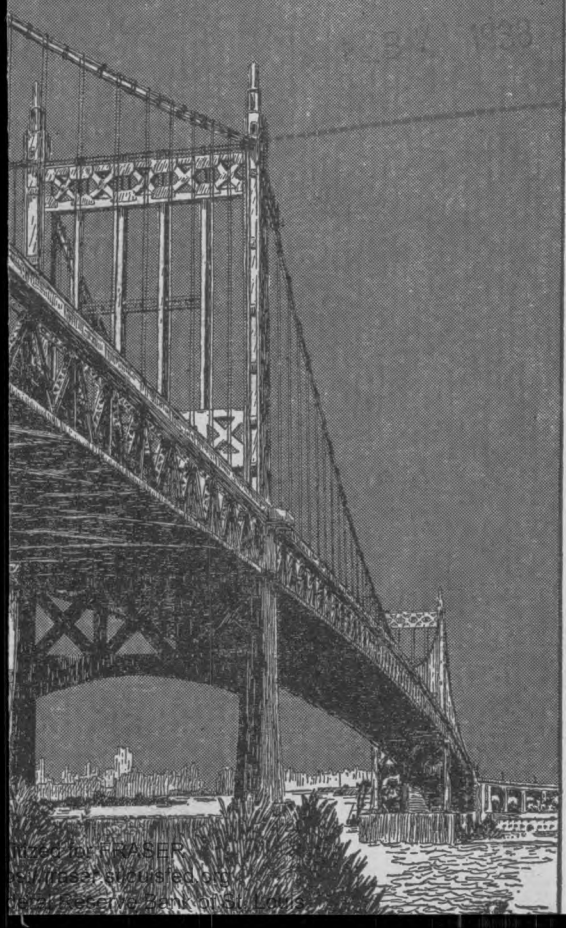


Monthly LABOR REVIEW

VOL. 46 NO. 1

JANUARY 1938

In This Issue

U. S. Department of Labor

BUREAU OF LABOR STATISTICS

UNITED STATES DEPARTMENT OF LABOR

Frances Perkins, Secretary

✦

BUREAU OF LABOR STATISTICS

Isador Lubin, Commissioner

Sidney W. Wilcox, Chief Statistician

A. F. Hinrichs, Chief Economist

Hugh S. Hanna, Chief, Editorial and Research

Henry J. Fitzgerald, Administrative Officer

CHIEFS OF DIVISIONS

Jacob Perlman, Wages, Hours, and Working Conditions

Lewis E. Talbert, Employment Statistics

J. M. Cutts, Wholesale Prices

Stella Stewart, Retail Prices

Faith M. Williams, Cost of Living

Herman B. Byer, Construction and Public Employment

Swen Kjaer, Accidents

Florence Peterson, Industrial Relations

Charles F. Sharkey, Labor Law Information

Boris Stern, Labor Information Bulletin

John J. Mahaney, Machine Tabulation

Published by the Bureau of Labor Statistics, under authority of Public Resolution No. 57, approved May 11, 1922 (42 Stat. 541), as amended by section 307, Public Act 212, 72d Congress, approved June 30, 1932. For sale by the Superintendent of Documents, Washington, D. C. Price 30 cents a copy. Subscription price per year in the United States, Canada, and Mexico $3.50; other countries, $4.75. This publication approved by the Director, Bureau of the Budget.

MONTHLY LABOR REVIEW

JANUARY 1938 VOL. 46, NO. 1

HUGH S. HANNA, *Editor*

CONTENTS

34189—38——1

This Issue in Brief

Problem of the Older Worker.

That the older worker is at a distinct disadvantage in obtaining employment is shown by the records of the United States Employment Service. An analysis of the sex, age, and other characteristics of the applicants, and the placements handled by that Service, indicate that men and women beyond the middle forties, who have fallen out of work, have regained a place in industry less easily than younger workers. This statement holds good for workers in all types of occupations, though the more highly trained are in a somewhat less unfavorable position than others. At the other extreme, young persons in their late teens and early twenties also seem to have considerable difficulty in entering regular employment if they do not obtain it soon after leaving school. Page 3.

Employment From P. W. A. Construction.

Public construction work during the first 4 years of operation of the P. W. A. resulted in 2,214,092,000 man-hours of employment at the site and in the fabrication of materials. This figure on the assumption that a man-year of employment is 2,000 hours of work, is equivalent to the full-time employment of approximately 1,107,000 men for 1 year, or of some 277,000 men for 4 years. Page 16.

Migration Into Oregon.

The migration to the Pacific coast following the drought and depression years of the early thirties extended into Oregon as well as into California and Washington. Approximately 48,000 persons are believed to have migrated to rural Oregon during the 7 years, 1930 to 1936. The areas of greatest concentration of migration have been in the smaller villages, in the open country of the Coast Range, and on new lands under irrigation in the eastern section of the State. It is believed that most employable members of households entering Oregon have been or soon will be able to make the necessary adjustments, but unless attempts are made to give direction to the processes of social and economic assimilation in the future, the results may be an accentuation in the unemployment and relief problem during the next few years. Page 27.

Regional Differences in Textile Wages.

During the 10 years from 1925 to 1934, the spread between cotton workers' earnings in the North and the South had been generally decreasing. This trend was reversed after 1935. By July 1937, northern cotton mills were reporting the payment of an average of 50.0 cents an hour, as compared with an average of 39.7 cents reported by southern mills. Such a regional difference, although smaller than in the decade prior to 1933, was definitely larger than any which had prevailed during the operation of the cotton-textile code under the National Recovery Administration. Page 36.

Safety Standards for Motion-Picture Operators.

Standards affecting the safety and health of motion-picture-machine operators are highest in the larger cities where regulations are established by State law rather than city ordinance.

Examination of the laws and regulations in effect in cities of 50,000 population or over shows that once standards are adopted little alteration is made in the legal requirements to meet changed operating conditions. The notable exception to this rule is found where regulation of theater standards is made a part of city building codes. Such codes have had greater flexibility than other city ordinances or State laws, changing, to some extent, with the technical developments in the construction industry. Page 115.

Union Wage Rates of Streetcar and Bus Operators.

The average union wage rate of streetcar conductors and motormen and bus operators was 72.8 cents per hour in May 1937, as compared with 69.6 cents in May 1936. The 8-hour day is provided in a great majority of union agreements, although the 8½-hour and 9-hour days are fairly common. The usual workweek is 6 days, although a number of agreements specify 5 days. Work beyond the "regular" run is usually done by substitutes or extras and not as overtime by the regular employees. These extras are subject to call at any time and are generally paid for a specified number of hours on duty, whether or not they are actually put to work. Page 205.

Electricity Cooperatives.

Loans made by the Rural Electrification Administration to cooperative associations during the period from May 1935 to June 30, 1937, were used for the construction of nearly 45,000 miles of line, to serve some 161,000 patrons in 28 States. Loans to finance the erection of plants for the generation of power were made to 11 projects in 8 States and for wiring purposes to 8 projects in 7 States. The rural electrification program has greatly speeded the development of cooperative associations in the electricity field. Most of the associations which have received loans were formed in the period 1935–37, but there are a number of cooperative organizations for the supply of electricity which date from as far back as 1914. Page 110.

Minimum Wage.

Great expansion in legislation setting standards of minimum wages and maximum hours for women and minors has taken place since the Supreme Court upheld the constitutionality of the Minimum Wage Act of Washington. Acts which had been in abeyance were revived and a number of new acts were passed. At the end of 1937, there were Minimum Wage Acts in 22 States, the District of Columbia, and Puerto Rico. Typical of the minimum-wage orders issued in 1937 was one fixing a minimum of $17 per week for women in the retail stores of the District of Columbia and a Massachusetts order fixing a minimum of $14.40 per week for women in the candy industry. Page 194.

MONTHLY LABOR REVIEW

FOR JANUARY 1938

YOUNG AND OLD AT THE EMPLOYMENT OFFICE [1]

IN A TIME of depression, the urgent problem of feeding and putting to work a large number of unemployed persons of all ages obscures the problems of particular groups of the unemployed. In times of fuller employment, however, it is possible and necessary to investigate the permanent maladjustments of certain groups of workers, which may be due not so much to individual shortcomings as to economic and social developments, such as the mechanization of industry and the break-down of apprentice systems. A study of the activities of the United States Employment Service from the point of view of the ages of registrants and of persons placed in jobs may be of value in this connection.

It is significant that if persons applying to the Service for work are compared with the whole working population as recorded in the census of 1930, the greatest amount of unemployment among men appears in the age groups 20–24 and 55–59 years, closely followed by that of 50–54, and among women at 20 and from 50–59 years. Total registrants in the active file of July 1937 numbered about 4,902,000—exactly 10.0 percent of the number of gainful workers recorded in the census. Registrants aged 20–24 and 55–59 years, however, represented over 11.7 percent of the gainful workers in these age groups.[2]

These are crucial years of transition, when workers are entering and leaving the labor market. High rates of unemployment in these age groups mean, on the one hand, that young men and girls are idle at a time when they should be acquiring training and the habit of regular work, and, on the other, that workers still in full mental and physical vigor are forced to retire prematurely from active participation in the economic life of the community.

Before delving farther into Employment Service statistics, a warning must be given against hasty conclusions. The fact that large numbers of the applicants for work belong to certain age groups does not in itself prove that workers of these ages are suffering more than the average from unemployment. Particular circumstances may

[1] This article was prepared in the Division of Standards and Research of the U. S. Employment Service.

[2] In using this comparison as a rough measure of unemployment it is assumed that the age distribution of the working population has remained constant between 1930 and 1937. Estimates of the rate of increase in the population of different ages indicate that although some changes have taken place, they are not large enough to invalidate the comparison made above.

encourage their registration, such as special services for veterans, relief clients, or juveniles; or they may belong in larger numbers than other age groups to casual industries in which employment is intermittent, so that they come in and out of the files more frequently than the average.

As far as the first factor is concerned, there is no doubt that the special Veteran Placement Service induced veterans to apply for jobs in larger numbers than other workers when the Service was first established. Since 1935, applications from nonveteran men aged 35–54 years (90 percent of veteran applicants fall within these ages) have increased relatively to those of veterans. But it appears that the latter continue to be somewhat overrepresented in the Employment Service files. Veterans are placed more frequently than nonveterans of the same ages in proportion to their numbers, but the difference is now considerably smaller than in former years. This overrepresentation of veterans would tend to raise the average age of male applicants, and, still more, of those placed. But since less than one-fifth of the applicants between 35 and 54 are veterans, the net effect is relatively small.

In 1935 all persons eligible for work relief were compelled to register for work with the Employment Service and all initial placements on projects were made through these offices. During 1935 and 1936 the Service was so fully occupied with this work that a disproportionate number of registrants were relief clients. With the reduction in works projects and in the number of persons certified as eligible for relief work, this position is altering; but certified applicants continue to form about half the whole active file. If unemployed workers on relief, therefore, are concentrated in particular age groups, the picture of unemployment presented by the active file would still be somewhat distorted.

What is the situation in this respect? In 1934 and 1935, when unemployment was much more severe than in 1937, employed persons on relief were apparently distributed through the entire range of age groups in much the same way as the employed and the nonrelief unemployed. Recent indications are that this situation has changed, and that workers certified as eligible for work on relief projects are now somewhat older on the average than noncertified workers. As unemployed workers on relief are more fully represented in the active file than those not on relief, this would bias the age distribution of applicants in the direction of the older age groups.

The special placement services for juniors mentioned above have had varied careers in different parts of the country. Until 1936 the preoccupation of the United States Employment Service with public and relief work placements, and the great difficulty of finding work for young people during the depression years, seriously impeded the

development of special services for juniors in most States. Since then, however, the National Youth Administration has done valuable work in assisting with the development of junior guidance and placement services in cooperation with the Employment Service in a number of States. But these facilities have not yet become well enough established radically to affect the proportions of youth registering with the Service. In this connection it is interesting to note that in a sample study made in Maryland [3] in 1936, of youths aged 16–24 years, it was found that only about half of the young girls and about three-fifths of the young men who had sought work during the week preceding their interview were registered at a public employment office. These proportions are almost certainly lower than the corresponding proportions at higher ages.

In conclusion, it is fair to assume that the Employment Service was at first used far more generally by unemployed workers over 40 than by younger job seekers. This situation has probably been gradually changing, but not very rapidly up to the summer of 1937, owing to continually increasing employment opportunities which lessened the incentive for workers in the prime of life to apply to employment offices for work. The proportion of new applications from workers between the ages of 25 and 40, as compared with those of older workers, was hardly any higher in the 12 months July 1936 to June 1937 than in previous years. An increase in unemployment, however, would probably extend the scope of the Service in this direction. It seems likely that comparative newcomers to the labor market, those under 25 and especially under 21, are considerably underrepresented in the active file at present, compared to their numbers in the unemployed population.

Ages of Workers in Active File

With the above qualifications in mind, certain facts stand out from the data furnished by the Employment Service offices. Table 1 gives the age distribution of workers registered in the active file of the United States Employment Service at different dates. On the whole, there was remarkably little change during the 18-month period from December 1935 through July 1937. The proportion of applicants over 50 years rose slightly, while registrations of those between 35 and 45 fell, as compared to those of workers of other ages. There was a decided increase in the proportion of female work seekers who were aged 20 to 24, but otherwise there was little change in the younger groups. If, as has been suggested above, the early overrepresentation of unemployed workers over 40 is gradually being corrected, the younger groups might be expected to show proportionate increases. The fact that this has not occurred suggests that

[3] American Youth Commission. Youth in Maryland. (Unpublished report.)

younger workers have been reemployed more rapidly and that the older job seekers remain unemployed for relatively long periods, or have to apply frequently to the Service for new jobs.

TABLE 1.—*Registrants in Active File of United States Employment Service at Specified Periods, by Age Groups*

Age group	Men				Women			
	December 1935	July 1936	April 1937	July 1937	December 1935	July 1936	April 1937	July 1937
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
19 years and under	6.6	6.2	4.3	6.4	14.7	14.5	10.7	14.8
20–24 years	16.0	15.9	15.7	15.9	18.6	20.0	22.2	21.3
25–29 years	13.2	13.1	13.6	13.0	12.3	11.8	12.2	11.6
30–34 years	10.9	10.9	11.3	10.9	10.5	10.2	10.2	9.8
35–39 years	11.0	10.5	10.6	10.3	11.5	10.9	10.9	10.4
40–44 years	10.5	10.5	10.3	10.0	9.7	9.9	10.0	9.5
45–49 years	9.6	9.5	9.8	9.5	8.2	7.9	8.3	8.0
50–54 years	8.2	8.6	8.8	8.7	6.3	6.3	6.6	6.3
55–59 years	6.1	6.5	7.0	6.9	4.0	4.2	4.5	4.3
60–64 years	4.3	4.6	4.9	4.9	2.5	2.6	2.8	2.6
65 years and over	3.6	3.7	3.7	3.5	1.7	1.7	1.6	1.4

Can the Employment Service Find Them Jobs?

The evidence shown in table 1 is very inconclusive as to the relative employability of workers of different ages. The crucial question is: What effect has age on the power of workers who are unemployed to gain or to regain a footing in industry? Data on the Employment Service's placement activities may shed some light on this matter.

In considering the age distribution of workers placed by the Service, it must be remembered that placements have been of three main types: Jobs filled in private industry, on public works' contracts, and on relief projects. The following table shows the changes in the relative importance of the three types of placements in 21 months beginning with January 1936. Two main developments stand out: (1) Relief placements fell off sharply in the second quarter of 1936 and have diminished continuously; and (2) private and public placements seem, since the beginning of 1937, to have reached a temporary equilibrium at the level of roughly 2 to 1.

TABLE 2.—*Different Types of Placements by the United States Employment Service, January 1936–September 1937*

Period	Total placements		Private placements (percent)	Public placements (percent)	Relief placements (percent)
	Number	Percent			
January–March 1936	1,352,372	100.0	16.4	23.2	60.4
April–June 1936	1,396,555	100.0	26.4	51.0	22.6
July–September 1936	1,308,839	100.0	31.8	55.8	12.4
October–December 1936	1,033,356	100.0	48.8	44.3	6.9
January–March 1937	786,685	100.0	63.0	32.8	4.2
April–June 1937	1,102,925	100.0	62.1	36.3	1.6
July–September 1937	1,045,143	100.0	64.6	34.5	.9

The factors which determine the age at which workers are most easily placed are not the same for the different types of jobs, although choice is limited in all cases by the availability of suitable workers of different ages. In private placements, an employer's preference for a worker of a particular age depends on the efficiency and suitability of workers of various ages in various kinds of work. The age of workers placed on relief or public works, on the other hand, may be affected by administrative policies based on quite different considerations. On relief work, preference was given wherever possible to heads of families, that is to say, in the main, to older workers; and on public works preference was given at first to veterans, who are practically all between the ages of 35 and 55. Moreover, public-works programs, which consist almost exclusively of construction work, might have tended to absorb older workers, because members of the building trades are somewhat older than the average of working men.[4] It seems, therefore, that the decline since the beginning of 1936 in the proportion of workers placed in public employment should have lessened a certain earlier bias in favor of older workers.

In spite of the great extension of work under Government direction or sponsorship since the beginning of the depression, the large majority of workers in the country are still employed in private enterprise. In attempting to estimate the relative employability of workers of different ages, therefore, the most important factor to be considered is the preference of private employers in this matter. Private and nonprivate placements by the Service have only been analyzed separately by age since April 1937. In order to obtain a longer perspective, total placements will be considered in the remainder of this article, and the reader must bear in mind the varying importance of different types of placement at different times.

It may be noted that since relief placements have become negligible. the bias in favor of older workers for nonprivate jobs has not been so pronounced as might be expected. Figures for the three months, April to June 1937, show that the proportions of men under 35 years of age placed in private and public employment were almost identical (57.5 and 55.7 percent, respectively). The only substantial difference was in the group under 21 years, where the proportions were 14.6 iand 7.6 percent, respectively, owing to the very small numbers of buildcng-trades workers in this age group. Women are practically unaffeeted by public placements, so that since the winter of 1936–37 when relief placements through the Employment Service had practically cased changes in the placement of women of different ages have been due to their relative success in obtaining work in private employment.

[4] See Survey of Employment Service Information, 1937, p. 67.

Ages of Workers Placed in Jobs

Table 3 indicates that during the 18-month period there was a very marked change in the distribution of men and women between the first and second quarters of 1936. The proportion of men placed who were under 30 years rose from 32 to 39 percent; the proportion between 30 and 50 years fell from 47 to 45 percent; and those over 50 years fell from 21 to 16 percent. Female placements under 30 years rose from 44 to 51 percent of the total, while those of 30–49 years fell from 42 to 39.5 percent, and those of 50 years and over from 14 to 10 percent.

This change was undoubtedly due in the main to the very rapid falling off in placements on relief projects at that time and does not indicate that industry suddenly became capable of absorbing a relatively larger proportion of younger workers. Some seasonal influence also may have been at work, as a similar, though smaller, rise in the proportion of placements of younger workers and a drop in the proportion of those of middle ages took place between the first and second quarters of 1937. In addition, the change occurring between the first and second quarters of 1936 foreshadowed a very clear trend during the 18 months, which cannot be entirely accounted for by changes in the type of placements made.

TABLE 3.—*Age Distribution of Persons Placed by United States Employment Service, in 3-Month Periods From January 1936 to June 1937*

Age group	Percent placed											
	Men						Women					
	Jan.–Mar. 1936	Apr.–June 1936	July–Sept. 1936	Oct.–Dec. 1936	Jan.–Mar. 1937	Apr.–June 1937	Jan.–Mar. 1936	Apr.–June 1936	July–Sept. 1936	Oct.–Dec. 1936	Jan.–Mar. 1937	Apr.–June 1937
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
19 years and under [1]	3.9	5.4	6.3	6.6	5.0	7.5	11.0	15.5	17.5	17.1	13.2	16.0
20–24 years	13.7	17.6	19.0	18.7	18.0	20.0	20.0	22.2	21.6	22.1	24.5	21.9
25–29 years	14.5	16.1	16.4	16.1	16.6	16.3	13.0	13.2	13.2	13.9	14.6	13.3
30–34 years	12.8	13.2	13.2	13.0	13.7	12.8	11.1	10.5	10.3	10.6	11.2	10.9
35–39 years	12.4	11.8	11.8	12.1	12.4	11.5	12.1	11.4	11.2	11.3	11.5	11.8
40–44 years	12.0	10.8	10.3	10.7	11.3	10.2	10.7	10.1	9.8	9.4	9.6	10.1
45–49 years	10.1	9.0	8.5	8.7	9.1	8.5	8.4	7.5	7.2	7.1	7.0	7.4
50–54 years	8.5	7.2	6.8	6.7	6.6	6.2	6.1	4.9	4.8	4.6	4.4	4.7
55–59 years	5.7	4.6	4.1	4.0	4.0	3.8	3.9	2.7	2.6	2.4	2.5	2.4
60–64 years	3.8	2.7	2.3	2.2	2.1	2.0	2.4	1.4	1.3	1.1	1.1	1.1
65 years and over	2.6	1.6	1.3	1.2	1.2	1.2	1.3	.6	.5	.4	.4	.4

[1] Note that age of applicants and workers placed is calculated in whole years from year of birth. For example, all persons born in 1917 were recorded as aged 19 all through 1936 and as aged 20 all through 1937, regardless of date. The error thus introduced is negligible in the case of the 5-year groups beginning at 20; but it causes sizable variations in those of 19 and under. During the last half of each year, the 19-year-olds outnumber all others in this group, and when, after January 1, they are recorded as 20, it reduces the size of the under-20 group. This accounts for the sharp drop in this group between the last quarter of 1936 and the first quarter of 1937, and for part of the gradual rise through the year.

In the period as a whole, placements of workers under 25 rose steadily, those between 25 and 50 remained fairly stable, while those over 50

fell continuously compared to those of other ages. Perhaps the most surprising feature of this record of placements is that the relative position of men in the middle years of life—30 to 50 years—did not improve noticeably. Among both men and women it seems to have become increasingly easy to place young workers in jobs.

These figures of placements, however, do not give a true picture of the situation, as the choice of a suitable worker for a job must depend, to some extent, as already suggested, on the workers who are available for work. As the more eligible are drawn back into industry, placements may increase considerably among those who had previously found it hardest to find employment. Placements must therefore be related to the registrants in the active file.

In each age group, the numbers of placements made during different 3-month periods have been expressed as a proportion of the average of the numbers of registrants at the beginning and end of each period. These placement ratios represent the number of placements that were made for every 100 applicants of a certain age actively registered on an average during the 3 months. For example, approximately 31,000 placements of young men of 20 were made in the months April, May, and June 1937. About 126,000 men of this age were actively registered with the Service at the beginning of April and about 118,000 in July, making an average for the 3-month period of 122,000. The placement ratio was therefore about 25 percent. As the exact numbers of registrants of different ages are recorded only periodically, these figures should be used with caution; but they may be taken as rough measures of comparison between different age groups.

The significance of these ratios may best be appreciated when the ratio for each age group is compared with the ratio for all ages combined in any period. Thus, if the average for all ages is expressed as 100, ratios below that figure indicate fewer-than-average placements per hundred applicants, while ratios above indicate more than average (table 4). When placement rates for all ages are expressed in this way, the trend toward younger placements becomes even more apparent than in the figures of placements alone. In every 5-year group over 45 the ratios have fallen steadily through the 18 months, which suggests that an increasing number of these older workers are remaining unemployed. Moreover, in each period the placement ratios were successively lower in each age group over 40.

Quite as significant as the general tendency in favor of the placement of young workers are the exceptions to this tendency. The 20–24-year age group, especially among women, had during several quarters a noticeably lower placement ratio than the 5-year groups above and below it. Many of the youths now aged 20–24 years entered the industrial field during the depression and have therefore

not yet had the amount of employment experience which would be normal for that age. This factor of lack of experience is perhaps obscured in the case of those under 20 by a large number of temporary placements of 15- and 16-year-olds and possibly also by their slowness in registering with the Service. It is significant that almost continuously since 1934 (except immediately after the end of the school year, when many 17- and 18-year-olds register for the first time) the largest number of new applicants of any one age have been 19 years old. The next largest groups are, for men, the early twenties, rising to a maximum at 21 or 22 years; and, for women, ages 18 and 20.

The supposition that this reflects a late introduction to the Service rather than fresh unemployment is based on the findings of other studies. In Maryland, for example,[5] unemployment among young persons seeking work ranged from 56 percent at 16 years to 20 percent at age 24. Similarly, in sample studies by the United States Office of Education in 1935,[6] mostly in urban areas, it appeared that the rate of unemployment among young people who had left school was highest for those of 18 years and under. How far this situation has been changed by the increased demand for juvenile workers during the past 2 years, it is difficult to estimate. That youngsters have been finding it easier to get jobs on leaving school is certain, but that their position has improved relatively to that of workers in their twenties and thirties is not clear.

TABLE 4.—*Quarterly Placement Rates for Different Age Groups, January 1936–June 1937*

[Based on averages of registrants in the active file at the beginning and end of the periods]

Age group	Men						Women					
	Jan.–Mar. 1936 [1]	Apr.–June 1936 [1]	July–Sept. 1936 [2]	Oct.–Dec. 1936 [3]	Jan.–Mar. 1937 [3]	Apr.–June 1937 [4]	Jan.–Mar. 1936 [1]	Apr.–June 1936 [1]	July–Sept. 1936 [2]	Oct.–Dec. 1936 [3]	Jan.–Mar. 1937 [3]	Apr.–June 1937 [4]
All ages	100	100	100	100	100	100	100	100	100	100	100	100
19 years and under [5]	61	84	102	124	94	143	75	106	121	135	103	126
20–24 years	86	111	119	118	114	127	104	115	108	105	116	100
25–29 years	110	122	125	121	125	122	107	109	111	116	122	112
30–34 years	118	121	121	117	123	115	107	101	101	104	110	109
35–39 years	115	110	112	115	118	110	107	101	103	104	106	110
40–44 years	115	103	98	103	109	100	110	103	97	95	97	103
45–49 years	105	94	90	91	94	88	104	93	89	87	86	91
50–54 years	102	87	79	77	76	71	97	78	76	71	69	73
55–59 years	91	73	64	60	60	56	94	67	62	54	57	54
60–64 years	85	60	51	48	44	42	93	57	49	43	42	41
65 years and over	71	44	35	31	33	32	78	37	30	26	26	27

[1] Based on average of December 1935 and July 1936 inventories.
[2] Based on July 1936 inventory.
[3] Based on average of July 1936 and April 1937 inventories.
[4] Based on average of April and July 1937 inventories.
[5] See note 1, table 3.

[5] American Youth Commission. Youth in Maryland. (Unpublished report.)
[6] U. S. Office of Education Bulletin 1936, No. 18–VI, pp. 31 ff.

Age in Relation to Occupation

In studying placement ratios, little account has as yet been taken of a vital factor—the occupations most commonly pursued by workers of different ages. It has already been suggested that unemployed persons of different ages may be overrepresented in the active file or may be more frequently placed than others because they belong to groups (veterans or relief clients) for which the Service has made special provision. The same is true of different occupational groups. The early preoccupation of the Service with the placement of relief workers, a large majority of whom came from the less skilled manual or personal-service occupations, led employers to have recourse to the Service mainly for workers in this type of occupation. Placements of all kinds, therefore, even in private industry, tend to be biased in favor of such workers, even though employment opportunities for them in industry as a whole may be no better than for others.

The number of placements recorded during a month or quarter represents not the number of individual workers placed during that period but the number of jobs filled. If jobs of a particular type usually last only a short time—for example, day work for domestic servants, cleaners, or longshoremen—a large number of such placements will not necessarily indicate that the total volume of new employment in such work is any larger than in occupations with fewer placements, where jobs last longer. A very considerable proportion of service and sales positions and a majority of unskilled jobs filled by women through the Service are expected to last less than a month, whereas comparatively few professional, technical, and administrative positions are temporary. Thus, placements of 15- and 16-year-olds are almost exclusively temporary, as they usually fill unskilled and service jobs. These children are therefore placed very frequently in new jobs. But the resulting rate of placement could not usefully be compared with that of young clerical workers in the early twenties, for example, for the two groups are separated by something other than age.

An analysis of the gainful workers recorded in the 1930 census shows that different types of workers are concentrated in different age groups. Between 20 and 30 percent of all men in sales, clerical, production, and physical-labor occupations in 1930 were under 25 years of age, whereas less than 15 percent of the craftsmen and professional workers were as young as this. Among women the differences are even greater. Whereas only about one-fifth of the clerical workers and a little over one-third of salespersons were over 35, almost half the service workers belonged in these older ages. In order to isolate the age factor in employability, it is therefore necessary

to analyze the position of different age groups within particular occupational groups.

Placement ratios similar to those described above have therefore been calculated for different ages in seven broad occupational groups. Data from seven States whose combined active file was most nearly representative of that of the whole country was used for a sample.[7] Placements covered the 3-month period, April–June 1937, and numbered about 78,000 or 7 percent of the total for the Nation. The average of the April and July inventories, which in the sample States amounted to 303,600 (6 percent of the United States active file), was taken as the number of applicants for work (tables 5 and 6).

Three main points stand out: (1) Divergences between the placement ratios in different occupational groups were more marked than divergences between age groups within any occupation. Placements of men in service jobs were more than four times and in unskilled jobs more than five times as numerous as placements in professional and similar positions. This may be accounted for by the factors mentioned above—early concentration of the Service on relief placements and variations in the proportions of temporary jobs in different occupational groups.

(2) There was a very high rate of placement of both boys and girls under 20 in certain important occupational groups. Among boys this is fully accounted for by the numerous temporary placements of applicants under 18 years old. Among women, placements in this age group are very much overweighted by the employment of large numbers of young girls in agriculture in Alabama, and to a lesser extent Utah, in the season covered in the study.

(3) There was a very marked falling off in rates of placement in the older age groups. Among men this decline started in the forties, among women in the fifties for service workers and in the thirties for white-collar workers. But again, in spite of the generally favorable position of younger applicants for work, women aged 20 to 24 are in many instances less easily placed than those either older or younger.

AGES OF MEN PLACED IN DIFFERENT OCCUPATIONS

Apart from these common characteristics, each occupational group has its own age pattern, which is in most cases different for men and women. Among men, one of the most interesting facts revealed by table 5 was the maintenance of a high rate of placements in skilled jobs until the age of 60. And this was not due to any decrease in the numbers of older craftsmen seeking work, for 28 percent of all skilled workers registered with the Service in the seven sample States were over 50, compared with only 18 percent of all production workers and 24 percent of physical laborers. Up to the age of 50, only service workers and physical laborers had a rate of placement higher than

[7] Rhode Island, Connecticut, Nebraska, Maryland, Alabama, Utah, Oregon.

the average for each age group, but after that age, they were joined by craftsmen. Moreover, the maximum placement rate for skilled workers was between the ages of 30 and 45, whereas for all other occupational groups it was under 30.

The position of these skilled men contrasts vividly with that of physical laborers, who have a very high rate of placement between the ages of 25 and 34, but find it increasingly difficult to obtain work after the age of 45. Production workers take an intermediate position between these two groups of workers. Their ages of maximum employability, particularly in machine jobs, appear to be from 20 to 34, as among physical laborers, and 45 seems to be a turning point; but the decline in placements after this point is not nearly so marked as for the less skilled workers.

TABLE 5.—*Number of Men Placed, April–June 1937, in 7 States, per 100 Registrants in Active File, by Age and Occupation* [1]

Age	Number placed, per 100 registrants							
	All occupations	Professional and kindred workers	Salespersons	Clerical workers	Service workers	Craftsmen	Production workers	Physical laborers
All ages	26.2	6.9	11.2	9.2	30.8	18.8	21.6	39.5
19 years and under	38.5	9.5	15.5	21.7	53.8	17.2	20.0	59.0
20–24 years	33.0	9.7	18.7	12.7	46.5	20.2	27.0	45.0
25–29 years	32.9	7.0	18.4	7.8	38.0	19.2	29.3	50.0
30–34 years	30.6	8.0	9.3	7.2	35.4	22.2	25.5	49.4
35–39 years	27.6	8.0	8.7	3.8	41.5	21.0	21.7	45.2
40–44 years	25.7	6.5	6.4	4.3	29.2	20.9	20.0	42.3
45–49 years	21.8	6.9	5.4	3.8	31.0	19.0	16.4	33.5
50–54 years	18.9	5.3	4.2	2.8	23.2	18.8	14.6	25.2
55–59 years	13.4	4.7	3.9	3.7	12.8	14.8	10.1	17.0
60–64 years	10.1	3.3	2.6	5.2	11.2	11.1	8.3	11.7
65 years and over	8.0	4.0	2.8	2.2	6.0	9.9	9.7	8.1

[1] The sample States were Alabama, Connecticut, Maryland, Nebraska, Oregon, Rhode Island, Utah. The number of male registrants in these States on which the table is based (average of April and July inventories) was about 239,400, and the number of placements made in the 3 months was 62,715.

The rather erratic variations between different ages in the remaining occupational groups are due partly to the comparatively small numbers involved, and partly to divergent tendencies within the groups. Of the 228,000 male applicants registered in the 7 States in July 1937, only 28,000 (12.3 percent) were classified in the three white-collar occupational groups and 16,000 (6.9 percent) in personal-service occupations. Of these service workers, almost half had been engaged in maintenance work (janitors, watchmen, elevator operators). These men, like physical laborers, found work very much more easily up to the age of 34 than thereafter. This is probably due in part to the temporary nature of many positions of this type filled by men under 25. But it is significant that this is the only class of worker in which the number of unemployed registered with the Service was

progressively higher in each 5-year age group over 35. Service workers in institutions and outside work are apparently equally easy to place whatever their age, until they reach 50. Among salespersons, the very marked fall in the placement rate after the age of 30 applies in particular to outside salespersons (canvassers).

AGES OF WOMEN PLACED IN DIFFERENT OCCUPATIONS

A very large proportion of women of all ages who seek work through the Service are classified as service workers. In the July inventory of the sample States the proportion varied from 30 percent of those under 20 years to 70 percent of those over 55. These workers are probably most easily placed in jobs at 18 and 19 and through the twenties. The continued high rates in later years are probably due mainly to the large numbers of day workers aged 35 and over (table 6).

Up to the age of 25, woman applicants for clerical work are almost as numerous as service workers, but are not so easily placed. The next 5 years, however, are somewhat more propitious for such workers, owing to their increased experience and training and to reduced competition. In July there were 66 percent fewer clerical workers aged 25 to 29 registered in the sample States than of clerical workers aged 20 to 24. Moreover, according to the census figures, very few women appear to remain in the labor field as clerical workers after the age of 35.

Salesgirls, on the other hand, who constituted 7 percent of the female applicants under 20 years and 8 percent of those aged 20–24, seemed to find jobs somewhat more easily before they were 25 than after, in spite of the large numbers applying for such work. Like most other women, except those in domestic service and those with special professional or industrial skills, many of them leave the labor market before they are 35. Those who remain are fairly frequently placed in jobs, though these are probably often of a temporary nature.

Women who were classed as production workers, and who came mostly from textile and clothing manufacturing, formed 10 percent of the sample active file. Like male production workers, they found jobs most easily up to the age of 34, but lost the power to reenter industry about 5 years earlier than the men.

The very erratic changes between different ages in the professional and skilled groups are due to the small numbers involved in the sample and are therefore not of significance. The unskilled group also becomes of comparative insignificance after the age of 25. In the two youngest 5-year groups, however, such placements represent 30 percent and 12 percent of the total respectively, though applicants formed only 5 and 3 percent.

The industrial, occupational, racial, and age distributions of the whole population of the sample States as well as of their unemployed workers are representative of the country as a whole. The figures

shown in tables 5 and 6 therefore reflect trends which are fairly typical of the unemployment situation in the United States as reflected in the record of the public employment offices. Both applications and placements, however, were overweighted by young people under 25. In particular, the very high rate of placement of young girls in unskilled work was not quite typical. The placement rate of older women, most of whom are eligible only for service work, declined more noticeably in the sample States than in the whole country. The selected States had a considerably higher than average rate of placement for both men and women in manual occupations, especially for craftsmen and production workers. Indeed, in July 1937, craftsmen were less adequately represented in their file compared with that of the Nation as a whole than any other occupational group.

TABLE 6.—*Number of Women Placed, April–June 1937, in 7 States, per 100 Registrants in Active File, by Age and Occupation* [1]

Age	All occupations	Professional and kindred workers	Salespersons	Clerical workers	Service workers	Craftsmen	Production workers	Physical laborers
All ages	23.5	2.4	22.2	9.4	27.2	16.2	22.6	94.2
19 years and under	33.8	5.3	24.5	9.0	36.7	37.7	29.7	165.2
20–24 years	23.5	4.0	28.3	10.9	28.1	25.3	28.0	75.5
25–29 years	25.6	2.3	27.0	13.7	31.9	13.7	28.6	77.0
30–34 years	23.3	3.0	26.3	10.0	27.2	14.2	25.1	86.2
35–39 years	24.8	2.1	20.7	6.2	33.1	9.6	21.8	71.3
40–44 years	23.6	1.5	12.0	5.1	32.4	6.5	15.6	67.0
45–49 years	20.2	2.2	8.0	2.0	25.5	10.1	16.4	63.1
50–54 years	15.4	2.8	5.8	2.5	18.9	(2)	10.2	40.6
55–59 years	9.3	(2)	5.6	2.5	10.0	(2)	7.3	43.5
60–64 years	8.5	(2)	5.5	(2)	9.7	(2)	4.8	26.8
65 years and over	9.2	(2)	(2)	(2)	10.6	(2)	(2)	57.9

[1] The sample States were Alabama, Connecticut, Maryland, Nebraska, Oregon, Rhode Island, Utah. The number of female applicants on which this table is based (average of April and July inventories) was about 64,250, and the number of placements made in the 3 months was 15,100.

[2] Numbers too small to compute.

Conclusion

In spite of these qualifications, the principal differences in employability at different ages revealed in the figures for the seven sample States may be taken as typical, and indeed bear out the story told by the national placement ratios for age groups. Although there have been relatively small changes in the age distribution of the unemployed recorded by the United States Employment Service at various dates during the past 18 months, men and women beyond the middle forties, who have fallen out of work, have on the whole regained a place in industry less easily than younger workers. This statement holds good for workers in all types of occupation, though the more highly trained are probably in a somewhat less unfavorable position than others. Young people in their late teens and early twenties also seem to have difficulty in entering regular employment, if they do not obtain it soon after leaving school.

34189—38——2

EMPLOYMENT RESULTING FROM P. W. A. CONSTRUCTION, 1933 TO 1937 [a]

DURING 4 years of P. W. A.,[1] from July 1933 to June 1937, the value of contracts awarded and force-account work started totaled $3,674,244,000. The value of contracts awarded covers labor, material, and other expenses, such as equipment, surety bonds, engineering, insurance, workmen's compensation, office work at the site, etc. Part of this total was not actually expended by June 1937. Pay-roll disbursements amounted to $959,898,000 and the value of orders placed for materials exceeded $1,708,685,000, totaling $2,668,583,000 for the two expenditures. Approximately 1,423,183,000 man-hours of direct labor were worked at the site and 790,909,000 man-hours of labor were created in the final fabrication of the materials used.[2] Assuming that a man-year of employment is 2,000 hours of work, these direct and indirect man-hours are equivalent to furnishing 1,107,000 men full-time employment for 1 year. For every hour of direct labor on non-Federal P. W. A. projects, it is estimated that 2.5 man-hours of work were provided away from the site of construction in the production of raw materials, fabrication, and distribution of construction materials and in administration.

This ratio varies with the type of project. On water projects, for example, it was found that for every hour of labor at the site, 2.3 hours of off-site labor were required. An analysis of six completed power and light plants constructed from funds provided by the Public Works Administration showed that for every man-hour worked at the site, 4.4 man-hours' employment was required away from the site.[3]

---

[a] Prepared in the Bureau's Division of Construction and Public Employment, Herman B. Byer, Chief.

[1] A test of the theory of the cumulative effects of expenditures for public works was set in motion by an act of the Congress creating the Public Works Administration. Construction projects financed by the Public Works Administration are those projects authorized by title II of the National Industrial Recovery Act of June 16, 1933. This program of public works was extended to June 30, 1937, by the Emergency Relief Appropriation Act of 1935 and title II of the First Deficiency Appropriation Act of 1936. The First Deficiency Appropriation Act of 1936, cited as the Emergency Relief Appropriation Act of 1936, reappropriated unobligated funds originally made available under the Emergency Relief Appropriation Act of 1935 and authorized the use of $300,000,000 from funds on hand or received from the sale of securities.

[2] The estimate of the labor involved in final fabrication is based upon the findings of the Census of Manufactures for 1935. This cannot be compared with a previous estimate based on the 1933 census figures, which was prepared for an article summarizing Employment Created by P. W. A. Construction, published in the October 1936 issue of the Monthly Labor Review.

[3] See Monthly Labor Review, November 1936 (p. 1150).

Contract and Force-Account Work [4]

Federal-construction projects, which have accounted for 46.4 percent of the total value of contracts awarded and force-account work started since July 1933, are financed by allotments made by the Public Works Administration to the various agencies and departments of the Federal Government engaged in construction from funds provided primarily under the National Industrial Recovery Act. The work on Federal projects is performed either by commercial firms, which have been awarded contracts, or by day labor hired directly by the Federal agencies for construction work.

Non-Federal projects are financed by allotments made by the Public Works Administration from funds available under the National Industrial Recovery Act, the Emergency Relief Appropriation Act of 1935, or the First Deficiency Appropriation Act of 1936. Most of the allotments have been made to the States and their political subdivisions. In financing projects for the States or their political subdivisions from funds appropriated under the National Industrial Recovery Act, the Public Works Administration makes a direct grant of not more than 30 percent of the total labor and material cost. When funds provided under the Emergency Relief Appropriation Act of 1935 or the First Deficiency Appropriation Act of 1936 are used to finance a non-Federal project, as much as 45 percent of the total estimated cost may be furnished in the form of a grant. The remaining 55 percent or more of the cost is financed by the recipient. When circumstances justify such action, the Public Works Administration may provide the grantee with the additional funds by means of a loan. Allotments to commercial enterprises, principally railroads, are made only as loans. All loans made by the Public Works Administration carry interest charges and have a definite date of maturity. The bonds evidencing such loans may be offered for sale to the public. In this way a revolving fund is provided which enlarges the scope of the activities of the Public Works Administration.

Railroad work financed by loans made by the Public Works Administration falls under three headings: (1) Construction work in the form of electrification, the laying of rails and ties, repairs to buildings, bridges, etc.; (2) the building and repairing of locomotives and passenger and freight cars in shops operated by the railroads; and (3) locomotive and passenger- and freight-car building in commercial shops.

The building-construction projects during the period June 1933–June 1937 accounted for 32.6 percent of the total value of contracts awarded and force-account work started on all types of Federal and non-Federal Public Works Administration construction projects;

[4] "Force-account work" is day labor hired directly by Government departments for construction work.

public roads under the jurisdiction of the Bureau of Public Roads, for 19.0 percent; river, harbor, and flood control, for 9.9 percent; and water and sewerage systems, for 12.5 percent. All other types of projects including streets and roads, naval vessels, reclamation, forestry, railroad construction and repair, and various miscellaneous projects constituted 26.0 percent of the total value of all contracts awarded and force-account work started on P. W. A. construction projects to June 1937.

Table 1 shows the value of contracts awarded and force-account work started on Federal and non-Federal construction projects financed from Public Works Administration funds from July 1933 to June 1937, inclusive, by type of project.

TABLE 1.—*Value of Contracts Awarded and Force-Account Work Started on P. W. A. Construction Projects, July 1933 to June 1937*

[Subject to revision]

Type of project	Total	Federal	Non-Federal
All types	[1] $3,674,243,875	$1,705,796,600	[1] $1,968,447,275
Building construction	[1] 1,197,183,257	186,273,197	[1] 1,010,910,060
Forestry	16,083,745	16,083,745	
Naval vessels	247,053,184	247,053,184	
Public roads [2]	699,232,574	600,313,217	98,919,357
Railroad construction and repair	209,972,738		209,972,738
Reclamation	222,112,579	201,378,782	20,733,797
River, harbor, and flood control	362,345,299	355,817,456	6,527,843
Streets and roads [3]	146,175,370	41,324,684	104,850,686
Water and sewerage systems	460,040,458	6,595,360	453,445,098
Miscellaneous	114,044,671	50,956,975	63,087,696

[1] Includes $88,602,456 low-cost housing projects (Housing Division, P. W. A.).
[2] Includes data for which contracts are awarded by the Bureau of Public Roads.
[3] Includes data other than those for which contracts are awarded by the Bureau of Public Roads.

Direct Employment

The success of any program purporting to create employment is difficult to measure. One of the easier criteria is the volume of direct employment and pay-roll disbursements. In order that the number of man-hours of direct labor at the construction site on Federal P. W. A. projects may be obtained, the Bureau of Labor Statistics receives notification of primary contractors from the various Federal agencies. The names of the subcontractors are obtained from the primary contractors. Schedules requesting employment, pay rolls, man-hours worked, and the value of material orders placed from the beginning of the project to the 15th of the current month are sent, and for each subsequent month until the project is completed. On non-Federal P. W. A. contracts, notification and the names and addresses of primary contractors and subcontractors are received from State P. W. A. directors. The names of subcontractors are also received from the primary contractors.

