105.8
1927.....	968	134	101	642	137.6	148	-----	224.6	102.8
1928.....	968	134	102	645	140.0	145	-----	226.1	102.2
1929.....	914	132	98	627	137.2	141	95.4	219.8	99.7
1930.....	811	114	90	554	124.6	116	85.4	181.0	89.6
1931.....	738	100	84	502	110.9	96	74.5	153.0	76.3
1927.....	682	103	90	427	96.5	91	69.6	161.1	64.6
1933.....	659	110	89	398	93.3	87	63.4	179.5	62.9
1934.....	674	119	90	376	98.4	89	62.0	177.6	63.0
1935.....	704	122	90	338	101.8	91	68.2	185.5	61.5
1936.....	704	129	92	411	104.1	91	76.4	197.5	63.8
1937.....	751	145	103	-----	105.9	102	89.3	238.2	76.2
<i>1936</i>									
January.....	711	126	90	359	103.6	92	74.3	191.8	62.4
February.....	704	126	91	372	103.6	91	74.5	191.0	62.0
March.....	706	126	91	376	103.6	91	75.4	190.7	61.5
April.....	703	126	90	371	103.7	92	75.9	192.4	61.1
May.....	703	126	90	374	103.8	90	75.6	192.4	61.0
June.....	698	125	90	378	104.0	90	75.8	193.6	61.6
July.....	699	127	91	391	104.2	91	74.7	197.4	62.3
August.....	691	129	91	403	104.6	90	75.9	200.7	62.7
September.....	693	130	92	420	104.4	91	76.9	201.0	62.6
October.....	704	133	93	471	104.3	93	77.1	200.4	68.2
November.....	714	134	94	492	104.4	93	77.8	203.5	69.5
December.....	722	136	95	519	105.0	94	79.0	214.9	71.0
<i>1937</i>									
January.....	737	137	98	538	105.3	98	81.6	233.3	73.0
February.....	745	140	101	533	105.5	99	83.3	230.4	74.0
March.....	754	143	103	550	106.1	100	85.1	239.8	76.0
April.....	764	146	103	552	105.8	103	86.1	248.0	77.1
May.....	755	147	104	550	105.9	103	87.8	241.0	76.7
June.....	752	146	103	557	106.1	102	89.6	238.3	76.3
July.....	763	148	103	582	106.4	104	90.3	238.9	77.5
August.....	759	148	103	603	106.7	105	91.2	234.7	77.6
September.....	755	147	104	630	106.2	104	91.7	238.5	76.9
October.....	749	148	104	628	105.9	105	93.0	236.5	77.0
November.....	744	146	102	-----	105.5	103	95.1	237.6	76.3
December.....	732	145	102	-----	105.5	102	96.4	241.2	75.6
<i>1938</i>									
January.....	733	-----	102	-----	105.6	100	95.2	245.3	-----

³ Department of Commercial Intelligence and Statistics.

Index Numbers of Wholesale Prices in the United States and in Foreign Countries—Continued