Pay-roll disbursements on construction projects financed by the Public Works Administration from July 1933 to June 1937 amounted to $959,898,000. Of this total, pay rolls on Federal projects accounted for $551,978,000 and on non-Federal projects for $407,920,000.

The man-hours worked at the site on Federal projects numbered 888,240,000 and 534,943,000 on non-Federal projects, totaling 1,423,183,000 man-hours at the site on all types of projects financed from P. W. A. funds from July 1933 to June 1937. The greatest number of man-hours (379,806,000) were worked on public roads under the jurisdiction of the Bureau of Public Roads. Man-hours worked on building construction projects totaled in excess of 332,759,000. Water and sewerage projects, river, harbor, and flood-control projects, and naval vessels accounted for more than 100,000,000 man-hours each.

Pay-roll disbursements and number of man-hours worked at the site on projects financed from P. W. A. funds from July 1933 to June 1937 are shown in table 2, by type of project.

TABLE 2.—*Pay-Roll Disbursements and Man-Hours Worked at Site, on P. W. A. Projects, by Type of Project, July 1933 to June 1937*

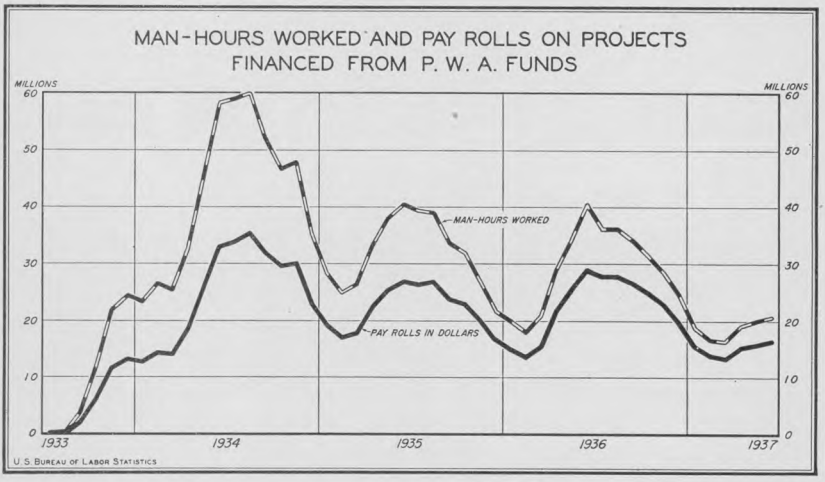
[Subject to revision]

Type of project	Pay-roll disbursements			Number of man-hours worked		
	Total	Federal	Non-Federal	Total	Federal	Non-Federal
All types	$959,897,748	$551,977,506	$407,920,242	1,423,183,090	888,240,420	534,942,670
Building construction	280,070,877	70,606,957	209,463,920	332,759,215	90,651,601	242,107,614
Forestry	10,322,965	10,322,965	----------	16,920,816	16,920,816	----------
Naval vessels	97,175,330	97,175,330	----------	118,734,157	118,734,157	----------
Public roads [1]	189,738,304	189,738,304	----------	379,805,751	379,805,751	----------
Railroad construction	21,667,922	----------	21,667,922	40,531,839	----------	40,531,839
Railroad shops, operated by railroads	16,724,789	----------	16,724,789	25,967,243	----------	25,967,243
Reclamation	56,491,685	56,491,685	----------	84,300,486	84,300,486	----------
River, harbor, and flood control	88,717,398	88,717,398	----------	130,276,076	130,276,076	----------
Streets and roads [2]	56,848,656	16,276,066	40,572,590	94,392,399	29,969,626	64,422,773
Water and sewerage systems	106,844,585	1,780,432	105,064,153	143,531,667	2,920,040	140,611,627
Miscellaneous	35,295,237	20,868,369	14,426,868	55,963,441	34,661,867	21,301,574

[1] Under the jurisdiction of the Bureau of Public Roads.
[2] Other than those reported by the Bureau of Public Roads.

From the beginning of the P. W. A. program in July 1933 to June 1937, 1,423,183,000 man-hours of direct labor were created (chart 1). Starting with over 35,000 man-hours and a pay roll of more than $26,000 in July 1933 the program increased sharply until August 1934, the month in which pay rolls and man-hours were greatest. The number of man-hours worked at the site amounted to 60,015,000 and pay rolls during that month totaled $35,348,000. After the peak of the program in August 1934, there was a downward trend in employment and pay rolls to February 1935. After February there was a reversal in the trend. In June 1935 there was another peak, less high

than the preceding one; during this month 449,000 workers were employed and pay rolls totaled $26,783,000. Employment and pay rolls on the program reached the lowest level of any month since the early months of the program in February 1936 when 201,000 workers were employed and pay rolls amounted to $13,665,000. From this low point there was a sharp increase to June 1936. By March 1937 employment and pay rolls had fallen to another low level. During June 1937, pay rolls on P. W. A. construction projects totaled $16,431,000 and the number of man-hours of labor at the site exceeded 20,510,000.



Relationship of Expenditures for Labor to Expenditures for Materials

Pay-roll disbursements and the value of orders placed for materials on construction projects financed from Public Works Administration funds during the 4 years ending June 1937 amounted to $2,668,583,000. Of this total, labor at the site of construction received 36.0 percent, and the value of orders placed for materials was 64.0 percent.

The amount of pay rolls and the value of orders placed for materials on projects financed from Public Works Administration funds from July 1933 to June 1937 are presented in table 3, by type of project.

TABLE 3.—*Pay-Roll Disbursements and Value of Material Orders Placed, on P. W. A. Projects, by Type of Project, July 1933 to June 1937*

[Subject to revision]

Type of project	Pay-roll disbursements			Value of material orders placed		
	Total	Federal	Non-Federal	Total	Federal	Non-Federal
All types	$959, 897, 748	$551, 977, 506	$407, 920, 242	$1, 708, 685. 535	$839, 164, 430	$869, 521, 105
Building construction	280, 070, 877	70, 606, 957	209, 463, 920	524, 689, 557	115, 835, 748	408, 853, 809
Forestry	10, 322, 965	10, 322, 965	----------	4, 952, 266	4, 952, 266	----------
Naval vessels	97, 175, 330	97, 175, 330	----------	108, 621, 882	108, 621, 882	----------
Public roads [1]	189, 738, 304	189, 738, 304	----------	316, 612, 154	316, 612, 154	----------
Railroad construction	21, 667, 922	----------	21, 667, 922	45, 564, 592	----------	45, 564, 592
Railroad shops, operated by railroads	16, 724, 789	----------	16, 724, 789	50, 802, 876	----------	50, 802, 876
Reclamation	56, 491, 685	56, 491, 685	----------	101, 458, 910	101, 458, 910	----------
River, harbor, and flood control	88, 717, 398	88, 717, 398	----------	130, 581, 707	130, 581, 707	----------
Streets and roads [2]	56, 848, 656	16, 276, 066	40, 572, 590	83, 730, 668	12, 443, 541	71, 287, 127
Water and sewerage systems	106, 844, 585	1, 780, 432	105, 064, 153	194, 163, 160	2, 772, 309	191, 390, 851
Miscellaneous	35, 295, 237	20, 868, 369	14, 426, 868	147. 507, 763	45, 885, 913	101, 621, 850

[1] Under the jurisdiction of the Bureau of Public Roads.
[2] Other than those reported by the Bureau of Public Roads.

The relative cost of labor at the site and material varied among the different types of projects (chart 2). On every type of project with the exception of forestry work, however, the value of orders placed for materials exceeded pay-roll disbursements. On railroad shop work, 24.8 percent of the total labor and material cost (table 4) was for direct labor and 75.2 percent for material. Labor on forestry projects accounted for the highest relative cost (67.6 percent) and materials for 32.4 percent.

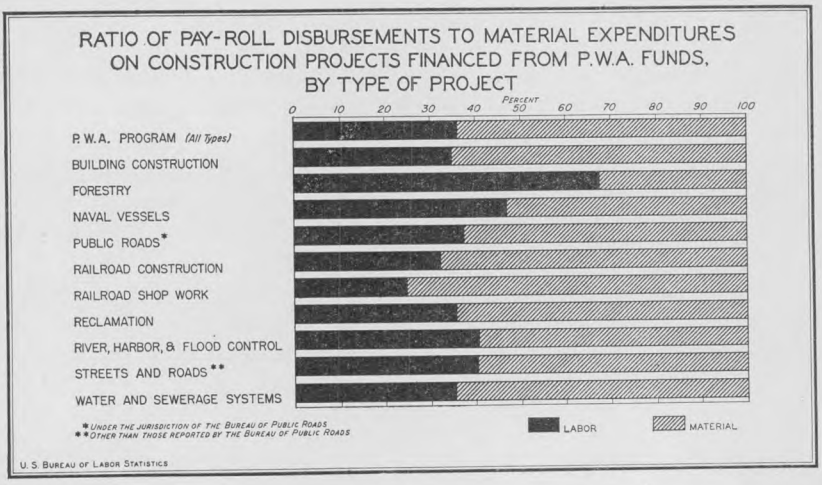


TABLE 4.—*Pay-Roll Disbursements in Relation to Material Expenditures on P. W. A. Projects, by Type of Project, July 1933 to June 1937*

[Subject to revision]

Type of project	Percentage	
	Labor at site	Material
Entire P. W. A. program	36.0	64.0
Building construction	34.8	65.2
Forestry	67.6	32.4
Naval vessels	47.2	52.8
Public roads [1]	37.5	62.5
Railroad construction	32.2	67.8
Railroad shop work	24.8	75.2
Reclamation	35.8	64.2
River, harbor, and flood control	40.5	59.5
Streets and roads [2]	40.4	59.6
Water and sewerage systems	35.5	64.5

[1] Under the jurisdiction of the Bureau of Public Roads.
[2] Other than those reported by the Bureau of Public Roads.

A study of the relative costs on 1,161 completed non-Federal P. W. A. building-construction projects showed that labor at site received 28.5 percent; material, 54.9 percent; and overhead and profit, 16.6 percent of the value of contracts awarded ($140,952,000). On 490 completed street and road projects the value of contracts awarded totaled $46,315,000, of which 25.6 percent went to site labor, 50.4 percent for material, and 24.0 percent for overhead and profit. Labor at the site, material, and overhead and profit received 25.6 percent, 55.4 percent, and 19.0 percent, respectively, of the $88,321,000 worth of contracts awarded for 1,144 completed water and sewerage projects.

Table 5 shows the relative cost of labor, material, and overhead and profit on 2,795 completed non-Federal P. W. A. projects, by type of project.

TABLE 5.—*Relative Cost of Labor, Material, and Overhead and Profit on 2,795 Completed Non-Federal P. W. A. Projects, by Type of Project*

Type of project	Number of projects	Value of contracts awarded	Percentage of contract prices chargeable to—		
			Labor at site	Material	Overhead and profit
Building construction	1,161	$140,951,767	28.5	54.9	16.6
Street and roads	490	46,314,915	25.6	50.4	24.0
Water and sewerage	1,144	88,390,677	25.6	55.4	19.0

Value of Material Orders Placed

Orders for materials used on P. W. A. projects have benefited virtually all manufacturing and transportation industries in the United States. Industries producing and transporting stone, clay, and glass products received $494,506,000 of the total value of orders

placed. In this group cement orders exceeded $184,573,000 and sand and gravel totaled $97,993,000. Orders for structural and reinforcing steel amounted to $172,096,000; for foundry and machine-shop products, to $150,188,000; and for lumber and timber products and planing-mill products, to $103,155,000.

The value of material orders placed on construction projects financed from Public Works Administration funds, July 1933 to June 1937 is presented in table 6, by type of material.

TABLE 6.—*Value of Material Orders Placed on P. W. A. Construction Projects, by Type of Material, July 1933 to June 1937* [1]

[Subject to revision]

Type of material	Value of material orders placed
All types of material	$1,708,685,535
Textiles and their products	2,385,018
Awnings, tents, canvas, etc	280,859
Carpets and rugs	128,548
Cordage and twine	325,393
Cotton goods	171,939
Felt goods	212,837
Jute goods	101,383
Linoleum	924,415
Sacks and bags	68,502
Upholstering materials, not elsewhere classified	143,373
Waste	27,769
Forest products	103,853,435
Cork products	392,794
Lumber and timber products, not elsewhere classified	82,830,783
Planing-mill products	20,324,005
Window and door screens and weatherstrip	305,853
Chemicals and allied products	14,738,044
Ammunition and related products	1,186,217
Chemicals, miscellaneous	473,731
Compressed and liquefied gases	449,738
Explosives	6,585,292
Paints and varnishes	6,043,066
Stone, clay, and glass products	494,506,215
Asbestos products, not elsewhere classified	294,453
Brick, hollow tile, and other clay products	52,224,717
Cement	184,573,417
Concrete products	53,671,731
Crushed stone	51,377,104
Glass	3,361,478
Lime	550,845
Marble, granite, slate, and other stone products	32,477,155
Minerals and earths, ground or otherwise treated	222,654
Sand and gravel	97,992,814
Tiling, floor and wall, and terrazzo	6,739,340
Wall plaster, wall board, insulating board, and floor composition	11,020,507
Iron and steel and their products, not including machinery	465,552,370
Bolts, nuts, washers, etc	5,256,431
Cast-iron pipe and fittings	50,659,530
Doors, shutters, window sash and frames, molding, and trim (metal)	18,589,855
Firearms	813,468
Forgings, iron and steel	7,447,642
Hardware, miscellaneous	15,217,688
Heating and ventilating equipment	43,293,846
Nails and spikes	2,280,486
Rail fastenings, excluding spikes	6,747,133
Rails, steel	22,864,574
Springs, steel	629,141
Steel-works and rolling-mill products, not elsewhere classified	92,254,582
Stoves and ranges, other than electric	794,326
Structural and reinforcing steel	172,096,054
Switches, railway	1,000,818
Tools, other than machine tools	6,072,593
Wire products, not elsewhere classified	9,273,027
Wrought pipe	10,261,176

[1] This table includes certain items which are not actually construction materials, i. e., fuel, transportation equipment, tools, furniture, etc.

TABLE 6.—*Value of Material Orders Placed on P. W. A. Construction Projects, by Type of Material, July 1933 to June 1937*—Continued

Type of material	Value of material orders placed
Nonferrous metals and their products	$11,600,465
Aluminum manufactures	561,951
Copper products	1,414,243
Lead products	604,220
Nonferrous-metal alloys and products, not elsewhere classified	2,212,227
Sheet-metal work	6,739,481
Zinc products	68,343
Machinery, not including transportation equipment	291,537,827
Electrical machinery, apparatus, and supplies	73,986,356
Elevators and elevator equipment	7,202,389
Engines, turbines, tractors, and waterwheels	26,984,936
Foundry and machine-shop products, not elsewhere classified	150,187,660
Machine tools	7,950,094
Meters (gas, water, etc.) and gas generators	1,398,420
Pumps and pumping equipment	20,720,713
Refrigerators and refrigerating and ice-making apparatus	3,107,259
Transportation equipment, air, land, and water	90,032,332
Aircraft (new)	6,036,370
Airplane parts	5,086,400
Boats, steel and wooden (small)	1,413,875
Carriages and wagons	61,874
Locomotives, other than steam	11,830,133
Locomotives, steam	6,841,170
Motorcycles and parts	274,395
Motor vehicles, passenger	561,036
Motor vehicles, trucks	9,764,368
Railway cars, freight	38,839,968
Railway cars, mail and express	429,443
Railway cars, passenger	8,893,300
Miscellaneous	234,479,829
Belting, miscellaneous	47,013
Coal	2,071,311
Creosote	548,206
Electric wiring and fixtures	32,512,199
Furniture, including store and office fixtures	13,915,839
Instruments, professional and scientific	2,152,435
Mattresses and bedsprings	139,010
Models and patterns	40,895
Paper products	153,568
Paving materials and mixtures, not elsewhere classified	23,871,835
Petroleum products	45,603,780
Photographic apparatus and materials	282,039
Plumbing supplies, not elsewhere classified	30,521,159
Radio apparatus and supplies	982,321
Roofing materials, not elsewhere classified	9,369,474
Rubber goods	900,941
Steam and other packing, pipe and boiler covering, and gaskets	2,324,278
Theatrical scenery and stage equipment	322,012
Window shades and fixtures	452,733
Other materials	68,268,781

Indirect Employment [5]

Following a cost-accounting procedure throughout,[6] it is estimated that as a result of these orders for materials, approximately 611,000,000 man-hours of indirect labor in mills, mines, and transportation were

[5] Estimates of indirect employment are derived in part from estimates of employment submitted by manufacturers and in part are based on studies of the labor involved in the production and transportation of certain basic construction materials. For four industries (steel, cement, lumber, and clay products) the Bureau of Labor Statistics has completed studies of the man-hours of labor other than at the site extending back to the mines or forests, factories, and railroads. For articles in the series of man-hour studies see Monthly Labor Review, May 1935, p. 1155 (steel manufacture); March 1936, p. 564 (cement production); May 1937, p. 1136 (lumber production); October 1937, p. 846 (rail transportation of construction materials); and December 1937, p. 1391 (production clay products). Additional studies are under way in several other industries to determine the indirect labor involved in producing, manufacturing, and transporting basic construction materials such as plumbing and heating, sand and gravel, and electrical fixtures and supplies.

[6] The only practicable procedure in estimating the effect of Government orders on employment is that of cost accounting which prorates the total amount of labor at the various stages of processing and transporta-

involved in filling orders for steel from July 1933 to June 1937; 116,000,000 man-hours in filling orders for cement; 111,000,000 man-hours in filling orders for lumber; and 47,000,000 man-hours, for clay products.[7] Of this total of 885,000,000 man-hours for steel, cement, lumber, and clay products, 394,458,000 man-hours were in establishments engaged in the final fabrication of the materials. The remainder, 490,542,000 man-hours, was involved in extraction of raw materials, in early processing stages, and in transportation.

From July 1933 to June 1937 orders placed with the industries shown in table 7 for materials to be used on Public Works Administration construction projects amounted to $1,132,890,000. Bureau estimates indicate that the placing of these orders resulted in 519,733,000 man-hours of labor in final fabrication.

While all of the increased employment in industry is not the direct result of orders placed for construction materials to be used on P. W. A. projects, nevertheless such orders are contributing factors. The orders placed for materials on the entire P. W. A. program resulted in 790,909,000 man-hours of labor in final fabrication of the products without regard to the added labor required in the extraction of raw materials and transportation at various stages. In the cement industry the number of wage earners employed in June 1937 was 25,700, an increase of 44.4 percent over June 1933. Orders for cement on P. W. A. projects created 64,696,000 man-hours of labor in final fabrication. Employment in millwork plants and in sawmills increased 71.4 percent and 43.2 percent, respectively, over the same period. The final fabrication of lumber and lumber products used on P. W. A. projects involved more than 88,421,000 man-hours of labor. From June 1933 to June 1937 the level of employment in the brick, tile, and terra cotta industry increased 67.5 percent. P. W. A. orders for clay products amounted to $52,225,000.[8] In the locomotive industry the number of wage earners was 11,500 in June 1937, an increase of 618.8 percent compared with the number of wage earners in June 1933. In June 1937, 48,600 workers were employed in the electric- and steam-railroad car industry. This was an increase of 37,900 or 354.2 percent compared with June 1933.

Table 7 shows the estimated number of wage earners in certain specified industries in June 1933 compared with June 1937. The estimates are based on the figures collected monthly by the Bureau of Labor Statistics.

---

tion and applies at each stage, as a percentage of the total business involved, that which is being done for Government accounts. The method used, in other words, is not that of the marginal concept of labor productivity, which implies that it is possible to segregate the contribution of each unit of every productive factor to output and thus measure the additional units of labor that are required to produce each additional unit of the output of a given plant.

[7] Excluding floor and wall tile and terrazzo.

[8] Excluding floor and wall tile and terrazzo, expenditures for which amounted to $6,739,000.

TABLE 7.—*Estimated Number of Wage Earners Employed in Specified Industries, June 1933 and June 1937* [1]

Industry	Number of wage earners, June—		Increase, June 1933 to June 1937		Minimum employment in 4-year period		Maximum employment in 4-year period	
	1933	1937	Number	Percent	Number of wage earners	Month	Number of wage earners	Month
Blast furnaces, steel works, and rolling mills	275,900	431,600	155,700	56.4	275,900	June 1933	495,800	May 1937
Cast-iron pipe	9,600	15,900	6,300	65.6	9,600	June 1933	16,100	May 1937
Hardware	32,600	49,700	17,100	52.5	32,100	Oct. 1934	51,500	Mar. 1937
Plumbers' supplies	18,000	28,100	10,100	56.1	11,400	Jan. 1934	29,000	May 1937
Steam and hot-water heating apparatus and steam fittings	22,400	34,500	12,100	54.0	19,800	Jan. 1934	35,300	{Apr. 1937 May 1937
Structural and ornamental metalwork	19,300	38,900	19,600	101.6	19,300	June 1933	38,900	June 1937
Electrical machinery, apparatus, and supplies	124,500	266,700	142,200	114.2	124,500	June 1933	266,700	June 1937
Foundry and machine-shop products	202,700	448,000	245,300	121.0	202,700	June 1933	448,000	June 1937
Cars, electric- and steam-railroad	10,700	48,600	37,900	354.2	10,700	June 1933	49,300	May 1937
Locomotives	1,600	11,500	9,900	618.8	1,600	June 1933	11,500	June 1937
Brass, bronze, and copper products	46,700	79,600	32,900	70.4	46,700	June 1933	83,100	Apr. 1937
Lumber:								
Millwork	35,700	61,200	25,500	71.4	34,100	Jan. 1934	61,500	Apr. 1937
Sawmills	186,100	266,500	80,400	43.2	186,100	June 1933	266,500	June 1937
Brick, tile, and terra cotta	33,200	55,600	22,400	67.5	29,500	Jan. 1934	56,200	May 1937
Cement	17,800	25,700	7,900	44.4	13,800	Jan. 1934	25,700	June 1937
Glass	50,700	78,500	27,800	54.8	50,700	June 1933	78,500	June 1937
Paints and varnishes	23,900	33,200	9,300	38.9	23,900	June 1933	33,500	May 1937
Petroleum refining	67,500	81,600	14,100	20.9	67,500	{June 1933 July 1933	81,600	June 1937

[1] Based on aggregates and indexes adjusted to Census of Manufactures for 1933, and subject to revision when adjustments to 1935 census are made.

DROUGHT AND DEPRESSION MIGRATION INTO OREGON, 1930 TO 1936

By CHARLES S. HOFFMAN, *Farm Security Administration*

MIGRATION into the Pacific Coast States increased following the drought and depression years of 1932 and 1934. More recently, it has been growing at an increasing rate and will probably continue for an indefinite period, spreading throughout all of the West Coast. The importance of this relocation of peoples in the Pacific coast region was emphasized in the recent survey by the Secretary of Labor of interstate migration in the United States.[2] Migration to the States of California and Washington has been given special attention in previous issues of the Monthly Labor Review.[3] The present article deals with those interstate migrants who have reached the rural and semi-rural areas of Oregon in recent years.

Whereas the early movement to Oregon, in 1932–33, was composed of many single persons from low-income groups, the movement since 1934 has been composed principally of entire families with funds sufficient for at least temporary support. The early migrants in many cases had written to friends and relatives in Midwestern States urging them to migrate to specific localities in Oregon, Washington, or California.

Very little attention was given the movement until the summer of 1934. At that time, various groups interested in the situation became alarmed at the constantly growing stream of drought refugees. Many farmers in Oregon and Washington have been hesitant to welcome these new families who, they believe, will add to existing problems of relief and unemployment. On the other hand, California farm owners have made large use of the labor furnished by the migrants. In each of the Pacific Coast States a small group has taken advantage of the newcomers' ignorance of local farming conditions and have recognized in the migrant group an available source of cheap labor. During the first few years of the movement the lack of definite knowledge concerning the migration added to the confusion of local groups and organizations attempting to deal with the problem to the benefit of both the migrants and the local communities. Considerable informa-

[2] Preliminary Report to the U. S. Senate under S. Res. 298 of the 74th Cong. (See Monthly Labor Review, July 1937 (pp. 3–16).)

[3] See issues of February 1936 (p. 312), December 1936 (p. 1355), March 1937 (p. 537), and August 1937 (p. 301).

tion has now been collected as to the general occupational characteristics of the migrants entering Oregon and their ability to maintain their own support as shown by relief records.[4]

Numbers of Migrants, 1930–36

Approximately 48,000 persons are believed to have migrated to rural Oregon during the 7 years, 1930–36 (table 1). This estimate is made on the assumption that the ratio between the number of children reported in the annual school census and the number of migrant families found in selected rural school districts [5] was characteristic of all rural areas in the State. The number of migrants in each type of area and for each year of migration was calculated from the proportion of each group found in the entire sample.

TABLE 1.—*Estimated Number of Persons Migrating Into Rural Oregon, 1930–36* [1]

Area of settlement	Total	Year of arrival		
		1930–32 [2]	1933–35	1936
All areas	48,200	7,500	18,700	22,000
Open country (0–49 population)	29,000	5,250	11,200	12,550
Villages (50–2,499 population)	17,500	2,100	6,400	9,000
Towns (2,500–4,999 population)	1,700	150	1,100	450

[1] Estimate excludes migration into class 1 school districts.
[2] To compensate for the inability of the field staff in 1936 to obtain complete enumeration in the sample areas of all families migrating to Oregon in earlier years, the proportional estimate for 1930–32 was increased 15 percent.

The migration of the 6-year period, 1930–35, is estimated at 25,000, excluding persons who settled in towns of 2,500 or more. Interstate migration to the farming areas of Oregon is thus estimated at nearly double the net increase in the rural farm population during this period. Within the State, a strong farm to nonfarm and farm to urban movement existed during the period, which reduced the amount of net increase for the farm population. Many residents sold their farms to migrants and moved into villages and towns. It is estimated that rural nonfarm population increased 20,000 during the 6 years, approximately 13,500 being due to interstate migration and the remainder a result of the natural increase and intrastate movement from rural farm to rural nonfarm and urban to rural nonfarm.

[4] Field studies were undertaken by Oregon State Agricultural College in cooperation with the Division of Rural Research, Works Progress Administration. See Experiment Station Bulletin No. 157: Preliminary Information Concerning Immigration into Rural Districts in Oregon, by L. R. Breithaupt and C. S. Hoffman, Corvallis, Oregon State Agricultural College.

[5] Schedules were filled by interview with migrants in 14 selected counties. Class 1 school districts (those reporting 1,000 or more children between the ages of 4 and 20 in 1935) were excluded. Names and addresses of migrants were obtained from school clerks, city officials, churches, post offices, and relief agencies and from the migrants located. The field work was preceded by a preliminary investigation during which questionnaires were mailed to approximately 2,200 school clerks (excluding class 1 districts); 914 replies were received. On these forms, the clerks were requested to state the total number of out-of-State families in the district known to have entered Oregon since January 1,1930. State of last permanent residence was recorded.

This migration to Oregon was the heaviest of recent decades, both to urban and rural areas. The movement was greatest during the years 1932, 1934, and 1936, with a strong yearly increase. There are no indications of any decrease in the near future, but this is dependent upon the areas of dispersion. Knowledge of prevailing conditions in the States from which the migrants have come is the best available basis for predicting the future migrations. Years of poor crops in other States have been invariably followed by greatly increased movement, which decreases in volume as the conditions are improved.

During the single year 1936, 22,000 persons are believed to have entered rural Oregon from other States. This is nearly half the total estimated migration of the 7-year period, 1930–36, and a greater number of persons than are believed to have entered in the immediately preceding 3-year period, 1930–32. The number of persons increased much more rapidly than the number of migrant families, as the average size of family rose from 3.2 persons in 1930–32 to 5.3 persons among those entering in 1936.

Sources and Routes of Migrants, 1930–35

As the volume of migration to Oregon increased, after 1930, the proportion of settlers from the Middle West increased and the proportion from the more adjacent Mountain and Pacific States declined. Table 2 shows the regions of previous residence reported by 498 migrant families who entered Oregon in the 6-year period, 1930–35. The proportion of these migrants from the Middle West increased from 22 percent of those entering Oregon in 1930–32 to 44 percent of those entering in 1933–35.

TABLE 2.—*Previous Residence of All Interviewed Migrant Families Entering Oregon, 1930–35*

Region	Total		Year of arrival			
			1930–32		1933–35	
	Number	Percent	Number	Percent	Number	Percent
All regions	498	100	138	100	360	100
Mountain and Pacific States	305	61	105	76	200	56
Midwest and East States	188	38	30	22	158	44
Foreign countries	3	(1)	1	(1)	2	(1)
Unknown	2	(1)	2	1	----------	----------

[1] Less than 1 percent.

The decreased percentage of migrants from adjacent States may reflect a change in the mode of migration as well as a shift between areas of earlier residence. It seems probable that the earlier migration

(1930–32) tended to be undertaken by stages, and that migrants who started from the Middle West would report a Mountain or Pacific State as the last place of residence prior to settlement in Oregon. The decline in the proportion from adjacent States from 76 percent in 1930–32 to 56 percent in 1933–35 thus suggests that more of the later migrants proceeded directly from the Middle West to Oregon. Approximately a fifth of the migrants coming from California or Washington are believed to have left permanent residences in the Middle West since 1930.

Kansas, Colorado, and Nebraska contributed nearly a fifth of the migrant group. The States adjoining these sent smaller proportions. Prolonged drought, crop pests, dust storms, and other conditions stimulated the emigration. The expected return of normal rainfall did not materialize and, as funds decreased, the only choice was to remain and seek the charity of the Government, or move out. The determination of many of the migrants was characterized by slogans such as "Oregon or bust" painted on automobiles, trucks, and wagons.

TABLE 3.—*Previous Residence of Interviewed Migrants Who Had Entered Oregon During 1930–35* [1]

Region of previous residence	Total	
	Number	Percent
All regions	2,032	100
Mountain and Pacific States	1,240	61
California	526	26
Washington	232	11
Idaho	188	9
Colorado	128	6
Other	166	9
North Central States	610	30
Nebraska	128	6
Kansas	113	6
South Dakota	90	4
North Dakota	85	4
Iowa	53	3
Missouri	43	2
Other	98	5
South Central States	142	7
Oklahoma	63	3
Texas	49	2
Other	30	1
North Atlantic States	20	1
South Atlantic States	4	(2)
All other	16	(2)

[1] Based on 498 family schedules, which with an average size of 3.8 during 1930–32, and 4.2 during 1933–35, represent a total of 2,032 persons.
[2] Less than 1 percent.

The most-traveled route was along the Lincoln Highway which extends through Iowa, Nebraska, Wyoming, Utah, Idaho, and Oregon. The location of this highway had an important effect upon the movement, as it tended to draw the migrant population from the central

areas of the Middle West into Oregon rather than into California or Washington. This road crosses into Oregon over the Snake River and meets the Columbia River a few miles west of Pendleton, in the northeastern corner of the State. The road passes through rich, irrigated sections, then enters the rugged Columbia River Gorge, leading the migrant stream into Portland, at which point it scatters throughout the Willamette Valley counties and along the coast. The migrant stream from the most northern of the drought States heads into Washington, while the stream from the southern drought States pushes toward California, through Yuma and over the Truckee Pass.

Residence Areas Selected by Migrants

The movement toward rural villages continued at an increasing rate from 1930 to 1936 (table 4). The total migration to open country areas was greater than to villages, but if the present trend continues, the migration to villages will undoubtedly be the larger within a few years. It is true that good farming land is not readily available. Many of the farm operators in the migrant group are unable to purchase the best-grade lands. In other cases, the migrant may be forced to live in a village while looking for a suitable farm to rent or purchase. This condition was present, for example, in Polk County, where in the fall of 1936 a dozen new families from the Midwest were living in a small community, unable to find farms nearby that could be rented.[6] Some of these families were considering moving to Malheur County, in the eastern part of the State, where approximately 300,000 acres of newly irrigated land is relieving to a great extent the pressure in the Willamette Valley caused by the marked shortage of suitable and moderately priced farms wanted by migrants.

The arrival in a community of a group of families from another State is generally followed by an even greater number of migrants settling in the same locality. The later migrants are in many cases friends, relatives, or previous neighbors who came from other States following an exchange of letters. Thus, a newly settled migrant group has within it the seeds for a continued growth, increasing rapidly for an indefinite period. Because of this the migrant stream tends to flow from particular areas in other States, directly to definite localities in Oregon. For instance, more California migrants settled in Lane County, at the southern tip of the Willamette Valley, than in any other county. Most of the Washington migrants crossed the Columbia River and remained in Clatsop County, in the northwestern corner of Oregon. Migrants from the Mountain and also the North Central States settled primarily in the irrigated sections of Malheur

[6] Polk County is situated in the foothills east of the Coast Range, bordering the center of the Willamette Valley.

34189—38——3

County, on the eastern border. Columbia County was the choice of migrants from the South Central States. The phenomenon mentioned has become more evident during later years and undoubtedly accounts for much of the increased migration directed toward Oregon.

Usual Occupations of Heads of Households

The types of occupational groups as well as the total volume of migration from each region changed during the later period. During 1930–32 the proportion of migrants whose usual occupation was farming exceeded the nonfarm group. In the later period the nonfarm group was in excess, and this created a heavier stream of migration toward villages than would exist if the farm group was in the majority.

The proportion of migrants engaged in farming in Oregon was less than the proportion of all migrants reporting farming as their usual occupation. This trend away from farming increased during the years studied (table 4). No attempt was made to determine the amount of intrastate movement of migrants who might be changing their types of employment. Inasmuch as the field work for the study was done late in 1936, it is believed that most of such shifting would occur among the migrants entering Oregon that year. Migrants coming in previous years presumably have made the maximum number of changes necessary in their adaptation following migration. Any further changes would therefore reflect shifts common among the established resident group within the State and would have no particular bearing upon the migrant group as such.

TABLE 4.—*Percentage Distribution of Migrants by Residence, Employment, and Usual Occupation of Head of Household*

Item	Total [1]	Year of arrival		
		1930–32	1933–35	1936
All migrants interviewed	100	100	100	100
Residence in Oregon:				
Open country (0–49 population)	64	70	60	57
Villages (50–2,499 population)	33	28	34	41
Towns (2,500–4,999 population)	3	2	6	2
Present employment of head of family:				
Farm occupations	40	64	39	32
Nonfarm occupations	60	36	61	68
Usual occupation of head of family:				
Farm occupations	47	53	44	47
Nonfarm occupations	53	47	56	53

[1] Based on 831 family schedules taken by direct interview in rural school districts of 14 selected counties This total includes the 498 families in table 1, together with 333 schedules representing the 1936 migration.

The out-of-State farms operated by migrants were much larger than farms they operated in Oregon. There was also a decline in the size of farms operated in Oregon by migrants coming during 1933–35 as compared with the former period. Although many of these farms

are too small to support the operators and their families, the settlement of submarginal farms is tending to decrease. A practice more common in 1935–36 was for the migrants to rent small farms preparatory to purchase of larger or otherwise more suitable farms after such places have been located and financial arrangements completed.

Farms operated in previous States by the migrants were types common to those areas. The Oregon farms they operated varied widely, although most of them operated general or part-time farms. The large investments necessary for successful operation of stock, dairy, and wheat farms in Oregon discouraged the majority of migrants from the operation of these types. A number of migrants were entering specialized types of farming such as poultry ranches and fox farms in which relatively high returns on the investment can be made. A moderate amount of capital is necessary. The county agricultural agents from the Oregon State Agricultural College are assisting the migrants by giving them information and advice in meeting the special problems arising from these and other types of farms.

Among migrants reporting their usual occupation as nonfarm, skilled workmen were in the majority, with the semiskilled next. The prevalence of skilled workmen tends to decrease the proportion of the migrant group unable to find employment, for a skilled workman has far greater opportunities of reemployment than the unskilled laborer. In table 5, professional and business men were classified with the skilled group. Doctors, dentists, and lawyers had come to Oregon seeking locations to open a practice. They favored the rural villages, in or near which many of the new families were located. In this manner their services were being transferred to new regions and distributed according to the needs of the expanding rural population.

TABLE 5.—*Percentage Distribution of Usual Occupation of Heads of Households Migrating Into Oregon, 1930–35*

Period of arrival	Total		Percent whose usual occupation was in—									
			Farm work					Nonfarm work				
	Number	Percent	Total	Owner or manager	Tenant	Laborer	Not known	Total	Professional and skilled	Semi-skilled	Unskilled	Not known
Both periods	498	100	47	9	8	4	27	53	22	16	12	3
1933–35	360	100	44	10	9	4	22	56	21	19	13	3
1930–32	138	100	53	6	5	4	38	47	25	7	10	5

Migrants on Relief

The changing proportion of migrants who received relief after entering Oregon during 1930–35 substantiates the increase in direct

migrations previously mentioned. Migrants from the Middle West did not require relief in Oregon to the extent that was true of migrants from the Mountain States.[7] Because of this, the rate of relief in Oregon of migrants reported from the Mountain States was lower than the rate would have been without the inclusion of midwestern families. In the migration from Mountain States, the rate of relief among migrants coming during 1930–32 was lower than for any State or region classified. During 1933–35, with the midwestern families moving directly to Oregon, the rate of relief in Oregon of migrants from the Mountain States increased. The rate of relief among migrants reported from the Middle West remained fairly constant throughout.

The rate of relief in Oregon of the entire migrant group dropped from 31 percent for the group entering in 1930–32, to 11 percent for the group entering in 1933–35. Part of this decrease was due to residence qualifications which in later years made it more difficult for newly arrived families to obtain relief. Assistance was limited to transient relief unless legal residence in Oregon could be proved. This form of relief has in all counties been greatly curtailed or eliminated entirely. Even with the restrictions reducing the relief rate, fewer of the migrants coming in later years were found to require relief.

None of the migrants entering Oregon in 1930–32 were reported as having received relief in other States. In that period none of the present Federal relief programs were in operation, and public relief was limited to local organizations. Of the migrants entering Oregon in 1933–35, 16 percent were reported as having received relief in other States. The increased rate of relief received in other States for the later migrants does not necessarily represent a general increase in the migration of relief clients but rather is evidence of the acceptance of relief assistance that did not exist prior to 1933. Present trends indicate a decrease during later years of the proportion of migrants entering Oregon who are in need of relief assistance.

Summary

The areas of greatest concentration of the migrants in Oregon have been in the smaller villages and in open country areas of the Coast Range in western Oregon, and on new lands under irrigation in the eastern section of the State. The absence of a large, mobile, farm-labor group has tended to prevent the growth of "slums," either rural or urban. The seasonal farm labor required for harvesting fruits, vegetables, and hops in the Willamette Valley is supplied principally from the Portland area. The migrants are therefore not entering an already large and mobile farm-labor group.

[7] Migrant families leaving their residence in the Mountain States and migrating to Oregon were reported as migrants from the Mountain States, even though some of the families had moved to the Mountain States from the Middle West since 1930.

Relief programs and policies may effect increases or decreases in the volume of the movement. Public opinion within the States has not crystallized into either favorable or unfavorable attitudes toward the migrant families, but individuals whose only assets are ableness and willingness to work are not greeted with much enthusiasm. The major concern at present is whether or not the migrants can support themselves. If this can be accomplished without replacing previous residents at existing jobs and thereby adding to the unemployment problem or relying, even temporarily, upon public relief, then they may expect a favorable reaction.

A period of unemployment is created by the change in residence, but the length of this period varies widely from one family to another. In a few cases, jobs in Oregon were arranged before migration, reducing to a minimum the length of unemployment. The immediate necessity of a job resulted in some shifting from the usual occupation by the heads of the households.

A small proportion of the individuals who were previously employed in farming were changing to rural nonfarm occupations. It is believed that an occupational selection of migrants coming during later years tended to reduce the necessity of radical changes in types of employment. Individuals trained in a specialized field who learned of definite employment opportunities in Oregon were attracted, while other individuals were discouraged from migrating due to equal or greater opportunities at their present residence or in States other than Oregon. It is believed that most employable members of households entering Oregon have been or will soon be able to make the necessary adjustments in occupation without creating an uneconomic balance of particular occupational groups within the rural areas.

The principal hazards will be created by concentrated movements into rural areas, causing, at least temporarily, increased prices and decreased wages following a rise in unemployment. The speed at which readjustment occurs varies from one locality to another. In congested centers of absorption the readjustments of the migrants in many cases are artificial or transient in nature, resulting in losses to both the migrants and the community. It may not be feasible at present to give direction to the processes of social and economic assimilation. However, if no attempts are made to facilitate these adjustments, the result may be an accentuation in the unemployment and relief problem during the next few years.

REGIONAL DIFFERENCES IN COTTON-TEXTILE WAGES, 1928 TO 1937

By N. A. Tolles, *Bureau of Labor Statistics*

THE SPREAD between cotton workers' earnings in the North and the South increased during the year ending July 1937. Previously, during the 10 years 1925–34, regional differences in the cotton-textile industry had been generally decreasing. This trend was reversed after 1935. By July 1937, northern cotton mills were reporting the payment of an average of 50.0 cents an hour, as compared with the average of 39.7 cents reported by southern mills. Such a regional variation in average hourly earnings, although smaller than during the period 1924 to July 1933, was definitely larger than any which had prevailed during the operation of the cotton-textile code under the National Recovery Administration.

Earnings figures are not conclusive as to the absolute amount of competitive advantage at any one time as between mills or regions. In the cotton-textile industry, regional contrasts in average hourly earnings are probably somewhat greater than competitive differences between regions as regards unit labor cost. Some of the northern mills produce textiles which are not directly competitive with the southern products. The higher wages paid to the more skilled labor employed in such northern mills may involve them in no competitive disadvantage. In addition, man-hour productivity in the North may be somewhat higher than in the South and in such a case the regional difference in hourly earnings would be greater than the difference in unit labor cost, even for mills with similar products. But, in the absence of marked regional shifts in products or skills during the recent brief period of wage change, it is clear that the southern mills could compete more advantageously in July 1937, when the difference between the regional averages was 10.2 cents an hour, than in July 1936, when this difference had amounted to 7.2 cents an hour.

This article presents the monthly averages of hourly earnings, the movements of employment and man-hours, and the averages of weekly hours and weekly earnings for cotton-textile mills of the North and South and of leading cotton-manufacturing States during the period July 1936 to July 1937. These data were obtained from special tabulations of employers' reports to the Bureau of Labor Statistics. The original data contain no detail by occupation or sex, such as that provided by field studies for 1934 and earlier years and such as will be

provided for 1937 by a study now being made by the Bureau. Hence the changes shown in the interregional and interstate differences in earnings may be affected to some extent over relatively long periods, by changes in the composition of the working forces as well as by changes in relative wage rates. The absolute levels of earnings may also be affected even during short periods, by changes in the sample of reporting employers.

These biases in the data are believed to be comparatively unimportant with reference to the purposes for which the figures are here used. Over the relatively long periods, the present results may be checked against the results of an earlier analysis (by the Bureau) of weighted average differentials, which were constructed so as to eliminate the effect of changes in the composition of working forces. Such a comparison is given in table 1, where it will be observed that the ratios of the Southern to the Northern averages of hourly earnings move quite similarly from 1928 to 1934, regardless of which method of computation is used. The effect of changes in the reporting sample over the short period, July 1936 to July 1937, has been largely eliminated by basing the monthly averages upon the percentage changes shown by identical pairs of mills and by applying the index thus obtained to the absolute figure reported for a single month, June 1937. The averages computed in this way agree closely with the averages which had been reported currently for each of the other months.

Movement of Hourly Earnings in the North and South, 1928–37

The contrast between average hourly earnings in northern and southern mills reached a maximum in 1924 when the weighted-average ratio showed southern earnings to be 39 percent less than northern earnings for similar classes of cotton workers.[1] This regional difference was narrowed during the next 10 years—gradually from 1924 to 1933 and suddenly at the beginning of the N. R. A. period. By 1928, after northern earnings had been cut, cotton workers were still earning 31 percent less per hour in the South than in the North (table 1). These regional differences in earnings during the 1920's did not lead to stability in the industry, as is shown by the rapid shift of cotton spindleage from North to South during that period.[2] The amount of the North-South wage difference continued to decrease slightly during the depression, as wages fell generally, but in July 1933, just before the N. R. A. code became effective, hourly earnings in the South still averaged 26 percent below those in the North.[3]

[1] Monthly Labor Review, May 1935, pp. 1173–1174.

[2] Idem, pp. 1175–1176.

[3] The differentials based on weighted occupational ratios also narrowed between 1930 and 1932, but widened thereafter to return to the 1930 position by July 1933. The closing of the regional differential between 1930 and 1932 was clearly due to more drastic wage cuts in northern mills. The divergent trends from 1932 to July 1933, as between the two types of differential, suggest that the more drastic wage cuts in southern mills toward the end of the depression were being offset by more extensive substitution of unskilled for skilled classifications of workers in the North

TABLE 1.—*Comparison of Average Hourly Earnings in Northern and Southern Cotton-Textile Mills, 1928 to July 1937*

Period	Unweighted averages [1]			Weighted averages [2]
	North	South	Percent: South of North	Percent: South of North
	Cents	*Cents*		
1928	39.4	27.3	69.3	69.6
1930	39.7	28.1	70.8	71.9
1932	32.3	23.9	74.0	79.5
July 1933	27.6	20.5	74.3	72.2
August 1933	41.1	33.7	82.0	86.3
August 1934	42.2	35.6	84.4	85.5
1935	42.2	34.8	82.5	[3]
July 1936	41.8	34.6	82.8	[3]
July 1937	50.0	39.7	79.4	[3]

[1] The average hourly earnings shown are not strictly comparable from one period to the next, being based on changing samples. The ratios of southern to northern earnings are less affected by such changes in the sample. None of the unweighted averages have been published hitherto. The sources of the earnings figures are as follows: *1928–August 1934*—field studies of the Bureau of Labor Statistics; *1935*—man-hour reports of the Census of Manufactures, prepared for the Bureau of Labor Statistics by Arthur F. Beal (total of cotton yarn and cotton woven goods); *July 1936–July 1937*—regional tabulation of employers' reports to the Bureau of Labor Statistics.

[2] Monthly Labor Review, May 1935, p. 1173. Averages of the ratios of southern to northern earnings for each occupation and sex, weighted by the average numbers of workers in same class as found in the Bureau's field studies of 1924 to 1930. The percentages as previously published have been converted from a southern to a northern base to facilitate comparison with the percentages shown in column 3.

[3] Not available.

The cotton-textile code sharply reduced the percentage difference in wages between North and South by effecting an increase of hourly earnings in the South in greater ratio than the increase in the North. During the single month, July to August 1933, the difference fell from 26 to 18 percent. This influence continued to spread during the first year of the code, so that by August 1934 the average hourly earnings of Southern cotton operatives were only 15.6 percent less than those of Northern operatives.[4]

After the N. R. A. codes ceased to operate, wage differences increased generally as between industries, occupations, establishments and regions.[5] In the cotton-textile industry, the gap between northern and southern wage rates increased immediately after the code and again during the fiscal year 1936–37. During the first year following the code, the general level of hourly earnings in the cotton-textile industry declined by about 3 percent.[6] During the year 1935 as a

[4] The code provided for a minimum rate of 30 cents an hour in the South and 32½ cents in the North, a differential of 8.3 percent. The minimum rate prevailed more widely in the South than in the North, partly because the increases called for in the South were substantially larger than those called for in the North. For example, female filling hands in the South averaged 13.7 cents an hour in July 1933 and 30.7 cents in August 1934. Female spinners averaged 16.1 cents and 32.1 cents in the two periods. In other words the great majority of spinners as well as filling hands were at the 30-cent minimum. Even in the case of spinners hourly earnings were doubled, but the differential between the two occupations in the South was reduced from 2.4 cents an hour to 1.4 cents. In the North, female filling hands were increased from 20.2 cents to 33.5 cents, whereas spinners went from 23.9 cents to 37.8 cents an hour. The increases amounted to 66 percent and 58 percent, respectively; the differential between the occupations was essentially maintained. While filling hands were paid at the minimum rate in the North almost as frequently as in the South, this was not true of spinners. (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, pp. 38–39. Washington, February 1935.)

[5] Monthly Labor Review, April 1937, pp. 830, 841–845.

[6] An identical sample of 448 mills reported an average decline of 3.2 percent from April 1935 to April 1936. (See Monthly Labor Review, April 1937, pp. 842–843.)

whole, including 5 months of code operation, hourly earnings in the South averaged 17.5 percent below those in the North (table 1). During most of the year 1936 the relative levels of earnings in the North and South appear to have remained fairly stable. Substantially the same ratio of hourly earnings in the two regions was found in July 1936 as that which had prevailed during the year 1935. By July 1937, however, average hourly earnings in southern mills were 20.6 percent below those in northern mills.

Table 2 shows the changes in average hourly earnings, as reported monthly by cotton mills in the North and South, from July 1936 to July 1937. Cotton operatives in the North obtained wage increases averaging 2.9 cents per hour in December 1936 and further increases averaging 3.8 cents an hour in April 1937. Less pronounced wage increases occurred in the South. Largely as a result of these two sharp increases, the average of hourly earnings in the North rose by 19.6 percent from July 1936 to July 1937. The corresponding rise in the South amounted to 14.7 percent. The southern average therefore declined relatively, from 82.8 percent of the northern average in July 1936 to 79.4 percent a year later.

TABLE 2.—*Average Hourly Earnings in the Northern and Southern Regions* [1] *of Cotton-Textile Industry, July 1936 to July 1937*

Month	Index (June 1937=100)		Hourly earnings (monthly averages)		Excess of North over South	Percent: South of North
	North [2]	South [3]	North	South		
			Cents	*Cents*	*Cents*	
1936—July	84.0	87.3	41.8	34.6	7.2	82.8
August	83.9	87.5	41.8	34.7	7.1	83.0
September	84.4	87.7	42.0	34.7	7.3	82.6
October	84.6	88.4	42.1	35.0	7.1	83.1
November	84.7	88.3	42.1	35.0	7.1	83.1
December	90.4	92.3	45.0	36.6	8.4	81.3
1937—January	91.4	93.0	45.5	36.9	8.6	81.1
February	91.0	93.3	45.3	37.0	8.3	81.7
March	91.0	93.3	45.3	37.0	8.3	81.7
April	98.7	99.1	49.1	39.3	9.8	80.0
May	99.8	99.7	49.7	39.5	10.2	79.5
June	100.0	100.0	49.8	39.6	10.2	79.5
Average, July 1936 to June 1937	90.3	92.5	45.0	36.7	8.3	81.6
July 1937	100.4	100.1	50.0	39.7	10.3	79.4

[1] *Northern region.*—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, and Rhode Island. *Southern region.*—Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

[2] From reports of a varying number of establishments, declining from 134 in July 1936 to 124 in July 1937, which establishments employed in various months from 60,771 to 79,957 wage earners.

[3] From reports of a varying number of establishments, rising from 426 in November 1936 to 448 in June 1937, which establishments employed in various months from 193,771 to 244,484 wage earners.

Average Hourly Earnings in Leading Cotton-Manufacturing States, 1936–37

Interstate differences in average hourly earnings of cotton-mill workers were relatively small within the northern and the southern regions, as compared with the broad difference between the regional

averages during the year 1936–37. The maximum difference between the State averages for any one month during the period studied amounted to about 3 cents an hour within New England and to about 4 cents an hour among the four leading cotton-manufacturing States of the South. Greater differences might have been revealed if an average could have been shown for every cotton-manufacturing State. The less important States were excluded from the tables because the coverage of the Bureau's samples appeared to be too small to yield reliable results in these cases. However, the reports of cotton mills to the Bureau of Labor Statistics do appear to be adequate to show with fair accuracy the average earnings and hours of cotton workers in each of five New England States and in each of four Southern States. Averages of hourly earnings, by months, for the period July 1936 to July 1937, are presented in tables 3 and 4.

TABLE 3.—*Average Hourly Earnings in Cotton-Textile Industry in 5 New England States, July 1936 to July 1937*

Period	Average hourly earnings (in cents) in—					
	New England (5 States)[1]	Connecticut [2]	Maine [3]	Massachusetts [4]	New Hampshire [5]	Rhode Island [6]
1936—July	41.6	42.8	41.6	41.1	40.4	42.7
August	41.5	42.0	40.8	41.4	40.4	42.8
September	41.7	41.8	41.1	41.5	41.3	42.6
October	41.8	41.6	41.2	41.7	40.9	43.1
November	41.9	41.7	41.1	42.0	40.9	43.0
December	45.0	43.8	44.7	44.7	44.9	46.3
1937—January	45.2	45.9	44.4	44.6	44.7	47.5
February	45.1	46.5	44.3	44.7	44.9	46.4
March	45.1	46.3	44.4	44.5	44.9	46.7
April	49.3	49.6	48.5	49.0	49.3	50.6
May	49.8	50.5	48.8	49.3	49.8	51.6
June	49.8	50.2	48.4	49.7	49.5	51.3
Average, July 1936 to June 1937	44.8	45.2	44.1	44.5	44.3	46.2
July 1936	49.9	51.1	49.1	49.4	49.6	51.4

[1] No reports were available from Vermont.
[2] Minimum coverage 15 firms, 4,822 employees.
[3] Minimum coverage 11 firms, 9,831 employees.
[4] Minimum coverage 35 firms, 20,085 employees.
[5] Minimum coverage 12 firms, 6,468 employees.
[6] Minimum coverage 18 firms, 9,136 employees.

Northern mills employ about one-quarter of the cotton-textile workers in the United States. Cotton mills located in New England employ 22 percent of all cotton workers and four-fifths of the cotton workers of the North.[7] Hence the hourly earnings shown in table 3 for the New England region are almost identical with those presented previously for all northern mills. Within New England, half of the cotton-textile workers are employed in Massachusetts. The hourly earnings reported by Massachusetts mills averaged very slightly below those in New England as a whole, the differences being less than seven-tenths of a cent an hour in each of the months surveyed. Such small

[7] U. S. Census of Manufactures, 1935.

differences might well arise from contrasts in the type of labor employed rather than from wage-rate contrasts. Within New England average hourly earnings were comparatively high in Rhode Island and Connecticut, though earnings in Connecticut were low in the last 4 months of 1936. Hourly earnings in New Hampshire and Maine were consistently below the average for New England. The differences in average hourly earnings among the five New England States reached a maximum of 3.1 cents an hour in January 1937 when the workers of Rhode Island averaged 47.5 cents an hour, as compared with an average of 44.4 cents an hour for the cotton operatives in Maine. The average difference between hourly earnings in these two States amounted to 2.1 cents during the 12 months, July 1936 through June 1937.

TABLE 4.—*Average Hourly Earnings in Cotton-Textile Industry in 4 Southern States July 1936 to July 1937*

Period	Average hourly earnings (in cents)			
	Alabama [1]	Georgia [2]	North Carolina [3]	South Carolina [4]
1936—July	32.3	34.5	35.1	35.4
August	32.4	34.5	35.6	34.9
September	32.3	34.6	35.6	35.1
October	32.8	34.8	36.0	35.3
November	33.1	34.9	36.0	35.0
December	33.7	35.9	38.0	37.2
1937—January	34.9	36.1	38.3	37.2
February	35.1	36.3	38.2	37.6
March	34.9	36.2	38.4	37.4
April	37.1	38.6	40.6	40.0
May	37.7	38.7	40.5	40.5
June	38.2	38.7	40.5	40.7
Average, July 1936 to June 1937	34.5	36.1	37.7	37.2
July 1937	38.5	39.0	40.3	40.6

[1] Minimum coverage 45 firms, 22,638 employees.
[2] Minimum coverage 77 firms, 43,916 employees.
[3] Minimum coverage 195 firms, 71,647 employees.
[4] Minimum coverage 79 firms, 46,478 employees.

Southern mills have employed nearly three-quarters of the cotton-textile workers of the United States in recent years. Nine-tenths of these Southern cotton workers are employed in the four Southern States listed in table 4. Of the wage earners in cotton mills of the South, North Carolina mills employ one-third, South Carolina mills one-fourth, Georgia mills about one-fifth, and the mills located in Alabama nearly one-eighth.

The workers in North and South Carolina cotton mills earned more per hour, on the average, than did the cotton workers of Alabama or Georgia. During the period studied, the North Carolina average was generally higher than that of South Carolina by a small margin; the greater increase of average hourly earnings in North Carolina brought the average in that State 1.1 cents an hour above that of South Carolina by January 1937. This was the maximum difference

between these two States during the period studied. In July 1936 and again in June and July 1937, South Carolina mills appear to have paid slightly higher average hourly earnings than those in North Carolina. Hourly earnings of the Georgia workers lagged behind those in South Carolina by a greater margin, averaging about 1.5 cents. This South Carolina-Georgia difference increased during the period studied because the wage increases of December 1936 and April 1937 were much less pronounced in Georgia than in the Carolinas. In November 1936 the hourly earnings in Georgia averaged within one-tenth of a cent of those in South Carolina but by June 1937 the gap had widened to an average of 2.0 cents an hour.

The lowest hourly wage among the leading cotton-manufacturing States is to be found in Alabama. In general, Alabama mills paid about 1½ cents an hour less than the Georgia mills, about 2 cents an hour less than all southern mills, and about 3 cents an hour less than the North Carolina mills during the fiscal year 1936–37. This interstate difference within the South decreased somewhat during the year, since hourly earnings rose to a greater degree in the relatively low-wage State of Alabama than in the other leading Southern States. In December 1936, Alabama mills were paying 4.3 cents an hour less than North Carolina mills, while in July 1937 the maximum difference within the 4 Southern States was only 2.1 cents (between Alabama and South Carolina).

The highest averages of hourly earnings in any Southern State remained distinctly lower than the lowest averages paid in any New England State throughout the period surveyed. North Carolina cotton workers, for example, earned an average of about 5½ cents less per hour than those in Maine prior to the wage increase of December 1936, and nearly 9 cents less per hour in July 1937 (tables 3 and 4). The extreme contrast in hourly earnings among the 9 State averages occurred between the States of Alabama and Rhode Island. Prior to the wage increase of December 1936, Alabama cotton workers earned an average of about 10 cents an hour less than those in Rhode Island. This difference in average hourly earnings increased to a maximum of 13.9 cents in May 1937 and stood at 12.9 cents per hour in July 1937.

Existing differences in the product of cotton mills in the various States must be given attention, if the extreme interstate contrasts in earnings are to be interpreted fairly. Thus while about one-third of the yarn produced for consumption in Rhode Island is of fine qualities, having yarn counts over 40, less than 1 percent of the Alabama yarns have these fine counts. About one-fifth of the Rhode Island yarns produced for consumption consist of the coarse counts, 20's and under, while nearly four-fifths of the yarns produced for con-

sumption in Alabama mills consist of 20's or coarser counts.[8] The finer goods produced by certain of the New England mills require the employment of more skilled cotton operatives. Therefore the difference between hourly earnings in Rhode Island and in Alabama combines the effects of both region and product on earnings.

Regional Trends of Man-Hours and Employment, 1936–37

The cotton-textile industry was exceptionally prosperous during most of the 1936–37 season. Manufacturing margins in the industry, after deducting labor cost, were much greater than at any time since 1925, with the exception of the brief speculative period just prior to the introduction of the cotton-textile code.[9] This prosperity brought increased employment to workers throughout the industry, but it was not until the end of the upswing that the workers obtained their chief wage increases.

TABLE 5.—*Percentage Changes in Man-Hours, Weekly Hours, and Employment in Northern and Southern Cotton Mills, July 1936 to July 1937*

Period	Percent of change in—					
	Total man-hours worked [1]		Average weekly hours [1]		Employment [2]	
	North	South	North	South	North	South
Previous month to—						
1936—August	+5.8	+4.3	+2.6	+1.3	+3.4	+2.9
September	−6.6	+.2	−7.1	−1.4	+1.0	+1.7
October	+11.7	+4.2	+7.5	+2.4	+1.1	+1.7
November	−2.9	+2.1	−4.0	+.8	+3.8	+1.2
December	+10.3	+5.0	+6.8	+3.3	+2.9	+1.6
1937—January	+4.4	−.6	0	−1.1	+4.0	+.3
February	−.9	+.6	−1.9	−.9	+1.2	+1.7
March	+1.9	+.8	+.4	+.2	+1.1	+.6
April	−.5	−1.1	−1.0	−1.6	+.4	+.6
May	−2.9	−1.3	−1.6	−1.7	−1.5	+.4
June	−9.0	−3.6	−1.7	−2.7	−6.8	−.9
July	−1.8	−6.6	−.7	−4.9	+.8	−1.9
July 1936 to March 1937	+24.7	+17.5	+3.6	+4.7	+19.9	+12.5
March 1937 to July 1937	−13.6	−12.1	−4.9	−10.4	−7.1	−1.8
July 1936 to July 1937	+7.7	+3.3	−1.5	−6.2	+11.4	+10.5

[1] Based on schedules of cotton mills reporting total man-hours to the Bureau's Division of Employment and Pay Rolls. For coverage, see footnotes to table 2.

[2] Based on all available reports of cotton mills to the Division of Employment and Pay Rolls. For coverage see table 6, footnotes. Slight discrepancies will be found as between the resulting indexes of man-hours and the product of indexes of average hours and employment. These are due to the rounding of percentages and to the difference in the coverage of the two types of sample.

Table 5 indicates that the volume of work increased to a greater extent in the North than in the South. The trend of production was upward until March 1937. Between July 1936 and March 1937, the aggregate man-hours of labor increased by 25 percent in the North and by 18 percent in the South. During the subsequent recession, from March to July 1937, man-hours fell in about the

[8] Census of Manufactures, 1929, Vol. II (pp. 259–260). Unpublished figures for later periods show similar contrasts. Census figures for Alabama were combined with those for Kentucky.

[9] Indexes of the U. S. Department of Agriculture.

same ratio in both regions—by 14 percent in the North and by 12 percent in the South. In July 1937, therefore, aggregate man-hours were 8 percent greater than a year before in the North but only 3 percent greater than a year before in the South.

During the upswing employment increased more rapidly in northern than in southern cotton mills, because the northern mills maintained a more stable average of weekly hours per wage earner while enjoying a greater increase in their aggregate man-hours of work. From July 1936 to March 1937, when man-hours in the North increased by 25 percent, the average weekly hours in northern mills rose by only 4 percent while the number of employees increased by 20 percent. In southern mills, where man-hours increased by only 18 percent during these months, average weekly hours increased by 5 percent and the number of employees increased by only 12 percent. Working hours were also more stable and employment less stable in northern mills during the recession months, March to July 1937. Northern mills, facing a decrease of 14 percent in total man-hours, made the adjustment by reducing the average working time by 5 percent and by laying off more than 7 percent of the peak number of workers.[10] Southern mills, with a decrease of 12 percent in total man-hours, reduced the average work-week by 10 percent and employment by 2 percent.

The net result of the upward and downward trends of work in northern mills was that average weekly hours were 1 or 2 percent lower in July 1937 than in July 1936, in spite of an 8 percent net gain in aggregate man-hours. In southern mills the average working hours were 6 percent shorter in July 1937 than a year before, while total man-hours were 3 percent greater. The net increase in the number of employees was therefore about 10 percent in both the North and South from July 1936 to July 1937.

Regional Differences in Weekly Hours Per Worker, 1936–37

The favorable conditions for cotton manufacturing which prevailed during most of the 1935–36 season enabled the northern mills to provide as high an average number of working hours as did the southern mills. Table 6 shows that the wage earners in both regions averaged close to 38 hours per week during the fiscal year 1936–37. During 9 of the 13 months covered by this article, the average weekly hours of the northern workers actually exceeded those of southern workers by small amounts.[11]

[10] All reporting northern mills showed a 7.1 percent decline in employment (table 5) while the corresponding decline shown by those northern mills which reported man-hours was 9.2 percent. The latter figure is consistent with the changes in weekly hours and man-hours.

[11] Data for months not shown in table 6 are available in the files of the Bureau of Labor Statistics. The averages used in this table and in the text were derived by the method described on p. 37.

September 1936 was a month of curtailed hours in all the States surveyed. Thereafter, average working hours increased sharply until December 1936, when the mills of both the North and the South were averaging 39.7 hours a week. After March 1937, weekly hours were reduced in both regions, but the curtailment was more sharp in the South than in the North. By July 1937, the southern workers were averaging 34.9 hours per week in contrast to the average of 37.2 hours for the northern workers.

The longest average working week of cotton mills among the 9 States surveyed in 1936–37 was reported in Connecticut and New Hampshire, while the shortest was reported in Alabama. An average working week in excess of 39 hours occurred in each one of the 9 States either in December 1936 or in January 1937. Such an average, of 39 hours or more, suggests that substantial numbers of cotton workers in every State were working more than 40 hours a week during this peak period. Averages of 41 hours or more per week were reported during one or both of these two months for Rhode Island, Connecticut, and New Hampshire, and average weekly hours exceeded 40 in South Carolina in December 1936. At the opposite extreme, the actual working week fell to less than 36½ hours by July 1937 in each of the 4 Southern States and in Massachusetts. Working hours were cut to 32.5 per week in North Carolina during this latter month.

TABLE 6.—*Average Weekly Hours, by Regions and States, in Selected Months, July 1936 to July 1937*

Region and State	Average July 1936–June 1937	September 1936	November 1936	December 1936	March 1937	April 1937	July 1937
North (8 States) [1]	38.3	35.9	37.1	39.7	39.1	38.7	37.2
South (11 States) [2]	38.2	37.2	38.4	39.7	39.0	38.4	34.9
New England [3]	38.4	36.0	36.9	39.6	39.3	38.9	37.5
Connecticut	39.5	37.4	39.5	40.6	39.4	39.8	37.4
Maine	38.2	35.9	34.9	37.8	39.3	38.8	37.6
Massachusetts	37.9	35.3	37.8	39.2	39.4	38.7	36.4
New Hampshire	39.2	35.6	36.0	41.0	40.3	39.8	39.3
Rhode Island	38.5	36.6	36.1	41.4	38.7	38.7	38.2
South:							
Alabama	37.7	36.1	37.6	39.5	38.4	38.4	35.4
Georgia	38.3	37.4	38.4	39.7	38.8	38.4	35.7
North Carolina	38.0	37.6	38.5	39.1	38.8	38.1	32.5
South Carolina	38.0	36.3	38.1	40.1	38.7	37.8	36.2

[1] New York, New Jersey, Pennsylvania, and the 5 New England States listed. From reports of a varying number of establishments declining from 134 in July 1936 to 124 in July 1937, which establishments employed in various months from 60,771 to 79,957 wage earners. For minimum coverage of reports from each of the 5 States listed, see footnotes to table 3.

[2] Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, Texas, Virginia, and the 4 Southern States listed. From reports of a varying number of establishments, rising from 426 in November 1936 to 448 in June 1937, which establishments employed in various months from 193,771 to 244,484 wage earners. For minimum coverage of reports from each of the 4 States listed, see footnotes to table 4.

[3] No reports were available from Vermont.

Within New England, weekly hours were relatively short and stable from month to month in Massachusetts but were most unstable in Rhode Island. Within the South, weekly hours were relatively short during most of the year 1936–37 in Alabama, and the average levels in Georgia, North Carolina, and South Carolina were very similar. The average hours of work in North Carolina mills were relatively stable until March 1937 after which time they fell from 38.8 hours to 32.5 hours, the most sharp curtailment among the 9 States studied. The differences in hours among these States were reduced to the minimum in February 1937, when the range of the State averages was from 39.4 hours in New Hampshire to 38.3 hours in Alabama. The maximum interstate difference in hours occurred in July 1937, when New Hampshire mills worked an average of 39.3 hours or 6.8 hours a week more than the average in North Carolina.

Regional Differences in Average Weekly Earnings, 1936–37

The percentage difference in average weekly earnings as between northern and southern cotton mills during the 1936–37 season was very similar to the corresponding difference in hourly earnings. By July 1937, however, the regional difference in weekly earnings was greater than the difference in hourly earnings. Northern workers, besides earning more per hour, were working more hours per week at the end of the season than the southern workers. The average weekly earnings of the southern workers during the fiscal year 1936–37 were 19 percent ($3.27) less than the earnings of northern workers (table 7).[12] As has been seen, the southern mills curtailed the hours of work more sharply than the northern mills, during the recession period March to July 1937. This widening difference in working hours, as well as the differential increase in wage rates in December 1936 and April 1937, increased the disparity between weekly earnings in the two regions. By July 1937 the southern mills were paying 25 percent ($4.69) less per week, on the average, than were the northern mills.

Throughout the period July 1936 to July 1937 the average weekly earnings of cotton workers in each New England State were higher than the comparable earnings in any one of the four leading cotton-manufacturing States of the South. The interstate differentials of weekly earnings during 1936–37 were smallest in November 1936, after the average hours of work had been curtailed in four of the New England States and increased in the Southern States. In November, the cotton workers of Maine earned an average of $14.37 or 62 cents a week more than the $13.75 average in North Carolina. Even in November, however, there was a spread of $3.65 between the average weekly earnings of $16.16 in Connecticut and the average of $12.51 in Alabama.

[12] The averages shown in table 7 were based on the sample described in note 10, p. 44 and were constructed by the method described on p. 37.

TABLE 7.—*Average Weekly Earnings by Regions and 9 States in Selected Months, July 1936 to July 1937*

Region and State	Average, July 1936-June 1937	September 1936	November 1936	December 1936	March 1937	April 1937	July 1937
North (8 States)[1]	$17.23	$15.17	$15.71	$17.84	$17.72	$19.10	$18.50
South (11 States)[2]	13.96	12.89	13.41	14.48	14.38	15.02	13.81
New England[3]	17.22	15.08	15.53	17.79	11.76	19.26	18.60
Connecticut	17.59	14.83	16.16	17.64	17.92	19.70	19.03
Maine	16.91	14.83	14.37	16.93	17.54	18.85	18.57
Massachusetts	16.92	14.95	15 87	17.53	17.61	19.08	17.85
New Hampshire	17.40	14.71	14.72	18.43	18.11	19.62	19.51
Rhode Island	17.97	15.92	15.64	19.25	18.14	19.73	19.77
South:							
Alabama	13.06	11.72	12.51	13.31	13.43	14.24	13.61
Georgia	13.76	12.86	13.29	14.18	13.98	14.76	13.82
North Carolina	14.25	13.31	13.75	14.75	14.79	15.35	13.09
South Carolina	14.11	12.74	13.32	14.88	14.47	15.12	14.72

[1] New York, New Jersey, Pennsylvania, and the 5 New England States listed. From reports of a varying number of establishments, declining from 160 in July 1936 to 146 in January 1937, which establishments employed in various months from 72,432 to 93,712 wage earners. Minimum coverage for each of the 5 States listed was as follows: Connecticut (17 firms), 6,745 employees; Maine (11 firms), 9,831 employees; Massachusetts (47 firms), 30,271 employees; New Hampshire (12 firms), 6,468 employees; Rhode Island (22 firms), 9,312 employees.

[2] Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, Texas, Virginia, and the 4 Southern States listed, From reports of a varying number of establishments, rising from 151 in October 1936 to 157 in June 1937, which establishments employed in various months from 206,399 to 255,691 wage earners. Minimum coverage for each of the 4 States listed was as follows: Alabama (45 firms), 22,638 employees; Georgia (77 firms), 43,916 employees; North Carolina (195 firms), 71,647 employees; South Carolina (79 firms), 46,478 employees.

[3] No reports were available from Vermont.

The increased weekly earnings differentials of December 1936 and April 1937 reflect the larger increases in wage rates in the New England States. By April 1937, the smallest differential among the nine States surveyed was the $3.50 difference between average weekly earnings in Maine and North Carolina, while the extreme difference—between Rhode Island and Alabama mills—amounted to an average of $5.49 per week. The further increase in the spread between weekly earnings from April to July 1937 was largely due to the more severe reduction of working hours in North Carolina. With average hours of only 32.5 per week, the workers in North Carolina mills were earning an average of only $13.09 in July 1937. These earnings averaged $4.76 less than in Massachusetts, the New England State with lowest weekly earnings at that time. The extreme spread at the end of the period studied amounted to $6.68—between the average of $19.77 which was earned in Rhode Island and the $13.09 which was earned by the cotton workers of North Carolina.

34189—38——4

SICKNESS INSURANCE IN POLAND [1]

EACH OF the three provinces—Russian, German, and Austrian—from the combination of which the present State of Poland was created by the treaty of peace at the end of the World War, had its own system of social insurance. These systems were superseded in 1920 by one covering the country as a whole. A law passed May 19 of that year, provided for compulsory insurance against sickness for all wage earners or employees throughout the country, irrespective of age, sex, or the amount of their earnings, who were employed in industrial, commercial, or transport undertakings, or in the liberal professions. The law was amended in 1923, and a new social-insurance act was passed March 28, 1933, providing for a reorganization of the insurance system covering sickness and maternity insurance, invalidity and old-age pensions, and death benefits. An amendment by decree of October 24, 1934, introduced a wage limit for liability to sickness insurance, and simplified the administrative organization.

Coverage

The law of 1920 covered all wage earners and employees in industry, commerce, and the liberal professions, and included in the system domestic servants, home workers, and apprentices. The law, in principle, also applied to agricultural workers, but during a transitional period which has not yet been terminated, these workers in former Austrian and Russian Poland were to remain outside the scope of the insurance. The law of 1920 made no distinction between nationals and foreigners, but the amendment of 1923 provided that if another State restricts the corresponding rights of Polish nationals, regulations may be issued restricting the rights in question of citizens of such a State resident in Poland. The law of March 1933 maintained the principle of general insurance and provided that every person in the service of another should be compulsorily insured. Among wage earners the only persons excluded (aside from permanent officials of the State and of public corporations) were those who already enjoyed advantages at least equivalent to those of the general system, by virtue of special legislation or regulations approved by the author-

[1] One of a series of articles on sickness insurance; these data are from report by Marcel E. Malige, American consul at Warsaw, September 22, 1937, and various publications of the International Labor Office, Geneva.

ities. The sickness and maternity scheme applied to the whole of Poland except Upper Silesia, which kept its local legislation. The agricultural workers, who were provisionally excluded from the system, were covered by a special sickness scheme maintained entirely by employers. The decree of October 1934 provided that as from April 1, 1935, workers receiving a monthly wage exceeding 725 zlote [2] should no longer be liable to sickness insurance.

Persons exempted from liability to insurance include employees of the State railways, who are entitled to sick benefit in cash and in kind equivalent to that provided under the act of 1933; and employees of territorial public bodies, and of undertakings and establishments administered by these, insofar as they are entitled to equivalent sickness benefits. Also, the law does not include temporary employment, such as domestic employment, which either is naturally of short duration or does not exceed a consecutive fortnight with the same employer; casual employment; or other strictly temporary work.

Voluntary insurance is open to persons who have been compulsorily insured, if contributions have been paid for at least 20 weeks in the 52 weeks before the cessation of their liability to insurance, and if they give notice of their intention to take out such insurance at least 3 weeks before the liability to insurance has ceased. Periods during which they are in receipt of cash benefits or are performing military service are not included in the 3-week limit. Other persons between the ages of 16 and 45 may be insured voluntarily if the total annual income does not exceed 10,000 zlote. A health certificate from a practitioner appointed by the social-insurance fund or from a medical board is required for such persons.

Contributions

The contributions for intellectual workers amount to 4.6 percent of salaries, and for all other persons 5 percent of wages, the total amount of a contribution being divided equally between employer and employee. The employer is responsible for the payment of the total contribution and deducts the portion chargeable to the employee from his wage or salary. The calculation of benefits and contributions is based on the actual wages of the insured persons, the maximum wage standards ranging from 90 to 174 zlote per week. Wages in excess of these standards are disregarded for the calculations. In the event of any change in the situation as regards wages, the Council of Ministers, on the recommendation of the Minister of Social Welfare, may order that the wage limits be raised or lowered. Persons who receive no remuneration—such as apprentices, trainees, voluntary workers, etc.—or persons who earn less than 6 zlote a week, are insured on the

[2] Average exchange rate of zloty, 1934=18.85 cents.

basis of a weekly wage of 6 zlote. Employers are required to pay the entire contribution for such workers.

In addition to the regular contributions paid, the social insurance offices charge the insured special fees for medical consultation, visits from doctors, medicines, and dressings, at rates fixed by the Minister of Social Welfare. These fees, as fixed by the Minister effective January 1, 1934, are 0.20 zloty for each visit by or call on a doctor, 0.10 zloty for each medicament, etc., prescribed, and 0.30 zloty for each patent medicament or therapeutic requisite. There are exemptions from these fees for surgical operations and diagnoses, certain contagious diseases and serious illnesses specified in the decree, and affections of children under 3 years of age. No contributions are paid by the Government.

Benefits

Insured persons are entitled in case of sickness to a medical and cash benefit for not more than 26 weeks in respect of each illness. The medical benefit includes medical treatment, medicines and dressings, curative appliances, and appliances for deformities and infirmities. The cash benefit is paid for each day of certified incapacity for work caused by sickness, including Sundays and public holidays. If an insured person again becomes incapable of work because of a recurrence of the same illness, the second attack is not considered a new illness for the purpose of calculating the cash benefit unless the interruption of his incapacity for work has lasted more than 8 weeks.

Under the law of 1920 the cash benefit amounted to 60 percent of the basic wage. By the law passed in 1933, the benefit was reduced to 50 percent of the average weekly wage of the insured person during the last 13 weeks before he fell sick; it was increased as of May 1, 1937, to 60 percent of the basic wage by the Minister of Social Welfare. The waiting period for cash benefit is 3 days, the benefit being payable from the fourth day of incapacity, or from the first day of incapacity if this begins on the fourth or subsequent day of sickness. Cash sickness benefits are payable on the completion of 4 weeks in compulsory or continued insurance, or for persons who have been insured for not less than 26 weeks during the last 12 months, from the date of origin of liability to insurance. Medical and maternity benefits are payable from the date of origin of liability to insurance. Benefits are granted to home workers on the completion of 4 weeks' insurance. An insured person is not entitled to cash benefit as long as he receives his full remuneration under a statutory scheme or collective agreement. For insured persons maintaining more than two children, according to the 1933 law, additional bonuses equal to 5 percent of the average weekly wage were allowed for each child from the third onward, with a maximum for sick benefit and bonuses of 65 percent of the

average wage. This was increased to 75 percent by the order effective May 1, 1937. A daily allowance to families of insured persons receiving institutional treatment was raised in 1937 from 25 to 30 percent of the basic wage, the insured person receiving meanwhile a daily allowance equal to 12 percent of his wages. Cash benefits are not paid to persons who do not receive remuneration, such as apprentices, trainees, etc.

Maternity benefits include free attendance by a medical practitioner and a midwife, before, during, and after confinement; cash benefit for 2 weeks before and 6 weeks after confinement; nursing benefit in kind consisting of 1 liter of milk daily or its equivalent in cash for a period not to exceed 12 weeks. If incapacity for work exceeds 8 weeks, additional benefit may be granted by the insurance fund.

The cash confinement benefit, under the decision operative May 1, 1937, amounts to 75 percent of the basic wage. The cash benefit and the nursing benefit are payable to compulsorily insured women who have been engaged in an occupation liable to insurance for not less than 4 months out of the last 12 months before the confinement.

If maintenance and medical attendance in a maternity home are provided, the home benefit or cash hospital benefit is paid instead of the cash maternity benefit; or if attendance and nursing is given outside, the maternity benefit is subject to a deduction of not more than 50 percent.

Voluntarily insured women are entitled to the cash maternity benefit and the milk allowance if they have been insured for not less than 10 months before the confinement.

A lump-sum funeral benefit equal to three times the actual weekly wage is granted on the death of an insured person.

Members of the family of a compulsorily insured person or of a person continuing his insurance, who live in the same household and are wholly maintained by such insured person, are entitled to medical benefit for a period of not more than 13 weeks in a calendar year; free attendance by a medical practitioner and a midwife in maternity cases; a nursing benefit equal to one-half that paid to insured persons; and a funeral benefit equal to one and one-half times the weekly wage of the insured person in the household.

The insurance fund may require that a sick person be placed in a hospital without his consent, if the nature of his sickness is such that adequate care cannot be given in the home, if the sickness is infectious, if constant attention is necessary, or if the sick person has constantly disobeyed the rules of the fund or the doctor's orders.

If the receipts of an insurance fund in any 1 year yield a surplus above the expenses and the amount of the required reserve, supplementary or extraordinary benefits may be paid.

Benefits Paid by Agricultural Employers

Unless individual or collective contracts of employment or awards of the arbitration board contain more favorable provisions, according to the act of March 28, 1933, agricultural employers are required to grant benefits to employees for not more than 26 weeks, consisting of all the expenses of hospital treatment and attendance in childbirth and 90 percent of the expenses of medical attendance, with the exception of dental treatment; 90 percent of the expenses for medicaments and curative appliances; and benefits in kind. When the value of the benefits in kind amount to less than 50 percent of the remuneration of the employee, a cash bonus sufficient to bring the total benefit up to 50 percent of the remuneration shall be paid. The wife of an agricultural employee, and his children under the age of 15 years, are entitled to receive medical and pharmaceutical benefit from the employer for not more than 13 weeks in the year. The wives of farm workers are also entitled to maternity benefit. Employers are required to furnish transportation of such an employee and members of his family to a medical practitioner or hospital or to pay the costs of such transportation.

Persons whose employment in agriculture is casual only, and whose service for the same employer lasts less than 25 consecutive days, are not covered by the assistance scheme, nor are those whose employment brings them only a subsidiary income not exceeding 0.50 zloty per day.

Penalties

Cash benefit may be reduced or withheld in case of sickness intentionally contracted by the insured person or contracted owing to his participation in brawls or violence, but in this case benefit must be paid to the family, if in need. Medical benefit may be suspended if there is failure to comply with the doctor's instructions and the rules relating to the conduct of sick persons. If any person has received cash benefit unlawfully as a result of incorrect information or false documents, he is required to refund the sums received together with interest, whether or not he is liable to criminal proceedings.

Right of Appeal

In case of dispute concerning benefit, with the exception of optional benefits, the insured person has the right of appeal to the arbitration board attached to the insurance fund.

Organization of Medical Services

Instructions issued by the National Social Insurance Institute in the spring of 1936 provided for the unification of the medical service of

sickness and maternity insurance. Under the 1933 law, medical aid was in the hands of general medical practitioners and dentists who had bound themselves by contract to the insurance fund or the Sickness Insurance Institution; the services of specialists and nurses were given only on authorization by the medical practitioner. Free choice of a doctor from among those of the insurance fund was allowed, although the sick person could not change doctors during the same sickness without the consent of the fund. The present system provides for the concentration of all curative and preventive measures in each area in the hands of a single practitioner.

All of Poland, with the exception of Upper Silesia, is divided into 67 insurance districts, with a single insurance fund for each district. Under the present organization of the system, every district is divided into several medical areas, each containing 1,000 to 1,500 insured persons. For each medical area the chief medical officer of the fund appoints a general practitioner, called the family doctor, who is responsible for the medical service in that area. Applications for medical care are made directly to him and not to the fund, whatever the nature of the disease. His work is supported and supplemented by the services of specialists, under the supervision of the chief medical officer of the insurance fund. The family doctor may order hospitalization when he considers it necessary, but sanatorium treatment and the provision of orthopedic appliances are passed upon by the medical committee established in the chief town of the district, or by the chief medical officer of the fund. The family doctor is required to make out for every patient a card containing all necessary information as to diagnosis and treatment. He is also responsible for carrying out the plan for social hygiene and the prevention of disease in his area. Insured persons must be treated on an equality with private patients by the family doctor. His fees are paid by the fund and he is forbidden to demand or accept payments from insured persons.

The chief medical officer controls the medical services of the fund and is responsible for the professional qualifications of the practicing physicians and other persons engaged in these services. He is also responsible for measures to improve the hygiene of workshops and dwellings of insured persons. He organizes maternity and infant-welfare services and preventive measures against infectious, social, and occupational diseases. When it is necessary to apply special methods such as radiotherapy, the necessary steps are taken by the chief medical officer on the proposal of the family doctor. In towns and centers where there is either a medical committee or a representative of the chief medical officer of the fund, certificates of incapacity issued by family doctors may not be for more than 7 consecutive days, the right to issue certificates for longer periods being reserved either to the chief medical officer or his representative, or to the medical

committee for the district. When the territory of a district fund is extensive, it is divided into medical districts, each under the charge of a district medical officer, whose duties as representative of the chief medical officer include general supervision and administration of the medical and preventive activities of the district.

Administration

Sickness insurance is administered by territorial funds, each of which has a monopoly of compulsory social insurance in its area. In Upper Silesia there are occupational as well as territorial funds. All the funds are subject to the administrative and financial supervision of the Central Social Insurance Institute, which in turn is subject to that of the Minister of Social Welfare.

The country is divided into districts, the area being fixed in such a manner that the number of persons liable to insurance with the fund is not less than 10,000, with the exception of a few districts where the limit may be 5,000. The act provides that the social-insurance funds in the various districts are to be under the administration of a governing body, a managing committee, a directorate, an arbitration board, and an auditing committee; but up to the early part of 1937, the first elections to these governing bodies had not been held, and the funds were meanwhile being administered by commissioners or managing committees appointed by the Ministry of Social Affairs. In social-insurance funds the membership of which does not exceed 75,000 persons liable to insurance, the governing body will consist of 17 members, 12 of whom will be elected by the members of the fund and 5 appointed by the Minister of Social Welfare. Of the elected members one-third will be elected by the employers and two-thirds by the employees. In funds with a membership of over 75,000 there will be 25 members, 7 of whom will be appointed and 18 elected. There must be at least one woman among the appointed members.

The decree of October 24, 1934, provided that the various central insurance institutions—sickness and maternity insurance funds, accident insurance, the old-age, invalidity and unemployment insurance system for salaried workers, and the pension system for wage earners, together with the Social Insurance Chamber—should be amalgamated in a single organization called the Social Insurance Institute, having general supervision of the activities of the different insurance funds. As regards sickness and maternity insurance, the institute acts as an equalization and reinsurance fund, drawing its resources from a levy of not more than one-fifth of the contributions collected by the funds. From these sums the institute may grant subsidies or short-term loans to funds which are unable to meet their obligations owing to economic circumstances or unfavorable health conditions in their

districts. The institute also centralizes the work in regard to curative treatment and prophylaxis for all branches of insurance.

A medical council was established in connection with the Social Insurance Institute by an order issued December 23, 1936, by the Minister of Social Welfare. The council serves as a central advisory body on matters relating to curative and preventive treatment. The members of the council include representatives of the medical organizations, a representative of the Social Insurance Institute, two chief medical officers of the territorial funds, a representative of the Ministry of National Defense, and three doctors with an expert knowledge of social medicine. The council is responsible for drawing up plans for the improvement of the medical service of the social insurance system.

Statistics of Operation

The average number of persons insured and the average benefits paid per insured person are shown for each of the 9 years 1928 to 1936 in table 1.

TABLE 1.—*Average Number of Persons Insured and Average Paid for Different Classes of Sickness-Insurance Benefits in Poland,*[1] *by Years, 1928 to 1936*

Year	Average number of persons insured	Average payment (in zlote) per insured person for—					
		Total benefit	Cash benefit	Medical treatment	Medicines	Hospitals	Preventive and other health treatment
1928	2,518,000	86.2	28.2	23.5	15.4	19.1	----------
1929	2,662,000	97.9	32.1	26.0	16.9	22.9	----------
1930	2,580,000	101.4	27.2	30.1	18.6	23.1	2.4
1931	2,391,000	93.7	22.2	29.3	16.5	23.0	2.7
1932	2,150,000	81.1	17.4	27.9	14.3	19.2	2.3
1933	2,044,000	73.8	14.6	26.5	12.4	18.5	1.8
1934	1,816,000	60.4	8.3	21.9	10.8	18.0	1.4
1935	1,865,000	46.9	6.1	17.2	8.5	14.3	.8
1936	1,957,000	42.8	6.3	15.9	7.3	11.9	1.6

[1] Includes Upper Silesia.

The amounts paid yearly for the care of sickness, including cash benefits, medical and preventive care and treatment, medicines, and hospitalization, during the 9-year period 1928 to 1936, are shown in table 2.

TABLE 2.—*Total Amounts Paid for Different Types of Sickness-Insurance Benefits in Poland,*[1] *1928 to 1936*

Year	Total	Expenditure (in zlote) per year for—				
		Cash benefits	Medical treatment	Medicines	Hospitals	Preventive and other health measures
1928	194,000,000	63,300,000	53,000,000	34,600,000	43,100,000	----------
1929	233,100,000	76,600,000	61,800,000	40,100,000	54,600,000	----------
1930	234,000,000	62,900,000	69,500,000	42,800,000	53,400,000	5,400,000
1931	201,700,000	47,800,000	63,100,000	35,500,000	49,600,000	5,700,000
1932	158,900,000	34,000,000	54,700,000	28,100,000	37,600,000	4,500,000
1933	138,200,000	27,400,000	49,660,000	23,200,000	34,700,000	3,300,000
1934	98,900,000	13,500,000	35,800,000	17,800,000	29,500,000	2,300,000
1935	78,700,000	10,200,000	28,900,000	14,200,000	24,000,000	1,400,000
1936	76,000,000	11,200,000	28,100,000	12,900,000	20,900,000	2,900,000

[1] Not including Upper Silesia.

The contributions paid by employers and workers to the sickness-insurance funds, and expenditures for benefits, administration, and other costs, are shown in table 3.

TABLE 3.—*Receipts and Expenditures of Sickness-Insurance Funds of Poland,*[1] *1928 to 1935*

Year	Receipts			Expenditures			
	Total	Contributions by—		Total	Benefits	Administration	Other
		Workers	Employers				
	Zlote	*Zlote*	*Zlote*	*Zlote*	*Zlote*	*Zlote*	*Zlote*
1928	282,500,000	118,800,000	163,700,000	297,900,000	222,700,000	24,900,000	50,300,000
1929	322,200,000	135,500,000	186,700,000	349,600,000	267,100,000	29,000,000	53,500,000
1930	309,600,000	130,400,000	179,200,000	345,500,000	269,700,000	29,700,000	46,100,000
1931	268,300,000	113,000,000	155,300,000	311,300,000	233,700,000	28,800,000	48,800,000
1932	218,000,000	91,400,000	126,600,000	246,000,000	182,600,000	24,500,000	38,900,000
1933	192,800,000	80,600,000	112,200,000	233,800,000	159,800,000	23,000,000	51,000,000
1934	124,300,000	63,700,000	60,600,000	150,100,000	118,700,000	18,700,000	12,700,000
1935	123,700,000	63,300,000	60,400,000	132,700,000	98,500,000	15,400,000	18,800,000

[1] Includes Upper Silesia.