Country.....	New Zealand (revised)	Norway	Peru	Poland	South Africa	Sweden	Switzerland	United Kingdom	Yugoslavia
Computing agency.....	Census and Statistics Office	Central Bureau of Statistics	Central Bank of Reserve	Central Office of Statistics	Office of Census and Statistics	Board of Trade	Federal Labor Department	Board of Trade	National Bank
Base period.....	1909-13 (1,000)	1913 (100)	1913 (100)	1928 (100)	1910 (1,000)	1913 (100)	July 1914 (100)	1930 (100)	1926 (100)
Commodities.....	180	95	(Paper) 58	238	188	160	77	4 200	55
1926.....	1,553	-----	203.2	-----	1,387	149	144.5	-----	100.0
1927.....	1,478	-----	202.6	-----	1,395	146	142.2	-----	103.4
1928.....	1,492	157	191.9	100.0	1,354	148	144.6	-----	106.2
1929.....	1,488	149	185.7	96.3	1,305	140	141.2	-----	100.6
1930.....	1,449	137	178.0	85.5	1,155	122	126.5	100.0	86.6
1931.....	1,346	122	175.1	74.6	1,119	111	109.7	87.8	72.9
1932.....	1,297	122	170.3	65.5	1,032	109	142.2	85.6	65.2
1933.....	1,308	122	180.2	59.1	1,047	107	91.0	85.7	64.4
1934.....	1,330	124	188.1	55.8	1,143	114	89.8	88.1	63.2
1935.....	1,385	127	188.8	53.1	1,066	116	89.8	88.9	65.9
1936.....	1,399	134	191.9	54.0	1,109	120	95.6	94.4	68.4
1937.....	1,484	156	204.4	59.4	1,136	137	111.2	108.8	74.7
<i>1936</i>									
January.....	1,405	131	191.1	52.1	1,120	118	91.0	91.8	71.1
February.....	1,384	132	191.9	52.2	-----	118	91.0	91.7	70.0
March.....	1,386	132	191.2	52.1	-----	118	90.9	91.7	70.0
April.....	1,393	132	192.5	53.0	1,122	118	91.9	91.9	69.1
May.....	1,391	132	192.1	53.7	-----	118	92.0	91.9	67.0
June.....	1,399	132	191.3	53.9	-----	118	91.9	92.6	65.4
July.....	1,395	132	192.5	53.6	1,085	119	93.1	93.6	65.6
August.....	1,409	134	192.7	53.9	-----	120	93.4	95.2	66.0
September.....	1,421	136	192.2	54.6	-----	122	96.8	96.1	67.0
October.....	1,426	136	192.0	55.5	1,111	123	103.1	97.6	68.9
November.....	1,427	137	191.7	56.1	-----	124	105.2	98.3	69.8
December.....	1,450	140	191.6	56.9	-----	126	106.8	100.8	71.2
<i>1937</i>									
January.....	1,449	144	194.0	58.2	1,131	129	108.3	102.9	70.4
February.....	1,467	147	198.8	59.8	-----	132	111.3	103.9	70.9
March.....	1,472	150	204.0	60.6	-----	136	113.3	107.3	72.1
April.....	1,481	154	208.1	60.1	1,109	138	113.0	108.9	72.3
May.....	1,502	157	209.1	59.9	-----	139	112.5	110.7	72.6
June.....	1,514	157	205.7	60.2	-----	139	112.0	110.6	72.1
July.....	1,512	160	206.2	60.0	1,141	140	112.4	111.5	73.7
August.....	1,525	160	205.7	59.6	-----	140	110.8	111.4	75.3
September.....	1,524	161	207.2	59.6	-----	140	110.5	111.2	78.1
October.....	1,529	161	205.4	58.4	1,163	139	110.9	110.6	80.0
November.....	1,564	160	205.6	58.4	-----	137	109.6	108.5	79.5
December.....	-----	159	202.6	58.1	-----	136	109.6	107.6	79.9
<i>1938</i>									
January.....	-----	158	-----	58.1	1,207	135	110.0	107.7	80.2

⁴ Revised for commodities since January 1930

Recent Publications of Labor Interest

MARCH 1938

Agriculture

The situation of agricultural and horticultural workers in the Netherlands. By J. Hilgenga. (In *International Labor Review*, Geneva, January 1938, pp. 44-58.)

In this article the secretary of the Netherlands Federation of Agricultural, Horticultural, and Dairy Workers presents data on collective bargaining, organization of the workers, wages and hours, employment, social insurance, and measures to combat unemployment.

Apprenticeship

Putting national plumbing apprenticeship standards to work: A manual of procedure for establishing local joint plumbing apprenticeship standards. Prepared by Federal Committee on Apprentice Training. Washington, U. S. Division of Labor Standards, 1938. 13 pp. (Bulletin No. 16.)

Die berufsberatung und lehrstellenvermittlung in Oesterreich. By H. Kraus and Vincenz Neubauer. Vienna, ["Lehrlings-, Jugend- und Berufsfürsorge", 1937?]. 88 pp.

Report on occupational guidance and employment service for apprentices in Austria, including a short historical account of development and organization, operation, and pertinent legislation. A set of registry cards is inserted as a special supplement to the booklet.

Child Welfare

The public child-welfare program in the District of Columbia. By Emma O. Lundberg. Washington, U. S. Children's Bureau, 1937. 18 pp. (Bureau Publication No. 240.)

Cooperative Movement

Cooperative associations for supply of electric current. Washington, U. S. Bureau of Labor Statistics, 1938. 5 pp. (Serial No. R. 690, reprint from January 1938 Monthly Labor Review.)

Cooperative telephone associations, 1936. By Florence E. Parker. Washington, U. S. Bureau of Labor Statistics, 1938. 22 pp. (Serial No. R. 671, reprint from February 1938 Monthly Labor Review.)

Cost and Standards of Living

Living costs of working women in New York. By Frieda S. Miller. Washington, U. S. Bureau of Labor Statistics, 1938. 8 pp. (Serial No. R. 698, reprint from March 1938 Monthly Labor Review.)