FAMILY LOANS IN ITALY

A NEW Italian social-assistance measure, effective July 1, 1937, provides for a system of marriage loans to be granted by the various Provinces of the Kingdom through the National Fascist Institute of Social Insurance, which is charged with the responsibility of administering this service. Each loan will amount to between 1,000 and 3,000 lire and will be accorded on the conditions that the husband is an Italian citizen, that neither he nor his wife were over 26 years of age at the time of their marriage, and that their combined income is not in excess of 12,000 lire per annum.

These and other details of this new plan of social assistance are given in the July–August 1937 issue of Supplément de la Revue Les

Assurances Sociales, official publication of Istituto Nazionale Fascista della Previdenza Sociale, Rome, Italy.

The loan will be available, after the marriage celebration, to the husband and wife jointly, and they will be jointly responsible for its return. Repayment is to be made without interest at the rate of 1 percent monthly for the original amount, and will become due in the sixth month from the marriage date or in the eighteenth month from that date if in the fifth month it is established that the wife is with child.

If after the fourth year from the day of the marriage the Registration Department has received no birth report from a family to which a loan has been made, the remainder of such loan must be paid at the rate of 2 percent per month.

On the birth of the first live and normal child, 10 percent of the loan is canceled; on the birth of the second, 20 percent; on the birth of the third, 30 percent. On the birth of each child payments on the remainder of the loan may be postponed for a year. When the fourth child is born, alive and normal, the remainder of the loan is canceled. Marriage loans are not granted to State employees nor to persons eligible for premiums on marriage and for large families.

MECHANICAL CHANGES IN THE WOOLEN AND WORSTED INDUSTRIES, 1910 TO 1936 [1]

By Boris Stern, *Bureau of Labor Statistics*

The advent of the twentieth century found the textile industry in the United States already in a high stage of integration and technical development. Most of the production processes and many of the machines used today to convert raw cotton or wool into cloth had been developed and put into operation prior to the turn of the century. By 1910 even the automatic loom had already been used in weaving a large variety of cotton-textile products.

The changes in the textile processing methods and equipment which have been introduced during the quarter of a century, 1910–36, have been of the type generally known in the industry as modernization, and were intended to enhance the quality of the product manufactured, to reduce and coordinate the number of processes and the number of operations in each process, or to reduce the labor requirements per unit of output. Many were developed gradually by plant management as a result of long years of experience, but most of the improvements were the product of the technical advances made in the machinery-manufacturing industries.

There has been great improvement in the machine work and precision applied to the manufacturing of textile machinery since 1910. Special metals developed in metallurgical laboratories have been applied to all places in machines where strain and wear is apt to occur. Special types of lubricating oils and lubricating devices provide better lubrication, with a saving in labor and lubricants. Plain iron bearings have been largely replaced by ball, roller, or impregnated bearings which have not only reduced the wear on the machine and the power required for operation, but have further simplified the lubrication problem. Automatically controlled humidity equipment has been generally installed in most up-to-date textile plants, particularly in those departments where humidity has a definite effect on the quality or operating condition of the product manufactured.

There is hardly a department or a section in a cotton or woolen mill which has not been affected by this sweep of modernization in textile

[1] Summary of a study of labor productivity in the woolen and worsted industries undertaken by the Bureau of Labor Statistics in cooperation with the National Research Project of the W. P. A. The data on changes in machinery and the labor requirements presented in the report were prepared in collaboration with the Barnes Textile Associates, Inc., a leading textile engineering organization with headquarters in Boston, Mass.

machinery. Semiautomatic machines have been made automatic. Automatic processes have been simplified and extended. Where the same types of machines are still in use they have been redesigned and equipped with attachments which have greatly improved their efficiency, measured by both the quantity and the quality of the product manufactured.

A complete and detailed description of even the major changes in the processes and in the machinery used in manufacturing woolen and worsted cloth would concern itself largely with a study of gears, shafts, cams, lubricating, and other parts which make up the machine, and would involve an analysis of machinery and textile engineering far beyond the scope of this study. However, the data presented in this report are based on such a comprehensive technical analysis which dealt not only with changes in methods of manufacturing and equipment used, but placed particular emphasis on the effects of such changes on the labor requirements in manufacturing particular types of woolen and worsted cloth. The types of cloth studied are: Thirty-two ounce woolen overcoating, 12-ounce woolen flannel, worsted serge, and cotton-warp worsted-filled suiting.

As in the case of cotton textiles,[1] the analysis is based upon factual data obtained by study of woolen and worsted mills. For purposes of presentation, however, two hypothetical groups of mills have been assumed, one operating under conditions of 1910 and the other operating under conditions of 1936. The assumptions which have been made regarding these mills are:

(*a*) That each mill was engaged in the manufacture of one and the same type of cloth in 1910 and 1936 and that it produced an approximately equal quantity of finished goods in both periods.

(*b*) That each mill was equipped with the best machinery available at that time. This machinery is assumed to have operated at the machine speeds prevailing in the respective periods. Only such machines and equipment as have been proved practical and economical are included.

(*c*) That the machinery in both periods was adequately housed in buildings designed to meet the requirements of each mill and that the mills were provided with such lighting and heating facilities as would be considered good engineering in the respective periods.

(*d*) That the type of labor available remained constant and working hours unchanged throughout both periods. Both groups of mills are assumed to have operated on two 40-hour shifts a week. For each mill and for each period all so-called processing departments (such as yarn dyeing, bleaching, piece dyeing, fulling, napping, and miscellaneous finishing processes) and all office and managerial functions have been excluded.

[1] See Monthly Labor Review, August 1937 (pp. 316–341).

(*e*) That there was "good management" in both periods. Management is an important factor in the output of a plant. It is often as important as and sometimes even more important than good technology. For the purpose of this survey, however, the variations in man-hour output attributable to the variations in managerial technique are ignored.

During the period 1910–36 there was a tendency to relieve skilled workers of duties and functions which could be effectively performed by unskilled hands, with the result that the proportion of skilled to unskilled operators was considerably reduced, with corresponding reductions in pay rolls. Nevertheless, for the purpose of this survey it was deemed advisable to exclude the wage factor and to combine all employee hours regardless of the skill required and the wages paid.

As was pointed out in the case of cotton textiles, it would have been impossible to find any two mills either in 1910 or in 1936 completely equipped with the machinery outlined in this survey. In maintaining the machinery and equipment of a mill it is normally neither possible nor desirable to re-equip every department at the same time with the most recent and best machinery available. A substantial lag in the application of technical developments is generally found even in well-managed plants. Mills do not as a rule install improved machinery as soon as it is introduced on the market but wait until the new machinery has proved to be of value in actual practice, until the old machinery wears out, until it appears economical to replace it, or until sufficient funds are available for capital expenditure.

The objective of this study, however, was to measure the changes in the output per man per hour of specific types of woolen and worsted cloth, which were made possible by changes in machinery and equipment alone during the quarter of a century between 1910 and 1936. Precisely because this was the objective, it was necessary to study model mills, built up out of actual operating experience with particular types of machinery. The objective could not have been accomplished by studying the actual experience of any mill in its entirety, as such a mill would be composed of some new and some old machinery and would be dependent upon the efficiency of management quite as much as upon the character of its equipment.

To the extent that the use of less-efficient machinery was widespread, well-managed units with modern equipment in 1910 and 1936 were in a position to enjoy a competitive advantage. But with all allowance for technological lag, it is evident that mills using less efficient equipment than is known to be available on the market would find it increasingly difficult to stay in business either through exceptional management or through the exploitation of labor.

The figures in this study cannot show the extent to which an average mill in 1910 or in 1936 lagged behind the standard that might

reasonably have been attained by a thoroughly modern mill in each of those years. They therefore do not show changes in the actual demand for labor, but merely indicate the tendencies at work in the labor market. If the technological lag had been greater in 1936 than it was in 1910, there would have been a smaller decrease in labor requirements than is indicated in this study. If management had caught up in the race with technology, the reduction would have been greater.

Summary of Findings

The effect of the utilization of the most advanced textile machinery on the market in 1936 as compared with the most advanced machinery on the market in 1910 is to increase considerably the man-hour output in manufacturing the two woolen and two worsted types of cloth covered by this survey. Barely half as much labor time would have been required in 1936 to produce a given amount of woolen and worsted cloth as was required with advanced technology in 1910.

For the departments covered in this study, the increase in possible man-hour output between 1910 and 1936 was 86.4 percent in the manufacture of 32-ounce overcoating and 87.5 percent in 12-ounce woolen flannel. Among the worsted products, the increase in the man-hour output between 1910 and 1936 was 86.3 percent in worsted serge and 87.5 percent in cotton-warp worsted-filled suiting. As a result of this increased labor productivity, the man-hour requirements to produce an equal yardage of woven woolen and worsted cloth in 1936 showed a marked decline, averaging about 46.5 percent for the two woolen and two worsted products covered by the study (table 1).

TABLE 1.—*Labor Productivity and Man-hour Requirements in Manufacturing Woolens and Worsteds, 1910 and 1936*

Mill producing—	Man-hour output of finished product					Requirements for 2 40-hour shifts			
	1910		1936		Percent of increase	Yards of woven cloth	Number of man-hours		
	Pounds	Yards	Pounds	Yards			1910	1936	Percent of decrease
Woolen products:									
32-ounce overcoating [1]	4.99	2.16	9.21	3.98	84.60	21,816	10,120	5,480	45.80
12-ounce wool flannel [1]	3.08	3.67	5.79	6.88	87.50	37,440	10,200	5,440	46.70
Worsteds:									
Worsted serge [1]	1.32	1.56	2.47	2.90	86.30	74,400	47,840	25,680	46.30
Cotton-warp worsted-filled suitings [1]	2.13	4.06	3.99	7.62	87.50	129,500	21,840	11,680	46.50

[1] Covers only departments included in this study.

The manufacturing of woolen and worsted cloth consists of a series of processing operations, each requiring a varying amount of labor time. In the production of the 32-ounce overcoating in 1910, the

weaving department consumed 46.2 percent of the total labor time spent in all the departments covered by the study, as against 16.6 percent for spinning and only 5.5 percent for blending and picking. The effects of the changes in machinery and equipment used in each department in 1936 as compared with 1910 were also different. The possible reduction in the labor-time requirements resulting from the changes in technology in 1936 as compared with 1910 was estimated at 53 percent for the weaving department, as compared with 71 percent in blending and picking and 19 percent in spinning. In studying the effects of mechanical changes on the labor requirements of a given plant, emphasis must therefore be placed not only on the changes in the man-hour output of a particular department or operation, but also on the relative importance of the department in the plant as a whole. This is illustrated in table 2, which gives the amount of labor required to produce 21,816 yards of 32-ounce overcoating in 1910 and in 1936, by departments, the relative importance of each department in 1910 and 1936, and the changes in the man-hour requirements which resulted from the differences in the machinery and equipment used in 1936 as compared with 1910.

TABLE 2.—*Changes in Man-hour Requirements to Produce 21,816 Yards of 32-Ounce Overcoating in 1910 and 1936, by Processing Departments*

Department	1910		1936		Percentage decrease in man-hours required
	Man-hours required	Relative importance of department [1]	Man-hours required	Relative importance of department [1]	
All departments	10,120	100.0	5,480	100.0	45.8
Rag picking	640	6.3	400	7.3	37.5
Blending and picking	560	5.5	160	2.9	71.4
Carding	1,520	15.0	800	14.6	47.4
Spinning	1,680	16.6	1,360	24.8	19.1
Spooling and dressing	1,040	10.3	560	10.2	46.1
Weaving	4,680	46.2	2,200	40.1	53.0

[1] Ratio of the labor time of each department to the total labor time of all the departments.

Among the different departments in the mills producing woolen products, the largest increase in the output per man per hour made possible by machine developments between 1910 and 1936 occurred in blending and picking. The increase was 208 percent in manufacturing 12-ounce woolen flannel and 237 percent in manufacturing 32-ounce overcoating. To some extent there was an incidental improvement over the types of machines in use in 1910, but the increase was due chiefly to the replacement of hand blending as used in 1910 by a machine process used in 1936. While 12 blenders working 40 hours a week would have been required in 1910 to prepare wool for the picking machines, this occupation disappeared entirely in using a 1936 automatic blending unit. Instead, two general helpers were required in

1936. The blending and picking department, however, employs comparatively few men, and the large increase in the labor productivity in this department did not result in as large a decrease in labor requirements as did smaller increases in productivity in the weaving, carding, and spooling departments.

The increase in the man-hour output in the weaving department, averaging 101.9 percent for the 12-ounce flannel and 112.7 percent for the 32-ounce overcoating, affected a very substantial proportion of the skilled workers employed in the mills. More than half the reduction of labor time required throughout the mill was achieved in the weaving department. This was brought about by the change from semiautomatic slow looms used in 1910 to high-speed automatic looms available in 1936. In 1910, one weaver was assigned to operate one loom in weaving 32-ounce overcoating and two looms for 12-ounce woolen flannel. In 1936, the automatic looms made it possible to assign three looms to a weaver in manufacturing 32-ounce overcoating and six or more looms to a weaver on the 12-ounce woolen flannel. As a result, to weave 21,816 yards of 32-ounce overcoating in 1 week of two 40-hour shifts, it would have been necessary in 1910 to have 48 semiautomatic looms and 96 weavers. In 1936, the same amount of identical cloth could be woven on 37 automatic looms requiring the attendance of only 26 weavers. These weavers in 1936 would have been assisted by two more filling men than in 1910 and by six drop-wire girls (an occupation that did not exist in 1910).

The same situation was found in the manufacture of worsted products, where the labor productivity of the weaving department advanced 121.3 percent for cotton-warp worsted-filled suiting and 159.3 percent for worsted serge. In 1910, to produce 74,400 yards of serge in two 40-hour shifts, the weaving department required 400 nonautomatic looms attended during two 40-hour shifts by 400 weavers, 2 looms per weaver. In 1936, the same amount of serge could be woven on 234 automatic looms requiring the attendance during the two 40-hour shifts of only 112 weavers.

Significant mechanical advances have also been recorded in the spinning, twisting, and spooling and warping departments. Probably the most outstanding mechanical change affecting the production of yarn has been the replacement of the small bobbins or packages formerly used on the mule spinning frame for woolens and cap spinning frame for worsteds by the larger packages now used on the ring spinning frames. Although the yarn-making processes have not undergone any inherent changes, the larger package resulted in greatly reducing the amount of doffing required in 1936 as compared with 1910. In the spooling and warping department the increase in productivity resulted chiefly from the introduction of the larger packages and the use of high-speed automatic warpers to take the place of the

34189—38——5

slow process of spooling the yarn from the small bobbins to jack spools and from the jack spools to the warper or dresser (table 3).

TABLE 3.—*Changes in Man-Hour Output of Woolens and Worsteds, by Processing Departments, 1910 to 1936* [1]

Department	Woolen cloth				Department	Worsted cloth			
	32-ounce overcoating		12-ounce flannel			Worsted serge		Cotton-warp worsted-filled suiting	
	Relative significance of department in 1910 [2]	Percent of increase in man-hour output, 1910–36	Relative significance of department in 1910 [2]	Percent of increase in man-hour output, 1910–36		Relative significance of department in 1910 [2]	Percent of increase in man-hour output, 1910–36	Relative significance of department in 1910 [2]	Percent of increase in man-hour output, 1910–36
Rag picking	6.3	54.10	([3])	-------	Sorting, scouring, and picking.	6.5	93.70	5.1	93.80
Burr picking	([3])	-------	0.8	([4])	Carding	2.5	47.90	2.6	35.80
Blending and picking.	5.5	237.30	6.3	208.30	Top making (combing and gilling).	6.2	25.70	4.8	26.10
Carding	15.0	83.20	13.3	81.90	Drawing	10.0	15.90	8.1	6.70
Spinning	16.6	21.60	27.5	49.80	Spinning	13.0	18.20	8.1	18.50
Spooling and dressing.	10.3	85.70	11.8	114.40	Twisting	13.4	166.70	([3])	-------
Weaving	46.2	112.70	40.4	101.90	Spooling and warping.	2.8	70.00	([3])	-------
					Slashing	.8	25.00	([3])	-------
					Filling preparation	5.2	153.20	10.6	158.40
					Weaving	39.5	159.30	60.8	121.30

[1] Measured for each department in terms of the product made in the department.
[2] Ratio of the labor time of each department to the total labor time of all the departments.
[3] Not required.
[4] No change.

Changes in Manufacturing Processes and in Labor Requirements, 1910 to 1936

Although woolens and worsteds are commonly spoken of together, in a strict sense the manufacture of the two cannot be said to be comparable. As a matter of fact their chief point of likeness is that they use a common raw material, namely, either virgin wool or any of the many combinations of virgin and reclaimed wools. Woolen fabrics for the most part are rough surfaced, and often somewhat matted in appearance. Worsteds are generally smooth surfaced, so that they resemble cotton textiles rather than woolens and their weave is plainly discernible.

The characteristic difference between woolen and worsted fabrics arises out of the types of yarn used in their construction. Wool yarns are processed to allow for a blending or interlocking of adjacent threads. The fibers are crossed and intermixed in a more or less indefinite manner. Worsted yarns, on the other hand, are so formed that the fibers lie more or less straight and parallel to one another, with the individual threads more tightly spun than woolen threads.

Fewer major processes are required in the manufacture of woolens than in that of worsteds. The essential processes in the manufacture of worsteds are more subdivided and the operations more often repeated several times. The machinery and the methods employed for products of such contrasting characteristics naturally are quite dissimilar and for that reason it has been deemed advisable to treat them separately, although, as has been noted, the total effect of the various types of machinery change have been almost the same on the two types of production.

MANUFACTURE OF WOOLEN PRODUCTS

The cloth construction of the two woolen products studied was the same in 1936 as in 1910. It is generally recognized that on the average the quality of woolen cloth of a specified construction was higher in 1936 than in 1910. This was due to the more scientific method of handling the raw material in 1936 and to a more effective control of humidity in the departments where moisture has a direct influence on the strength and quality of the yarn manufactured. No method, however, is available to measure even approximately the improvement in the quality of the cloth produced in 1936 as compared with 1910. It may be considered as incidental to the general advance in the art of management and in the technology of manufacturing and as such may be disregarded in the present analysis of the effects of changes in machinery on output and labor requirements.

The 32-ounce overcoating was assumed to be manufactured from a blend composed of about 85 percent picked worsted suiting, topcoating and overcoating clips, and rags, and 15 percent virgin wool. This blend makes a medium-grade shoddy woolen yarn. The 12-ounce wool flannel was assumed to be manufactured from a blend of about 60 percent scoured wool and 40 percent worsted noils. This blend makes a high-grade woolen yarn.

With the exception of the first production process, which is ragpicking for the 32-ounce overcoating and burr picking for the 12-ounce flannel, the subsequent major processes used and their order are identical for the two types of cloth. They are: Blending and picking, carding, spinning, spooling and dressing, and weaving.

Rag and burr picking department.—The rags and clips used in making the 32-ounce overcoating in 1936 were first put into a cone-shaped duster where the stock was violently beaten and shaken by rotating blades to remove the dust and dirt. They were then sorted and delivered to a picking machine which loosened the fibers and tore them apart until the stock was reduced to the consistency and structure of loose wool. From the ragpicker it was delivered by a screen-type condenser to a large feeder on the lumper, a machine which removed the unopened and unfiberized bits or pieces of rag.

The machinery used for ragpicking was simple in design and construction. The stock was fed either manually or mechanically to a set of rollers which carried it into the machine where a rapidly revolving cylinder equipped with sharp teeth tore the rags apart and loosened

FIGURE 1.—GREASE, DIRT, BURRS, AND OTHER FOREIGN MATTERS ARE REMOVED FROM WOOL BY THE SCOURING PROCESS. (SEE P. 80.)

the fibers. To preserve the fiber strength of the rags the stock was oiled with emulsion before it was fed to the machine.

Several improvements were made in the ragpicking department during the period from 1910 to 1936. Large-capacity cone-shaped dusters not in use in 1910 became standard equipment, and emulsion

oils were applied mechanically instead of by hand. The picker in use in 1936 was a much larger machine and was more ruggedly built. It could process from 175 to 200 pounds of rags per hour as compared with 75 pounds in 1910. Only 4 ragpicking machines were required in 1936 to do the work of the 10 needed in 1910 and the number of machine tenders was reduced from 8 to 4. The 4 lumper feeders who formerly oiled the stock and transferred it to the lumpers by hand were eliminated, but 2 cone-duster men were added to tend the cone duster not used in 1910.

Burr picking is an operation performed on virgin wool to remove all burrs and vegetable matters before it is carded. It opens the wool locks, leaving the stock in a more fluffy or "lofty" condition. The wool is fed by hand or automatically to a revolving brush which yields it to the teeth of a revolving cylinder. The set of rolls in the burring machine subject the stock to a lashing and beating which loosens the burrs and removes them from the wool. The stock is then expelled from the machine by a delivery brush and is carried by pneumatic or mechanical conveyors to the blending bins. The burr picker in use in 1936 was of practically the same design as the 1910 picker, with no material change in production capacity on a similar class of work. There was, however, a decided improvement in the construction of the machine and in the materials used in the various rolls. These improvements served to reduce the upkeep cost of the machine but did not raise its productivity to any extent, and the labor requirements of the department remained unchanged (table 4).

TABLE 4.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Woolen Cloth in 1936 as in 1910, Rag and Burr Picking Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
RAG PICKING—21,816 YARDS OF 32-OUNCE OVERCOATING IN TWO 40-HOUR SHIFTS				
	1 10-ft. cone rag duster with spray oiling attachment—output about 1,200 lb. per hour.	Overseers	80	80
		Ragpicker feeders	320	160
10 ragpickers (each with cylinder 20 x 30 in.)—output 75 lb. per hour.	4 rag or shoddy pickers (each with cylinder 27 x 40 in.) output 175 to 200 lb. per hour.	Lumper feeders	160	[1]
		Cone-duster men	[2]	80
Stock oiled and transferred to lumpers by hand.	2 ceiling-type condensers with exhaust fans to deliver stock to lumpers.	Stockmen	80	80
		Total	640	400
2 lumpers average output 400 lb. per hour.	2 lumpers with large feeders—output 400 lb. per hour.	Percent of decrease	------	37.50
2 wool blowers and line of pipes to stock bins.	Same as in 1910.			
BURR PICKING—37,440 YARDS OF 12-OUNCE FLANNEL IN TWO 40-HOUR SHIFTS				
1 2-cylinder burr picker with automatic feed—output 275 lb. per hour.	Same as in 1910.	Burr-picker operators	80	80
1 No. 5 wool blower and line of pipes to pipes to stock bins.				

[1] Job eliminated by 1936.

[2] Job did not exist in 1910.

Blending and picking department.—Blending is a mixing or amalgamation of shoddy and virgin wools of different colors, qualities, and characteristics. Picking further mixes the stock, untangles matted and lumpy wools, oils the fibers, and puts the stock in form suitable for carding. In 1910 the blending of the wool was done by hand by piling on top of one another on the floor layers of different stocks. The stock would then be processed through a Fearnaught picker, again blended by the layer method on the floor, and processed a second time through the picker. The emulsion oils were applied by a brush-type oiler on the second run through the picker.

Several methods were used in 1936 to mix the component parts of the blend evenly by mechanical means and to feed the blend to the Fearnaught picker. The machinery generally used consisted of large feeders with weigh boxes which mixed, weighed, and periodically discharged the proper amount of stock on a lattice apron, which in turn delivered it to the automatic feeder of the Fearnaught picker. The number of weighing feeders required depended upon the number of stocks involved in the blending operation. Four feeders with weigh boxes were required to blend and mix the shoddy and the wool used in manufacturing the 32-ounce overcoating covered by this study.

After passing through the Fearnaught picker the wool was pulled through a screen-type condenser where much of the dust and fine dirt was removed. The condenser was usually set up to discharge the stock to a large feeder directly connected to a mixing picker. A spray-type oiling attachment was commonly placed on the lattice apron between the feeder and the mixing picker. The Fearnaught picker used consisted of a large cylinder covered with cockspur teeth and an adjacent set of rolls similarly covered with teeth. The teeth on the cylinders separated the wool bunches and mixed the fibers.

The modern Fearnaught picker has been materially strengthened and changed in size, type, and spacing of the teeth so that the damage to the wool fiber has been materially reduced. This change has greatly contributed to the uniformity of the carding and spinning processes to follow. The amount of emulsion oils applied is not only well regulated, but is so finely broken up that a uniform distribution can be obtained. This method of blending and picking not only requires less labor but eliminates the element of human error in blending. A more uniform distribution of the various component fibers was obtained in 1936 than was possible by the hand process in 1910.

The automatic blending process used in 1936 eliminated the services of the 12 hand blenders needed in 1910 for the 32-ounce overcoating and the 10 blenders for the 12-ounce wool flannel. One or two general workers were added to do the odd jobs formerly performed by the blenders. The department also needed less supervisory personnel in 1936 than in 1910 (table 5).

TABLE 5.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Woolen Cloth in 1936 as in 1910, Blending and Picking Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
21,816 YARDS OF 32-OUNCE OVERCOATING IN TWO 40-HOUR SHIFTS				
1 48-in. Fearnaught picker with automatic feed—output 1,400 lb. per hour.	1 automatic blending unit (i. e., 4 mixers delivering stock to long feeder of Fearnaught picker). 1 48-in. Fearnaught picker with automatic feed—output 1,400 lb. per hour.	Overseers	(1)	(1)
		Picker feeders	80	80
		Blenders	480	(2)
		General	(3)	80
		Total	560	160
		Percent of decrease		71.43
1 brush oiling attachment.	1 48-in. mixing picker with automatic feed and spray-type oiling attachment—output 1,200 lb. per hour.			
1 wool blower and pipe line to card bins.	1 ceiling-type condenser with exhaust fan.			
(Wool and shoddies blended by hand, using layer method on floor. Processed through picker twice, with a floor blending between the two runs. Emulsion oils applied by brush-type oiler during second run.)	Same as in 1910.			
37,440 YARDS OF 12-OUNCE FLANNEL IN TWO 40-HOUR SHIFTS				
Equipment and output same as above.	Equipment and output same as above.	Overseers	80	40
		Stockmen	80	40
		Picker feeders	80	80
		Blenders	400	(2)
		General	(3)	40
		Total	640	200
		Percent of decrease		68.75

[1] Overseer included in ragpicking department.
[2] Job eliminated by 1936.
[3] Job did not exist in 1910.

Carding department.—After passing through the picker, the wool is ready to be carded and is blown to bins adjacent to the carding room. Carding opens and disentangles the wool, separates the fibers, combs out most of the foreign substances not previously removed, and separates the wool fibers into a number of ends of roping or roving suitable for spinning. This process may be regarded as the first operation in the manufacture of woolen yarn, since upon leaving the card, the wool for the first time appears in the form of a continuous rope.

Wool usually undergoes three stages of carding. The three cards used are arranged in tandem and are called the breaker, intermediate, and finisher cards. For extra-heavy stock such as is used in the manufacture of 32-ounce overcoating, four cards are often used. The wool is fed to the breaker card by an automatic weighing and feeding mechanism and is delivered to a set of teeth-clothed rolls called a breast, which transmits it to the first cylinder of the card. Each card

consists of one very large cylinder and a number of different-size but smaller cylinders called "workers" and "strippers." All cylinders, small and large, are covered with card clothing consisting of a solid layer of cloth thickly studded with fine wire points. Some of the smaller cylinders revolve in the same direction and some in the opposite direction to the larger cylinders. By this method the wool fibers are thoroughly loosened and mixed, and the wool transferred from one cylinder to another. From the breaker and intermediate cards the stock is drawn in the form of a continuous rope or band and is transferred to the next card either on the Apperly feed or on the center-draw broad-band intermediate feed. From the last or finisher card the wool is drawn in the form of a number of separate narrow ribbons which pass through a rubbing apparatus, are converted into ropings or rovings, and are wound upon jack spools ready for spinning.

A modern set of woolen cards is equipped with a highly sensitive large-capacity automatic feeder. The stock is conveyed to the card from the hopper of the feeder by means of a lifting or elevator apron and is dropped into a weighing pan. The pan is so balanced that when the necessary amount of stock has been delivered to it the delivery automatically stops and the stock is dropped upon the feeding apron of the card.

The replacement of the Apperly feed by the center-draw broad-band intermediate feed made it possible to deliver the stock from one card to another in a more fluffy or "lofty" condition, so that the carding operation could be started immediately instead of first reopening the stock, as was necessary with the Apperly feed. It also resulted in less waste of wool and better control of the fibers.

In 1910 the separation of the web of wool on the finisher card into ribbons was performed by means of the doffer cylinders which were covered only with rings or strips of card clothing instead of being completely covered. The arrangement of the rings on the two doffer cylinders was such that the covered area on one cylinder corresponded to the blank area on the other. When the sheet of wool fiber passed between the rings of the cylinders it was divided into as many narrow ribbons as there were sets of rings on the two cylinders. It was customary in 1910 to draw in this manner 48 good ends of wool roping and wind them on jack-spool drums.

By 1936 the ring doffers on the finishing card had been generally replaced by another device called tape condensers. The thin web which covered the entire width of the card now passed between a pair of metal rolls recessed at intervals with deep grooves through which ran a series of leather belts called condenser tapes. Here the web was split into narrow flat ribbons of exactly the same width and thickness. The leather belts conveyed the ribbons between wide leather aprons where, by a peculiar rubbing action of the aprons, the

ribbons were converted into smooth round slivers which were wound on large wooden spools. On the 1936 modern card, 60 inches wide, equipped with tape condensers, and four banks of rubbing aprons, it was possible to draw as many as 120 good ends simultaneously.

FIGURE 2.—WOOLEN CARD IN OPERATION.

The production per wool card obtainable in 1936 was, therefore, approximately two and one-half times that possible on a wool card in 1910. The design and construction of the card permitted easy and quick adjustment, which required a minimum of maintenance labor. The tape condensers processed more than twice as many ends as was

possible in 1910. The jack-spool winder was perfected so that the amount of roping wound on the spool was nearly doubled. It also unwound on the mule in the spinning frame with less end breakage. The increase in the amount of roping per spool reduced the labor required for doffing in the card room and for creeling in the spinning process. Vacuum stripping was developed and perfected, which increased the efficiency of the card through a reduction in the time lost in stripping, at the same time requiring less labor for stripping.

Labor requirements in the carding department were reduced 47 percent. The decrease in the number of machines, resulting from their increased capacity per hour, accounted for most of this change, and affected the various occupations to almost the same extent.

TABLE 6.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Woolen Cloth in 1936 as in 1910, Carding Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
21,816 YARDS OF 32-OUNCE OVERCOATING IN TWO 40-HOUR SHIFTS				
14 sets of 3-cylinder cards, 48×60 in. (Each set equipped with automatic feed, 20-in. breast, Apperly intermediate feed, 16-in. ring doffer, 2 banks of double apron condensers, and 2 jack-spool drums to receive 48 good ends of roping.) Stripping done by hand. Output per card 50 lb. per hour.	6 sets of 4-cylinder cards, 60×60 in. (Each set equipped with large automatic feed, 30-in. breast, broad-band intermediate feed, 4 banks of double apron tape condensers, and 4 jack-spool drums to receive 96 good ends of roping.) 6 vacuum stripping units. Output per card 120 lb. per hour.	Overseers	40	40
		Second hands	40	40
		Section men	160	80
		Feeders and bin men	240	160
		Alley men	160	80
		Finisher tenders	320	160
		Strippers	480	160
		Waste men	80	80
		Total	1,520	800
		Percent of decrease		47.37
37,440 YARDS OF 12-OUNCE FLANNEL IN TWO 40-HOUR SHIFTS				
17 sets of 3-cylinder cards, 48×60 in. (Each set equipped with automatic feed, 20-in. breast, Apperly intermediate feed, 16-in. ring doffer, 2 banks of double apron condensers, and 3 jack-spool drums to receive 60 good ends of roping.) Stripping done by hand. Output per card 25.5 lb. per hour.	7 sets of 3-cylinder cards, 60×60 in. (Each set equipped with large automatic feeder, burr cleaners, broad-band intermediate feed, 4 banks of double apron tape condensers, and 4 jack-spool drums to receive 120 good ends of roping.) 7 vacuum stripping units. Output per card 65 lb. per hour.	Overseers	40	40
		Second hands	40	40
		Section men	160	80
		Feeders and bin men	240	160
		Alley men	160	80
		Finisher tenders	320	160
		Strippers and waste men.	400	160
		Total	1,360	720
		Percent of decrease		47.06

Spinning department.—After passing through the carding department, the stock, in roving form wound on jack spools, is ready to be spun into yarn. Spinning "drafts" or attenuates the roving to reduce it in diameter and increase its length until a yarn of the desired size is obtained. It also twists the yarn to give it sufficient strength for its intended purpose.

There are two types of machines for spinning wool yarn—the mule, which is the older machine, though extensively used, and the ring spinning frame, which has come into common use in recent years and is gradually replacing the mule in the spinning of warp yarn.

The mule frame is a complicated machine which consists of three main parts—the beam, the carriage, and the head. The beam is stationary and supports the creel for the roving and the rollers. The carriage moves forward and backward and contains the spindles and

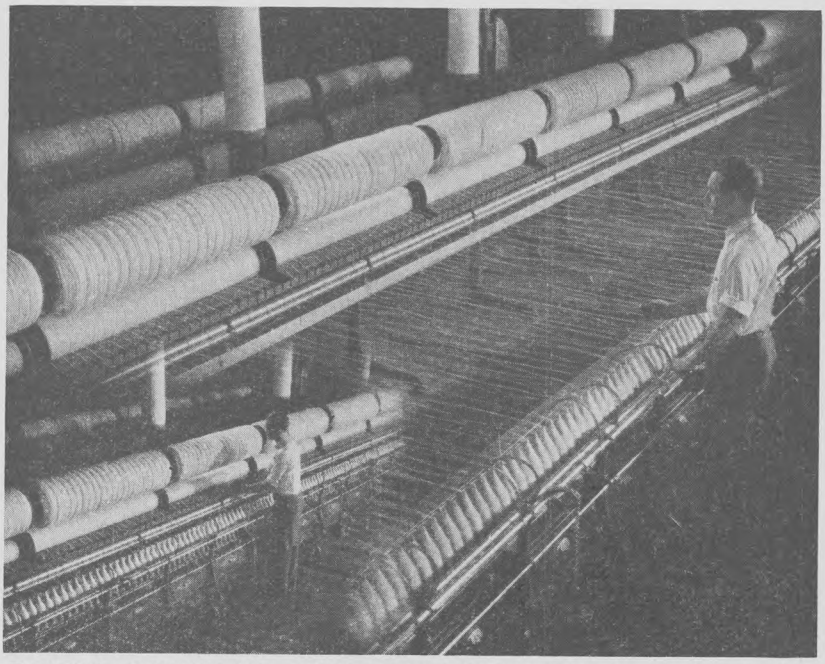


FIGURE 3.—SPINNING MULE IN OPERATION, SHOWING CARRIAGE IN AND OUT.

the mechanism by which the yarn is wound upon the bobbin. The head contains all the gears and pulleys required for the operation of the mule.

The method of spinning yarn on the mule frame is essentially as follows: The carriage is brought close to the delivery roll and the mule operator or spinner passes the roving from the jack spools under the rolls, connects it to the spindles, and sets the frame in operation. The carriage then slowly recedes from the head, carrying the roving with it. When the carriage reaches the point set by the drafting requirements of the yarn, the rolls cease delivering roving, but the carriage continues to recede, thus pulling out or drafting the roving to the required length. The spindles start revolving at a higher speed than previously and in this way impart a twist to the yarn. After traveling the entire distance, the carriage begins to move backward

to the head and releases the mechanism by which the yarn is wound upon the mule bobbin.

The process of spinning on a mule frame is therefore not continuous, as only part of the time is devoted to actual spinning. The ring spinning frame, however, performs the operation of spinning in a continuous process. The roving is drafted without interruption between sets of high-speed drafting rollers, is given the needed twist by the traveler, which revolves around the bobbin on the ring, and is wound continuously upon the bobbin.

FIGURE 4.—ON RING SPINNING FRAMES THE OPERATION IS CONTINUOUS AND BOBBINS ARE SEVERAL TIMES AS LARGE AS THOSE USED ON MULE.

The ring spinning frame has been developed and applied to the wool industry during the past 10 to 12 years. The draft on the ring frame is comparable with that obtainable on a mule but the production on a ring frame spindle is much greater than can be obtained on the mule. However, the principal advantage of the ring frame over the mule has been the larger size of bobbin used on the ring frame. In 1910 the mule bobbin contained from 2 to 2½ ounces of yarn of the type used to make 32-ounce overcoating. In 1936 the size of the bobbin used on a modern mule was increased to contain about 12 ounces of yarn, while the bobbin on the ring frame held about 18 ounces. The increased size of the package used in 1936 both on the mule and ring frames eliminated a large amount of doffing labor

required in 1910. At the same time it also resulted in a considerable reduction in the labor required in the subsequent spooling and dressing operations.

The work done by 24 mule spinners in making 32-ounce overcoating in 1910 was done in 1936 by 8 mule and 8 ring spinners, assisted by 4 ring-frame doffers. In the making of 12-ounce wool flannel, 50 mule spinners were replaced by 14 mule and 14 ring spinners assisted by 4 doffers. These changes were made possible by the change from mules to ring spinning frames in the making of warp yarn and by the use of higher-speed mules in making yarn for filling. The larger-size bobbins

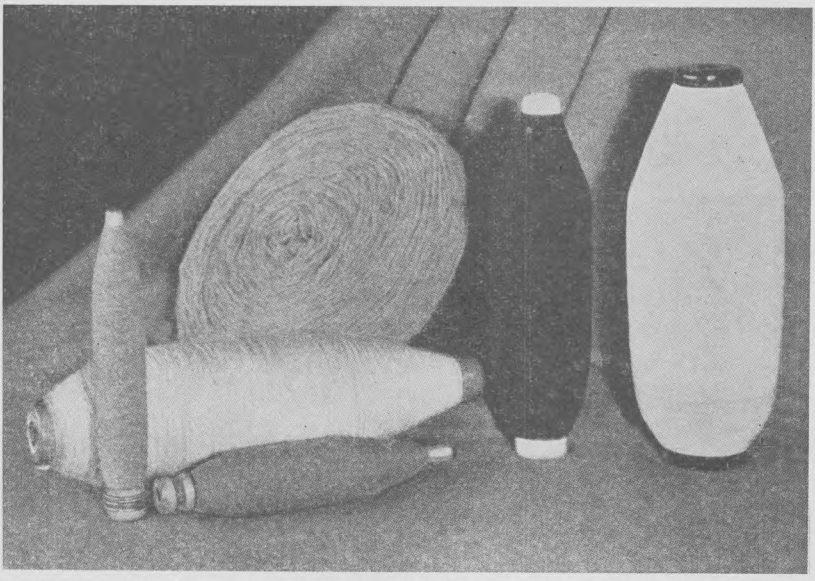


FIGURE 5.—BOBBINS SPUN ON WOOL-SPINNING FRAME. MULE SPUN BOBBIN IN FOREGROUND.

on the ring frames made possible the reduction in the number of bobbin boys from 6 to 4, while the larger amount of roving wound on the jack spools in the carding department accounted for the reduction in the number of roving carriers from 6 to 4 for both types of cloth studied (table 7).

Spooling and dressing department.—The yarn wound on bobbins or cops in the spinning process must undergo several preparatory handlings before it can be used in weaving. The manner in which the yarn is prepared for the loom depends on whether it is to be used for warp or for filling. The yarn used for filling, if wound on bobbins sufficiently small to fit into the loom shuttle, is transferred directly to the weaving department. Otherwise it is rewound on bobbins suitable for the loom. Warp yarn, on the other hand, must first be

spooled on jack spools or cones and then dressed (i. e. wound in proper order) for weaving on a reel and on the loom beam.

TABLE 7.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Woolen Cloth in 1936 as in 1910, Spinning Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupations	Man-hours	
			1910	1936
21,816 YARDS OF 32-OUNCE OVERCOATING IN TWO 40-HOUR SHIFTS				
For warp and filling: 12 300-spindle mules: Gage between centers of bobbins, 2 in. Length of bobbin, 7½ in. Traverse (section of bobbin covered with yarn), 6¾ in. Weight of yarn per bobbin, 2¼ oz. Average production per mule at 70 percent efficiency 54 lbs. per hour; per spindle, 0.18 lb. per hour.	For warp: 7 96-spindle ring frames: Gage between centers of bobbins, 6½ in. Length of bobbin, 14 in. Diameter of ring, 4½ in. Traverse, 12 in. Weight of yarn per bobbin, 18 oz. Average production per frame at 80 percent efficiency 52 lb. per hour; per spindle, 0.54 lb. per hour. For filling: 4 360-spindle mules: Gage between centers of bobbins, 2¼ in. Length of bobbin, 8¾ in. Traverse, 7¾ in. Weight of yarn per bobbin, 3¼ oz. Average production per mule at 73 percent efficiency 83 lb. per hour; per spindle, 0.23 lb. per hour.	Overseers	40	40
		Second hands	40	40
		Section men and fixers.	80	80
		Mule spinners	960	320
		Ring spinners	(1)	320
		Bobbin boys	240	160
		Ring frame doffers	(1)	160
		Yarn weighers	80	80
		Roving carriers	240	160
		Total	1,680	1,360
		Percent of decrease		19.05
37,440 YARDS OF 12-OUNCE FLANNEL IN TWO 40-HOUR SHIFTS				
For warp and filling: 25 300-spindle mules: Gage 1¾ in. Length of bobbin, 7½ in. Traverse, 6¾ in. Weight of yarn per bobbin, 2 oz. Average production per mule at 80 percent efficiency 16.60 lb. per hour; per spindle, 0.055 lb. per hour.	For warp: 14 120-spindle ring frames: Gage, 6½ in. Diameter of ring, 4½ in. Length of bobbin, 14 in. Traverse, 12 in. Weight of yarn per bobbin, 18 oz. Average production per frame at 90 percent efficiency 15.7 lb. per hour; per spindle, 0.131 lb. per hour. For filling: 7 360-spindle mules: Gage, 2 in. Length of bobbin, 8¾ in. Traverse, 8¼ in. Weight of yarn, 3 oz. Average production per mule at 83 percent efficiency 24.87 lb. per hour; per spindle, 0.069 lb. per hour.	Overseers	40	40
		Second hands	40	40
		Section men and fixers.	160	80
		Mule spinners	2,000	560
		Frame spinners	(1)	560
		Bobbin boys	240	160
		Ring frame doffers	(1)	160
		Yarn weighers	80	80
		Roving carriers	240	160
		Total	2,800	1,840
		Percent of decrease		34.29

[1] Job did not exist in 1910.

In 1910, warp yarns were first wound from the small bobbins to jack spools, each containing from 30 to 50 ends, by means of a simple winding mechanism called a jack spooler. A number of these spools, usually from 5 to 12, were then placed in a creel and the yarn was first dressed upon a reel and then wound on the loom beam.

The use of larger packages on the modern mules and on the ring spinning frame paved the way for a complete change in the method of warp dressing, especially for large lots of the same type of yarn. In 1936, a high-speed cone winder was used to transfer the yarn from the spinning bobbins to cones which contained more yarn and were more suitable for dressing on the high-speed warper. However, in some cases where especially large bobbins were used, the dressing was done directly from the large bobbins.

The warper consists of a large V-shaped creel containing from 500 to 800 large bobbins or cones magazined to draw from 250 to 400 live ends. The yarn from the base of one cone is tied to the tip of another, thus making it possible to have continuous dressing without stopping for creeling. From the creel the individual threads of yarn pass through a frame equipped with stop-motion fingers or wires which automatically stop the warper when an end breaks. They then enter the hack stand, or dresser, through a gathering comb or a gathering reed and pass over a measuring roll which is used to measure the amount of yarn warped. From the measuring roll the yarn passes through a neck reed which condenses it to the proper width and then on to the reel. The yarn is transferred from the reel to the loom beams in a manner similar to that used in 1910. The modern beamers, however, are equipped with compression rollers which increase the amount of yarn wound on the loom beam.

The larger packages produced on the ring spinning frames and the change from slow spooling to cone winding resulted in the replacement of 16 spoolers for the 32-ounce overcoating and 18 spoolers for the 12-ounce flannel by 6 cone winders in each case. The high-speed warpers and magazined creels accounted for the reduction in the dressing forces from 6 to 4 in the 32-ounce overcoating and from 10 to 6 in the 12-ounce woolen flannel (table 8).

Weaving department.—Woolen-fabric weaving is similar to cotton-textile weaving, and the looms are similar in design but somewhat heavier in construction. Most woolen fabrics in 1910 were woven on nonautomatic looms, that is, looms requiring the weaver to stop the loom and to replenish the filling supply by hand. Since that time the automatic box loom has been developed, which replenishes the filling supply automatically without stopping the loom. Stop motions on the warp yarns not only stop the loom when a breakage occurs but also indicate the position of the broken warp thread. These automatic features have reduced the time required of the weaver, per loom, sufficiently so that more looms can be assigned to each weaver. The weaving efficiency has also been increased by the automatic filling replenishment.

The modern loom has been completely redesigned into a more smoothly operating machine, with less part breakage, and as a result

the labor required to keep the loom in adjustment has been materially reduced. The loom speeds have been increased.

Below is a partial list of the major developments in loom construction and design since 1910, without regard to the order of their importance:

(*a*) Completely redesigned loom, with precision machine work, better materials wherever desirable, and balanced motions to reduce vibration.

TABLE 8.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Woolen Cloth in 1936 as in 1910, Spooling and Dressing Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
21,816 YARDS OF 32-OUNCE OVERCOATING IN TWO 40-HOUR SHIFTS				
Spooling or winding: 8 50-end jack spoolers with 40-in. spread between heads. Output per unit 46 lb. per hour. Dressing: 3 complete units (each consisting of creel with 5 to 12 jack spools, a hack stand with measuring roll, a neck or reducing reed, a 4-section pin-type reel 4 yds. in circumference and 80 in. long, and 1 beamer with compressed rolls). Output per unit 97.2 yd. per hour.	Spooling or winding: 1 40-spindle cone winder (traverse of cone 6 in.), with winding speed 300 yd. per minute. Output at 70 percent efficiency 360 lbs. per unit per hour; per spindle, 9 lb. per hour. Dressing: 1 magazine-type creel (500 to 800 packages magazined to form 250 to 400 live ends, equipped with individual end tensions and stop motions, a hack stand with measuring roll, a neck reed, 2 stove-pipe type pinless reels, and 1 beamer) with speed 200 to 250 yd. per minute. Output per unit 375 yd. per hour.	Second hands	80	80
		Spoolers	640	(1)
		Winder tenders	(2)	240
		Dressers	240	80
		Creel hands	(2)	80
		Beam men	80	80
		Total	1,040	560
		Percent decrease		46.15
37,440 YARDS OF 12-OUNCE FLANNEL IN TWO 40-HOUR SHIFTS				
Spooling or winding: 9 50-end jack spoolers, with 32-in. spread between heads. Output per unit 27 lb. per hour. Dressing: 4 complete units of same dressing equipment as above. Output per unit 118.4 yd. per hour.	Spooling or winding: 1 60-spindle cone winder (traverse of cone 6 in.), with winding speed 450 yd. per minute. Output at 80 percent efficency 249 lb per unit per hour; per spindle, 4.15 lb. per hour. Dressing: Same dressing equipment as above. Output per unit 490 yd. per hour.	Second hands	80	80
		Spoolers	720	(1)
		Winder tenders	(2)	240
		Dressers	320	80
		Creel hands	(2)	80
		Beam men	80	80
		Total	1,200	560
		Percent decrease		53.33

[1] Job eliminated by 1936. [2] Job did not exist in 1910.

(*b*) Improved let-off and take-up motions, insuring more evenly woven fabrics.

(*c*) Larger loom beams which reduce the labor required for warp changing and loom adjusting.

(*d*) Redesigned shuttle boxes which permit the use of larger filling bobbins, thus reducing the frequency of bobbin transfers and loom stoppages at the time of transfer.

(*e*) Materially improved warp stop motions, greatly decreasing the inspection time required of the weaver.

(*f*) Developed and greatly improved automatic filling transfer motion for box looms.

(*g*) Redesigned shuttle tensions and shuttle eyes, resulting in a reduction of loom stops at the time of the bobbin transfer and making possible the weaving of cloth with more uniform tension.

(*h*) Flat steel heddles, replacing the wire heddles or cotton harnesses of 1910. The flat steel heddles are easier on the yarn and, having a longer life, require less frequent drawing in.

(*i*) Feelers developed for use on woolen looms and improved in their sensitivity, thus reducing filling waste and the labor of maintaining adjustments.

TABLE 9.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Woolen Cloth in 1936 as in 1910, Weaving Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
21,816 YARDS OF 32-OUNCE OVERCOATING IN TWO 40-HOUR SHIFTS				
48 82-in. nonautomatic 4 x 1 box looms, with speed 100 picks per minute.	37 82-in. automatic heavy-type 4 x 1 box looms (equipped with pick clocks and stop motions which stop loom when a thread breaks, and indicate position of broken thread) with speed 115 picks per minute.	Overseers	40	40
		Second hands	80	80
		Weavers [1]	3,840	1,040
		Loom fixers	160	160
		Filling men	80	160
		Harness men	80	80
Output per loom at 75 percent efficiency 5.68 yd. per hour.	Output per loom at 85 percent efficiency 7.40 yd. per hour.	Drawing and twisting hands.	240	240
		Drop-wire girls	[2]	240
		Beam men	80	80
		Cloth perchers	80	80
		Total	4,680	2,200
		Percent decrease		52.99
37,440 YARDS OF 12-OUNCE FLANNEL IN TWO 40-HOUR SHIFTS				
80 82-in. nonautomatic 2 x 1 box looms with speed 110 picks per minute.	63 automatic heavy-type 2 x 1 box looms (equipped with pick clocks and stop motions which stop loom when a thread breaks and indicate position of broken thread), with speed 130 picks per minute.	Overseers	40	40
		Second hands	80	80
		Weavers [3]	3,200	880
		Loom fixers	240	240
		Filling men	80	80
		Harness men	80	80
Output per loom at 83 percent efficiency 5.85 yd. per hour.	Output per loom at 90 percent efficiency 7.40 yd. per hour.	Drawing and twisting hands.	240	240
		Drop-wire girls	[2]	240
		Beam men	80	80
		Cloth perchers	80	80
		Total	4,120	2,040
		Percent of decrease		50.48

[1] 1 loom per weaver in 1910 and 3 looms per weaver in 1936.
[2] Job did not exist in 1910.
[3] 2 looms per weaver in 1910 and 6 looms per weaver in 1936.

The high-speed automatic looms made it possible to use fewer looms in 1936 to produce the same amount of cloth as in 1910. In addition, more looms were assigned to each weaver. The combined effect was the replacement of 96 weavers and 2 filling men (required to produce 21,816 yards of 32-ounce overcoating in two 40-hour shifts in 1910) by 26 weavers, 4 filling men, and 6 drop-wire girls. In the manufacture of 12-ounce flannel, the change was from 80 weavers to 22 weavers assisted by 6 drop-wire girls needed to service the warp stop motions on the automatic looms (table 9).

MANUFACTURE OF WORSTED TEXTILES

The fabric construction of the two worsted products covered by this study was the same in 1936 as in 1910. One of the products was a plain serge and the other was cotton-warp worsted-filled suiting. For the second type of cloth only the worsted filling was covered, as the cotton warp is generally manufactured in cotton-textile mills.

Sorting, opening, scouring, and picking department.—The virgin wool used in the manufacture of worsteds first goes through the processes of sorting, opening, scouring, and picking. In sorting, the fleece is placed on tables with wire-caged surfaces through which a portion of the dust, sand, and particles of foreign matter is removed. The stock is then thrown into piles or bins, according to the grades of fiber. The opening or dusting operation removes the large amount of foreign matter commonly found in raw wool, separates the locks of wool, and prepares the stock for scouring and picking.

In 1910, openers were fed by hand, one fleece at a time. Under the 1936 procedure a number of fleeces were deposited in a large capacity hopper from which they were automatically fed into the opener.

From the opening machine the wool is delivered by pneumatic conveyers to the scouring room. Scouring is performed in large tanks or bowls arranged in series and containing chemical solutions of varying strength. The wool is fed into the first bowl by means of an automatic feeder. Upon entering the bowl it is forced down into the solution by a rotary immerser. As soon as the wool is thoroughly soaked, a series of rakes within the bowl carries it through the solution. When the wool reaches the delivery end of the bowl it is picked up by a carrier which delivers it to the squeeze rollers from which it moves into the next scouring bowl for an additional washing. Usually three or four scouring bowls constitute a scouring line. After final scouring the stock passes through a last set of squeeze rolls and is carried on a lattice conveyer to the drying machine.

Scouring equipment in 1910 consisted of a 3-bowl scouring unit and a stock drier with a capacity of about 500 pounds of clean, dry wool per hour. In 1936 it consisted of a 4-bowl scouring unit and a large stock drier with a capacity of at least 1,200 pounds of clean, dry wool

per hour. The scouring bowls used in 1936 were similar in design to the 1910 unit, but were much larger and greatly improved in bearings, gears, and general construction.

From the last scouring bowl the wool is carried directly by means of a lattice conveyor to the drier. Upon reaching the end of the lattice it drops onto a horizontal conveyor which carries the wool through a closed drying box. There it is subjected to a steady draft of hot, dry air emanating from a tubular heater within the drier. Depending upon the type of stock employed, the dry, clean wool either is blown directly to stock bins in the blending room or is first subjected to a burr-picking operation.

TABLE 10.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Sorting, Scouring, and Picking Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
Sorting: Done by hand, 1 man averaging about 50 lb. per hour.	Sorting: Done by hand, but comparatively little required.	Overseers	80	80
		Sorters	2,000	800
		Scouring feeders	240	80
Scouring: 3 units each (consisting of 1 wool opener, 3 scouring bowls with squeeze rolls and feeders, 1 stock drier and feeder, and 1 blowing system to picker bins).	Scouring: 1 unit (consisting of 1 large-pin cylinder opener with large-capacity automatic feeder, 4 scouring bowls with squeeze rolls and feeders, 1 large-capacity stock drier with feeder, and 1 blowing system to picker bins).	Stockmen	160	160
		Drier and scouring men	240	80
		Soap and chemical men	80	80
		Picker feeders	160	80
		Bin stockmen	160	160
		Total	3,120	1,520
Capacity 500 lb. per hour.	Capacity 1,000 to 1,500 lb. per hour.	Percent of decrease		51.28
Picking: 2 2-cylinder wool openers and 2 blowing systems to card bins (opening operation repeated)—Capacity 700 lb. per hour.	Picking: 1 48-in. Fearnaught picker with large feeder and 1 blowing system to card bins. Capacity 1,400 lb. per hour.			
129,500 YARDS OF COTTON-WARP WORSTED-FILLED SUITING IN TWO 40-HOUR SHIFTS				
1 scouring unit and 1 picking unit similar to above.	Same equipment as above.	Overseers	1,120	650
		Sorters	640	240
		Stock men	80	80
		Drier and scouring men	80	40
		Soap and chemical men	80	40
		Picker feeders	80	40
		Bin stockmen	80	80
		Total	1,120	560
		Percent of decrease		50.00

It was customary to use one or two cylinder wool openers in 1910 to open the wool after scouring and prepare it for carding. This type of opener is hard on the stock in that it breaks fibers and does not

thoroughly open the wool. In 1936, a Fearnaught picker was used which processed considerably more stock per hour, was easier on the fibers, and assisted in blending the wool.

The reduction in the number of overseers, drier and scouring men, and soap and chemical men resulted from the reduction in the number of scouring units needed in 1936, because of the greater capacity of each unit used. The number of sorters was reduced from 50 to 20 in making worsted serge and from 16 to 6 in making worsted-filled suiting, by a complete change in the method of sorting which greatly reduced the amount of sorting done before scouring (table 10).

Carding department.—Worsted carding is the first step in making the stock or wool "lofty," parallelizing the fibers, and forming the sliver. In contrast with stock which comes off the woolen carding machine divided into a number of strands or ribbons, the worsted stock is drawn off the card in a single round sliver.

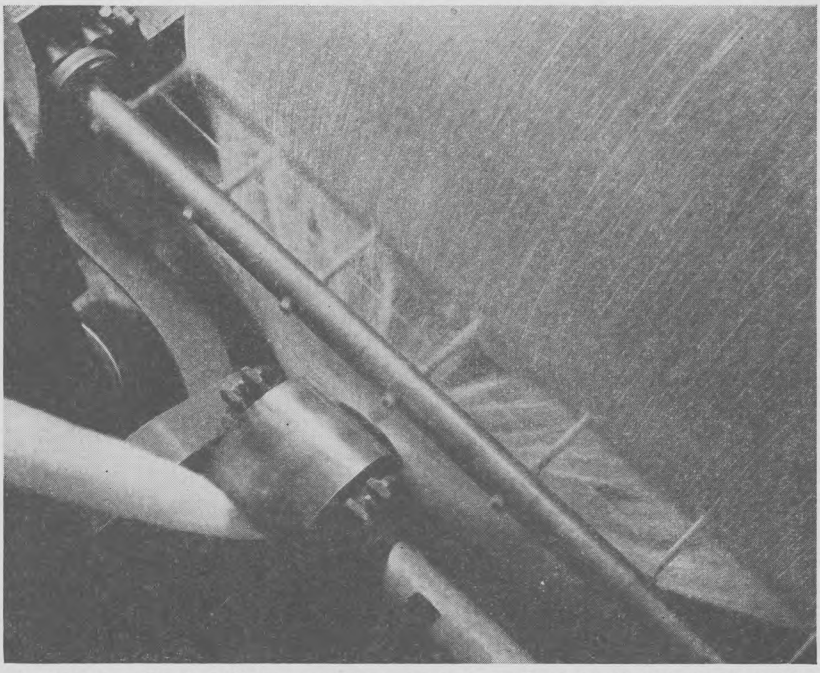


FIGURE 6.—FROM A WORSTED CARD, STOCK IS DRAWN IN ONE CONTINOUS SLIVER.

The cards used for worsted textiles are not so large as for woolen products, and two cards usually suffice, as against three or four required in woolens. In 1936 a modern card was 60 inches wide and consisted of a large-capacity feeder, a burring machine unit, a set of cylinders consisting of the main cylinder, workers and strippers, and a coiler. The cylinders were covered with metallic clothing, which

required a minimum of stripping and no grinding. Such a card set had a productive capacity of from 80 to 90 pounds per hour of the types of stock used in the production of serge and worsted suiting, as against 45 to 50 pounds possible in 1910. Fewer card sets were therefore needed in 1936 and the labor requirements were reduced proportionately. Besides, the use of metallic fillet for card clothing reduced the amount of stripping and with it the number of strippers and section men (table 11).

TABLE 11.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Carding Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
26 sets of worsted cards 54 in. wide (each consisting of 1 feeder, one 42-in. garnett breast, 2 Lickerin rolls, and burr rolls, 2 54-in. cylinders, and 1 coiler). Output per unit 45 lb. per hour.	15 sets of worsted cards 60 in. wide (each consisting of 1 large-capacity feeder, 1 burring-machine unit, 1 set of Morrell rolls, 2 30-in. cylinders covered with metallic clothing, and 1 coiler. Output per unit 80 lb. per hour.	Overseers	80	80
		Section men	240	160
		Card feeders	320	240
		Can doffers	240	160
		Strippers	320	160
		Total	1,200	800
		Percent of decrease		33.33
129,500 YARDS OF COTTON-WARP WORSTED-FILLED SUITING IN TWO 40-HOUR SHIFTS				
8 sets of cards of same specifications as above. Output per unit 50 lb. per hour.	5 sets of cards of same specifications as above. Output per unit 90 lb. per hour.	Overseers	80	80
		Section men	80	(1)
		Feeders and doffers	240	160
		Strippers	160	160
		Total	560	400
		Percent of decrease		28.57

[1] Job eliminated by 1936.

Top making.—Worsted stock requires considerably more combing and parallelizing of the fibers than woolens. It is first prepared for combing in machines known as preparatory gill boxes. Several ropes of card sliver are fed into the intake of the gill box and emerge at the other end combined into a single rope no larger in diameter than any one of those entering. The gill box thus drafts the stock and further parallelizes and blends the fibers during the operation. The paralleling is accomplished by gills or fallers—moving horizontal bars provided with vertical teeth which comb the stock much as hair is combed. The number of gillings required varies with the stock, but generally two gilling operations are used and the stock from the second gill box is wound on a punch baller into a ball or package suitable for feeding to the comb.

The operation of combing is designed to eliminate the shorter wool fibers, which cannot be used in the manufacture of worsteds, and

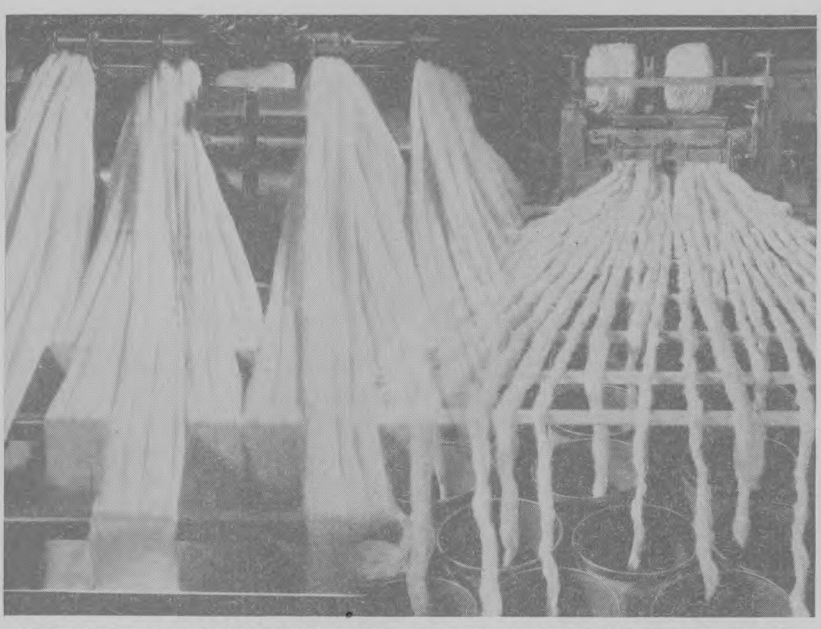


FIGURE 7.—PREPARATORY GILLING AND BALLING OF WORSTED STOCK.

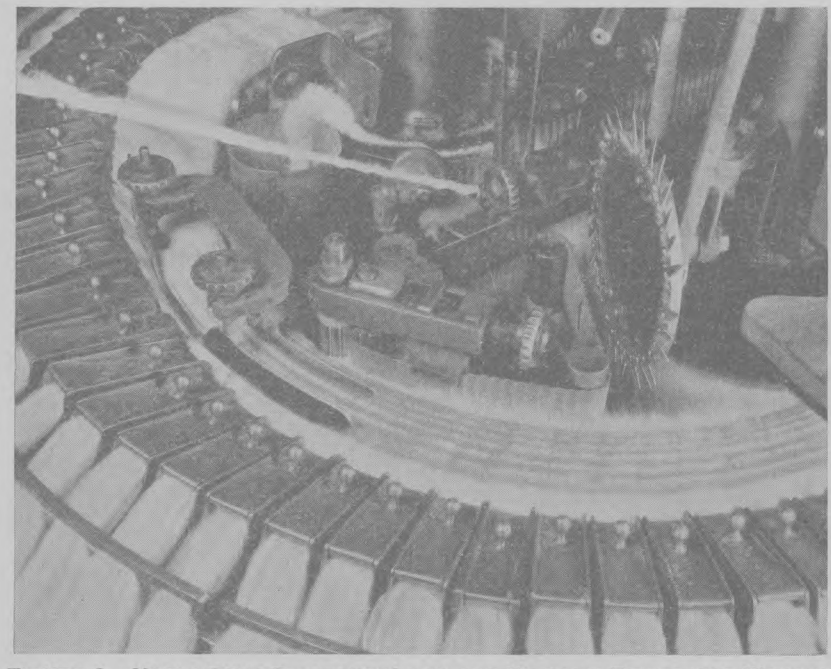


FIGURE 8.—NOBLE COMB SEPARATES LONG AND UNIFORM FIBERS (FOR WORSTED) FROM SHORT AND MIXED FIBERS (FOR WOOLEN).

further to blend and parallelize the stock. The machine used for this purpose is known as the Noble comb. It is a circular machine studded with several rows of thickly set pins through which the individual slivers are drawn by a number of circular combs of different sizes. The combing separates the long fibers from the stock, and draws them off in one continuous sliver. The shorter fibers, called noils, are drawn off through a separate device and are used in the manufacture of certain types of woolen products.

After combing, the sliver made up of the longer uniform and nearly parallel fibers is passed through another gilling process similar to preparatory gilling. From the gill box it is formed into a ball generally called top. After gilling the tops are placed in storage for aging purposes.

TABLE 12.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Top-Making Department* [1]

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
Preparatory gilling: 10 sets of 2-can first gilling machines, and 10 sets of 2-can second gilling machines. Output per set 120 lb. per hour. 5 punch ballers, one for each two second gills. Combing: 14 Noble combs—output 65 lb. per hour, of 6-oz. per yard top. Intermediate gilling: 9 sets of 2-can first intermediate gilling machines, and 9 sets of 2-ball second intermediate gilling machines. Output per machine 100 lb. per hour.	Preparatory gilling: 7 sets of 2-can first intersecting gilling machines, and 7 sets of 2-can second intersecting gilling machines. Output per set 180 lb. per hour. 4 punch ballers. Combing: 12 Noble combs—output 75 lb. per hour of 6-oz. per yard top. Intermediate gilling: 6 2-can first intermediate intersecting gilling machines, and 6 2-ball second intermediate intersecting gilling machines. Output per machine 150 lb. per hour.	Overseers	80	80
		Section men	80	80
		Pin setters	80	80
		Noil men	80	80
		Waste men and truckers	160	160
		Preparatory gill tenders	800	560
		Ballers	400	320
		Noble comb tenders	560	480
		Intermediate gill tenders	720	480
		Total	2,960	2,320
		Percent of decrease		21.62
129,500 YARDS OF COTTON-WARP WORSTED-FILLED SUITING IN TWO 40-HOUR SHIFTS				
Preparatory gilling: 3 sets of preparatory gilling machines of same specifications as above. Combing: 5 Noble combs. Intermediate gilling: 3 sets of intermediate gilling machines of same specifications as above.	Preparatory gilling: 2 sets of preparatory gilling machines of same specifications as above. Combing: 4 Noble combs. Intermediate gilling: 2 sets of intermediate machines of same specifications as above.	Overseers	80	80
		Section men and pin setters	80	80
		Noil and waste men	80	80
		Preparatory gill tenders	240	160
		Baller tenders	80	80
		Noble comb tenders	240	160
		Intermediate gill tenders	240	160
		Total	1,040	800
		Percent of decrease		23.08

[1] Includes preparatory gilling, combing, and intermediate gilling.

Between 1910 and 1936 the preparatory gill boxes were redesigned, resulting in production increases of from 25 to 75 percent, depending upon the stock used. No changes were made in the design of the ball winders used in preparing the stock for combing. There were no significant changes in the design of the Noble comb, but the metals and the methods used in making the circles and pins were materially improved. The comb used in 1936 had a greater production capacity than in 1910, largely because of fewer stops required for repairs and adjustments in the machine. The reductions in the number of preparatory gill tenders, ballers, comber tenders, and finish gill tenders from 74 to 58 for worsted serge and from 26 to 20 for worsted-filled suiting were in proportion to the reductions in the number of machines required in the department in 1936 as compared with 1910.

Drawing department.—The "top" sliver has to be drawn and drafted on a number of drawing machines in order to reduce its size. The drafting is accomplished gradually and the sliver has to go through seven drawing processes before it is reduced to the size suitable for spinning. The machines used for this purpose are similar in character and in the method of operation. The first two are similar to the machines used in gilling. The remaining machines differ from each other only in the increasing number of spindles used and in the decreasing size of bobbins. The degree of drafting accomplished in the drawing operation can be visualized from the fact that upon leaving the first machine the top sliver used in the manufacture of serge warp weighs 9,425 grains per 40 yards, whereas when it leaves the last machine it has been reduced to 81.3 grains per 40 yards. This does not take into consideration that as many as 4 to 5 slivers enter each machine and are combined into one.

The number of machines and processes used in drawing were not changed between 1910 and 1936. The construction of the last 2 machines, however, which are called reducers and roving frames, was redesigned from the flyer to the ring type, with a considerable increase in speed and a production increase per spindle of from 40 to 60 percent. This accounted for the reduction in the number of reducer operators on worsted serge from 12 to 8 and rover operators from 52 to 38. On worsted-filled suiting the number of rover operators was reduced from 16 to 12 (table 13).

Spinning department.—Spinning continues the drafting process and strengthens the yarn by imparting to it the required amount of twist. In 1910 worsted spinning frames were mostly of the cap type, and produced a small bobbin containing about 1½ ounces of spun yarn. By 1936 ring spinning frames had generally replaced the cap type and produced a larger bobbin containing about 4½ ounces of spun yarn.

TABLE 13.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Drawing Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
2-can gilling: 8 2-can gills, gilling and drafting 5 ends of top sliver into one sliver, wound upon a 16 x 10 in. bobbin. Weight of finished sliver 9,425 grains per 40 yd.	2-can gilling: Same as in 1910.	Overseers	80	80
		Second hands	80	80
		Section men	240	240
		Set weighers	160	160
2-spindle gilling: 8 2-spindle gills, gilling and drafting 5 ends to a sliver on a 14 x 9 in. bobbin. Weight of finished sliver 7,854 grains per 40 yd.	2-spindle gilling: Same as in 1910.	Roving men	80	80
		Gill operators	640	640
		Draw-box operators	640	640
		Cone finisher operators	320	320
6-spindle drawing: 8 6-spindle draw boxes drafting 5 ends to a 13 x 8 in. bobbin. Weight of finished sliver 6,042 grains per 40 yd.	6-spindle drawing: Same as in 1910.	Flyer reducer operators	480	(1)
		Ring reducer operators	(2)	320
		Flyer rover operators	2,080	(1)
8-spindle drawing: 8 8-spindle draw boxes drafting 4 ends to a 13 x 8 in. bobbin. Weight of finished sliver 3,718 grains per 40 yd.	8-spindle drawing: Same as in 1910.	Ring rover operators	(2)	1,520
		Total	4,800	4,080
		Percent of decrease	------	15.0
Cone finishing: 8 24-spindle cone finishers drafting 3 ends to a 12 x 6 in. bobbin. Weight of finished sliver 1,716 grains per 40 yd.	Cone finishing: Same as in 1910			
Reducing: 12 40-spindle reducers, flyer type, drafting 2 ends to a 10 x 5 in. bobbin. Weight of finished sliver 528 grains per 40 yd.	Reducing: 8 40-spindle Dandy reducers, ring type, drafting 2 ends to a 10 x 5 in. bobbin. Weight of finished sliver 528 grains per 40 yd.			
Roving for warp: 36 40-spindle Dandy rovers, flyer type, drafting 1 end to an 8 x 4 in. bobbin. Weight of finished sliver 81.3 grains per 40 yd.	Roving for warp: 26 40-spindle Dandy rovers, ring type, drafting 1 end to an 8 x 4 in. bobbin. Weight of finished sliver 81.3 grains per 40 yd.			
Roving for filling: 16 40-spindle Dandy rovers, flyer type, drafting 2 ends to an 8 x 4 in. bobbin. Weight of finished sliver 162.5 grains per 40 yd.	Roving for filling: 12 40-spindle Dandy rovers, ring type, drafting 2 ends to an 8 x 4 in. bobbin. Weight of finished sliver 162.5 grains per 40 yd.			

TABLE 13.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Drawing Department*—Continued

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
129,500 YARDS OF COTTON-WARP WORSTED-FILLED SUITING IN TWO 40-HOUR SHIFTS				
2-can gilling: 3 2-can gills, gilling and drafting 6 ends of top sliver into 1 sliver, wound upon a 16 x 10 in. bobbin. Weight of finished sliver 11,450 grains per 40 yd.	2-can gilling: Same as in 1910.	Overseers	80	80
		Section hands	80	80
		Set weighers	80	80
		Roving men	80	80
2-spindle gilling: 3 2-spindle gills, gilling and drafting 5 ends to a sliver on a 14 x 9 in. bobbin. Weight of finished sliver 9,203 grains per 40 yd.	2-spindle gilling: Same as in 1910.	Gill tenders	240	240
		Draw-box tenders	240	240
		Finishers and reducer tenders	320	320
6-spindle drawing: 3 6-spindle draw boxes drafting 5 ends to a 13 x 8 in. bobbin. Weight of finished sliver 6,574 grains per 40 yd.	6-spindle drawing: Same as in 1910.	Roving tenders	640	480
		Total	1,760	1,600
8-spindle drawing: 3 8-spindle draw boxes drafting 4 ends to a 13 x 8 in. bobbin. Weight of finished sliver 3,757 grains per 40 yd.	8-spindle drawing: Same as in 1910.	Percent of decrease		9.09
Cone finishing: 3 20-spindle cone finishers drafting 3 ends to a 12 x 6 in. bobbin. Weight of finished sliver 1,610 grains per 40 yd.	Cone finishing: Same as in 1910.			
Reducing: 5 32-spindle reducers, flyer type, drafting 2 ends to a 10 x 5 in. bobbin. Weight of finished sliver 460 grains per 40 yd.	Reducing: 4 32-spindle Dandy reducers, ring type, drafting 2 ends to a 10 x 5 in. bobbin. Weight of finished sliver 460 grains per 40 yd.			
Roving for filling: 16 40-spindle Dandy rovers, flyer type, drafting 2 ends to an 8 x 4 in. bobbin. Weight of finished sliver 131 grains per 40 yd.	Roving for filling: 12 40-spindle Dandy rovers, ring type, drafting 2 ends to an 8 x 4 in. bobbin. Weight of finished sliver 131 grains per 40 yd.			

[1] Job eliminated by 1936.

[2] Job did not exist in 1910.

The speed of cap frames in 1910 and the spindle speed of ring frames in 1936 were about the same, but the larger bobbin used in 1936 accounted for a greater efficiency in spinning and considerably reduced the amount of doffing required.

As a result, the number of spinners needed in 1936 fell slightly, but the number of doffers declined by one-third for both types of worsted cloth studied (table 14).

TABLE 14.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Spinning Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
For warp: 66 200-spindle cap spinning frames: Gage 3¼ in. Diameter of cap 1⅞ in. Weight of yarn on bobbin 1½ oz. Output per unit 6.5 lb. per hour, or 0.0325 lb. per spindle per hour. For filling: 26 units similar to those used for warp. Output per unit 15 lb. per hour, or 0.075 lb. per spindle per hour.	For warp: 62 200-spindle ring spinning frames: Gage 4 in. Diameter of ring 3 in. Weight of yarn on bobbin 4½ oz. Output per unit 6.9 lb. per hour, or 0.0345 lb. per spindle per hour. For filling: 24 units similar to those used for warp. Output per unit 16.2 lb. per hour, or 0.081 lb. per spindle per hour.	Overseers	80	80
		Second hands	80	80
		Section hands	320	320
		Roving men	320	320
		Spinners	3,680	3,440
		Doffers	1,440	640
		Sweepers and cleaners	320	320
		Total	6,240	5,200
		Percent of decrease		16.67
129,500 YARDS OF COTTON-WARP WORSTED-FILLED SUITING IN TWO 40-HOUR SHIFTS				
For filling: 24 200-spindle cap spinning frames. Gage 3¼ in. Diameter of cap 1⅞ in. Weight of yarn on bobbin 1½ oz. Output per unit 15 lb. per hour, or 0.075 lb. per spindle per hour.	For filling: 22 200-spindle ring spinning frames. Gage 4 in. Diameter of ring 3 in. Weight of yarn on bobbin 4½ oz. Output per unit 16.2 lb. per hour, or 0.081 lb. per spindle per hour.	Overseers	80	80
		Section hands	80	80
		Roving men	80	80
		Spinners	960	880
		Doffers, sweepers, and cleaners	560	320
		Total	1,760	1,440
		Percent of decrease		18.18

Twisting department.—The worsted spun yarn is very thin and often several strands have to be combined for the manufacture of worsted fabrics. The yarn may be doubled, tripled, or quadrupled, depending on the type of cloth manufactured.

Twisting is accomplished on twisting machines which are similar in many respects to the spinning frame, except that they do not draft the stock. The large increase in the output of the twisting machine in 1936, as compared with 1910, was due almost exclusively to the increased size of the package used. In 1910, the twisted yarn package or bobbin contained about 3 ounces of yarn. It was increased to from 18 to 21 ounces in 1936. The use of the larger twister package also resulted in a reduction in the number of knots and greatly increased

the efficiency in the subsequent operations. The 144 twister tenders needed in 1910 to produce 74,400 yards of worsted serge were replaced by 12 winders and 32 twister tenders in 1936 (table 15).

TABLE 15.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Twisting Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupations	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
36 200-spindle dolly-type twisters: Gage 3¾ in. Diameter of ring 2½ in. Weight of yarn per package 36 oz.	6 80-spindle high-speed tube winders, operating at 400 yd. per minute. 32 200-spindle horizontal roll ring-type twisters: Gage 5½ in. Diameter of ring 4 in. Weight of yarn per package 18 oz.	Overseers	80	80
		Section hands	80	80
		Bobbin boys	480	480
		Twister tenders	5,760	1,280
		Winders	(1)	480
		Total	6,400	2,400
Output per unit 12 lbs. per hour; or 0.06 lb. per spindle per hour.	Output per unit 13.5 lb. per hour; or 0.067 lb. per spindle per hour.	Percent of decrease		62.50

[1] Job did not exist in 1910.

Spooling and warping department.—The processes of preparing worsted warp for weaving through spooling, warping, and slashing are similar to those used in cotton textiles. In 1910 the warp was first wound on jack spools and then warped on small section beams at the rate of about 40 yards per minute. In 1936 the yarn was wound upon cones and then warped on a high-speed dresser from a magazined creel at the rate of about 250 yards per minute. The 34 spooler, warper, and creel tenders needed in 1910 were reduced to 20 (table 16).

TABLE 16.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Spooling and Warping Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
Spooling: 7 80-spindle spoolers winding from twister spools to 6 x 5 in. spools.	Spooling: 3 80-spindle cone winders winding directly from twister bobbin to 6 x 6 cones, each weighing 2 lb. and magazined on the creel.	Second hands	80	80
		Spooler tenders	560	(1)
		Winder tenders	(2)	240
		Warper tenders	320	160
		Creel tenders	240	160
		Yarn and beam men.	160	160
Output per unit 64 lb., or 8/10 lb. per spindle per hour.	Output per unit 140 lb. per unit, or 1.75 lb. per spindle per hour.			
Warping: 8 warpers with spool creels, and speed of 40 yd. per minute.	Warping: 2 high-speed warpers with magazine-type creels, and speed of 200 yd. per minute.	Total	1,360	800
		Percent of decrease		41.17
Output per unit 55 lb. per hour.	Output per warper 273 lb. per hour.			

[1] Job eliminated by 1936. [2] Job did not exist in 1910.

Slashing department.—As in the case of cotton textiles, worsted threads must pass through a starch or size solution in order to strengthen the yarn and make it suitable for weaving. The 1936 slashing machine was similar in design to the one used in 1910, but was of greater drying capacity. The larger section beams used and the improved slasher accounted for the higher speed and efficiency in 1936, as compared with 1910, and the reduction in the number of slasher tenders from 4 to 2 (table 17).

TABLE 17.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Slashing and Dressing Department*

74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
2 hot-air slashers (including creel stands, size box, drying unit, and head ends). Drying speed at 60 percent efficiency 15 yd. per minute.	1 hot-air slasher (including creel stands, size box, large capacity drying unit, and head end). Drying speed at 60 percent efficiency 35 yd. per minute.	Slasher tenders	160	80
		Slasher helpers	160	160
		Beam men	80	80
		Total	400	320
		Percent of decrease		20.00

Filling preparation department.—The filling yarn in 1910 was spun on a bobbin of the same type and size as was the warp yarn. This yarn was then wound on jack spools which contained about 30 ends, and was then removed to loom bobbins by means of a jack winder with about 120 spindles. In 1936 the filling yarn was wound directly from the spinning bobbin to the loom bobbin on a modern cop winder. The more compactly wound and larger loom bobbin of 1936 contained nearly twice as much yarn as in 1910. This reduced the frequency of bobbin transfers in the automatic looms and the task of the weaver in filling the loom batteries.

As a result, the 30 jack-spool winders and 6 doffers on worsted serge and 20 jack-spool winders and 6 doffers on worsted-filled suiting were entirely eliminated in 1936. The number of filling or cop winders was reduced from 22 to 20 on serge and from 20 to 18 on the worsted-filled suiting. The total reduction in the labor requirements of this department was 61.3 percent in serge and 62.1 percent on worsted-filled suiting (table 18).

Weaving department.—Worsted weaving is similar to woolen weaving and the looms are substantially the same. The 1910 loom was nonautomatic, and the weaver had to stop operations to replace, by hand, the filling supply in the shuttle.

TABLE 18.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Filling Preparation Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
15 30-end jack spoolers winding from 1½-oz. spinning bobbins. Output per winder 26 lb. per hour. 11 120-spindle filling winders from jack spools. Output 36 lb. per winder, or 3/10 lb. per spindle per hour.	30 20-spindle cop winders, winding from 4½-oz. spinning bobbins directly to filling bobbins. Output 13 lb. per unit, or 0.65 lb. per spindle per hour.	Jack spool winders	1,200	(1)
		Filling winders	880	(1)
		Cop winder operators	(2)	800
		Doffers	240	(1)
		Yarn boys	160	160
		Total	2,480	960
		Percent of decrease		61.29
129,500 YARDS OF COTTON-WARP WORSTED-FILLED SUITING IN TWO 40-HOUR SHIFTS				
14 30-end jack spooler winding units similar to above. 10 120-spindle filling winders similar to the above.	27 20-spindle cop winders similar to above.	Jack spool winders	1,120	(1)
		Filling winders	800	(1)
		Cop winder operators	(2)	720
		Doffers	240	(1)
		Yarn boys	160	160
		Total	2,320	880
		Percent of decrease		62.07

[1] Job eliminated by 1936. [2] Job did not exist in 1910.

The modern automatic loom used in 1936 was equipped with automatic filling transfers and with electric or mechanical warp stop motions. The speed and the efficiency of the loom was increased due to continuous operation and the stop motions which automatically stop the loom when a warp or shuttle thread breaks.

It was customary in 1910 to assign two looms to each weaver on worsted serge and four looms to each weaver on worsted-filled suiting. In 1936 the usual assignment was 6 automatic looms per weaver on worsted serge, although some mills assigned as many as 12 looms and with the help of battery hands even 20 to 24 looms per weaver. On worsted-filled suiting, the 1936 assignment was 16 looms per weaver, with a battery hand to every 48 looms and 12 looms per weaver when the weaver is required to fill the battery. This change was responsible for the reduction in the labor requirements of this department in 1936 as compared with 1910 of 61.4 percent on worsted serge and 54.8 percent on worsted-filled suiting. On worsted serge, 400 weavers, 34 loom fixers, and 8 cleaners were replaced by 112 weavers, 28 loom fixers, and 12 cleaners. On worsted-filled suiting, 250 weavers, 28 fixers, 8 cleaners, and 2 smash hands were replaced by 68 weavers, 22 fixers, 12 cleaners, and 4 smash hands. There were no changes in the other occupations in the department (table 19).

TABLE 19.—*Changes in Machinery and Labor Requirements for Same Amount of Woven Worsted Cloth in 1936 as in 1910, Weaving Department*

Machinery specifications and requirements		Labor requirements		
1910	1936	Occupation	Man-hours	
			1910	1936
74,400 YARDS OF WORSTED SERGE IN TWO 40-HOUR SHIFTS				
400 72-in. wide nonautomatic 4 x 1 box looms. Output per loom at 80 percent efficiency 115 picks per minute, or 2.33 yd. per hour.	334 72-in. wide automatic 4 x 1 box looms with pick clocks and automatic stop motions. Output per loom at 85 percent efficiency 130 picks per minute, or 2.8 yd. per hour.	Overseers	80	80
		Second hands	160	160
		Loom fixers	1,360	1,120
		Cloth perchers	240	240
		Filling carriers	320	320
		Cleaners	320	480
		Drawing and twisting hands.	320	320
		Beam men	80	80
		Weavers [1]	16,000	4,480
		Total	18,880	7,280
		Percent of decrease		61.44
129,500 YARDS OF COTTON-WARP WORSTED-FILLED SUITING IN TWO 40-HOUR SHIFTS				
500 40-in. nonautomatic 16-harness Dobby 4 x 1 box looms. Speed 150 picks per minute.	402 40-in. automatic 16-harness Dobby 4 x 1 box looms with pick locks and automatic stop motions. Speed 175 picks per minute.	Overseers	80	80
		Second hands	160	160
		Loom fixers	1,120	880
		Pattern checkers	80	80
		Smash hands	80	160
		Cloth perchers	240	240
		Beam men	80	80
		Filling carriers	320	320
		Loom cleaners	320	480
		Drawing and twisting hands.	800	800
		Weavers [2]	10,000	2,720
		Total	13,280	6,000
		Percent of decrease		54.82

[1] 2 looms per weaver in 1910 and 8 looms per weaver in 1936.
[2] 4 looms per weaver in 1910 and 12 looms per weaver in 1936.

Labor Conditions

LABOR REGULATIONS IN GERMANY

SINCE 1933 the German Government has issued over 2,000 labor regulations, of which a large number have been published in the Reichsarbeitsblatt.[1] In order to understand the meaning and purposes of these regulations it is necessary to review their inception and the policies upon which they are based.

One of the purposes of the labor policy of pre-war Imperial Germany was to combat the Marxian class-struggle doctrine—either by a direct legislative attack upon it, such as the anti-Socialist legislation of 1878–90 or by providing State security and protection for labor through safety and health measures, factory inspection, and various forms of social insurance.

In post-war Republican Germany this attitude changed greatly, and by the end of 1918 a labor agreement had been concluded between employers' associations and labor unions, in which the employers recognized the latter as the authoritative representatives of labor and in which minimum wages were agreed upon. The workers' right to organize, to strike, and to bargain collectively was incorporated into article 159 of the Weimar Constitution of the German Republic in 1919. The legalized collective agreements automatically regulated working hours, wages, rest periods, social insurance, and other more or less important conditions pertaining to labor.

When the present National Socialist Government came into power, it made an abrupt departure from former labor policies and legislation. The Marxian theory of the conflict of interests between the workers and their employers was replaced by an opposite theory, namely, that of harmony of interests—a conception of "establishment community" (*Betriebsgemeinschaft*). According to this theory, an industrial or trade establishment forms an organic entity, the workers and their employer working together for the common interest, and the organization consisting of the "leader of the enterprise" (that is, the employer or his chief manager) and the "followers" (that is, the hired workers).

The labor policy of the National Socialist Government, based upon this conception of an establishment as a "living organism" and the community of interest and interdependence of the workers and their employer, is carried on through two sets of regulations, described

[1] Reichsarbeitsblatt (Berlin), July 15, 1937, Teil VI.

below, applicable to the productive and service activities in the industrial and trade establishments. Although these two sets of regulations somewhat overlap, they differ from each other at least by the extent of their coverage and the authority which makes and issues them.

(1) Establishment regulations (*Betriebsordung*), which may be conveniently interpreted as "shop rules," provide for daily working time, time and conditions of payment of wages, basis for calculation of piece rate or job work, fines, dismissals without notice, disposition of forfeited wages, and other labor conditions in each individual establishment.[2]

Establishment regulations are made and issued by the leader—i. e., the employer. The followers—the workers in the establishment—may express merely their attitude (*Stellung zu nehmen*) toward these rules through a secret ballot. In case their attitude is in conflict with the decisions and rules made by the employer, the case may be taken by either the workers or the employer to the labor trustee, whose decisions are final.

(2) Labor regulations (*Tarifordung*), which have replaced the former collective agreements (*Tarifvertrage*) between the trade-unions and the employers' associations. These labor regulations cover wages, labor hours, vacations, dismissals, and other labor conditions; they may be applied to a group of establishments, or the entire industry, or a group of related industries in a given district or in a number of districts.

The labor regulations are decided upon and issued by the labor trustees (*Treuhänder der Arbeit*). The offices of labor trustees were established by the law of May 19, 1933, and they were intended to replace the workers' trade-unions and the employers' associations in the making of collective agreements. The German State is divided into 13 industrial and trade regions, each in charge of a labor trustee appointed by the Government. The functions of these labor trustees, as the regional labor chiefs of the Ministry of Labor, are to maintain industrial peace, to supervise the appointment of advisory shop councils of workers, to approve or remove members of these councils, to approve or disapprove and supervise the observance of the establishment regulations, to lay down minimum labor conditions, and to issue labor regulations, among which the fixing of minimum-wage rates is perhaps the most important.

Wage Levels Under National Socialist Government

When the National Socialists came into power in 1933, an extended program for the reduction of unemployment was started. The Gov-

[2] National Labor Law of Germany, chapter 3. See Monthly Labor Review, May 1934 (pp. 1104–1116).

ernment issued a statement that, in view of the heavy expenditures for public works, industrial subsidies, labor service, etc., wages of the employed workers could not be increased until the economic conditions in the country improved. On May 2, 1933, the Government replaced the trade-unions by the German Labor Front, into which were incorporated also the employers' associations. The wage levels fixed in the collective agreements made by the trade-unions and the employers' associations during the Republic were to be maintained.

In order to justify the limitation on wage increases, the Government promised to keep prices down also to the 1933 level. This promise, however, proved difficult to carry out, and prices, especially those of foodstuffs, increased. This resulted in a decrease of real wages for many individual workers. In addition, wage deductions for various taxes, fees, and donations tended to increase.[3]

In order to meet this situation an executive order based upon the national labor law of January 20, 1934, was issued on October 15, 1935,[4] which considerably broadened the latitude of the labor trustees in issuing labor regulations. Since the issuance of this order the labor trustees have issued labor regulations in considerable number. They deal with wages; hours of labor; part-time work; night work; overtime, Sunday, and holiday work; leave with pay; dismissal notices; rest periods; apprenticeship; transportation expenses; housing; and a number of other labor conditions.

Examination of a large number of the issued regulations indicates the principal trends in the wage policy of the present-day German Government.