Living on a moderate income: The incomes and expenditures of streetcar men's and clerks' families in the San Francisco Bay region. By Emily H. Huntington and Mary Gorrings Luck. Berkeley, Calif., University of California Press, 1937. 206 pp.

The two studies in this publication were prepared by the Heller Committee for Research in Social Economics, at the University of California, for the Institute of Pacific Relations.

Data for the families of streetcar men are given for two periods—1924–25 and 1933. The information for the families of clerks is for 1933. The average clerk's family had approximately \$300 more purchasing power than the average streetcar man's family, which made it possible for the former to maintain a higher standard of living.

More about rents: Negro and white families in the South report on their expenditures for space to live. (In Consumers' Guide, U. S. Agricultural Adjustment Administration, Consumers' Counsel Division, Washington, February 14, 1938, pp. 12–15, 17; charts, illus.)

Paying for space to live: Some facts on cost of rent for typical families in New England cities and villages. (In Consumers' Guide, U. S. Agricultural Adjustment Administration, Consumers' Counsel Division, Washington, January 17, 1938, pp. 3–6, 18; charts, illus.)

Rents of houses and flats owned by local authorities (England and Wales). London, Ministry of Health, 1937. 24 pp. (Cmd. 5527.)

The data pertain to June 30, 1936, and cover a total of 866,277 houses and flats.

The economics of low-income diets. By Helen L. Sorenson and Elizabeth W. Gilboy. (In Quarterly Journal of Economics, Cambridge, Mass., August 1937, pp. 663–680, charts; also reprinted.)

Domestic Service

Reading list of references on household employment (October 1937). Washington, U. S. Women's Bureau, 1938. 17 pp. (Bulletin No. 154; revision of No. 138.)

Economic and Social Problems

Equal pay and the teaching profession: An inquiry into, and the case against, the demand for "equal pay for men and women teachers of the same professional status." London, National Association of Schoolmasters, 1937. 135 pp. (3d edition, revised and rewritten.)

Contains some discussion of family wages and the endowment of motherhood.

The proletariat: A challenge to western civilization. By Goetz A. Briefs. New York, McGraw-Hill Book Co., Inc., 1937. xviii, 297 pp.

Social saga of two cities: An ecological and statistical study of social trends in Minneapolis and St. Paul. By Calvin F. Schmid. Minneapolis, Council of Social Agencies, Bureau of Social Research, 1937. 418 pp., maps, charts. (Monograph Series No. 1.)

Several chapters are devoted to housing conditions.

The amenities of industry and labor in Germany. By Herbert Steinwarz. (In International Labor Review, Geneva, December 1937, pp. 772–779.)

In this article the director of the German Office for Beauty in Work discusses the purpose and accomplishments of that office and its 33 district branches, the object of which is stated to be "to enable the worker to enjoy his work by performing it in beautiful and healthy surroundings."

Royal commissions of inquiry: The significance of investigations in British politics. By Hugh McDowall Clokie and J. William Robinson. Stanford University, Calif., Stanford University Press, 1937. 242 pp.

A discussion of the historical development and political significance of the distinctive form of official investigation used in Great Britain, and its place in the British Government. The make-up and procedure of royal commissions are discussed in one chapter, and selected documents bearing upon important royal commissions since the Norman Conquest are reproduced in an appendix.

Education and Guidance

Annual report of Illinois Board for Vocational Education, July 1, 1936, to June 30, 1937. Springfield, 1937. 54 pp., maps. (Bulletin No. 69.)

Of the \$632,524.83, combined Federal and State funds, disbursed in Illinois during the year covered by the report, \$243,501.15 was allocated to agricultural

courses, \$266,738.73 to industrial courses, and \$122,284.95 to home-economics courses. The total amount expended by local school authorities for such courses equaled the combined Federal and State funds disbursed for the same purpose.

A summary report of fifth metropolitan conference on employment and guidance, held under auspices of section on employment and vocational guidance, Welfare Council of New York City, November 19-20, 1937. New York, Welfare Council of New York City, 1938. 16 pp. (Reprint, with additions, from Occupations, the Vocational Guidance Magazine, January 1938.)

The major topics on the program were: Occupational training and retraining, integration of occupational training and employment, the organization of labor and work opportunities, recent developments in apprenticeship, and the Cincinnati Employment Center.

Laws relating to vocational education and agricultural extension work. Compiled by Elmer A. Lewis. Washington, House of Representatives, Document Room, 1937. 78 pp.

Employment and Unemployment

Census of Puerto Rico, 1935: Population Bulletin No. 2, Characteristics of the population, including occupations. San Juan, Puerto Rico, Reconstruction Administration, 1937. 85 pp. (For sale by U. S. Superintendent of Documents, Washington, D. C.)

Figures on employment and unemployment of wage earners and salaried workers in Puerto Rico in 1935, taken from this bulletin, are published in this issue of the Monthly Labor Review.

Employment Service

Survey of employment service information: Analysis of characteristics of 5,000,000 applicants in active file inventory April 1, 1937, and of all new applications and placements during period from July 1, 1936, to March 31, 1937. Washington, U. S. Employment Service, 1937. 200 pp., map, charts.

Statistics on applications and placements of colored workers, from this report, are published in this issue of the Monthly Labor Review.

What we have learned about junior placement. By Roswell Ward. (In Employment Service News, U. S. Employment Service, Washington, March 1938, pp. 3-6.)

Health and Industrial Hygiene

Lead poisoning in 1936 and earlier years. By Frederick L. Hoffman. Washington, U. S. Bureau of Labor Statistics, 1938. 14 pp. (Serial No. R. 669, reprint from February 1938 Monthly Labor Review.)

Enfermedades profesionales. By Mariano R. Tissembaum. Santa Fe, Argentina, Instituto Social de la Universidad Nacional del Litoral, 1937. 113 pp. (Temas Obreros No. 3.)

This study of occupational diseases differentiates between accidents and diseases and classifies the latter by cause and industry or occupation; cites the laws of Argentina which provide for compensation for occupational diseases; and lists the diseases which are compensable under the laws.

What social workers should know about illness and physical handicap. New York, Family Welfare Association of America, 1937. 78 pp.

Digests of a series of lectures given under the auspices of the Westchester County Council of Social Agencies. The lectures, given by physicians and social workers, deal with various problems facing social workers in connection with specific diseases and social conditions.

Your diet and your health. By Morris Fishbein, M. D. New York, McGraw-Hill Book Co., Inc., 1937. 298 pp. (Whittlesey House Health Series.)

The author discusses food values and food costs, the proper proportions of the different food elements—proteins, carbohydrates, fats, and minerals—and the importance of the different vitamins. The merits or demerits of various widely publicized diet systems are considered and there are also special sections on suggested diets and food sensitivities. The tables give food values of all our principal foods, the calorie contents of a variety of foods, vitamin sources, and minimum diets.

Housing

Facing the housing problem. By Clarence Senior. Milwaukee, Milwaukee Housing Council, 1938. 24 pp., chart.

Annual review of building permits issued by 58 cities in Canada, 1937 (with comparative data for years 1920-36). Ottawa, Department of Trade and Commerce, Bureau of Statistics, 1938. 18 pp., chart; mimeographed.

Income

The income structure of the United States. By Maurice Leven. Washington, Brookings Institution, Institute of Economics, 1938. 177 pp., charts. (Publication No. 74.)

The writer redefines the terms commonly used, analyzes differences in income connected with occupations, industries, and regions, and discusses the influence of age, sex, and color of individuals on income. A chapter is devoted to the effects of changes in the extent of business activity. There is a statement of views on the controversial question of the nature and limits of attempts by labor organizations to influence the distribution of income and the volume of employment and production.

Monthly income payments in the United States, 1929-37. By Robert R. Nathan and Frederick M. Cone. (In Survey of Current Business, U. S. Bureau of Foreign and Domestic Commerce, Washington, February 1938, pp. 7-13, charts; also reprinted.)

Previous estimates of annual income payments are here presented by months and extended to the end of 1937. Estimates of compensation of employees (wage earners and salaried workers combined) are given for all employments and for five major divisions of employment, including work relief. In the case of other forms of income, aggregates only are given.

Some of the data from this report are carried in this issue of the Monthly Labor Review.

National income and capital formation, 1919-35—a preliminary report. By Simon Kuznets. New York, National Bureau of Economic Research, Inc., 1937. 86 pp., charts. (Publication No. 32.)

Estimates of national income (corresponding to "national income produced" in data published by U. S. Bureau of Foreign and Domestic Commerce); of aggregate income payments to individuals (corresponding to "national income paid out" in data of Bureau of Foreign and Domestic Commerce); and of income used for consumption and for capital formation. The principal estimates are given in current monetary values and in terms of 1929 prices. In the estimates of aggregate income payments to individuals, the payments are classified by main types of income. Wages and salaries are combined; and certain other items, such as withdrawals by entrepreneurs in service and miscellaneous industries, and payments by Government for direct relief as well as for work relief, are included with figures of employees' aggregate compensation.