On the whole, the level of money wages inherited from the former Republican regime is being maintained, as the following table indicates, although, in some cases certain slight increases in money wages have been made, varying in amount from locality to locality. For instance, Trade Regulation No. 1574–6, issued by the labor trustee in Westfalen on June 19, 1937, fixes the minimum hourly money wages in the iron and metal industries as follows:

For skilled workers the range is from 58 to 70 pfennigs, for semiskilled from 55 to 66 pfennigs, and for unskilled from 50 to 59 pfennigs, the exact amount depending upon the location of the establishment. The prescribed minimum wages also vary in accordance with the wage class, trade experience, and age of the worker. In the minimum-wage schedule prescribed for artisans in the metal trades in Bavaria, for instance, the prescribed minimum hourly money wages vary in accordance with 7 locality classes, 7 wage classes, 4 experience classes,

[3] The legal deductions alone, such as poll, wage, and income taxes, and contributions to social insurance, amounted to 13.5 percent of wages in 1936, as reported in the Wirtschaft und Statistik for June 19, 1936.

[4] See Monthly Labor Review, February 1936 (pp. 419, 420).

and 4 age classes of the workers. The variations are apparently due solely to differences in local living costs and in the comparative ability of the workers affected.

Average Hourly Money Wages in Germany, January 1, 1933, to January 1, 1937[1]

[Average exchange rate of mark (100 pfennigs)=40.2 cents in January 1937]

Year and month	Male workers			Female workers	
	Skilled	Semi-skilled	Un-skilled	Skilled and semi-skilled	Un-skilled
	Pfennigs	*Pfennigs*	*Pfennigs*	*Pfennigs*	*Pfennigs*
January 1933	79.2	68.3	62.8	52.2	43.5
January 1934	78.3	68.1	62.1	51.6	43.5
January 1935	78.3	68.3	62.2	51.6	43.4
January 1936	78.3	68.3	62.2	51.6	43.4
January 1937	78.3	68.3	62.3	51.6	43.4

[1] Jahrbuch der Nationalsozialistischen Wirtschaft, München, Otto Mönckmeier, 1937, p. 73.

Other Working Conditions

The basic 8-hour working day or 48-hour working week has been maintained. However, the labor regulations permit an increase in labor hours to 10 a day under special conditions. With this increase of working hours the daily money earnings of the workers also increase. Overtime begins after the fixed regular labor hours and is paid for at from 10 to 25 percent above the regular rate. Time and a half is usually paid for night, Sunday, and holiday work.

Annual leave with pay is granted after a certain number of years of employment in the establishment. In the metal trades of Bavaria, for instance, workers receive 6 days' leave with pay for service of 4 years or less, 9 days for 5 to 8 years' service, and 12 days after 8 years' service; young workers 15 years of age or under receive 15 days' paid vacation, those 16 years of age 12 days, and those 17 and 18 years of age 10 days.

In some cases leave with pay is granted after a certain number of hours; for instance, in plastering, stone crushing, road making, and certain other trades, 2 days' leave with pay are granted after 1,000 hours worked, 3 days after 1,800 hours, and 6 days after 2,100 hours.

In case a worker is dismissed by the employer or leaves voluntarily, notice must be given. The labor trustee has fixed the period of such notice, for the mining industry in Westfalen, at 1 week after 1 year's employment and 2 weeks after 5 years' employment.

The more recent labor regulations in Germany provide a certain amount of flexibility in prescribing labor conditions, in order to meet varying situations and thereby effect economy in labor cost of production and services.

LABOR CONDITIONS OF SHIPYARD WORKERS IN SWEDEN

WORKERS in the Swedish shipbuilding trades work 48 hours per week—not strictly 8 hours each day, but an average of 8 hours daily.[1] The collective agreement, which is the same as that applied to all industrial establishments throughout Sweden, does not contain specific data on the real wages paid, but only prescribes minimum money wages.

In the Göteborg district, in which the greatest of the Swedish shipyards are located and where the industry is employing approximately 10,000 persons, the average wage per hour for skilled labor is 1.40 kronor.[2] Unskilled laborers are paid at a minimum rate of 1.20 kronor per hour. One company at Göteborg employs 2,000 skilled workers at 1.40 kronor per hour, 2,000 semiskilled at 1.20 kronor per hour, 100 over 60 years of age at 1.30 kronor per hour, and 900 under 20 years of age at 0.80 krona per hour.

If the workers in the shipbuilding trades work 2 hours a day overtime they receive 25 percent more; for more than 2 hours, 50 percent; and if they are required to work Sundays they receive 100 percent more.

Assuming equal qualifications in their respective trades, there is no special difference in the wage per hour paid to the several categories of workers. For example, a carpenter is paid the same as an iron-plate worker, providing he has capacity in his own trade equal to that of the plate worker in his calling.

For certain classes of work which the shipyards give out to contractors, such as the manufacture of furniture, special agreements are in force; the wages paid for such work are somewhat different from those paid in the shipyards.

All Swedish workers, including those in shipbuilding yards, are protected by compulsory accident insurance under a law passed June 17, 1916; and by compulsory industrial sickness insurance under a law passed June 14, 1929.

Contributions to these insurance systems are paid by the employers, with certain appropriations by the Swedish Government to defray the general expenditures of the State Insurance Co.

The annual contributions paid by employers vary, but in the shipbuilding industry they average between 25 and 30 kronor for every 1,000 kronor of a worker's wages up to 3,000 kronor. Wages below 450 kronor count as 450 kronor and wages above 3,000 kronor count as 3,000 kronor.

[1] Report of William W. Corcoran, American consul at Göteborg, in collaboration with Knut Lignell, September 30, 1937.

[2] Average exchange rate of krona in September 1937=25.53 cents.

Besides the two classes of compulsory insurance, Swedish workers may themselves subscribe to and receive compensation from voluntary State-subsidized sickness-insurance funds, the contributions for which must be made by the workers themselves; these contributions are very low.

In addition to the above, all Swedish subjects receive old-age pensions, the contributions for which are taken in the form of a tax collected simultaneously with the Government income tax.

Education and Training

FEDERAL APPRENTICESHIP PROGRAM

THE STIMULATION and promotion of apprenticeship under acceptable labor standards and under the safeguards and protection of formal agreements are the objectives of the Federal Committee on Apprentice Training which became a statutory unit of the Department of Labor under the provisions of an act passed by the first session of the Seventy-fifth Congress (Public, No. 308, 75th Cong.). The act gives statutory authority to a governmental function which, since 1934, has been discharged by an agency created by Executive order.

In accordance with the provisions of the enabling act, the members of the Federal Committee on Apprentice Training were appointed on October 6, 1937, by the Secretary of Labor. These members are: Clara M. Beyer, Assistant Director, Division of Labor Standards, United States Department of Labor, chairman; C. R. Dooley, manager of industrial relations, Socony-Vacuum Oil Co., Inc., to represent employers; John P. Frey, president, metal trades department, American Federation of Labor, to represent employees; John W. Studebaker, Commissioner of Education, United States Department of the Interior, to represent educators; Mary H. S. Hayes, Director of Guidance and Placement, National Youth Administration, to represent the National Youth Administration.

As announced by the committee, its functions are:

1. To promote a better national understanding of apprenticeship standards; and to develop and recommend minimum standards of apprenticeship for various trades;
2. To act in a technical, consulting, and advisory capacity to all agencies concerned with labor standards of apprenticeship.
3. To cooperate with State apprenticeship councils and with local trade apprenticeship committees;
4. To act as a central agency for the collection and distribution of information on progress, methods, and procedures useful in promoting labor standards of apprenticeship.

Minimum standards which the Federal committee, working in cooperation with State and local committees similarly constituted, will endeavor to promote are based on a formal indenture or written agreement to be signed by the apprentice, his parents, and his employer as "the best lever for holding the appreniceship up to standard." Provisions of the agreement should include a definite schedule of

training on the job, with specified time allowance for each step, the minimum rate of pay with progressive adjustments at stated intervals, hours and conditions of employment in conformity with accepted labor standards in the industry, and a minimum of 144 hours a year in related school work under qualified instructors.

TRAINING OF EMPLOYEES BY INDUSTRIAL COMPANIES

TRAINING for industrial employment may be conducted by industrial establishments alone, or by public educational agencies, or by cooperation between the two. When such training is carried on entirely by employers, one or more of three general methods are ordinarily followed:

1. Training on the job: The youth is placed with an experienced craftsman as a learner or helper and by degrees becomes skillful in performing the operation himself.

2. The vestibule school: For this type of school space is set aside in the establishment. Machinery is installed, and instructors are provided to give the new workers the specialized training to enable them to perform certain machine operations so that they may be assigned as soon as possible to actual production.

3. Apprentice training: Under a verbal or written agreement between the employer and the apprentice, provision is made for a comprehensive training course of specified duration and character.

The preceding definitions and the following data are taken from a monograph, Training in Industry, published in 1937 by the National Industrial Conference Board, which includes the findings of a recent survey covering a representative group of 473 companies.

Effective practical training outside of industrial establishments is offered by trade schools conducted jointly by States and municipalities.

Cooperation between industry and educational institutions has made it possible to secure practical training in the establishment and theoretical or school-work instruction in a public or correspondence school.

Another type of collaboration enables the student-learner to take a cooperative course in which he divides his time between a school and a plant.

The 473 companies covered by the survey under review employed in the aggregate 626,668 persons, and 80 percent of these firms had a definite policy for the training of workers. Approximately 99 percent of the companies trained on the job; only 8.5 percent had vestibule schools. Both mature and young learners received training.

In about nine-tenths of the companies, persons in training were paid 50 percent of the regular rate, while in about one-third of the companies the training rate was 80 percent or more of the regular compensation.

The required training period ranged from 1 week to over 5 years. Over three-fifths of the establishments were able to give the essential instruction in 6 months or less.

In the belief that versatility is advantageous both to employees and to the establishments, 47 percent of the companies had definite plans in operation for training employees for versatility.

More than 57 percent of the companies reported regular systematic apprentice training, as will be noted in the accompanying table, which also shows that of the 7,322 apprentices in training in 292 of the 473 companies, 2,392 were in the machine and machine-tools industry and 1,685 were in establishments manufacturing other metal products.

Companies Having Apprentice-Training Plans and Number of Apprentices

Industry	Companies surveyed	Apprentice-training program			Number of apprentices in training
		Regular	Occasional	None	
Agricultural implements	11	5	1	5	99
Automobiles and parts	28	16	4	8	540
Chemicals	1			1	
Electrical manufacturing	55	33	4	18	991
Iron and steel	19	10	1	8	292
Leather and its products	4			4	
Lumber and its products	3	1		2	14
Machines and machine tools	146	92	3	51	2,392
Metal products, other	159	94	7	58	1,685
Paper and its products	7	2		5	32
Printing	4	2		2	18
Rubber	3			3	
Textiles	13	3		10	562
Miscellaneous	14	10		4	346
Public utilities	6	4		2	351
Total	473	272	20	181	7,322
Percent	100.0	57.5	4.2	38.3	

The number of apprentices in training, 7,322, constituted 1.1 percent of the 626,668 persons employed. Approximately 55 percent of the companies which reported training apprentices provided all the instruction given. The remaining companies made use of outside agencies, generally, for providing schoolroom instruction. More than one-third of the companies did not provide definitely for schoolroom instruction.

The prevailing length of apprenticeship courses is 4 years. The average hourly rate paid apprentices ranges from 33.2 cents in the first 6 months of training to 57.4 cents in the last 6 months of the fourth year of training. The usual minimum age of employment for young persons in industry is 18 years.

The opinion advanced at one time that intensive and progressive mechanization was reducing the need for highly skilled labor has not been borne out by

events. While a less comprehensive mechanical training than formerly may give adequate preparation for many occupations, a high degree of specialized skill is necessary to secure best results from elaborate and intricate machines, and such skill can be built satisfactorily only on a sound foundation of the fundamentals of machine operation.

When a protracted period of training is necessary, the setting up of a "training program cannot be postponed until the actual pinch of a labor shortage is felt." The National Industrial Conference Board considers it reassuring to learn that 80 percent of the companies covered in the survey under review "are definitely contributing through organized training work to the skilled labor force of the future."

INCREASE OF HIGH-SCHOOL ENROLLMENTS IN DEPRESSIONS

IN ECONOMIC depressions, when the opportunities for young would-be wage earners decline, the number of students in high schools shows a marked increase, as indicated in the following table giving the biennial enrollments in public high schools from 1920 to 1938, the figures for the last-mentioned year being estimated: [1]

Public High-School Enrollments 1920 to 1938

School year ending in June—	Enrollment in public high school	Increase from previous year reported
1920	2,200,389	
1922	2,873,009	672,620
1924	3,389,878	516,869
1926	3,757,466	367,588
1928	3,911,279	153,813
1930	4,399,422	488,143
1932	5,140,021	740,599
1934	5,669,156	529,135
1936	5,974,537	305,381
1938 (estimated)	6,135,252	160,715

The chief of the statistical division of the United States Office of Education, who presents the above statistics, points out that provision for about 1¾ million additional pupils during the recent great industrial depression has been one of the larger problems with which the school system has had to grapple.

[1] U. S. Office of Education. School Life (Washington), November 1937, p. 77: High-School Enrollments Increase, by Emery M. Foster.

EXEMPTION OF HOMES FROM TAXATION

HOUSES used as homes are by law either exempt from certain taxes altogether or subject to a reduced tax rate in 13 States, according to findings of the Federal Home Loan Bank Board.[1] In two of these States (Arkansas and Georgia) constitutional amendments were required to make such laws possible.

Tax exemption.—The 11 States making specific exemptions of homesteads from taxation are Alabama, Arkansas, Georgia, Louisiana, Minnesota, Mississippi, Oklahoma, South Dakota, Texas, Vermont, Wyoming.

Most of this legislation has been enacted since 1932. The earliest law of this kind was passed in Vermont in 1917, giving cities and towns the power to grant exemption from taxes on new houses for a limited period of time. In 1929 this power was extended to include other than owner-occupied houses, for 5 years, and the exemption was raised to $5,000. Kansas considered an exemption measure in 1929 but it was defeated.

The extent of tax exemption and the type of taxes from which homestead property is exempt vary considerably from State to State. In some cases the exemption applies only to State property taxes, and in other cases to all forms of ad valorem or general property taxation by municipalities and special taxing jurisdictions. Only in Arkansas and Oklahoma are homesteads free from tax levies for bonded indebtedness existing prior to the effective period of the special tax-exemption laws. In Minnesota, although the first $4,000 of valuation on a homestead is exempt from all taxation for State purposes, it still remains taxable for the purposes of raising funds for the discharge of State indebtedness incurred prior to and existing on July 23, 1937.

The valuation which is exempt ranges from $500 on the assessed value in Wyoming to $5,000 in Vermont and the full value of the homestead in South Dakota. The most common exempted value is $2,000.

Although a majority of the States define a homestead as an owner-occupied property, variations are found. For example, five States (Alabama, Louisiana, Mississippi, Oklahoma, and South Dakota) limit to 160 acres the property exempt. In Texas the homestead may not exceed 200 acres of rural land, or property valued at not

[1] Federal Home Loan Bank Review (Washington), October 1937, p. 6.

over $5,000 in a city or town; it may be used as a home or for business purposes.

Preferred status.—Laws are in effect in Iowa and West Virginia which give a preferred status to homesteads, for tax purposes. Iowa homesteaders receive a credit of not over $2,500 on the total assessed valuation, which credit is applied in respect of all taxes except special assessments. In West Virginia homesteaders are taxed at not to exceed 1 percent of the assessed value; this is a lower rate than that levied upon nonhomestead property and is applied to all State and local taxes.

Constitutional amendments pending.—Constitutional amendments on homestead tax exemption were adopted in the general election of 1936 by the people of North Carolina and Utah, but these must still be acted upon by the respective legislatures.

The legislatures of three other States (Florida, Pennsylvania, and Rhode Island) have adopted constitutional amendments that require popular approval before they may become law.

EXPERIENCE IN NONPROFIT HOUSING PROJECT

AFTER 9 years' successful operation of the Lavanburg Homes in the lower East Side of New York City, the nonprofit organization that sponsored the project to house 113 low-income families has concluded that the success or failure of low-cost projects is dependent upon the skill and tact of the management.[1] The Lavanburg Homes were undertaken on the assumption that slum dwellers are not fundamentally different from other people living under more comfortable conditions and that they make equally desirable tenants. Experience has borne out this view and the pamphlet here reviewed gives an account of operations since the building was opened in December 1927 and a summary of the management's conclusions.

Lavanburg Homes is a six-story building of Holland brick containing 113 apartments of which 51 have three rooms, 48 four rooms, and 14 five rooms. Every suite has cross ventilation. Living rooms are 10 feet 6 inches by 15 feet and bedrooms are 9 by 12 feet. Equipment is modern and includes steam heat, hot water, electricity, dumb waiters, ample closets, and hardwood floors. Each kitchen has two stationary porcelain tubs, a porcelain sink, a gas range, electric outlets, combination ice box, and other conveniences. Bathrooms are tiled and fully equipped. All plumbing is of brass. A particularly useful playground was installed on the roof, when the building was constructed. It is screened and protected by a parapet of good height, enabling children to enjoy outdoor play without being exposed to the hazards of traffic.

[1] Fred L. Lavanburg Foundation. Practices and Experiences of the Lavanburg Homes. Second edition. New York, Fred L. Lavanburg Foundation (132 Goerck St.), 1937.

Tenant selection was made carefully. As a prerequisite each person was required to accept the rules of the Lavanburg Foundation. Eligibility was limited to those who could not afford to pay higher rents than those scheduled for the project. This was considered a fair arrangement in view of the nonprofit character of the undertaking. The budgets of the Jewish Social Service Association were used as a basis for establishing the eligibility of families, taking into account income and size of family. In order to forward preventive work through an active welfare program, only families with small children were accepted.

Of the 1,200 applications the largest proportion were discarded because the family income was too high (535 cases); the second largest group consisted of families with grown children (137). Other reasons for rejection were no children (91), low standard of living (90), and miscellaneous, including living in modern building and keeping boarders (71).

Families of three or four persons were assigned three rooms, those of five or six persons, four rooms, and those of seven or eight persons, five rooms. No more than two adults were permitted for any apartment.

In 1928 and 1929 the family incomes of the families selected ranged from $25 to $40 per week. No estimate was made of income at the time the report here reviewed was written. Families suffered from unemployment in varying degree and it was decided not to reduce rents for all but to pursue a policy of charging according to the ability of each tenant to pay. In conjunction with this practice the Homes undertook to aid workers in securing work by directing them to the most suitable agencies. If a worker could be placed it was of advantage to the landlord as well as the tenant, as the latter would then be in a position to meet his obligations. In 1936, 28 families paid 91 to 100 percent of the scheduled rent, 6 paid 41 to 50 percent, and only 2 paid less than 41 percent. This was a material improvement over conditions in 1933.

In 1934 there were 69 tenants who had been residents of the project for 6 years; 3 years later, in 1937, 55 tenants had lived in the building for 9 years. The occupational representation among tenants was broad but the largest group was of operators in the cloak and suit industry. In 1934 a total of 24 and in 1937, 17 tenants were so classed.

The standard rental charge is $9.53 per room per month. As it has been found more practical to make rental charges by the week than by the month, the rates are $7.50 per week for three rooms, $8.50 for four rooms, and $10.50 for five rooms. Apartments on the sixth floor rent at 50 cents per week less than the regular rate and those on the fifth floor for 25 cents less.

The sponsoring organization has placed considerable emphasis on the social life of tenant families. Organization of activities by the tenants has been encouraged. Among the groups formed are a father's club and loan fund; a mothers' club; a tenants' council which consults on rents, needed repairs, etc.; and 25 separate activities for children. The vocational courses for children, including bookbinding, shoe repairing, and photography, are conducted by residents of the project.

Conclusions reached by the Lavanburg Foundation, about which it feels reasonable assurance, are:

1. In spite of the fact that most of the tenants came to the Lavanburg Homes from abysmally poor and unsanitary districts, the building has not suffered from vandalism or carelessness. It indicates that families with low incomes are as ready as anyone else to accommodate themselves to decent living conditions if they can once attain to them.

2. The number of families making applications for space in the building—1,200 before completion, with a long and apparently permanent waiting list—proves beyond argument that there exists a real and conscious demand in this economic group for good housing.

3. Out of a total average population in the project of about 550, the average number of children has been nearly 350. Yet both the interior halls and the outside courts and walls present an appearance of cleanliness and neatness that many a more pretentious region might well envy. Children are not necessarily a detriment to property.

4. Adults, with few exceptions, have behaved with as much social conscience as any group of the same size on any economic level. Tenants will and do make such a project a genuine center of community life.

BUILDING AND LOAN ASSOCIATIONS, 1936[1]

THERE WERE 10,256 building and loan associations in existence in the United States at the end of 1936, of which 9,044 were organized under State laws and 1,212 under the Federal act. These had a combined membership of 6,125,971, of which the State associations accounted for 5,450,472, or nearly 89 percent. Total assets amounted to $5,741,935,430, about 87 percent being those of the State associations.

As compared with 1935 the total number of associations declined over 2½ percent, the number of members 13 percent, and the total assets about 2½ percent. Although increases were registered by the Federal associations on all of these points, these were not sufficient to overcome the declines shown by the State associations. The total number of associations has been declining since 1927 (with the exception of the year 1934) and the membership and aggregate resources since 1930. The mortgage loans, however, have been increasing in volume since 1933. Those made during the year 1936 were more than 29 percent in excess of those in the preceding year.

[1] Data are from Part 1 of the 1936 annual report of the secretary-treasurer of the United States Building and Loan League, Cincinnati, and from his reports of earlier years.

The number, membership, and resources of the associations, by States, at the end of 1936 are shown in table 1.

TABLE 1.—*Number of Associations, Membership, and Assets of Savings and Building and Loan Associations, by States, 1936*

State	Number of associations			Number of members			Amount of assets		
	State	Federal	Total	State associations	Federal associations	Total	State associations	Federal associations	Total
Alabama	28	15	43	9,916	4,490	14,406	$12,007,253	$3,697,595	$15,704,848
Arizona	2	1	3	1,000	201	1,201	410,855	755,820	1,166,675
Arkansas	27	36	63	4,984	4,618	9,602	4,301,907	7,100,025	11,401,932
California	132	67	199	239,266	24,648	263,914	230,984,385	47,096,673	278,081,058
Colorado	41	22	63	26,422	6,502	32,924	20,582,442	8,259,609	28,842,051
Connecticut	38	15	53	26,694	3,512	30,206	21,689,478	5,105,980	26,795,458
Delaware	42	------	42	15,600	-------	15,600	12,558,147	----------	12,558,147
District of Columbia	27	------	27	122,984	-------	122,984	113,270,492	----------	113,270,492
Florida	52	48	100	8,000	8,352	16,352	7,242,978	18,568,311	25,811,289
Georgia	20	42	62	9,373	9,672	19,045	5,362,037	9,004,929	14,366,966
Idaho	5	8	13	3,000	5,884	8,884	1,327,998	4,513,790	5,841,788
Illinois	770	93	863	311,340	35,997	347,337	298,475,954	56,593,295	355,069,249
Indiana	244	57	301	98,553	68,363	166,916	85,606,858	68,858,835	154,465,693
Iowa	68	32	100	36,954	6,273	43,227	33,145,990	5,547,752	38,693,742
Kansas	136	19	155	89,638	4,337	93,975	72,801,788	5,473,252	78,275,040
Kentucky	139	43	182	80,991	36,549	117,540	58,937,366	40,582,300	99,519,666
Louisiana	89	12	101	108,885	5,559	114,444	88,404,672	10,633,080	99,037,752
Maine	36	6	42	24,120	319	24,439	22,338,293	167,337	22,505,630
Maryland [1]	900	17	917	211,000	8,254	219,254	142,000,000	11,752,682	153,752,682
Massachusetts	213	6	219	392,361	1,850	394,211	456,196,954	5,048,489	461,245,443
Michigan	57	21	78	100,369	10,795	111,164	97,659,218	14,093,893	111,753,111
Minnesota	51	31	82	31,846	23,718	55,564	21,450,816	21,270,299	42,721,115
Mississippi	27	19	46	4,200	2,367	6,567	5,147,531	2,004,677	7,152,208
Missouri	189	38	227	140,000	20,966	160,966	100,742,427	29,151,676	129,894,103
Montana	25	1	26	19,978	32	20,010	11,091,511	67,226	11,158,737
Nebraska	78	15	93	[2] 83,800	3,045	86,845	72,305,708	4,071,294	76,377,002
Nevada	5	------	5	1,250	-------	1,250	1,043,599	----------	1,043,599
New Hampshire	28	2	30	13,452	3,610	17,062	10,906,461	4,607,002	15,513,463
New Jersey	1,498	------	1,498	641,890	-------	641,890	883,477,982	----------	883,477,982
New Mexico	14	9	23	3,383	765	4,148	3,426,866	786,447	4,213,313
New York	228	58	286	348,944	90,071	439,015	263,414,498	99,984,418	363,398,916
North Carolina	174	12	186	87,243	3,768	91,011	60,313,504	5,722,038	66,035,542
North Dakota	19	5	24	13,112	1,683	14,795	8,508,305	1,328,449	9,836,754
Ohio	642	91	733	1,020,133	115,080	1,135,213	659,645,831	132,779,427	792,425,258
Oklahoma	46	31	77	14,996	24,548	39,544	20,320,162	36,563,533	56,883,695
Oregon	15	22	37	18,160	8,236	26,396	14,191,717	7,115,638	21,307,355
Pennsylvania	2,370	38	2,408	577,150	9,330	586,480	647,700,032	11,524,685	659,224,717
Rhode Island	8	1	9	47,369	-------	47,369	34,365,868	----------	34,365,868
South Carolina	51	26	77	8,000	7,463	15,463	7,890,457	7,643,845	15,534,302
South Dakota	14	5	19	5,500	1,397	6,897	3,330,679	1,137,166	4,467,845
Tennessee	18	37	55	11,800	11,160	22,960	8,321,714	13,173,132	21,494,846
Texas	94	88	182	52,343	10,565	62,908	59,246,445	18,468,693	77,715,138
Utah	16	4	20	25,000	1,631	26,631	24,211,084	1,437,614	25,648,698
Vermont	12	2	14	4,992	566	5,558	4,248,820	757,420	5,006,240
Virginia	77	21	98	42,800	5,661	48,461	34,250,018	8,781,037	43,031,055
Washington	36	36	72	77,593	71,784	149,377	18,552,791	26,142,712	44,695,503
West Virginia	47	21	68	21,300	7,512	28,812	14,816,377	9,185,153	24,001,530
Wisconsin	180	28	208	180,788	3,353	184,141	181,753,288	5,045,074	186,798,362
Wyoming	5	9	14	8,000	745	8,745	3,932,868	1,290,757	5,223,625
Hawaii	11	1	12	24,000	268	24,268	4,797,747	332,200	5,129,947
Alaska	------	1	1	----------	-------	----------	----------	----------	----------
Total—									
1936	9,044	1,212	10,256	5,450,472	675,499	6,125,971	4,968,710,171	773,225,259	5,741,935,430
1935	9,549	985	10,534	6,543,341	516,226	7,059,567	5,408,859,749	479,850,577	5,888,710,326

[1] Estimated.

[2] Not including borrowers.

On the basis of incomplete returns for the State associations, but full reports for the Federal associations, it is estimated that the mortgage loans made in 1936 increased more than 29 percent over those made in 1935. The mortgage loans outstanding at the end of the 2 years were as follows:

Mortgage loans outstanding:	1935	1936
State associations	$3, 526, 806, 905	$3, 150, 408, 338
Federal associations	352, 089, 898	593, 415, 421
Total	3, 878, 896, 803	3, 743, 823, 759

During the period 1920–29, in no year did the losses to shareholders from failures of building and loan associations reach as much as three one-hundredths of 1 percent of the total resources. A peak in losses from this cause was reached in 1933. Those recorded in 1936 showed the lowest relative loss in any year since that time.

Summary data on the development of the movement and on the extent of failures and losses involved since 1920 are shown in table 2.

TABLE 2.—*Building and Loan Association Failures and Estimated Losses in Relation to Membership and Total Resources, 1920–36*

Year	Total number of associations	Membership	Total resources	Failed associations			
				Number	Total liabilities	Estimated loss	
						Amount	Percent of total resources
1920	8, 633	4, 962, 919	$2, 519, 914, 971	2		$506	(1)
1921	9, 255	5, 809, 888	2, 890, 764, 621	6		91, 547	0. 0032
1922	10, 009	6, 864, 144	3, 342, 530, 953	4		158, 674	.0047
1923	10, 744	7, 202, 880	3, 942, 939, 880	9		132, 612	.0034
1924	11, 844	8, 554, 352	4, 765, 937, 197	18		398, 245	.0084
1925	12, 403	9, 886, 997	5, 509, 176, 154	26		500, 000	.0090
1926	12, 626	10, 665, 705	6, 334, 103, 807	12		380, 725	.0060
1927	12, 804	11, 336, 261	7, 178, 562, 451	21		1, 013, 000	.0141
1928	12, 666	11, 995, 905	8, 016, 034, 327	23		568, 000	.0071
1929	12, 343	12, 111, 209	8, 695, 154, 220	159		2, 312, 626	.0266
1930	11, 777	12, 350, 928	8, 828, 611, 925	190	$80, 437, 508	24, 676, 059	.2795
1931	11, 442	11, 338, 701	8, 417, 375, 605	126	61, 908, 529	22, 327, 842	.2653
1932	10, 997	10, 114, 792	7, 750, 491, 084	122	52, 818, 387	20, 337, 255	.2624
1933	10, 727	9, 224, 105	6, 977, 531, 676	88	215, 516, 812	43, 954, 547	.6299
1934	10, 919	8, 370, 210	6, 450, 424, 392	68	34, 727, 616	10, 174, 442	.1577
1935	10, 534	7, 059, 567	5, 888, 710, 326	239	31, 946, 235	15, 782, 068	.2680
1936	10, 256	6, 125, 971	5, 741, 935, 430	144	20, 316, 197	9, 051, 583	.1576

[1] Less than one ten-thousandth of 1 percent.

COOPERATIVE ASSOCIATIONS FOR SUPPLY OF ELECTRIC CURRENT [1]

AT THE END of June 1937, there were in existence at least 259 cooperative associations for the supply of electric current to the homes of consumers. Of these, 214 had been formed since the inauguration of the Federal Government's rural-electrification program and had received loans under it, and 45 were in existence before the program was started. While the R. E. A. associations date only from 1935 or later, some of the early associations were started as far back as 1914, and practically all before 1930.

The membership of the early associations for which there is information ranged from 8 to nearly 1,000 persons. Membership data for the R. E. A. cooperative associations are not available, but the number of customers served ranged from 53 to 5,500; in fact 8 associations had more than 2,000 patrons each.

The early associations were mainly in the States of Idaho, Iowa, Minnesota, Washington, and Wisconsin, with one or two in each of the States of Illinois, Indiana, Missouri, North Carolina, Virginia, and Wyoming. The formation of the associations in these States was undoubtedly furthered by the existence of State cooperative or nonprofit statutes and also (especially in Washington State) by the proximity of municipal power plants from which current could be obtained at favorable rates. The swift march of the rural-electric movement under the impetus of Federal assistance, on the other hand, is shown by the fact that by June 30, 1937 (only 2 years after the inauguration of the program), cooperative associations which had had allotments of Federal funds were found in 28 States.[2]

These associations have been formed among the prospective users of electric power in rural districts. These people cooperate in the erection of the poles, the stretching of the wires, the bargaining for and purchase of current, and the maintenance and repair of lines.

[1] Part of a general survey of cooperative associations by the Bureau of Labor Statistics. All data in this article relating to R. E. A. cooperatives have been obtained directly from the Rural Electrification Administration or from its publications.

[2] The 20 States not at that time represented in the R. E. A. program by loans made or earmarked for cooperative associations were Arizona, California, Connecticut, Delaware, Florida, Maine, Massachusetts, Nebraska, Nevada, New Hampshire, New Jersey, New York, Rhode Island, South Carolina, South Dakota, Utah, Vermont, Washington, West Virginia, and Wyoming. In the interval between July 1 and November 10, 1937, loans were approved for cooperative associations in California and Washington (R. E. A. News, December 1937).

The current is obtained from a municipally owned power plant, if there is one nearby, or from a private power company. Several associations, unable to obtain current from either of these sources have, with Federal aid, constructed their own generating plants.

The association that is the largest of the pre-R. E. A. organizations is an excellent example of cooperation unaided by financial assistance from outside the cooperative group. Started in 1925, and serving members only, it now has 950 members, operates some 225 miles of line and has built up total assets (after depreciation) of more than $100,000. Current is obtained from a municipally owned electric plant in a neighboring city.

It is interesting to note that one organization which benefited by a loan under the Federal program was that formed to serve the Amana Community. This community was a religious cooperative colony which was started in Germany as early as 1714, but because of religious persecution came to this country in 1842, establishing itself first in New York and then removing to Iowa in 1854. Until 1932 the colony was run on strictly communal principles, all possessions being held by the community as a whole and all members working for the community. In that year the principle of individual ownership of personal property was adopted and the industrial enterprises run by the community were reorganized on a stock-company basis. Modern electric appliances and labor-saving machinery are now made available to the homes in the community through the new electricity-supply organization.

Cooperative Practice

The electricity-supply associations have been formed under various types of laws—cooperative, nonprofit, rural electrification, and general corporation acts. For the most part, however, they operate on cooperative principles. Open membership and one vote per member are quite general, regardless of the legal basis of the organization.

A number of the early organizations operate as mutual associations and practically all of the R. E. A. associations are nonstock organizations.

One of the Rochdale principles is sale at the current retail price and the return of the overcharge, above cost, to the member on the basis of his patronage. How general the return of such patronage refunds will be, in the electricity field, it is too early to judge. The theory underlying the "current price" procedure of the cooperative grocery associations is that by charging the current price the association avoids price cutting against the private dealer and the consequent arousing of his enmity; it ensures a margin wide enough for safe operation of the business and for expansion into new lines; and it makes possible the

return of patronage refunds which are the tangible evidence of the advantage of cooperative activity. In the field served by the electricity-supply associations, however, there has generally been no prior service available, no competitors, and therefore no current price. It has thus far been their general policy to set rates high enough only to cover expenses of operation plus such necessary charges as depreciation, reserves, amortization of loans, etc. In this way the same principle attained by the patronage refund is also achieved—that of service without profit. The bylaws, however, generally provide for the return of patronage refunds, should a surplus remain after making provision for the items mentioned above.

Cooperatives Under Rural Electrification Program

Because of the overwhelming preponderance of R. E. A.-assisted associations, any report on the electricity-supply cooperatives must largely deal with that group.

This program is being carried out by the Rural Electrification Administration created by Executive order on May 11, 1935, but not established by law until May 20, 1936 (Public, No. 605, 74th Cong.).

In November 1935 it was announced that 11 loan contracts aggregating $2,399,612 had been signed, for the construction of a total of 1,940 miles of line which would carry electricity to 8,286 rural homes.

The current was turned on in the first R. E. A.-financed project (in Iowa) on December 15, 1935.

During 1936, according to the first annual report of the R. E. A., more than 25,000 miles of line were erected and "over 110,000 farms received electric service for the first time." As of the end of the year, 218 allotments had been approved, 109 loan contracts had been executed (on 94 projects, plans for which had been approved), construction was under way or had been completed, and 28 projects had been energized in whole or in part. These involved Federal loans to a total of $43,737,779. In addition two loan contracts for a total of $55,000 had been executed to finance the wiring of rural premises.

LOANS TO COOPERATIVE ASSOCIATIONS

It has been the practice of the R. E. A. from the first to give preference to public, cooperative, and nonprofit organizations. This policy was continued by the act of 1936, which authorized the Administrator "to make loans to persons, corporations, States, Territories, and subdivisions and agencies thereof, municipalities, people's utility districts, and cooperative, nonprofit, or limited-dividend associations organized under the laws of any State or Territory of the United States, for the purpose of financing the construction and operation of generating plants, electric transmission and distribution lines or

systems for the furnishing of electric energy to persons in rural areas who are not receiving central-station service," and directs him to give preference to public, cooperative, nonprofit, and similar bodies in the granting of loans.

This preference has stimulated greatly the growth of cooperative action in the electrical field and many new societies have been organized for the purpose of obtaining R. E. A. loans. Of the first 11 projects authorized, 5 were obtained by county electric cooperatives and 1 other, although organized under corporation law, was in effect a cooperative.

As table 1 shows, 76.8 percent of the total projects for which loans had been made or funds earmarked (up to June 30, 1937) had been for cooperative associations.

TABLE 1.—*R. E. A. Projects Approved up to June 30, 1937, by Type of Organization*

Type of borrowing organization	Number of projects		Loans granted		Customers		Miles of line	
	Number	Percent	Amount	Percent	Number	Percent	Number	Percent
Cooperative projects	[1] 239	76.8	$47,856,968	78.3	161,037	80.1	44,950.4	79.3
Private nonprofit corporations	33	10.6	5,670,200	9.3	16,901	8.4	4,741.2	8.4
State corporations	1	.3	542,328	.9	2,128	1.1	511.0	.9
Municipal corporations	5	1.6	546,058	.9	2,073	1.0	520.2	.9
Power and irrigation districts	17	5.5	5,244,750	8.6	13,228	6.6	4,689.7	8.3
Private utility companies	16	5.2	1,251,767	2.0	5,564	2.8	1,280.7	2.2
Total	311	100.0	61,112,071	100.0	200,931	100.0	56,693.2	100.0

[1] 214 associations with 239 projects.

Table 2 shows the distribution of the R. E. A. cooperatives, by States, as of June 30, 1937.

TABLE 2.—*Federal Loans, and Length of Line, and Customers of Electricity Associations, June 30, 1937, by State*

State	Number of associations	Amount of Federal loans	Miles of line	Number of customers	State	Number of associations	Amount of Federal loans	Miles of line	Number of customers
Alabama	5	$1,053,000	1,063.0	4,102	Missouri	9	$1,605,000	[2] 1,560.0	[2] 5,225
Arkansas	4	617,000	575.0	2,512	Montana	7	715,600	674.8	2,381
Colorado	2	390,000	387.0	1,282	New Mexico	1	164,000	60.0	100
Georgia	16	2,294,375	2,263.4	10,839	North Carolina	7	1,044,000	908.9	4,664
Idaho	2	683,750	478.5	1,665	North Dakota	2	500,000	456.5	1,545
Illinois	3	574,000	531.0	2,030	Ohio	18	5,756,200	5,371.5	19,430
Indiana	15	4,644,926	4,469.2	15,716	Oklahoma	7	1,701,000	1,784.0	5,348
Iowa	24	3,751,712	[1] 3,060.5	[1] 9,648	Oregon	3	302,000	261.0	1,273
Kansas	4	614,651	573.0	1,716	Pennsylvania	6	1,950,000	1,808.0	6,146
Kentucky	8	1,120,000	1,083.0	4,008	Tennessee	6	1,363,200	1,316.0	6,011
Louisiana	3	905,000	961.0	3,639	Texas	7	1,955,000	2,015.0	7,190
Maryland	1	165,000	165.0	600	Virginia	5	1,427,800	1,290.0	5,341
Michigan	5	2,845,000	2,432.1	8,717	Wisconsin	15	4,440,600	[3] 4,212.0	[3] 13,399
Minnesota	23	4,515,954	4,435.5	13,198					
Mississippi	6	758,200	755.5	3,312	Total	214	47,856,968	[4] 44,950.4	[4] 161,037

[1] 22 associations.
[2] 8 associations.
[3] 14 associations.
[4] 210 associations.

Most of these loans were for the purpose of financing the construction of power lines. However, 11 projects in 8 States,[4] where power either could not be procured at all or could not be obtained at a reasonable price, were allotted funds for the construction of plants in which to generate their own current. Loans for wiring purposes were extended to 8 projects in 7 States.[5]

[4] Idaho, Iowa, Michigan, New Mexico, Oregon, Pennsylvania, Virginia, and Wisconsin.
[5] Georgia, Illinois, Iowa, Minnesota, Missouri, Montana, and Wisconsin.

Industrial Accidents and Safety

SAFETY STANDARDS FOR MOTION-PICTURE-MACHINE OPERATORS

EVERY MOTION-PICTURE theater must employ at least one operator or projectionist to care for and operate the projection equipment. The room in which the projection equipment is placed is usually in an elevated position at the back of the theater. This room is ordinarily small, and as the handling of motion-picture film involves serious hazards from explosives and fumes, the safety of the operator and the audience requires that the projection room be made as accident proof as possible.

Because of the known hazards, safety precautions in the construction and maintenance of projection rooms are required, in most communities, by public regulation either in the form of State legislation, municipal regulations, or both. Much progress has been made in this direction in recent years, but there is still a surprising lack of adequate regulation in certain cities and areas. In general, it may be said that, where State legislation exists, the safety requirements are usually higher than where there are city regulations only; and also that city regulation through the building codes is more successful in guarding the safety of projection-room workers than is regulation dealing solely with projection-room safeguards. In the final analysis, protection is afforded projectionists largely through carefully planned and executed construction, and the extent to which such sound construction is utilized—that is by the installation of proper ventilation, safety devices, and fireproof furnishings—depends, in large degree, upon the individual employer, the employer-employee relationship, local custom, and civic pride.

The Bureau of Labor Statistics has recently completed an analysis of State laws and city codes, ordinances, and regulations affecting motion-picture theaters in cities which had a population of 50,000 or over at the time of the 1930 census. The present article brings together the provisions of these laws and regulations insofar as they relate directly to projection rooms. Detailed data by individual cities are available in the files of the Bureau.

The material in this article covers regulations in 186 of the 191 cities of 50,000 population and over. Of the 5 cities not covered, 1 [1]

[1] Huntington, W. Va.

reported no laws, and for 4 [2] either the facts were not obtained or were too meager to permit inclusion here. Although it is believed that this survey gives a fair picture of existing laws and regulations, two qualifications should be noted: (1) The information was collected almost entirely by mail, a method which is never quite so satisfactory as that of personal visit; and (2) information was solicited only as regards those sections of the laws and municipal ordinances which dealt directly with motion-picture theaters. It is possible that in some cases, legal provisions not specifically referring to motion-picture theaters, such as certain sections of a general labor law, may have a bearing on the safety of theater employees.

Hazards Involved

Motion-picture film, being of material which is highly inflammable and subject to deterioration unless atmospheric conditions are controlled, requires careful handling. In addition to the fire hazards resulting from the showing and handling of the film, employees engaged in projection rooms risk occupational disability through exposure to ultra-violet and infra-red rays [3] and to fumes given off when the film is exposed to the heat from arc lights.[4] In part the dangers in motion-picture-machine operation may be avoided by adequate ventilation. The State of Nebraska in 1935 made an investigation of poisoning resulting from fumes, although no special correctional legislation has yet been enacted there. That study, carried on by the department of health, disclosed a number of cases of chronic illness among operators of motion-picture machines which employ the carbon arc light for illumination purposes. Some of these cases had been tentatively diagnosed as carbon-monoxide poisoning, but laboratory tests showed that the poisonous fumes were in fact nitric oxides. Although the department of health stated that knowledge of the oxides thus generated is not new, the experiments reveal the importance of adequate projection-room ventilation to prevent disability from exposure of workers to fumes from arc lamps.

The following discussion of physical requirements established for the construction and maintenance of projection rooms shows the extent to which the States in which the larger cities are located and the cities themselves have legislated to secure standards. Insofar as practical, the discussion is supplemented by tables showing the number of cities establishing given requirements.

[2] Pueblo, Colo.; Jacksonville, Fla.; Springfield, Ohio; and Kenosha, Wis.

[3] Bureau of Labor Statistics Bull. No. 582: Occupation Hazards and Diagnostic Signs, p. 24.

[4] Letter dated Oct. 1, 1935, addressed to V. B. Kinney, Labor Commissioner, State Capitol, Lincoln, Nebr., by L. O. Vose, Director of Laboratory, Department of Health, Lincoln, Nebr.

Construction Requirements

PROJECTION-ROOM CONSTRUCTION

Minimum requirements regarding floor area and height of projection rooms are established by public regulation, either State or municipal, in the majority of cities of over 50,000 population. It is also customary to establish standards for door openings in one or more of the following particulars: Size, construction, material, method of opening, or automatic features. Less common are requirements as to the area or dimensions of openings for projection of films and lookout or observation ports for the use of operators. Installation of sanitary facilities directly connected with the room for the use of projectionists is required in only one-third of the 186 reporting cities.

Room area.—Table 1 shows the classification of the cities by requirements as to floor area and height minima of projection rooms. The floor dimensions are for the first machine in a room.

In this and the other tabulations a notation has been made in every case where a particular standard has been set up by agencies concerned with making or proposing safety standards, such as the National Board of Fire Underwriters, National Electrical Code, the Pacific Coast Uniform Building Code, and the Travelers Insurance Co. In order to conserve space, initials, instead of the full name of the body referred to, have been used in the table.