Studies in income and wealth. By Conference on Research in National Income and Wealth. New York, National Bureau of Economic Research, Inc., 1937. xviii, 348 pp., diagrams. (Vol. 1.)

The volume is composed of papers and discussions dealing largely with terms used, methods employed, and problems encountered in the measurement of income and wealth. The portion dealing specifically with labor income is restricted to a chapter on "Some problems in measuring per capita labor income." The "Conference" was initiated by the National Bureau of Economic Research and was organized as a continuing body in January 1936.

Industrial Relations

Arbitration and the National Labor Relations Board. Compiled by Egbert Ray Nichols and James W. Logan. New York, H. W. Wilson Co., 1937. 345 pp. (The Reference Shelf, Vol. 11, No. 7.)

Affirmative and negative briefs, with source material and bibliographies, for debating the question: Resolved, that the Federal Labor Relations Board should be empowered to enforce arbitration of all industrial disputes.

- Collective bargaining in retailing.* By M. D. Mosessohn and A. Furman Greene. (In *Journal of Retailing*, New York University School of Retailing, New York City, February 1938, pp. 1-8.)
- Collective labor agreements in France.* By Pierre Pouillot. (In *International Labor Review*, Geneva, January 1938, pp. 1-24.)
- Conditions of work in French fishing industry: Analysis of recent collective agreements for deep-sea fishing.* (In *International Labor Review*, Geneva, January 1938, pp. 59-79.)
- Zehn jahre arbeitsgericht.* Berlin, Walter de Gruyter & Co., 1937. 107 pp.
A collection of articles by various authors dealing with the history and operation of labor courts in Germany over a 10-year period.
- New Zealand's labor experience.* By Edward J. Mehren. (In *Engineering News-Record*, New York, February 3, 1938, pp. 176-179.)
Report on the author's personal study of the manner in which labor-relations problems have worked out in New Zealand.
- Labor conditions in a rationalized shoe factory: The Bat'a Works at Borovo, Yugoslavia.* By Hugo von Haan. (In *International Labor Review*, Geneva, December 1937, pp. 780-811.)

Labor Organization

- Making history in hosiery: The story of the American Federation of Hosiery Workers.* By Lawrence Rogin. Philadelphia, American Federation of Hosiery Workers, Educational Department, 1938. 31 pp.
- The program of the C. I. O.: An account of major policies and decisions adopted at conference of Committee for Industrial Organization, Atlantic City, N. J., October 1937.* Washington, Committee for Industrial Organization, [1938?]. 60 pp.
- The legal status of trade-unions in Canada—a study of recent Canadian legislation.* By G. V. V. Nicholls. (In *Industrial Canada*, Toronto, March 1938, pp. 41-47.)
In this article a member of the legal department of the Canadian Manufacturers' Association discusses the provisions and effects of legislation pertaining to trade-unions in Canada and presents a tabular summary of existing legislation.
- A short history of the British working class movement, 1789-1937.* By G. D. H. Cole. London, George Allen & Unwin, Ltd., 1937. Various paging.
Third edition of a standard work first published in three volumes in the years 1925 to 1927.

Laundry and Dry-Cleaning Industries

- Survey of hours, wages, and other conditions of employment in laundry and dry cleansing industries in Rhode Island.* Providence, Department of Labor, Division of Women and Children, 1938. 36 pp., charts; mimeographed.

Leisure-Time Activities

- Organization of spare-time activities for native workers in certain South African towns.* By C. W. Ould. (In *International Labor Review*, Geneva, January 1938, pp. 25-43.)

Migratory Workers

- Die gross-städte im strome der binnenwanderung: Wirtschafts- und bevölkerungswissenschaftliche untersuchungen über wanderung und mobilität in deutschen Städten.* By Rudolf Heberle and Fritz Meyer. Leipzig, S. Hirzel, 1937. 206 pp., maps, charts.
Results of a study of the types and movements of migratory workers in Germany, in specified years and periods, some statistics going as far back as 1895 while some are as recent as 1935. The study is essentially a piece of research work based upon population, industrial, and occupational censuses; upon statistics of migrants in local populations, their occupations, and their employment, taken from provincial and city yearbooks; and upon registration cards of domicile, in police-office files.

Minimum Wage

Progress of State minimum-wage legislation, 1937. By Louise Stitt and Florence P. Smith. Washington, U. S. Bureau of Labor Statistics, 1938. 8 pp. (Serial No. R. 692, reprint from January 1938 Monthly Labor Review.)

Results of minimum-wage orders in jewelry-manufacturing industry in Rhode Island. Providence, Department of Labor, 1938. 13 pp., mimeographed.

A survey, to determine the extent of observance of the directory wage order setting 30 cents an hour as the minimum rate for women and minors in the jewelry-manufacturing industry in Rhode Island, showed that 348 workers employed by 45 firms were not receiving as much as the minimum rate. After the minimum rate became mandatory, a check-up showed that all but 0.2 percent of the employees subject to the law were receiving at least 30 cents an hour. Before the minimum-wage order was issued, 37.3 percent of the women and minors employed in the industry had received less than 30 cents an hour. Studies of 132 identical firms made before the directory order was issued and after the order was made mandatory showed that the proportion of women employed increased 4.9 percent.

Report of Laundry Minimum Wage Board to Industrial Commissioner, New York State, January 14, 1938. New York, Department of Labor, 80 Centre Street, 1938. 8 pp.; mimeographed.

Occupations

Alphabetical index of occupations, by industries and social-economic groups, 1937. Washington, U. S. Bureau of the Census, 1937. 542 pp.

The occupational designations reported on the schedules of the twelfth, thirteenth, and fourteenth censuses of the United States are the bases of this index, supplemented by designations from various other sources.

Careers in forestry. Prepared by U. S. Forest Service. Washington, U. S. Department of Agriculture, 1938. 15 pp. (Miscellaneous Publication No. 249.)

Professional occupations. Liverpool, England, Liverpool Education Committee, 1937. 131 pp.

The tenth publication in a series of pamphlets on "Merseyside employments for boys and girls," discussing careers and job possibilities in the Liverpool area. It outlines educational and personal qualifications desirable for entry into each of the professions discussed, lists the training facilities available, and estimates opportunities and probabilities of success. Occupations covered include those in medical, surgical, and allied professions, applied sciences, music, drama, art, law, journalism, accounting, social service, etc. Official journals of the various professions discussed are listed.

Old-Age Pensions

Characteristics of State plans for old-age assistance approved by Federal Social Security Board as of December 1, 1937. Washington, U. S. Social Security Board, Bureau of Public Assistance, 1938. 25 pp.; in tabular form. (Publication No. 16.)

Annual report of Railroad Retirement Board for fiscal year ended June 30, 1937, with supplementary data for period July 1, 1937, to November 30, 1937. Washington, 1938. 76 pp.

A total of 73,378 individuals were on the annuity and pension rolls of the Railroad Retirement Board as of November 30, 1937, and were receiving payments at the aggregate rate of \$4,472,588 a month. This number included 26,090 employees who were receiving annuities based on service and compensation, 286 recipients of survivor annuities, and 479 recipients of death-benefit annuities, under the Federal acts of 1935 and 1937; 46,523 persons were receiving pensions based primarily on the amounts of pensions or gratuities which had been previously granted to such individuals by their employers.

Personnel Management

Personnel policies in public health nursing—a report of current practice in a sample of official health agencies in the United States. By Marian G. Randall. New York, Macmillan Company, 1937. 170 pp.

Productivity and Labor Displacement

Technology and planning. Washington, U. S. National Resources Committee, 1937. 31 pp., illus.

Summary in simple terms of some of the major results of studies by the National Resources Committee, with a reference list of publications by the Committee.

Will the cotton-picking machine displace hand labor? By Roman L. Horne. (In Labor Information Bulletin, U. S. Bureau of Labor Statistics, Washington, February 1938, pp. 12, 13, illus.)

Profit Sharing

Profit sharing for wage earners. By C. Canby Balderston. New York, Industrial Relations Counselors, Inc., 1937. 156 pp., charts.

A study of experience with profit-sharing plans in the United States, Canada, and Great Britain. Some of the questions considered were the place, if any, which this form of extra compensation should have in a comprehensive personnel program; and the policy and technique to be followed in adopting such a plan.

Profit-sharing plans for executives. New York, National Industrial Conference Board, Inc., 1938. 15 pp. (Studies in Personnel Policy, No. 6.)

Some of the plans analyzed limit participation to top executives while others include all "who are responsible for the work of others."

Relief Measures and Statistics

Trends in relief expenditures, 1910-35. By Anne E. Geddes. Washington, U. S. Works Progress Administration, Division of Social Research, 1937. xvii, 117 pp., charts. (Research Monograph X.)

Sickness and Invalidity Insurance

Syketrygden, 1936. Oslo, Rikstrygdeverket, 1938. 90 pp.