TABLE 1.—*Classification of Cities by Requirements as to Projection-Room Size*

[UBC=Uniform Building Code; NBFU=National Board of Fire Underwriters; TIC=Travelers Insurance Company]

Minimum requirement	Number of cities	Minimum requirement	Number of cities
Total number of cities covered	186	Floor area (basis, 1 machine)—Continued.	
Floor area (basis, 1 machine):		25 square feet	2
100 square feet	1	5 x 5 feet	2
80 square feet	1	4 feet rear, 3 feet sides	1
60 square feet	2	3½ feet rear and sides	14
50 square feet (UBC)	30	2½ feet rear, 3 feet sides	2
48 square feet (NBFU and TIC)	46	2 feet sides and rear	8
8 x 10 feet	2	Sufficient to permit operator free movement	14
9 x 9 feet	1	No provision	13
8 x 9 feet	6	Height of room:	
8 x 8 feet	2	9 feet	1
7½ x 10 feet	1	8 feet, 6 inches	3
7 x 9 feet, 10 inches	1	8 feet	47
7 x 9 feet	1	7 feet, 6 inches	1
6 x 8 feet	20	7 feet (NBFU, TIC, and UBC)	103
6 x 7 feet	5	6 feet	16
6 x 6 feet	4	5 feet, 6 inches	1
6 x 5 feet	7	No provision	14

The regulations of 114 cities require that the minimum floor area for the first machine in a room shall be 48 square feet or over. This group includes cities in which the minimum area is specified in square

feet and also those in which the dimensions are given in linear feet, as 6 by 8 feet (48 square feet). These regulations conform with the standard (48 square feet) adopted by the National Board of Fire Underwriters [5] and the Travelers Insurance Co.[6] The Uniform Building Code,[7] adopted by 159 cities in 19 States and Hawaii provides for a slightly larger floor area—50 square feet. Of the 30 cities of 50,000 and over prescribing 50 square feet, 16 are subscribers to the Uniform Building Code, the remaining Uniform Building Code subscriber (Austin, Tex.) having adopted a higher standard locally. The representation of the Uniform Building Code cities in this study is low (17 cities), as many of the member municipalities are located in California and are below the population limit to which this investigation was restricted. Standards in excess of 50 square feet apply in 18 cities.

A lower requirement than 48 square feet exists in 20 cities; in 14 cities it is required simply that the operator shall have free movement; and in 25, where it is required that there shall be a given number of feet at the rear and sides of the machine, it is not possible to state whether the net result is a smaller or larger work space than in the cities subject to specific requirements. Thirteen cities, as far as could be ascertained, had no minimum requirements regarding floor area.

The requirement as to floor area of projection rooms is written into a number of municipal ordinances and local building codes. The greater part of the higher requirements, however, originates in State law, as in Connecticut, Indiana, Massachusetts, New Jersey, New York, Tennessee, and Texas. The Ohio State law requires a floor area of 5 by 6 feet, in Pennsylvania the distance between machines and walls is specified, and in Michigan the provision is of a general nature, namely that operators shall have sufficient room to move about freely.

The standards proposed by the National Board of Fire Underwriters and the Travelers Insurance Co.—a floor area of 48 square feet for the first machine and 24 square feet additional for each additional installation—is generally in force in the large group of cities conforming to the 48-square-feet minimum for the first machine. In other areas, the additional space requirement varies considerably but tends to be lower, with the exception of the cities subscribing to the Uniform Building Code, where theaters must provide 50 square feet for each machine, a considerably higher standard than that in force in other cities.

Height requirements of from 7 to 9 feet in 155 cities make adequate provision for the comfort of operators. In the 17 cities where the

[5] National Board of Fire Underwriters Regulations for Nitrocellulose Motion-Picture Film as recommended by the National Fire Prevention Association, effective Aug. 15, 1931. New York, 1931.

[6] Safety in Moving-Picture Theaters. Hartford, 1914.

[7] Pacific Coast Building Officials Conference. Uniform Building Code, 1937 ed. Los Angeles, 1937.

lower limit is 6 feet and less, some inconvenience must necessarily be experienced by men of greater than average height. The number of cities having no requirements (14) is nearly the same as the number having no provisions regarding floor area (13). In other words, localities (Georgia and Illinois) that do not regulate on one of these points tend to follow the same procedure on the other. In addition to the advantages of greater ceiling heights in making movement easier for the operator, ventilation is facilitated.

Openings.—Regulation of the kind and size of openings in projection rooms is intended to secure convenience and safety to the operators and a measure of protection to the public. Standards have been established for doors, lookout ports for the use of projectionists, and openings for the projection of films. In isolated instances (Syracuse, N. Y., and Cincinnati, Ohio) an emergency exit in the room is required in addition to the regular doorway. Table 2 classifies the cities by requirements governing the several types of projection-room openings.

TABLE 2.—*Classification of Cities by Requirements as to Projection-Room Doors and Other Openings*

UBC=Uniform Building Code; TIC=Travelers Insurance Co.; NBFU=National Board of Fire Underwriters]

Requirement	Number of cities
Total number of cities covered	186
Door-opening specifications:	
Automatic closing, opening outward, fireproof, etc. (UBC)	66
Size of door:	
3 to 5 feet x 5 feet, 10 inches	2
3 x 7 feet	3
2 feet, 8 inches x 7 feet	5
2 x 7 feet	2
2 feet, 6 inches x 6 feet, 8 inches	2
2 feet, 6 inches x 6 feet, 6 inches	2
2 feet, 6 inches x 6 feet, 6 inches, 2 exits	1
2 feet, 4 inches x 6 feet	1
2 feet x 6 feet, 6 inches	3
2 x 6 feet, 2 exits	1
2 x 6 feet (TIC)	45
2 feet x 5 feet, 10 inches	13
2 feet x 5 feet, 6 inches	2
2 x 5 feet (NBFU)	22
No provision	16
Lookout ports—dimensions or area:	
2 square feet	1
150 square inches (UBC)	18
144 square inches	2
120 square inches	1
80 square inches	5
48 square inches	1
25 square inches	1
12 x 36 inches	1
12 x 24 inches	1
10 x 20 inches (NBFU)	8
12 x 16 inches	1
12 x 14 inches	6
12 x 12 inches	28
10 x 12 inches	1
8 x 14 inches	1
Lookout ports—dimensions or area—Con.	
10 x 10 inches	6
8 x 12 inches	3
6 x 12 inches	21
4 x 12 inches	16
2 to 8 inches	1
No larger than necessary	22
Opening required	14
No provision	27
Openings for projection—Specifications:	
Area:	
144 square inches	2
120 square inches (UBC)	18
80 square inches	5
48 square inches	1
64 square inches	1
25 square inches	1
2 square feet	1
Dimensions:	
12 x 36 inches	1
12 x 16 inches	1
12 x 14 inches	3
12 x 12 inches	22
8 x 24 inches	3
8 x 21 inches	1
8 x 12 inches	1
8 x 10 inches	1
8 x 8 inches	7
8 inches greatest dimension (NBFU)	0
6 x 12 inches	36
6 x 8 inches	9
6 x 6 inches	3
6 inches long	1
Opening required	14
No larger than necessary	26
No provision	28

In a large proportion of cities (66) the question of projection-room doors has been disposed of by requiring that protection be afforded through one or more of the following measures: Automatic closing,

doors opening outward, and fireproof doors (in some cases these must be of a specified approved type). In almost an equally large group of cities (65) it is required that doors be 6 feet high or over and between 2 and 3 feet wide. The regulations in 15 additional cities require doors to be at least 5 feet 10 inches high, while in 2 cities the minimum height is fixed at 5 feet 6 inches and in another substantial group (22) at 5 feet. The cities that reported no requirement on this point total only 16. As will be seen in the table, the standards proposed by interested bodies vary widely as regards door size. The Uniform Building Code cities, in common with many nonmember cities, do not set a standard in this matter, while the Travelers Insurance Co. favors an opening 2 by 6 feet, and the National Board of Fire Underwriters considers adequate a door 2 by 5 feet. The State law in Connecticut prescribes an opening 2 feet 8 inches by 7 feet; in Massachusetts, New Jersey, and Ohio statutes and in some city legislation the requirement is for a door 2 by 6 feet. Doors 2 by 5 feet are required in Kansas, Tennessee, and Texas. Michigan and Pennsylvania require automatic closing.

Lookout ports for operators, and openings for film projection are subjected to regulation in about 85 percent of the cities studied. The size required tends to be fairly uniform, with a slightly larger opening for the lookout ports, in order to give the operator easier and greater range of vision. Stress is placed on keeping openings as small as possible by general provisions (in 22 cities for lookouts and in 26 for projection) that they shall not be larger than necessary. The protection of these openings with automatic shutters when not in use and when a mishap occurs is made a special requirement. The Uniform Building Code allows a 30-square-inch difference in size of the two openings—that is, 150 square inches for the projectionist and 120 square inches for the machine. Massachusetts law prescribes an opening 6 by 12 inches (72 square inches) for both. In Indiana the figures are 12 by 12 inches (144 square inches) for the projectionist and 6 by 8 inches (48 square inches) for the machine. In Connecticut the machine opening may not be larger than necessary and the lookout is limited to 10 inches in its greatest dimension.

Sanitary facilities.—Of the 186 cities covered in this survey, almost one-third (58) require the installation of sanitary facilities in connection with the projection room, for the use of the projectionist. The building code of Columbia, S. C., states that such facilities are required unless a relief projectionist is on duty at all times, and the Wisconsin State law, affecting three of the cities here covered, prescribes such equipment where operation is continuous, unless 10-minute intermissions are provided after 2 hours of operation. The matter of sanitary provisions is governed by State laws in California, Connecticut, Pennsylvania, and Wisconsin.

PROJECTION-ROOM VENTILATION

Under ideal conditions, ventilation of projection rooms is effected by a system through which air enters slightly above the floor level on all four sides of the room and is carried off by a ceiling opening vented to the outer air, if possible, and to a flue system as an alternative. The movement of air is facilitated by the use of fans. Only in exceptional cases is the minimum rate of air change that is acceptable in a room made a part of State or municipal regulations. In some of the more up-to-date theaters, which have air-cooling systems, room ventilation exceeds the minimum public requirements. A typical section on this phase of safety and health protection, taken from the State of Indiana laws and regulations for opera houses, theaters, motion-picture shows, auditoriums, and other places of amusement,[8] reads:

> There shall be an opening on each of the two sides and in the rear wall of the booth, not higher than 3 inches above the floor level. Each opening shall be 15 inches long and 3 inches high. Said inlet shall be covered on the outside by a wire netting of not greater than ⅛ inch mesh. There shall be an opening in or near the center of the ceiling of the booth not less than 10 inches in diameter to be provided with an iron flange, which flange is to be securely fastened. To this flange shall be attached a metallic vent pipe of not less than 10 inches in diameter, said pipe leading to the outside of the building or to a special incombustible vent flue; all parts of vent pipe to be at least 6 inches from any combustible material. If it is impossible for the said vent pipe to rise vertically from the booth to the outside of the building, a forced-draft system must be employed. All arc-lamp housings must be connected to the booth ventilating system.

Intake.—The classification of the cities covered according to regulations as to the number and size of wall inlets for ventilation is shown in table 3.

TABLE 3.—*Classification of Cities by Requirements as to Number and Size of Ventilation Inlets of Projection Rooms*

[UBC=Uniform Building Code]

Requirement	Number of cities	Requirement	Number of cities
Total number of cities covered	186	Size and number of inlets—Continued	
		180 square inches in all (4 sides)	16
Number of walls with inlets:		144 square inches in all	5
4	17	135 square inches in all (3 sides)	19
3	51	120 square inches in all (1 side)	1
2	6	50 square inches (each of 2 sides)	1
1	24	100 square inches in all	1
Separate sides	2	90 square inches in all (3 sides) (UBC)	21
1 for each machine	2	78 square inches in all	2
Required	14	72 square inches per machine	1
No provision	70	72 square inches in all	1
Size and number of inlets:		60 square inches in all	2
24 by 36 inches	1	50 square inches in all	3
2 feet square	1	45 square inches, separate sides	1
18 by 28 inches	1	45 square inches, 1 side	1
15 by 15 inches (each of 3 sides)	1	30 square inches	1
12 by 18 inches	1	No provision	104
8 by 12 inches	1		

[8] Indiana State Fire Marshal Department. Laws and Regulations for Opera Houses, Theaters, Motion Picture Shows, Auditoriums, and Other Places of Amusement. [Indianapolis, 1937?]

A provision for 3 inlets in a projection room is included in the State or city regulations covering 51 cities. In addition 4 such inlets are required in 17 cities, 2 in 6 cities, and 1 in 24 cities. In 2 cities the requirement is for openings on separate sides and in 2 more, for one opening for each machine. The 14 cities where openings are required but the number is not stated include Pennsylvania cities in this survey that do not have higher local standards on this point and operate under State law. The Uniform Building Code requires openings on 3 sides. In total the cities with requirements as to number of wall inlets represent about 62 percent of the reporting number, while in the remaining 38 percent (70 cities) the decision on this important point is left to individual judgment.

Regulations as to the size of the inlets are established for a smaller group of cities—82 of the 186 covered. There are a number of instances where the minimum number of inlets is regulated by the State or city, but the size is not specified. The largest single inlet requirement—24 by 36 inches—is that of Saginaw, Mich. In St. Louis the requirement is 504 square inches (28 by 18 inches). The Massachusetts State law, affecting 16 cities in the tabulation, provides for 180 square inches in all. Altogether 48 cities prescribe inlets of 100 square inches or larger. In addition, projection rooms in 21 cities, including those subscribing to the Uniform Building Code, must have openings of 90 square inches in all on 3 sides.

Exhaust.—In table 4 the cities covered are classified according to size of vent and whether vented to the outer air or to a flue system.

TABLE 4.—*Classification of Cities by Requirement for Projection-Room Ventilation to Outer Air*

[UBC=Uniform Building Code]

Requirement	Number of cities	Requirement	Number of cities
Total number of cities covered	186	Vented to outer air—Continued	
		16-inch diameter	15
Vented to outer air:[1]		14- to 18-inch diameter	5
150-square-inch area	1	12- to 16-inch diameter	16
144-square-inch area	1	12-inch diameter	16
100-square-inch area	4	10-inch diameter (UBC)	63
78-square-inch area	11	8-inch diameter	1
75-square-inch area	4	6-inch diameter	1
50-square-inch area	12	Area or diameter not stated	19
18-inch diameter	8	No provision	9

[1] 10 cities provide as an alternative the use of an incombustible flue; 3 cities, a chimney flue; and 1 city an approved disposal system.

Exhausts carried to the outer air through vents of 10-inch diameter are required under the regulations in 63 cities, including those falling under the Uniform Building Code. In all but 9 cities some provision is made for control of exhausts. Thus 177 cities, or 95 percent, have

some requirement that systems shall be vented to the outer air, only 19 of which do not have a definite specification as to area or diameter. States with legislation on this point include Connecticut, Indiana, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Pennsylvania, Tennessee, and Texas.

Detailed requirements as to equipment to be used and methods of ventilating the projection room proper and the lamp house connected with the machine are not general. Exceptions to this rule exist in the local regulations of Hartford, Conn., St. Louis, Mo., and Philadelphia, Pa., which require a complete system of lamp-house ventilation, and in the State laws of Indiana and New York.

Air change.—The general lack of specifications for the rate of air change is apparent in table 5.

TABLE 5.—*Classification of Cities by Requirements as to Rate of Air Change in Projection Rooms*

[UBC=Uniform Building Code]

Requirement	Number of cities
Total number of cities covered	186
Rate of air change:	
Every 2 minutes	15
Every 5 minutes	1
Every 10 minutes (UBC)	23
100 cubic feet per minute	1
60 cubic feet per minute	15
50 cubic feet per minute	11
30 cubic feet per minute	6
200 cubic feet per minute (per 80 square feet)	9
280 cubic feet per minute	1
No provision as to rate of change	104

In only 82 of the 186 cities is there regulation of the rate of air change in projection rooms. In 23 cities, including those subscribing to the Uniform Building Code, a complete change every 10 minutes is provided for; in every case this is specified in a building code. Connecticut, New York, Pennsylvania, and Tennessee State laws on theaters are the only State laws covering this point; in Connecticut and New York the rate is 60 cubic feet per minute; and in Tennessee it is 50 cubic feet per minute. St. Louis, Mo., in addition to the State of Pennsylvania, specifies a complete change of air every 2 minutes. Texas law requires that the room shall be ventilated for the comfort of the operator.

Requirements for the installation of fans are more widespread. In all, 109 cities have such a requirement in their theater regulations. The lack of general compulsion in the installation of fans in projection rooms may possibly be due to the general acceptance of fans in working places as standard equipment.

Safety in Projection Rooms

To insure safety in projection rooms, numerous precautionary measures have been taken in the larger cities. They range from the general provision that doors shall be kept closed during the showing of film (132 cities) and that only persons having business in the room shall be admitted (108 cities), to requirements that fire-fighting apparatus be maintained in the projection room (132 cities), only fireproof furniture be provided (122 cities), and rigid regulations regarding handling and storage of film. While the coverage on all of these points is not so complete as might be desired, the fact that certain cities and States have drafted detailed regulations on these matters may be expected to exercise a beneficial influence in improving standard requirements on a wider front.

General.—In a total of 132 cities, doors of projection rooms must be kept closed during operation. This is a standard of the National Board of Fire Underwriters and is also written into the laws of Connecticut, Indiana, Kansas, Maine, Massachusetts, New Jersey, New York, and Pennsylvania.

In a slightly smaller number of cities (109) admission to the room during projection of films is restricted to operators, their assistants, and officials of the respective cities and theaters. This is a State requirement under the laws of Connecticut, Indiana, Massachusetts, New Jersey, and Pennsylvania. In addition 7 cities in California, 3 in Georgia, 6 in Illinois, 3 in Michigan, 3 in Missouri, 3 in New York, 4 in Texas, and 3 in Washington have restricted entrance through the enactment of local ordinances or building codes; the remaining cities which have taken such action are scattered, one to a State.

Smoking is prohibited in projection rooms in a larger number of cities. Among the 153 where smoking is ruled out are the cities in Connecticut, Indiana, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, New York, Pennsylvania, Texas, and Wisconsin, all of which operate under State laws on the subject.

Special provision for fire-fighting apparatus in projection rooms is established in 133 cities, or approximately 71 percent of the total reporting. This is a standard in the State laws of Connecticut, Indiana, Massachusetts, Minnesota, New Jersey, Oregon, Pennsylvania, and Tennessee, but is not included in the laws of Colorado, Illinois, Michigan, Missouri, New York, Ohio, and Texas.

Fireproof furniture, shelves, and fixtures are required in 121 cities. This is a recognized standard under the Pacific Coast Uniform Building Code as well as that of the National Board of Fire Underwriters. Yet only 8 States (Connecticut, Indiana, Michigan, Minnesota, Oregon, Pennsylvania, Tennessee, and Texas) have written it into law.

Miscellaneous safety provisions include control of auditorium lights from the projection room. Of the 57 cities in which such control is prescribed, 15 are in Pennsylvania and are covered by State law. To insure enforcement of safety requirements, ventilation, and other standards, regular inspection of machines and rooms is required in 113 cities, including those in Colorado, Connecticut, Florida, Massachusetts, New Jersey, New York, Ohio, and Texas under State laws.

Handling of film.—Of the two types of film, that in common use (cellulose nitrate) is highly inflammable and necessitates definite technique in storage. Table 6 brings together the regulations governing the handling of film as they affect projection-room safety directly, and indirectly the safety of the public visiting motion-picture theaters.

TABLE 6.—*Classification of Cities by Requirements as to Handling Film in Projection Rooms*

[NEC=National Electrical Code; UBC=Uniform Building Code; and NBFU=National Board of Fire Underwriters]

Requirement	Number of cities
Total number of cities covered	186
Rewinding in projection rooms:	
Permitted (NEC)	140
Forbidden	8
No provision	38
Rewinding during operation:	
Permitted	32
Forbidden	46
No provision	108
Metal cases for film storage:	
Required when not in use (UBC)	175
No provision	11
Container for hot waste carbon:	
Required (NBFU)	132
No provision	54

Permissive legislation for rewinding film in the projection room is common. In 140 cities rewinding in the room is allowed and some of the States with the most comprehensive laws covering theaters, as well as the National Electrical Code, endorse the practice. The real issue seems to be whether or not it is safe and reasonable for this work to be carried on during the showing of other film by the operator. In 46 cities, where rewinding during operation is forbidden, the consensus seems to be that the two processes should not be simultaneous; this total is heavily weighted by the 16 large cities of Massachusetts and 13 in New Jersey, where such operations are forbidden by State laws.

As an additional insurance of safety from explosion of inflammable film, it is required in 175 cities that metal cases be provided for film storage. Thus, comparative inadequacy in coverage of cities as to provision for care of film when not in use (137 cities prohibit exposure) is counterbalanced in part by the high proportion of cities where

theater operators must, under the regulations, supply metal cases for film storage. The inference is that if such cases are available, the projectionist, a trained craftsman, will make use of them, knowing the existing hazards. Connecticut law has both types of regulation, as do also the laws of Indiana, Massachusetts, Michigan, Minnesota, New Jersey, New York, and Pennsylvania. Ohio and Wisconsin provide only that metal cases shall be supplied for storage. This is in conformity with the terms of the Uniform Building Code.

Slightly less than 71 percent of the cities (132) require the installation of containers in projection rooms for placing hot waste carbon as it is removed from the projector. In a relatively high proportion of cities this standard is written into city ordinances, and there are a few building codes which cover this subject, but in the largest number of cases it is a matter of State law (Connecticut, Massachusetts, New Jersey, New York, and Pennsylvania).

Storage of film.—As provisions for film storage affect projection-room safety and also the safety of the theater public, the number of cities having regulations requiring permits to store, storage of film in vaults, and fire-prevention measures in the vaults are given in table 7.

TABLE 7.—*Classification of Cities by Requirements for Film Storage*

[NFBU=National Board of Fire Underwriters]

Requirement	Number of cities
Total number of cities covered	186
Permit to store:	
Required	35
No provision	151
Film vaults:	
Required (NBFU)[1]	74
No provision	112
Ventilator and sprinkler systems in vaults:	
System required (NBFU)	54
No provision	132

[1] New Jersey State law requires that only enough film for 1 day's showing be kept in the booth and that a storage vault be maintained off the premises. This affects 13 cities.

In most of the 35 cities where theater owners are required to obtain special licenses to store film, the requirement is under a municipal ordinance, a local fire-prevention code, or police regulation. Connecticut is the only State that has legislation providing for a license of this kind.

In 74 cities film vaults must be maintained according to public regulations. In the 13 New Jersey cities covered, the State law permits the keeping of only enough film in the room for 1 day's showing; all other film must be stored in a vault off the premises. Except in Connecticut, Indiana, and New Jersey there are no State regulations

on this subject. Among the 54 cities where either ventilators or sprinklers or both are required in the vaults, the 5 covered by the Connecticut law are included.

Motion-Picture Machines and Equipment

In most instances regulations do not lay particular stress on the kinds of machines, enclosures, or guards that should be used to secure safety in projection rooms. Once the law has provided for sound room construction, public control of projection rooms gives way to private regulation. Owners are then free to install such equipment as they choose, subject to the approval of the fire underwriters with whom they may insure. It is customary for theaters to make installations in such a way as to comply with the terms of the National Electrical Code [9] as recommended by the National Fire Protection Association, thus meeting recognized minimum standards.

The National Electrical Code contains an article dealing especially with motion-picture projectors and equipment. The first requirement is that the so-called "professional" types of projectors, such as are commonly used in motion-picture theaters, must be located in fireproof rooms. All live parts must be enclosed or otherwise guarded to prevent accidental contact of persons or objects. Proper grounding of all conduit, armored cable, metal raceways, exposed metal frames, and enclosures of equipment is required. All projectors, including the lamp house for arc or incandescent lamps, must be designed for this particular purpose and must be approved. Lamp enclosures are required to bear the trade-mark of the maker and the name of the current and voltage for which they are designed. There are technical requirements as to wire size, and the rheostats, transforming devices, etc., must be of approved type. Top and bottom magazines must be so designed as to prevent the entrance of flame, and no solder may be used in their construction. The front of each magazine must consist of a door swinging horizontally and equipped with a substantial latch. A provision is included for an automatic shutter, permanently attached to the gate frame, so constructed as to shield the film from the beam of light whenever the film is not running at operating speed. The code also states that motor-driven projectors shall be of a type designated and approved for such operation and that they shall be placed in the charge of a qualified operator.

Enclosures for projectors of professional type are limited to fireproof construction, permitting a working space of not less than 2 feet on either side and rear of each projector. There is a provision that ventilation shall be by a vent pipe having inlets at one or more points in the ceiling, but supplementing the requirements on ventila-

[9] 1935 edition, pp. 244-246.

34189—38——9

tion in State and city laws (see above). The vent pipe must connect with each arc-lamp housing and lead either to the outer air or to a noncombustible flue. All pipes must be kept at least 1 inch from combustible material or separated therefrom by approved noncombustible, heat-insulating material not less than one-half inch thick. Draft is required in each room vent pipe, to be maintained by an exhaust fan having a capacity of at least 200 cubic feet per minute for each 80 square feet of floor area. All openings in the enclosure are required to be fire resistive and have doors or shutters that may be kept closed by spring hinges or equivalent devices. All openings must close automatically should the room temperature adjacent to the top magazine of any projector exceed 165° F.

Wiring is provided for in detail.

Labor Requirements

State laws or city ordinances often require that motion-picture machine operators shall be licensed. Such regulations include age requirements, make provision for examination, state the charge for a license, and in some instances include a provision that licenses may be revoked for just cause. In table 8 requirements for licensing projectionists are tabulated, by number of cities having each.

TABLE 8.—*Classification of Cities by Requirements for Licensing Motion-Picture Machine Operators*

Requirement	Number of cities
Total number of cities covered	186
Minimum age of operator:	
21 years	67
20 years	1
18 years	49
No provision	69
Licensing of operator:	
License required	117
No provision	69
Examination of operator before licensing:	
Examination required [1]	113
No provision	73
Revocation of license for cause:	
Specified	90
No provision	96

[1] Includes 13 cities in which examination is optional.

Of the 117 cities in which a minimum age is established for licensing operators the largest proportion (67) have a minimum-age requirement of 21. In 1 case the age is 20 and in 49 cities it is 18 years. Regulations governing the remaining 69 cities for which information was obtained do not cover this point. Seven State laws—those of Connecticut, Florida, Massachusetts, Michigan, Minnesota, New

York, and Pennsylvania—make an age requirement, the Connecticut and Massachusetts laws specifying 21 years, the New York law "full age" (assumed to mean 21 years), and the remaining laws, 18 years. Where cities fix the age, it is more often by municipal ordinance than by other types of regulation.

A license to operate machines is required in 117 cities and in the great majority of cases a fee is charged for it. States requiring that projectionists shall be licensed are Connecticut, Florida, Maine, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, and Rhode Island. Annual fees run from $1 to $10 in most cases. In a number of cities the amount is higher for the first year than in succeeding years, as, for example, $10 for the first year and $5 thereafter in Baltimore, Md.; $5 the first year and $1 annually thereafter in Cleveland, Ohio; and $3 the first year and $1 annually thereafter in Roanoke, Va. Cities for which the regulations do not state the amount of the license fee include Oakland and San Francisco, Calif.; Cedar Rapids, Davenport, and Sioux City, Iowa; and Nashville, Tenn. In Lansing, Mich., the building code prescribes a $1 fee, but so far this has not been collected.

In 113 cities an operator must pass an examination before he is licensed. This number includes the 10 Michigan cities where the State fire marshal is empowered to examine candidates at his discretion and 3 Minnesota cities where examination is also optional. Examination is compulsory, under the statutes of Connecticut, Florida, Massachusetts, New York, and Pennsylvania. Among the 90 cities where it is stipulated that licenses shall be revoked for cause are those operating under the Connecticut, Massachusetts, New York, and Pennsylvania State laws.

A few States and cities have established what is in effect an apprenticeship system by the terms of their regulations on licensing. In Lansing, Mich., an applicant must have 2 years' experience. In Florida he must have served for 1 year under an experienced operator before applying for a license. This is also the standard in several Illinois cities. The Maryland, New York, Pennsylvania, Washington, D. C., Kalamazoo, Mich., and Rochester, N. Y., codes specify 6 months of apprenticeship. Massachusetts establishes a system providing for three classes of operators. To secure a second-class license, 3 months' experience under a first-class operator is necessary; to secure a first-class license, the applicant must have held a second-class license for 3 months and have worked regularly on a hand-driven machine; and to qualify for a special license, a first-class operator must take an examination on operation of both motor and hand-driven machines. As the operator qualifies for successively higher-grade licenses the age requirement and fee are higher.

The theater laws of Illinois and New York States, affecting 19 cities in this survey, stipulate that motion-picture operators shall have 24 hours of consecutive rest per week. In Chattanooga, Tenn., a 6-day week is prescribed by municipal ordinance.

Deficiencies in Existing Regulations

From the foregoing discussion it is evident that a need exists for extension of the laws and regulations governing conditions in motion-picture projection rooms, to secure public standards where none exist, to raise those which are low, and to insure greater uniformity. Whether this task should be undertaken on a State basis, by cooperative action between States, or in the individual cities is a matter for careful consideration by those in the industry and by the respective governmental agencies. If past experience is any criterion for establishing future control, it should be stressed that good State laws expedite accomplishment of the desired ends. In the enactment of such laws, use may be made of the expert knowledge of local officials, theater owners, and labor. In this way there is only one cost for investigation and codification in each State. Because of the cost involved, individual city governments, which sometimes experience difficulty in securing funds even for printing city codes, may often postpone studies to establish standards. Of the regulations now in force those contained in State law are outstanding.

Certain comparisons of existing laws and regulations may be drawn. In writing motion-picture laws the State governments have tended, after framing regulations with considerable care, to make few amendments. There have been no striking alterations as conditions have changed. In fact, often the only provision modified has been that establishing a license fee for theaters. The amount of this charge was in some cases reduced during the depression period. In common with State laws, municipal ordinances for theaters have remained substantially in their original form. As contrasted with State and municipal regulations, building codes have greater flexibility, changing with the technical developments in the construction industry. The Pacific Coast Uniform Building Code, for example, was revised early in 1937. While, as has been emphasized, this code covers only a small proportion of the cities included in this survey (less than 1 percent), and they are in most cases geographically centered, its adoption by a large group of cities is significant in that it is a pioneer movement looking toward intercity and interstate action to raise construction levels. A number of individual cities have rewritten their building codes in recent years, for example, Los Angeles, 1937, Wilmington, Del., 1936, and Springfield, Mo., 1935, and the New

York City building code has only recently been revised and adopted to become effective January 1, 1938.

Of the 186 cities for which information was complete enough to permit inclusion in this study, 161 operated under a State law of sufficiently broad coverage to influence working conditions materially. All of the States made some provisions for motion-picture theaters, but where only licensing, or the method of door construction and installation of fire escapes are regulated, cities in such States have not been classified in this study as operating under State law. The 12 States without comprehensive legislation are: Alabama, Arkansas, Georgia, Maine, Maryland, Nebraska, Oklahoma, South Carolina, Utah, Virginia, Washington, and West Virginia.

Building codes and municipal ordinances touch on motion-picture theaters more often than other kinds of local regulations. Many cities have provisions on theaters in both their building codes and municipal ordinances. In a small number of cases the provisions of the State law, building code, or municipal ordinance, or any two or three in combination, are supplemented by the local electrical code, fire-prevention measures, or police code. As cities customarily comply with the National Electrical Code, little local regulation is needed for electrical installations.

Those familiar with the motion-picture theater industry stress the importance of comprehensive examinations for prospective operators, to insure safety and health. Such examinations should be designed to test not only familiarity of the operator with the State and city regulations that apply in his district, but above and beyond that to demonstrate his practical ability to show films, knowledge of film and machine repair, and training in general care of the apparatus.

Labor Laws

STATE LABOR LEGISLATION, 1937

DURING the legislative year of 1937 all of the State legislatures were in session except those of Louisiana and Mississippi.[1] The legislatures of Alaska, Hawaii, and Puerto Rico also held sessions during the year.

Considerable labor legislation was enacted in 1937. As a result of the action taken during 1936 and 1937, every State now has an unemployment-compensation act, and 47 States have passed laws authorizing old-age assistance. In addition, a great deal of new or amendatory legislation was enacted providing aid to dependent children and the needy blind. Legislation was also passed covering vocational training, apprenticeship, and related subjects.

Much progress was made during the year in the field of hours-of-labor and minimum-wage legislation. Heretofore such laws have been made applicable to women and minors only, but in Pennsylvania legislation was passed providing for a 44-hour week covering all employees, and in Oklahoma a minimum-wage law was adopted affecting men, as well as women and children.

In the field of labor relations, State laws similar to the National Labor Relations Act were passed, establishing the right of collective bargaining for employees engaged in strictly intrastate employments. Such laws were adopted in Massachusetts, New York, Pennsylvania, Utah, and Wisconsin. In several States new or amendatory anti-injunction laws were considered. Legislation was also enacted providing for the arbitration and mediation of labor disputes, and the protection of employees from coercion and intimidation was the subject of legislation in several States.

Four additional States (Kansas, Kentucky, Nevada, and New Mexico) ratified the Federal child-labor amendment, bringing the total number of such States to 28. A number of States strengthened their laws relating to the employment of minors. In North and South Carolina the minimum age at which children may be employed was raised to 16 years. Several other States increased the minimum age of employment in hazardous occupations. In several jurisdictions compulsory school-attendance laws were amended, while in some of the other States the maximum hours of labor of minors were decreased. In Missouri and New York the sale of goods, etc., manufactured by child labor was declared to be unlawful.

[1] For a résumé of Federal labor legislation, see Monthly Labor Review for October 1937 (p. 898).

In several States the functions of the departments of labor were expanded and strengthened by the granting of additional powers and authority. Under a reorganization plan in Arkansas, Georgia, and Tennessee, departments of labor were established as separate and distinct entities.

The subject of health and safety received attention in a number of the States, while 16 States passed new or amendatory legislation relative to the regulation, etc., of the sale of prison-made goods.

As a number of legislatures held special sessions in 1936, primarily for the purpose of enacting unemployment-compensation legislation, special mention is made of such legislation in this report. For the first time an outline of workmen's compensation legislation has been incorporated in this brief review of 1937 labor legislation.

The following topical summary presents the most important labor legislation enacted in 1937, but does not include such subjects as absentee voting laws, retirement legislation, unemployment relief, or the examination, licensing, etc., of workmen.

Child Labor

During 1937 four States—Kansas (S. Con. Res. 3), Kentucky (ch. 30), Nevada (S. J. Res. No. 2), and New Mexico (H. J. Res. 4)—ratified the Federal child-labor amendment, bringing the number of States having ratified this amendment to a total of 28. However, the Kentucky Supreme Court, in the case of *James E. Wise et al.* v. *Albert Chandler et al.*, decided October 1, 1937, held that the ratification by the State of Kentucky was invalid.

A number of States made changes in their child-labor laws. In Hawaii the compulsory school-attendance law was amended by increasing the age of attendance from 14 to 16 years (Ser. A–25). The educational laws were also amended in Alaska (ch. 18), Oklahoma (p. 175), South Carolina (No. 344), and Wisconsin (ch. 40). The Massachusetts Legislature provided that an investigation be made relative to increasing the age of compulsory school attendance (ch. 65).

Missouri (p. 196) and New York (ch. 806) passed laws prohibiting the sale of goods, wares, or merchandise manufactured by child labor within or without the State. North Carolina made considerable changes in the law regulating child labor (ch. 317); in that State minors between 16 and 18 may hereafter be employed only 9 hours a day and 48 hours a week, no child under 16 may be employed in any factory, and minors under 18 may not work in certain hazardous occupations. The child-labor law of South Carolina was also changed (No. 331) so as to prohibit the employment of minors under 16 in any factory, mine, or textile establishment. In Vermont the law was changed (No. 176) by providing for an 8-hour day and 6-day week,

while in Wyoming (ch. 30) females may not be employed before 7 a. m. or after 10 p. m.

In Indiana the employment of a minor is prohibited where the principal business of the employer is the selling of malt or alcoholic liquors (ch. 267). The employment of a minor under 18 in a coal mine is also prohibited in this State (ch. 240). In Wisconsin the child-labor law was amended by providing that boys may not engage in street trades until they are 13 years of age (ch. 401). In that State badges are now required to be worn by minors up to the age of 18, instead of 17 as heretofore, and the hours of labor of employment in street trades are limited to 8 hours a day and 40 hours a week. Connecticut adopted several important amendments. The department of health was authorized (p. 439) to declare occupations hazardous to the health of minors under 18; however, exceptions were made in the case of minors under 16 years enrolled as bona fide apprentices. The law governing the issuance, etc., of employment certificates was also changed.

Hours of Labor

Men and women.—Six States legislated on the subject of hours of work for both men and women. In Colorado (ch. 165) the hours of labor of pharmacists were limited so as not to exceed an average of 9 hours a day and not more than 108 hours in any 2 consecutive weeks. In that State the legislature has also required (ch. 214) that all persons employed by a contractor doing public printing must observe the prevailing standard of working hours and conditions fixed by the industrial commission. In North Carolina laws were enacted (chs. 406, 409) regulating the hours of labor of men, women, and minors. Women may not be employed for more than 48 hours a week, 9 hours a day, and 6 days a week, and men may not work for more than 55 hours a week, 10 hours a day, or 12 days in any consecutive 14. However, there are numerous exceptions, such as cases of emergency and seasonal employments.

The Pennsylvania Legislature by a comprehensive act (No. 567) regulated the hours of labor of all employees in the State. Employment is limited to 44 hours a week, 8 hours a day, and 5½ days a week. The law, however, does not apply to agricultural labor, domestic servants in private homes, or persons over 21 years of age and earning $25 a week or more in executive positions or in the professions, and the department of labor and industry may grant further exemptions. In Washington (ch. 129) the hours of labor of domestic employees are limited to 60 hours a week. In Utah (H. J. Res. 1) a constitutional amendment was proposed to permit the legislature to determine the hours of labor in certain cases; this amendment will be voted on at the next general election.

Women and minors.—A number of States made changes in laws regulating the hours of labor of women and minors. The Arkansas law was amended (Act 83) by adding to the list of establishments to which the law already applies, hotels, restaurants, banks, insurance companies, public utilities, and the operation of elevators. Under this law the hours of work are limited to 9 a day and 54 a week. The Connecticut Legislature (p. 437) has provided that emergency exceptions to the hours-of-labor law may be granted to manufacturing and mechanical establishments only for a period of 8 weeks during any 12-month period. An act (p. 438) also reduced the hours of labor for females in mercantile establishments to 8 a day, 48 a week, and 6 days a week, instead of the former limitations of 9 a day and 52 a week.

The Illinois law (p. 550) was amended in several respects, including the adoption of legislation limiting the hours of labor to 8 a day, and 48 a week. The Massachusetts Legislature (ch. 153) continued until April 1, 1938, the suspension of the law prohibiting the employment of women in the manufacture of textile goods after 6 p. m. In Nevada (ch. 207) the hours of labor of women have been limited to 8 a day and 48 a week. In New Hampshire (ch. 200) a number of new employments have been covered under the law limiting the hours of labor. Another act in New Hampshire (ch. 36) reduced the maximum hours of labor for women and minors while engaged at manual or mechanical labor in mercantile establishments from 10¼ to 10 a day, and from 54 to 48 a week.

In New Jersey a law was passed (ch. 70) which supplemented the original act regulating the hours of labor for women. By the provisions of the new law women employed in manufacturing establishments, bakeries, and restaurants are not permitted to work between midnight and 7 o'clock in the morning. However, by the provisions of chapter 113, glass manufacturing establishments and hotel restaurants are not covered by the law. Several changes were made in the New York law. By chapter 281, the maximum hours of employment of female elevator operators are fixed at 8 a day and 48 a week, instead of 9 and 54, respectively, while chapter 660 authorizes the employment of females over 18 in certain canneries between September 1 and December 1, for 10 hours a day and 6 days a week. By the provisions of chapter 283, a female over 21 may not be employed as a conductor or guard on street, surface, electric, subway, or elevated trains more than 8 hours a day or 48 hours a week. The former limitation was 9 and 54 hours, respectively.

The Ohio law was considerably amended and supplemented (S. B. 287). The maximum hours for females are now limited to 8 a day (instead of 9) and 48 a week (instead of 50), while in manufacturing industries females may not be employed for more than 8 hours a day

or 45 hours a week. The law also requires that employees must be given a meal period, and the maximum hours for boys under 18 and girls under 21 are fixed at 48 a week. The Pennsylvania act was amended (No. 322) by fixing the maximum hours of work for females at 8 a day, 44 a week, and 5½ days a week, instead of the former provision of 10 a day, 54 a week, and 6 days a week. In Vermont (No. 177) the hours of labor for women and children are now limited to 9 per day (formerly 10½) and 50 per week (formerly 56), but in cases of extraordinary emergency public-service employees are exempted from the act.

Drivers of motor vehicles.—New or amendatory legislation regulating the hours of labor of drivers of motor vehicles was adopted in California (ch. 228), Indiana (ch. 300), Iowa (ch. 134), New York (ch. 534), and Washington (chs. 166 and 184).

Miscellaneous.—In Connecticut (p. 438) the provisions of the law relating to night work of women and minors were amended by exempting physicians, surgeons, nurses, pharmacists, attorneys, teachers, and social-service workers. The New York law was changed (ch. 84) by requiring additional meal periods for persons starting work before noon and continuing later than 7 o'clock; persons employed more than 6 hours, starting between the hours of 1 o'clock in the afternoon and 6 o'clock in the morning, must be allowed a specified meal period. The law of New York State relating to the hours of labor on public works was also amended (ch. 676) by providing that time lost in 1 week because of inclement weather may be made up during that week or during the succeeding 3 weeks. The Utah law governing an 8-hour day for men employed in mines was amended (ch. 59) so as to provide that the 8-hour period must be computed from the time the men go underground until they return to the surface.

Labor Relations

Collective bargaining.—In five States—Massachusetts (ch. 436), New York (ch. 443), Pennsylvania (No. 294), Utah (ch. 55), and Wisconsin (chs. 51 and 173)—laws were enacted establishing State labor relations boards.[2]

Colorado passed a law (ch. 195) regulating the bituminous-coal mining industry of the State and providing for the establishment of codes of fair competition. The law requires that employees must be permitted to organize and bargain collectively through representatives of their own choice, and assures to them freedom from interference, restraint, and coercion from any source whatever. Antiunion contracts are prohibited.

The Nevada Legislature (ch. 206) provided that combinations of workmen or laborers may represent employees in a labor dispute.

[2] See analyses of acts in Monthly Labor Review for October 1937 (p. 854).

In Utah a law (ch. 57) was passed requiring employers, at the request of an employee, to pay not more than 3 percent of the employee's wages to labor organizations. The registration of labor organizations with the industrial commission is provided by another law (ch. 56).

Arbitration and mediation.—In Connecticut an act was passed (p. 439) extending to the board of mediation and arbitration the power to examine the pay roll or other records, and to inspect conditions affecting relations between employers and employees where a strike or lock-out exists. The act also provides for the appointment of alternate members of the board and investigators to make inspections and to adjust disputes.

In New York a State board of mediation was established (ch. 594). Legislative power was granted to the Pennsylvania Department of Labor and Industry to mediate labor disputes (No. 177). In South Carolina (No. 340) the duties formerly vested in the State board of conciliation were transferred to the commissioner of labor. The commissioner is required to investigate industrial disputes, strikes, or lock-outs, to make findings of fact, and to attempt to induce both parties to arrive at an amicable agreement.

Intimidation and coercion.—In Colorado (ch. 188) employers must not interfere in their employees' right to engage in politics or to become candidates for public office. In Pennsylvania (Act No. 288) an employer must not threaten or intimidate employees for failing or refusing to sign petitions. A similar law prohibits an employer from influencing the political actions of an employee in West Virginia (ch. 36).

Strikes and lock-outs.—A new anti-injunction law was passed in Pennsylvania (No. 308). Under the law persons who have an indirect interest in a labor dispute, as well as those who have ceased work because of a labor dispute, are considered employees. It is also provided that officers and members of unions are not liable for unlawful acts of agents unless they actually participated in such actions or ratified them. The act also provides that an employer who has employed strikebreakers may not be granted an injunction. The Wyoming law was amended (ch. 15) so as to provide that a court may not enjoin patrolling, among other acts, in order to give publicity to the existence of a labor dispute. Tennessee (ch. 160) and Vermont (Act No. 210) passed laws prohibiting so-called sit-down strikes. In Utah (ch. 53) the legislature required that any person before accepting employment during a strike must register with the industrial commission. In that State, also, picketing was declared lawful (ch. 58). The Pennsylvania Legislature (Act No. 391) prohibited any person, firm, etc., not directly involved in a strike or lock-out from recruiting persons to take the place of striking employees.

The Arkansas Legislature (Act No. 166) established a department of State police. Of particular interest to labor is a provision that no

officer or member of the State police may ever be used for performing police duties on private property in connection with any strike, lock-out, or other industrial disturbance. In Massachusetts the activity of private police and detectives in labor disputes was regulated (ch. 437). Hereafter a licensed detective who enters an industrial plant as an employee for the purpose of interfering with the organization of employees must register with the commissioner of public safety. The Utah Legislature declared (ch. 52) that peace officers may not deputize the employees of a private employer when a strike or lock-out directly concerning the employer exists. In Connecticut (p. 278) the legislature authorized the commissioner of State police to appoint special policemen for the protection of the property of any gas, electric, telephone, telegraph, or water company. Upon application of any railroad, street railway, or steamboat company the State police commissioner is authorized to appoint one or more persons designated by such company to act as policemen.