Report on operation of public sickness-insurance system in Norway in 1936 and previous years.

Allmänna pensionsförsäkringen, år 1936. Stockholm, Pensionsstyrelsen, 1937. 21 pp.

Annual report on operation of invalidity-insurance system in Sweden. In Swedish, with table of contents and résumé in French.

Social Security

Characteristics of State plans for aid to dependent children approved by Federal Social Security Board as of December 1, 1937. Washington, U. S. Social Security Board, Bureau of Public Assistance, 1938. 19 pp.; in tabular form. (Publication No. 18.)

Characteristics of State plans for aid to the blind approved by Federal Social Security Board as of December 1, 1937. Washington, U. S. Social Security Board, Bureau of Public Assistance, 1938. 15 pp.; in tabular form. (Publication No. 17.)

What will social security mean to you? By Bion H. Francis and Donald G. Ferguson. Cambridge, Mass., American Institute for Economic Research, 1937. 72 pp., chart.

Analysis of Social Security Act from standpoint of its effect on employer, employee, and general public. The authors point out what they regard as serious defects which should be remedied if adverse effects are to be avoided.

Unemployment Insurance

Analysis of State unemployment compensation laws, December 1, 1937. Washington, U. S. Social Security Board, Bureau of Unemployment Compensation, 1938. 33 pp.: in tabular form.

Report of California Department of Employment, Unemployment Reserves Commission. [Sacramento?], 1937. 33 pp.; mimeographed.

Shows the financial situation of the unemployment fund; expenditures by the department of employment; number of employers registered under the unemployment reserves act; and number of persons assisted by State employment service, classified by occupation and age group.

Neunter bericht der Reichsanstalt für Arbeitsvermittlung und Arbeitslosenversicherung für die zeit vom 1. April 1936 bis zum 31. März 1937. Berlin, 1937. 68 pp.

Report on unemployment insurance and employment service in Germany from April 1936 to March 1937.

Zehn jahre Reichsanstalt für Arbeitsvermittlung und Arbeitslosenversicherung, 1927-37. Berlin, Hauptstelle der Reichsanstalt, [1937?]. 79 pp., charts.

Review of operations of the unemployment-insurance system and the State employment service in Germany during the 10 years 1927 to 1937, including information on government regulation of employment, growth of occupations, "productive" unemployment relief, and regulation of building trades.

Jaarverslag van den Rijksdienst der Werkloosheidsverzekering en Arbeidsbemiddeling over 1936. The Hague, 1937. 66 pp., charts. (Uitgaven No. 72.)

Report on unemployment insurance and employment service in the Netherlands during 1936.

Wages and Hours

Man-hour statistics for 59 selected industries. Washington, U. S. Bureau of the Census and U. S. Bureau of Labor Statistics, 1938. 87 pp.

Based on 1935 Census of Manufactures.

Union scales of wages and hours of motortruck drivers, May 15, 1937. Washington, U. S. Bureau of Labor Statistics, 1938. 33 pp. (Serial No. R. 686, reprint, with additions, from March 1938 Monthly Labor Review.)

Lönestatistik årsbok för Sverige, 1936. Stockholm, Socialstyrelsen, 1937. 98 pp., map, charts.

Annual general report on wages in Sweden, giving statistics for 1936 and earlier years. In Swedish, with table of contents and résumé in French.

Youth Problems

Report on National Youth Administration, June 26, 1935, to November 1, 1937. Washington, U. S. Works Progress Administration, 1938. (In Report on progress of Works Program, December 1937, pp. 63-68, chart, illus.; also reprinted.)

Deutsche jugend im beruf. By Arnold Rocholl. Hamburg, Hanseatische Verlagsanstalt, 1937. 206 pp.

Deals with employment of young workers in Germany and their training for industries and trades. Other subjects discussed are population statistics as related to youth and to the labor movement, causes of decrease in births, and the need of population increase and measures to promote it.

Youth in British industry: A survey of labor conditions today. By John Gollan. London, Victor Gollancz, Ltd., and Lawrence & Wishart, Ltd., 1937. 344 pp.

Part I of this survey analyzes employment and unemployment, job opportunities, apprenticeship, wages, hours, and working conditions of workers between the ages of 14 and 21 in Great Britain, by industry. Training and placement methods and various policies and programs with relation to juvenile employment are discussed in Part II. A bibliography is included.

General Reports

Annual report of Governor of Alaska, for fiscal year ended June 30, 1937. Washington, U. S. Department of the Interior, 1937. 48 pp.

Information is given on number and races of persons engaged in Alaskan fisheries, number engaged in mining, public health and welfare activities, the unemployment compensation commission, and the Matanuska Valley colonization project.

Statistical summary of changes in employment, pay rolls, man-hours, cost of living, and building construction [in Illinois] during 1937. Chicago, Illinois Department of Labor, Division of Statistics and Research, [1938]. Various paging; mimeographed.

Annual report of Governor of Virgin Islands, for fiscal year ended June 30, 1937. Washington, U. S. Department of the Interior, 1937. 18 pp.

One section of the report deals with relief-work projects and another with cooperatives.

Annuaire statistique du Royaume de Bulgarie. Sofia, Direction Générale de la Statistique, 1937. 693 pp. (In Bulgarian and French.)

Contains statistical information on political, economic, and social conditions in Bulgaria in 1936, including data on invalidity, old-age, accident, sickness, and unemployment insurance; cooperative associations; prices and cost of living; wages; industrial disputes; and industrial accidents.

Jahrbuch für sozialpolitik. Leipzig, Breitkopf & Härtel, 1937. 184 pp.

Deals with social problems in present-day Germany, with information on employment service, public works, labor legislation, the labor front, labor welfare, home workers and their protection, housing, social insurance, public-welfare work, and relief.

The central problem of Indian economy. By P. J. Thomas. Madras, G. S. Press, [1938?]. 36 pp.

Presidential address at Indian Economic Conference held at Hyderabad on December 28, 1937. There is some discussion of wages, standard of living, purchasing power, and the need for protective labor legislation.

Centraal verslag der arbeidsinspectie in het koninkrijk der Nederlanden over 1936.

The Hague, Departement van Sociale Zaken, 1937. 363 pp., illus.

Report on labor inspection in the Netherlands in 1936, with information on accidents to workers in manufacturing industries and in agriculture; safety measures; provisions and enforcement of labor legislation; complaints made by labor unions, employers, and individual workers; medical examinations of workers; employment permits; and status of foreign workers and employers. A summary in English accompanies the volume.

Jaarcijfers voor Nederland, 1936. The Hague, Centraal Bureau voor de Statistiek, 1937. 427 pp., map. (In Dutch and French.)

The statistics include data up to 1936 for wages, hours, unemployment, labor organizations, prices, cost of living, industrial disputes, cooperative associations, and invalidity, old-age, and unemployment insurance; up to 1935 for accident insurance; and up to 1934 for sickness insurance and for relief. The results of an industrial census of December 31, 1930, are also given.

Årsberetninger fra arbeidsrådet og fabrikktilsynet, 1936. Oslo, Chefinspektøren for Fabrikktilsynet, [1937?]. 70 pp., map, illus.

Annual report on factory inspection in Norway, containing data on industrial accidents and diseases, wages and hours of labor, and women and children in industry. There is a résumé in French and a French translation of the table of contents.

Beiträge zur wirtschaftsstatistik. Zürich, Statistisches Bureau des Kantons Zürich, 1937. 30 pp., charts. (Statistische Mitteilungen des Kantons Zürich, Nr. 191.)

Contains information on unemployment, self-help organizations of the middle-class unemployed, and retail trade in provisions, in Zürich canton, Switzerland.

Problems of the Pacific, 1936: Aims and results of social and economic policies in Pacific countries. Proceedings of sixth conference of Institute of Pacific Relations, Yosemite National Park, California, August 15-29, 1936. Chicago, University of Chicago Press, [1937?]. 470 pp.

The discussions at this conference covered various subjects of direct labor interest, among them being cooperative societies and land tenure in China; labor conditions, labor legislation, labor movement, mechanization, and standards of living in Japan; and labor output as a basis of income, Stakhanov movement, trade-unions, and liquidation of unemployment in the Union of Soviet Socialist Republics.

Labor problems, social problems—review of selected list of articles appearing in 1937 magazines. By Squire F. Browne. San Francisco State Department of Education, WPA Education Program, [1938?]. 15 pp., mimeographed.

The subjects of the articles listed include unemployment, unemployment insurance, health insurance, socialized medicine, labor and social legislation, labor organizations, strikes, the W. P. A., child labor, housing, and consumers' cooperatives.

The office library of an industrial relations executive. By Helen Baker. Princeton, N. J., Princeton University, Industrial Relations Section, 1938. 24 pp. (Rev. ed.)

The references are grouped under the following general heads: General works, company policies and programs, trade-unions, labor legislation, social insurance, and sources of information on industrial relations.