Miscellaneous.—California (ch. 396) authorized the adoption of codes of fair competition in certain trades and industries. All provisions of the State laws, or of the laws of the United States, governing labor conditions in service trades are considered incorporated in the provisions of any code. In Minnesota (ch. 235) the Governor was authorized, upon request of 65 percent of the service-trades employers, to prescribe regulations and standards of trade practices governing maximum hours, minimum rates of pay, and working conditions so as to prevent unfair competition. In Colorado a law was enacted (ch. 113) regulating the cleaning and dyeing trade, providing for a maximum 60-hour week for route salesmen and a maximum 8-hour day for all other employees, except night watchmen, executives, and employees engaged in emergency work. A 6-day week was also established, and the industrial commission has been authorized to fix fair wages for the various classes of employees. No person under 17 years of age may be employed. Employees must be given the right of self-organization and collective bargaining, and antiunion contracts are prohibited.

A labor code, consisting of all laws relating to labor, was enacted in California (ch. 90), and Wisconsin (ch. 166) directed the industrial commission to compile and codify such laws and general orders of the commission. In New York (ch. 296) no person may be required to be fingerprinted as a condition of securing employment or of continuing employment. The Ohio law relating to assignment of wages was amended (S. B. 103) so as to make valid any contract or agreement between employers, employees, and a labor union that authorizes a deduction from the wages of the employees for payment of union dues. The criminal syndicalism law of Washington was repealed (ch. 210).

The Massachusetts Legislature passed a resolution (Resolve, ch. 30) asking the commission on interstate compacts affecting labor and industries to consider the problems relating to employment and the preservation of freedom and equality of bargaining power. A recess committee was created in Maine (p. 583) to study labor relations.

Wages

Minimum wages.—As a result of the United States Supreme Court decision holding minimum-wage laws constitutional,[3] much legislation was adopted by the States. In four jurisdictions (Arkansas, District of Columbia, Minnesota, and Puerto Rico) minimum-wage laws which were already on the statute books were revived and made effective. Such laws were also amended or reenacted in Colorado (ch. 189), Connecticut (p. 286), Massachusetts (ch. 401), Minnesota (ch. 79), New York (ch. 276), and Wisconsin (ch. 333). New minimum-wage laws were adopted in Arizona (ch. 20, 2d Spec. Sess.), Nevada (ch. 207), Oklahoma (p. 387), and Pennsylvania (No. 248). The Oklahoma law was made applicable to men, as well as to women and minors.

Payment of wages.—A number of States made changes in the laws governing the payment of wages. In Maine a daily record of the hours of labor of employees must be kept (ch. 193). The Michigan Legislature (Act No. 119) added several new occupations to the wage-payment law. Hereafter, wages must be paid not later than 8 a. m. on the 15th and last days of the month in Nevada (ch. 31). A new law was enacted in New Mexico (ch. 109) requiring semimonthly pay days and regulating the time of payment in case of resignation or discharge. The Tennessee Legislature (ch. 153) made violations of the wage-payment law punishable by a fine instead of a forfeiture. The Utah law was reenacted (ch. 60), and provides for regular semimonthly pay days and regulation of the time of payment in cases of resignation, discharge, or suspension of work. A law (H. B. 343) was passed by the legislature of South Carolina regulating the payment of wages. This law, however, was vetoed by the Governor. In Maryland the legislature (J. Res. No. 16) authorized the appointment of a commission to study the question of unpaid wages.

The New Hampshire law relating to the payment of wages was amended (ch. 149) and now requires that wages of employees who are discharged must be paid within 72 hours. The Oregon law was changed so that in cases of discharge the wages must be sent to the employee if he so requests (ch. 92). A new law (p. 596) was enacted in Illinois requiring the payment of wages of a discharged employee within 5 days, when amounting to $100 or less. In Puerto Rico

[3] See Monthly Labor Review for May 1937 (p. 1202).

(No. 17) employees are guaranteed the benefits of the additional compensation fixed by law in case of discharge without previous notice or justified cause.

Three States legislated on the payment of wages in scrip. In Texas (H. B. 19) employers who pay wages in scrip are required to redeem it in cash when presented on the regular pay day. In case of a refusal to redeem, the holder of the scrip may sue and the judgment will include a penalty of 25 percent of the amount due plus reasonable attorneys' fees. The Florida law was amended (ch. 18004) so as to provide that the face value of scrip must be paid in cash within 30 days, instead of 90 days as formerly. A Maryland law (ch. 340) now prohibits a bank or trust company from paying less than the full face value of any check issued in payment of wages.

Wages on public works.—New or amendatory legislation requiring the payment of minimum wages on public works was enacted by Arkansas (No. 74), Hawaii (Ser. A-3), Massachusetts (ch. 346), Pennsylvania (Nos. 26, 373). and West Virginia (ch. 132). In the following States laws were passed relating to the payment of the prevailing rate of wages on public works: Connecticut (p. 269), Nevada (ch. 139), New Mexico (ch. 179), New York (chs. 85, 918), Ohio (S. B. 54), and Oregon (ch. 200).

Garnishment and assignment of wages.—The California law relative to garnishment of wages was amended by providing that in cases where the debt is due to the purchase of necessaries or for wages, exemption of all of the wages from garnishment will not be allowed (ch. 578). A new law passed in Connecticut (p. 481) prohibits wage assignments and the attachment or garnishment of wages. In Rhode Island (ch. 2532) the salary or wage of a debtor is exempt from attachment for a period of 1 year after he has been on relief.

Legislation relating to the assignment of wages was considered by several States. In Illinois, the wage-assignment law was amended (p. 570) by requiring that an assignment must be a separate instrument complete in itself, and not a part of any conditional sales contract. New Jersey passed a new law (ch. 171) regulating the assignment of wages. In North Carolina the wage-assignment law was amended (ch. 90) so as to make it applicable to four additional counties. An employee in Minnesota may now authorize his employer to make deductions from his wages for certain specified purposes (ch. 95). In West Virginia (ch. 131) only one-fourth of an employee's wages may be assigned.

New or amendatory laws regulating the business of making small loans were enacted by Arkansas (Act 135), Connecticut (pp. 405, 423), Hawaii (Ser. D–151), Rhode Island (ch. 2496), Vermont (No. 184), and Washington (ch. 213).

Miscellaneous.—For the protection of employees engaged in mining, Arkansas (Act 116) and Oklahoma (p. 393) enacted laws requiring employers having more than three employees to give a bond to assure payment of wages when due and also to pay wages semimonthly. In New York the labor law was amended by chapter 500, which empowers the industrial commissioner to investigate and attempt to adjust controversies between employers and employees in respect to wage claims. The commissioner is also authorized to take assignment of wage claims and to sue to collect such claims.

Legislation was enacted in Massachusetts (ch. 342) requiring the posting of a notice stating the portion of tips certain employees are permitted to retain. In New Hampshire hereafter every employer must inform a new employee of the amount of wages he is to receive (ch. 94). Under a new California law (ch. 357) an employer cannot collect or receive from an employee any part of the wages previously paid. In this State it is now unlawful for the employer secretly to pay a lower wage, where any statute or contract requires an employer to maintain a designated wage scale. In Maine (ch. 188) the installation of "pick clocks" on looms is required in textile factories, and notices must be posted specifiying the character of the work to be done and the rate of compensation.

Health and Safety

A number of States considered the health and safety of workers by the enactment of appropriate legislation.

Inspection of boilers.—A Texas law (H. B. 352) provided for the inspection of boilers, and hereafter permits will be required for operating them. Amendatory legislation was adopted in Arkansas (Act 127), North Carolina (ch. 125), and Pennsylvania (Nos. 244, 347).

Inspection of mines.—A number of States changed their laws or enacted new ones for the safety of workers in mines. The Alaska law was amended (ch. 53) to regulate underground boring or drilling. In Arkansas (Act 233) and Colorado (ch. 196) the law was considerably changed and more stringent requirements were adopted as to the inspection of mines. Indiana, by the adoption of chapter 238, made the law applicable to all mines where men are employed instead of to mines where 10 or more work. Similar legislation was enacted in Maryland (ch. 188). In Iowa (ch. 96) a license must be procured from the State mine inspector before a mine may be opened, while in Wyoming (ch. 95) such a license must be obtained before either opening or closing a mine.

The Legislatures of Iowa (ch. 97), New York (ch. 537), Montana (ch. 146), and Wyoming (chs. 111, 120) also provided legislation seeking better health and safety laws for persons employed in mines. A new law was passed in Nevada (ch. 19) requiring an employer to furnish carbide lamps or candles in all underground mines. The Ohio

Legislature authorized district inspectors to close down mines that do not comply with the State workmen's compensation act (S. B. 113). The Pennsylvania law providing for safety of miners was amended (No. 464), and an act (No. 135) was passed which prohibits the employment of miners in bituminous-coal mines unless they have received certificates of competency from a miners' examining board.

Safety of railroad employees.—California (ch. 701) and Wisconsin (ch. 206) passed amendatory legislation concerning railroad train crews, while Indiana (ch. 58) and Pennsylvania (No. 287) enacted new laws. The qualifications of railroad conductors and flagmen were the subject of legislation in Wisconsin (ch. 138). Proper safety equipment of railroad trains was considered in Illinois (p. 1008), Nevada (ch. 94), Oregon (ch. 323), South Dakota (ch. 205), Washington (ch. 152), and Wisconsin (ch. 54).

Sanitary conditions and health certificates.—In Connecticut (p. 490) tobacco plantations employing 25 or more persons are required to provide adequate toilet facilities. Certain Illinois employers must provide wash rooms for their employees (pp. 570, 599). Massachusetts (ch. 362) and Vermont (No. 134) enacted laws governing sanitary conditions in bakeries, while in Washington (ch. 137) persons employed in bakeries are required to obtain health certificates, renewable every 6 months. In Texas (H. B. 646) persons employed in hotels, cafes, or other public eating places, bakeries, or meat markets must undergo a medical examination every 6 months. In North Carolina (ch. 337) medical examinations are required for domestic employees.

Miscellaneous.—In Arkansas (Act 323) certain establishments employing more than three women are now required to adopt measures for securing and maintaining a reasonable temperature and ventilation. The Illinois health and safety laws were amended (p. 555), and several Pennsylvania laws were passed seeking to improve the health, etc., of workers (Nos. 174, 281). Caisson workers are protected by new legislation in the State of Washington (ch. 131). West Virginia (ch. 89) has required that employers must provide safe employment.

Laws were also passed in Michigan (Act 82) and Ohio (H. B. 61) regulating the operation of elevators, and amendatory blower-inspection laws were the subject of consideration in Arkansas (Act 127) and Illinois (p. 596).

Labor Departments, etc.

Under a State government reorganization plan, departments of labor were established in Arkansas (Act 161), Georgia (p. 230), and Tennessee (ch. 33). In Indiana (ch. 34), a division of labor was established in the department of commerce and industry. The Industrial Commission of Florida was authorized to administer Federal

acts passed for the benefit of employers and employees (ch. 18413). The commission was also directed to make studies of safety, employment conditions, and accident prevention, and to recommend the best preventive measures. The act also requires employers to furnish safe employment, and general rule-making power as to safety and health has been given to the commission, including authority to prescribe safety devices and other means of protection against accidents and occupational diseases. The Illinois Civil Administrative Code was amended (p. 1127) by providing for a board of review, a board of unemployment compensation, and free employment office advisers (composed of nine persons) in the department of labor.

The Michigan Legislature greatly increased the power and authority of the commissioner of labor in regard to inspection of workplaces (Act 128). Another amendment (Act 159) provided that the commission of the department of labor and industry shall be composed of six members, instead of four, and specified that three of the members must be attorneys. The New York labor law was amended (ch. 819) to provide for the transfer of the powers and duties of the industrial board, except those relating to the workmen's compensation law, to the board of standards and appeals in the department of labor. The duties of the inspectors of the South Carolina Labor Department were increased and the commissioner of labor or his agents were authorized to inspect buildings and other structures (No. 313).

Employment Agencies

Three States passed legislation regulating private employment agencies. The Arizona law was amended by providing, among other things, that any person desiring a license must make a cash deposit of $500, instead of furnishing a surety bond (ch. 33). Employment agents in Maryland securing positions for teachers may charge a registration fee of $2 (ch. 58). In Pennsylvania (No. 240) applicants under 21 years of age must furnish to the employment agent the names and addresses of parents.

All of the States now have accepted the provisions of the Wagner-Peyser Act, which established a Federal system of public employment offices.[4] Many of the States that accepted the provisions of this act prior to the enactment of unemployment-compensation laws have now incorporated such provisions in the unemployment-compensation statutes. The following States accepted the act for the first time in 1937: Alaska (ch. 4), Hawaii (Ser. D–167), Kansas (ch. 255), and Montana (ch. 137).

[4] See U. S. Bureau of Labor Statistics, Bull. No. 630: Laws Relating to Employment Agencies in the United States.

Prison Labor

Several States passed legislation regulating the sale of prison-made goods. New laws were enacted by the legislatures in Arkansas (Act 98), Connecticut (p. 489), Georgia (p. 484), Indiana (ch. 9), Kentucky (ch. 16, 4th Spec. Sess.), Oklahoma (p. 114), Pennsylvania (No. 373), and Tennessee (ch. 67). In some of these States, however, certain exceptions have been made. In Arkansas and Oklahoma the law does not apply to certain farm products produced by prison labor. The Connecticut act is not applicable to goods manufactured in county jails until June 30, 1939. The Tennessee law does not become effective until February 19, 1938, and by the provisions of two other acts (chs. 66, 104) of that State, coal produced by prisoners may not be sold after March 3, 1939. Amendatory legislation was adopted in Maryland (chs. 17, 213), Michigan (Act 95), Oregon (ch. 391), Vermont (No. 165), and West Virginia (ch. 79). In Maryland certain farm products are not covered by the act, while in Michigan the act does not apply to animals and livestock. Minnesota passed a law (ch. 444) which prohibits the barter, trading, or exchange of prison-made goods. In Colorado it is provided (ch. 131) that institutions and departments of the State government must purchase prison-made goods. In Nebraska (ch. 201) the board of control is empowered to exchange prison-made goods for those of other States. In Maryland (ch. 505) and West Virginia (ch. 78) prison labor may be used in the construction of roads, while in Oregon (ch. 417) prisoners may be employed in the performance of useful work upon land owned by the State, provided such labor does not interfere with free labor.

Legal Holidays and Sunday Labor

Arkansas hereafter will observe May 30 as a holiday (Act 257). New Hampshire (ch. 63) has declared June 21, 1938, a legal holiday in commemoration of the ratification of the United States Constitution. North Dakota (ch. 141) designated Good Friday as a holiday. Tennessee (chs. 164, 169) added to the list of legal holidays March 15 (Andrew Jackson Day) and May 30 (Memorial Day). Wyoming (ch. 6) established Columbus Day as a legal holiday. Oregon (ch. 95) and Pennsylvania (Nos. 155, 239) also acted in respect to certain holidays.

Several States passed legislation relative to Sunday labor. The Connecticut law was amended (p. 490) so as to permit certain emergency repairs on Sunday, while Delaware (ch. 184) now requires barber shops to be closed. In Hawaii (Ser. C–121) stores may remain open on Sunday only when the United States Navy is in Hawaiian waters. Massachusetts (ch. 124) amended the Sunday-labor law relative to

procuring licenses for certain establishments to remain open. The Puerto Rican law was amended (No. 110) to permit the operation of race tracks on Sunday. South Carolina (No. 326) legislated to forbid regular employees of certain manufacturing establishments to work on Sunday. The Utah law was changed (ch. 136) so as to permit a number of businesses to remain open on Sunday.

In Illinois (p. 564) the law providing 1 day of rest in 7 has been extended so as to include a number of additional establishments. The Massachusetts law was enlarged to include restaurants (ch. 221). Amendments to the law, increasing the number of establishments covered, were adopted in New Hampshire (ch. 129) and New York (chs. 282, 722). In Pennsylvania the law now applies to persons employed in or about a motion-picture theater (No. 42). The Wisconsin law was amended by providing that during the required rest period of 24 consecutive hours, the employer must not permit an employee to work except in cases of emergency (ch. 21).

Social Security

During 1937 a great deal of social-security legislation was enacted. At the present time all States have laws providing for unemployment compensation, and every State except Virginia provides old-age assistance. Practically all of the States also have laws providing aid to dependent children and the blind.

Social-security legislation (in general).—Thirteen States and Hawaii passed new or amendatory legislation covering all phases of social-security legislation, including assistance to the aged, dependent children, and the blind. Such legislation was enacted in Arkansas (Acts 41, 248), Florida (ch. 18285), Hawaii (Series D–164), Idaho (ch. 216), Indiana (chs. 41, 47), Kansas (ch. 327), Missouri (p. 467), Montana (ch. 82), New Mexico (ch. 18), North Carolina (ch. 288), Pennsylvania (No. 399), South Carolina (No. 319), Texas (H. B. 7), Utah (ch. 90), and Wyoming (ch. 88).

Old-age assistance.—New laws providing for old-age assistance were enacted in Georgia (p. 311), and Tennessee (ch. 49), while amendatory legislation was enacted in 26 other States. The following States amended or reenacted old-age assistance laws: Alabama (Nos. 143, 144, Spec. Sess.), Alaska (chs. 2, 8, Spec. Sess.), Arizona (ch. 2, 3d Spec. Sess., and ch. 70), California (chs. 4, 375, 392, 405), Colorado (ch. 201), Connecticut (pp. 202–207), Delaware (ch. 124), Illinois (p. 265), Iowa (chs. 137, 139), Maine (ch. 242), Maryland (ch. 12, Spec. Sess.), Massachusetts (chs. 165, 440), Michigan (Act 261), Minnesota (chs. 26, 100, 103, 482, 484, 489), Montana (ch. 27), Nebraska (ch. 186), Nevada (ch. 67), New Hampshire (ch. 202), New York (ch. 645), North Dakota (chs. 211, 212), Ohio (H. B. 449), Oregon (chs. 216, 309), South Dakota (ch. 220), Tennessee (chs. 72,

273), Vermont (No. 65), and Washington (ch. 156). In Nevada a constitutional amendment directing counties to assist the aged and infirm was approved by the people on March 17, 1937 (ch. 8). In Missouri a resolution was adopted (p. 606) proposing an amendment to the State constitution which will be voted on in November 1938. Pennsylvania also adopted an amendment to its constitution, authorizing old-age assistance. In Virginia (S. J. Res. 3), a commission was appointed to study the subject of old-age assistance.

Unemployment compensation.—New unemployment-compensation acts were adopted by the following States and Territories: Alaska (ch. 4, Spec. Sess.), Arkansas (Act 155), Delaware (ch. 258), Florida (ch. 18402), Georgia (p. 806), Hawaii (Ser. D–167), Illinois (p. 571), Kansas (ch. 255), Kentucky (ch. 7, 4th Spec. Sess.), Michigan (Act 1, 1st Spec. Sess. 1936), Minnesota (ch. 2, 1936 Spec. Sess., as amended 1937, chs. 43, 306, 401, 452), Missouri (p. 574), Montana (ch. 137), Nebraska (ch. 108), Nevada (ch. 129), New Jersey (ch. 270, 1st Spec. Sess., 1936), New Mexico (ch. 1, 1936 Spec. Sess., as amended 1937, ch. 129), North Carolina (ch. 1, 1936 Spec. Sess., as amended 1937, chs. 363, 448, 150), North Dakota (ch. 232), Oklahoma (ch. 52, 1st Spec. Sess. 1936), South Dakota (ch. 3, 1936 Spec. Sess., as amended 1937, chs. 223, 224), Tennessee (ch. 1, 1936 Spec. Sess., as amended 1937, ch. 128), Virginia (ch. 1, Spec. Sess.), Washington (ch. 162), and Wyoming (ch. 113).

The unemployment-compensation acts of the following States were amended or reenacted: Alabama (chs. 83, 184, Spec. Sess.), Arizona (ch. 13, 1st Spec. Sess. 1936, as amended 1937, ch. 68), California (chs. 739–752, 119), Colorado (ch. 260), Connecticut (pp. 444–468), Idaho (ch. 12, 3d Spec. Sess. 1936, as amended 1937, chs. 9, 183, 187, 188), Indiana (ch. 125), Iowa (ch. 4, 1936 Spec. Sess., as amended 1937, chs. 102, 103), Maine (ch. 192, Spec. Sess. 1936, as amended 1937, ch. 228), Maryland (chs. 14, 311, 314, 527, and ch. 2, Spec. Sess.), Massachusetts (ch. 421), New Hampshire (ch. 178), New York (chs. 142, 727, 797), Ohio (H. B. 608, 1st Spec. Sess., 1936, as amended 1937, H. B. 103, S. B. 26, S. B. 169), Oregon (chs. 364, 398), Pennsylvania (No. 175), Rhode Island (ch. 2556), Texas (H. B. 586), Utah (ch. 43), Vermont (Nos. 170, 171), West Virginia (ch. 100), and Wisconsin (chs. 95, 343).

Aid to dependent children.—Sixteen States legislated on the subject of aid to dependent children. New or reenacted laws were passed in Arizona (ch. 72), Georgia (p. 630), Maine (ch. 177), New York, (ch. 15), South Dakota (ch. 221), Tennessee (ch. 50), and Washington (ch. 114), while amendatory legislation was passed in California (ch. 390), Delaware (ch. 98), Illinois (p. 270), Maryland (ch. 39, and ch. 3, Spec. Sess.), Michigan (Act 443), Nebraska (chs. 96, 202), North Carolina (ch. 405), Ohio (H. B. 544), and Tennessee (ch. 274).

In Pennsylvania and Texas (H. J. Res. 26a) amendments to the constitution authorizing aid to dependent children were approved by the electorate.

Aid to the blind.—Ten States passed new laws providing for aid to the blind, while six States amended or reenacted the laws on this subject. New or amendatory laws were enacted by Alabama (No. 87, Spec. Sess.), Arizona (ch. 71), California (chs. 84, 376, 394, 406), Colorado (chs. 108, 109), Georgia (p. 568), Iowa (ch. 144), Maine (ch. 210), Maryland (ch. 4, Spec. Sess.), Minnesota (ch. 324), Nebraska (ch. 187,) North Carolina (ch. 124), North Dakota (ch. 210), South Dakota (ch. 222), Tennessee (chs. 51, 275), Washington (ch. 132), and West Virginia (ch. 75). In Pennsylvania and Texas (H. J. Res. 26) constitutional amendments were adopted authorizing assistance to the needy blind.

Administrative agencies.—A number of States by separate laws provided for departments to administer social-security laws. Departments of public welfare were established in Alaska (ch. 3, Spec. Sess.), Georgia (p. 355), and Michigan (Act 258). In Utah (ch. 88), the law relating to the State department of public welfare was amended and a division of old-age assistance established (ch. 89). Similar departments were established in Arizona (ch. 69), Iowa (ch. 151), Michigan (Act 257), Nevada (ch. 127), Tennessee (ch. 48), and Washington (chs. 111, 180), while in California the law relating to the social welfare board was amended (ch. 397).

Employment etc., Preferences

Legislation requiring that preference be given to veterans on public works was considered by Idaho (ch. 152), Minnesota (ch. 121), Montana (ch. 66), and South Dakota (ch. 227), while Massachusetts (ch. 223) authorized the granting of preferences to blind persons in certain cases. Laws requiring preference for domestic products were enacted by Colorado (ch. 250), Illinois (p. 1207), Iowa (ch. 93), Missouri (p. 368), and New Mexico (ch. 168). In North Dakota (ch. 100) labor and materialmen were given a preference in the payment of bills and claims.

Discriminations

Kansas enacted a law (ch. 257) which prohibits discrimination and intimidation on account of race or color in employment on public works. Massachusetts (ch. 367) amended its law defining discrimination as "dismissal from employment of, or refusal to employ, any person between the ages of 45 and 65 because of his age"; that State also prohibited the making of contracts with such age limits. A resolution of the New York Assembly (No. 8) was adopted creating a joint legislative committee to investigate economic conditions or statutory

provisions which tend to produce discrimination against employees who are 40 years of age or over.

Miscellaneous

Apprentices.—Several laws concerning the employment of apprentices were enacted this year. In Arkansas (Act 289) a system of voluntary apprenticeship was established, and the commissioner of labor has been directed to appoint an apprenticeship council. In Colorado (ch. 87) the employment of apprentices has been regulated and standards of vocational training prescribed. In California a law (ch. 872) was passed regulating the employment of apprentices on public works, and in Wisconsin the law regulating apprentice contracts has been amended (ch. 274).

Death by wrongful act.—In Colorado (ch. 136) injured employees of common carriers, and their dependents in cases of death, are entitled to recover damages and contributory negligence is no longer a bar to recovery. The employee is not held to have assumed the risks of his employment, and no contract may be made to exempt the carrier from the law. The Indiana law (ch. 292) provides that in cases where the deceased leaves no dependents, persons furnishing hospitalization, medical services, and the cost of administration, may recover damages for death by wrongful act. An Oregon law (ch. 32) has provided that a cause of action arising out of injury to, or death of, a person caused by the wrongful act or negligence of another will not abate upon the death of the wrongdoer. A law was enacted in Nevada (ch. 213) which abrogates the defense of assumption of risk in the case of an injury to an employee of a common carrier. However, contributory negligence does not bar recovery, but damages are proportionately diminished. Amendments to the laws of Minnesota (ch. 211) and Pennsylvania (No. 48) relating to liability for wrongful death were also enacted.

Industrial home work.—Legislation regulating industrial home work was considered in five States during 1937. In Connecticut the law was amended (p. 284), authorizing the commissioner of labor and factory inspection to grant certificates to reputable employers permitting them to distribute approved materials to be processed by home workers. In Illinois (p. 552) and Massachusetts (ch. 429) certain types of industrial home work have been prohibited. Pennsylvania (No. 176) and Texas (H. B. 424) enacted new laws regulating industrial home work. In both States home work may be prohibited when it is found to be injurious to the health and welfare of home workers or the general public.

Removal of railroad terminals.—In Wisconsin no railroad may permanently close or abandon its shops or terminals without first securing the permission of the public service commission (ch. 83).

Credit unions.—Amendments to laws authorizing the formation and operation of credit unions were adopted by Maryland (ch. 178), Massachusetts (ch. 228), Minnesota (chs. 213, 276), North Dakota (chs. 113, 114), Pennsylvania (Nos. 88, 182), Tennessee (ch. 264), and Wisconsin (ch. 41).

Vocational education.—Six jurisdictions accepted the provisions of the Federal Vocational Education Act: Colorado (ch. 264), Kansas (ch. 305), Pennsylvania (No. 274), Puerto Rico (J. Res. 34), Utah (ch. 83), and Vermont (ch. 106). Kansas and Vermont also provided for the vocational rehabilitation and placement of physically handicapped persons.

Legislation authorizing the establishment of vocational-education schools was enacted by Oregon (ch. 413), Pennsylvania (Nos. 315, 477, 489), and Wyoming (ch. 107). The Ohio Legislature adopted a resolution (H. J. Res. 50) authorizing the appointment of a commission to make a study and survey the possibilities for the rehabilitation of the physically handicapped.

Workmen's Compensation Legislation, 1937

Amendments to the basic workmen's compensation acts or supplementary legislation were adopted by the legislatures of 38 States, as also by those of Alaska, Hawaii, and Puerto Rico.

Occupational Diseases

Considerable progress was made in the field of occupational-disease legislation during 1937.[5] At the beginning of the year, there were 16 States having such legislation, and as a result of action taken this year, workmen suffering from occupational diseases are now protected in 21 States.[6] In addition the laws of the District of Columbia, Hawaii, the Philippines, Puerto Rico, the United States Employees' Compensation Act, and the Federal Longshoremen's and Harbor Workers' Act cover such diseases.

New occupational-disease laws were adopted in Delaware (ch. 241), Indiana (ch. 69), Michigan (ch. 61), Pennsylvania (No. 552), and Washington (ch. 212), while amendatory acts were passed in Nebraska (ch. 107), Ohio (H. B. 71), and Wisconsin (ch. 180). The Delaware law provides compensation for 12 different occupational diseases, including dust diseases, while the Michigan act authorizes compensation for 31 diseases. The Pennsylvania and Washington laws also provide compensation for enumerated diseases. The Indiana act, on the other hand, covers any occupational disease arising out of the employment.

[5] See U. S. Bureau of Labor Statistics Bull. No. 652: Occupational Disease Legislation.

[6] California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, Washington, West Virginia, and Wisconsin.

In Nebraska (ch. 107) the coverage of the law was extended to include occupational diseases contracted in the battery-manufacturing industry, and Ohio (H. B. 71) amended the law by adding silicosis to the list of compensable occupational diseases.

By the Wisconsin amendment (ch. 180) an employee discharged because of a nondisabling silicosis may now be compensated in an amount not to exceed $3,500. Arkansas is one of the States with no workmen's compensation law; the legislature, however, (H. Con. Res. 4) authorized a survey of occupational diseases in industry. Idaho (ch. 239) empowered the department of public works to study the subject. In Maine (ch. 132) a recess committee was appointed to investigate the desirability of enacting such legislation. In Massachusetts (Resolve, ch. 46) the legislature directed the department of public health and the department of labor and industries to make a similar investigation. In Montana (S. J. Res. 6) a commission is to make a study of occupational diseases, particularly silicosis. The New Hampshire Legislature (S. J. Res. 4) authorized a commission composed of three physicians, three representatives of labor, and three representatives of industry to study the subject. In Oregon (S. J. Res. 4) a committee of five members appointed by the Governor will make a study of occupational diseases and report its findings and recommendations to the next legislature.

Benefits

A number of States broadened their workmen's compensation acts by increasing the benefits payable for disability and death, etc. The maximum weekly payment allowed for both disability and death was increased in many States, and in several the minimum was raised, while in some States the period for which compensation is payable was lengthened.

In Pennsylvania the law was almost entirely reenacted (No. 323). In this State, after compensation is paid for 500 weeks, the injured workman may receive a payment of $30 a month for life. The weekly disability compensation was increased, the minimum from $7 to $12 and the maximum from $15 to $18. In South Carolina (Act 667) the rate of compensation for total or partial disability or death was increased from 50 to 60 percent of the average weekly wages and the total compensation payable was raised from $5,500 to $6,000. In Utah (ch. 41) compensation for total and partial disability was increased by 5 percent for each minor child, with a maximum increase of 25 percent. The maximum total compensation paid in case of five minor dependent children was limited to $6,250 instead of $5,000, as heretofore. In death cases, the compensation was increased by 10 percent for each dependent child, with a maximum of 50 per-

cent and maximum total payments of $7,500 instead of $5,000. In Vermont (No. 173) the weekly minimum compensation for total disability was increased from $6 to $7 a week. Vermont (Act No. 172) also provided for increases in compensation payable in case of death, raising the amount where there are dependents. In West Virginia an amending act (ch. 104) provided that if a claimant receiving an award of less than 85 percent for a specific permanent partial disability dies from sickness or noncompensable injury, the unpaid balance is to be paid to his dependents. In Wyoming (ch. 128) the maximum compensation allowed for permanent total disability will hereafter be $5,000, instead of $4,000, and the maximum monthly payment was increased from $60 to $70, in case of an employee with a wife at the time of the injury. The maximum monthly payment for death cases was raised from $45 to $50 where there is a widow or invalid widower and the maximum amount payable in such cases was increased from $2,000 to $3,000. The maximum annual lump-sum award for each child was raised from $120 to $180.

In Connecticut, the minimum weekly payment was increased from $5 to $7 by a legislative enactment (p. 442). Maryland (ch. 329) increased the compensation for permanent total disability from $5,000 to $6,000. New Hampshire increased the maximum weekly payment from $15 to $17 (ch. 135), and New Mexico (ch. 92) increased the percent of weekly earnings from 55 to 60, and the maximum weekly payments from $15 to $18, with the minimum raised from $8 to $10. Under H. B. 80, enacted in Ohio, the minimum weekly payments were increased from $5 to $8, and in case of a temporary total disability, compensation for the first 12 weeks will hereafter be based on the full-time weekly wage at the time of the injury. In other claims, the average weekly wages for the year preceding the injury will be used as a basis of computation, with any period of unemployment eliminated. An amendment in Idaho (ch. 173) provided that in the case of an employee with dependent minor children the minimum compensation shall be $8 a week instead of $6. In Oregon (ch. 202) the commission was authorized to commute a permanent partial disability award to a lump sum, provided the disability does not exceed 24 degrees.

In Wisconsin (ch. 180) compensation hereafter will be payable for life instead of for a maximum period ranging from 280 to 1,000 weeks in cases of permanent total disability. If disability involves both a major and minor permanent partial disability, the number of weeks to be paid under each must be computed separately and added together. To this total must be added 20 percent of the number of weeks to be paid under the schedule for minor permanent disability, and indemnity must be paid for the healing period in addition to permanent disability payments. The Wyoming Legislature amended

the workmen's compensation act by chapter 128 and provided for the payment of awards for permanent partial disability ranging from $200 to $2,500.

In Colorado (ch. 276) in cases of permanent total disability, the employer or insurer may pay the award in a lump sum subject to the approval of the industrial commission. Connecticut (p. 442) provided that dependents may receive compensation for a maximum period of 312 weeks less the period for which payments have been made to the deceased employee if death results from the accident or occupational disease after 2 years from the date of the injury or first manifestation of the disease. Florida (ch. 18413) raised the weekly minimum from $4 to $6, and the maximum rate of payment was increased from 50 to 60 percent of the average weekly wages, with increases of 5 or 10 percent in cases of dependent children. Georgia (p. 528) increased the total maximum amount payable from $5,000 to $7,000 and raised the maximum weekly payment from $15 to $20. Payments for burial expenses were increased in Indiana (ch. 214) from $100 to $150 and the approval of the insurance carrier will be required before a lump-sum settlement is made. The allowance for burial expenses was increased in Kentucky (4th Spec. Sess., ch. 25) from $75 to $150, and in New Mexico (ch. 92) from $125 to $150. In New Mexico, the maximum payment to widows or widowers, without children, was increased from $14 to $16 and the maximum weekly payment in other cases from $15 to $18. The minimum was raised from $8 to $10. The amended act also provides that upon the death or remarriage of a spouse the children are to receive compensation at the same rate as in cases where there is no surviving spouse.

In Massachusetts, the payment of death benefits to children of deceased employees may continue until they become 18 years old (ch. 325). It was also provided in that State that death by suicide is compensable if the injury impaired the employee's mentality to such an extent as to make him not responsible for his act (ch. 370). The payment of reasonable funeral expenses is required when death results from silicosis or other dust diseases in New York (ch. 271) In Ohio (H. B. 69) the minimum total payment to natural parents with whom the employee was living at the time of his death is now $1,000, and the commission may determine his prospective dependents and make total payments not exceeding $1,000 to them. The aggregate maximum payment allowed is $6,500.

In a number of States the subject of medical aid was considered and legislation was enacted allowing larger sums to be paid for such services. In some States the employee is now entitled to dental aid, in addition to the ordinary medical and hospital services required to be furnished. The original law of Florida allowed an employee to select a physician at the expense of the employer if the latter had neglected

to do so, but hereafter the permission of the commissioner must be obtained first. The 1937 law also provides that artificial members shall be furnished with other medical services and supplies necessary for recovery, and the insurance company may not coerce an employee in selecting a physician (ch. 18413). The amending law of Georgia (p. 528) increased from 30 days to 10 weeks the time for which medical, surgical, and hospital aid must be furnished, and for such additional time as will tend to lessen the period of disability. The maximum amount payable for these services is increased from $100 to $500 and reasonable artificial members must be furnished. By an amendment to the Indiana law (ch. 214) medical and surgical treatment must be furnished for 90 days, instead of 30 as heretofore, and in Iowa (ch. 98) employers are required to furnish reasonable medical, surgical, osteopathic, chiropractic, and hospital services. In exceptional cases, the industrial commission may fix the amount to be spent, not to exceed $600. The law of Kentucky now requires the employer to expend up to $200 for first aid, and upon authorization of the board the amount may be increased to $400 (ch. 25, 4th Spec. Sess.).

The Maryland act was amended by chapter 430, requiring an employer to repair or replace any artificial limb, eye, tooth, or other part accidentally damaged during employment, and a delay of more than 3 days necessitates the payment of compensation for lost time after a 3-day waiting period. In Rhode Island (ch. 2545) an employer is required to furnish dental services when needed, including services rendered in making, repairing, and replacing artificial teeth. Certain required statements must be filed with the State compensation commissioner before payments for medical or surgical treatment may be made in West Virginia (ch. 104). It is also provided that the claimant and the employer may each have a physician present at any examination ordered by the commissioner. Dental and nursing services, hospital treatment, and artificial appliances have been added to the medical and surgical services to be supplied by the employer in Pennsylvania (ch. 323). The maximum cost of the services has been increased from $100 to $200 and the employer is required to pay the cost of transportation to and from the place where the services are rendered. The employee need not submit to surgical treatment which in the opinion of two qualified physicians might jeopardize his life.

In Wisconsin (ch. 180) medical services must hereafter be supplied as long as necessary, provided the period does not exceed that for which compensation is payable. The Wyoming Legislature authorized the court to pay an additional amount for medical and hospital treatment, not to exceed $300, where death results from the injury (ch. 128). The amount allowed for artificial members, in this State, was increased from $150 to $200.

Coverage

In several States the coverage of the act was broadened. The Delaware law was extended to employees of the board of public works of the township of Lewes (ch. 244), and both that State (ch. 242) and Idaho (ch. 71) made the law applicable to officers and enlisted men of the State National Guard. The Legislature of Florida (ch. 18413) excluded several employments from the coverage of the law, such as professional athletes, domestic servants in private homes, persons engaged in turpentine labor, logging, production and distribution by the producer of dairy products, and the production and handling of agricultural and horticultural products. Persons who receive a commission on the business or work done are no longer excluded from the act nor are those persons engaged in preparing or shipping raw sea foods or fish.

The Massachusetts act now provides (ch. 370) that an injury is conclusively presumed to have arisen out of the employment if the employee receives an injury resulting from frostbite or sunstroke without voluntarily having assumed the increased hazard not contemplated by his contract of employment or if he is injured as a result of the physical activities of fellow employees in which he has not participated. Police officers of the town of Laurel and Prince Georges County, in Maryland, were covered by the workmen's compensation act by supplemental enactments (chs. 288, 315).

Employers of domestic servants and farm laborers may come under the act in Minnesota by the provisions of chapter 64. New Hampshire (ch. 159) extended its act to cover any industry or business where there are five or more persons employed, except farm and domestic laborers and casual employees, instead of limiting it to manual or mechanical labor in certain employments, as formerly. The Legislature of New Mexico by chapter 92 made the definition of "engineering work" include the maintenance of a bridge, jetty, dike, dam, reservoir, underground conduit, sewer, oil and gas well, oil tank, gas tank, and water tank or tower. New York added the use of baling and pressing machines to the list of hazardous employments (ch. 563). North Dakota, by chapter 178, placed volunteer firemen under the law. In Ohio, house bill No. 45 defined the word "injury" so as to include any injury received in the course of and arising out of the employment.

The South Carolina law was amended (Acts 208 and 667) so as to exclude railway express companies and State and county fair associations. The act, however, now applies to planing mills. The Texas act will cover an employee performing services outside the usual course of employment at the direction of his employer, and also one engaged in the construction or repair of the premises used by the employer (S. B. 66). Texas by a new act (H. B. 420) extended

compensation protection to employees of the State highway department. In Washington (ch. 147) the benefits of the act are now made applicable to property belonging to the United States within the State of Washington. Another amendment added truck driving, employment in restaurants, and other occupations to the enumerated extrahazardous occupations (ch. 211).

In West Virginia (ch. 104) members of rescue squads assisting in mine accidents with the consent of the owners are deemed employees under the act. It is now compulsory as to the State and all governmental agencies, but appointive public officials are no longer covered. Casual employers have been defined as persons employing less than 10 employees or who have not been in business for more than 60 days prior to an accident. In Wisconsin (ch. 162) persons selling or distributing newspapers or magazines are now covered by the act, while in Wyoming (ch. 128) power farming and building service were added to the list of extrahazardous occupations.

In Delaware (ch. 243) employers of less than five may be covered by the act if the employer and the employees file a joint notice of election with the board. The acceptance of the law is made compulsory in Minnesota by the repeal of the provisions concerning election (ch. 64). New Hampshire (ch. 147) provided that any county, town, city, school district, etc., may give written acceptance of the act through designated officials and revocation of the acceptance may be made in the same way. In New Mexico an employer may withdraw from the coverage of the act by giving the required notice. Every employee is conclusively presumed to have accepted the act if his employer is subject to it, and has complied with the law, unless such employee has given the required written notice to the contrary (ch. 92). Election by a corporation in New York to be excluded from the act may not be revoked until 30 days after written notice has been filed with the industrial commissioner and insurance carrier (ch. 106). Oregon, by chapter 356, provided that if the workman fails to make an election within 20 days after notice to do so, election is presumed, unless subsequent to such election an action is instituted within the time allowed.

Waiting Time

The waiting period in Alaska was reduced from 1 week to 1 day (ch. 74). The Florida workmen's compensation law was amended to require a waiting time of 4 days instead of 14 (ch. 18413). In Kentucky (ch. 25, 4th Spec. Sess.) and Pennsylvania (ch. 323) if the disability continues for more than 4 weeks, compensation is payable from the date of the injury. Massachusetts made compensation payable from the date of the injury when the incapacity lasts 2 weeks or more (ch. 382). In South Carolina (Act 667) the waiting period

was reduced from 1 week to 3 days, and compensation will be payable from the date of disability when the incapacity lasts more than 14 days.

Average Weekly Wage

In New Mexico the average weekly wage must be calculated upon the monthly, weekly, daily, hourly, or other basis of payment and wages must include the reasonable value of board, rent, housing, lodging, or other similar advantage (ch. 92). New York, by chapter 86, provided that the compensation combined with the decreased earnings may not exceed the wages earned at the time of the injury, whereas chapter 925 provided that average annual earnings must be not less than 200 times the average daily wage. Michigan, by Act 204, provided that volunteer firemen will be deemed to receive not less than $27 per week for the purpose of determining average weekly wage. In Utah (ch. 41) the minimum period per year to be used in determining the average weekly wage is set at 240 days. In Vermont (Act 174) the method of computing the average weekly wage was changed, and now the average weekly wage of a volunteer fireman will be the average weekly wage in his regular employment, but not less than $15 nor more than $30. In Wisconsin (ch. 180) the average weekly earnings are to be determined by multiplying the daily earnings by the number of days worked per week at the time of the injury, but not less than 30 times the normal hourly earnings.

Extraterritoriality

The Florida law now provides compensation for an employee injured outside the State, if the contract of hire was made in Florida and the employer's place of business or the residence of the employee is in the State (ch. 18413). The amendatory law in New Hampshire provides that the act is not applicable to workmen outside the State, but is applicable to employees within the State regardless of the place of the contract of hire (ch. 159).

Second Injuries

By amendments adopted in Florida (ch. 18413) and Hawaii (Ser. D–154) the sum of $500 must be paid into a special second-injury fund in the event of death without dependents. In Massachusetts (ch. 394) the amount to be paid to the State treasurer in such cases was increased from $500 to $1,000. In Pennsylvania (No. 323) a second-injury reserve account was set up for the payment of compensation when an employee receives an injury which, combined with a previous major permanent injury, causes permanent injury or death. The West Virginia law was amended by chapter 104 to provide that in case of an injury resulting in permanent total disability, following a specified dis-

ability in a different employment, the commissioner must charge to the last employer an amount equal to the partial permanent disability attributable to the last injury.

Third-Party Liability

Act 744 (p. 528) enacted in Georgia provided that where payment of damages is made by some person other than the employer, the amount of damages shall be deducted from the amount of compensation which he would otherwise receive. Chapter 684 in New York provided that a claimant may recover not only damages from the third party, but also workmen's compensation, provided action for damages is commenced within 6 months after the award of compensation or within 1 year after accrual of the action; failure to do this operates as an assignment to the employer or insurer. Oregon, by chapter 357, provided that action against the third party responsible for the injury is barred only when the third party was an employer subject to the act, and was at the time of the injury on the premises over which he had joint supervision with the employer. Another Oregon amendment (ch. 356) omitted the provision that the commission may compromise an action against a third party, and provided that any compromise made by the employee must be approved by the commission. Notice of election to sue the third party must be given to the commission and the commission also has a lien against the cause of action, in the amount of compensation paid, including medical and hospital service. An amendment in California (ch. 506) provided for the enforcement of the employer's lien on the judgment of an employee against a third party for damages.

Nonresident Aliens

In West Virginia (ch. 104) the compensation payable to nonresident aliens was fixed at the rate of 50 percent of the benefits payable to resident beneficiaries. Such compensation may be commuted to a lump-sum settlement in certain cases.

New York (ch. 110) provided that compensation to nonresident alien dependents shall be computed as of the date of death, and as of the date of nonresidence in case of resident aliens about to become nonresidents.

Notice of Injury, Claims

A few changes were made in the requirements covering time of notice and claims for compensation. A new provision in Alaska (ch. 74) requires that a report of the employee's injury be made to his employer immediately, and no compensation will be paid prior to the day of the report. In Connecticut notice may be given to the employer or the commissioner (p. 442). A new provision was added

to the law of Hawaii (Ser. D–155) declaring that no claims for compensation may be made more than 5 years after the date of the injury. In Indiana (ch. 214) an employer neglecting to file a report of injury or proof of insurance is now subject to a fine of $50 to $500, instead of $25. The Maryland Legislature, by chapter 329, extended the time within which an injury causing hernia must be reported from 48 hours to 10 days. By chapter 332 it provided that an accident causing disability for more than 3 days must be reported by the employer within 10 days; this replaces the former provision that required the employer to report all accidents immediately. New Mexico employers are now required (ch. 92) to report all compensable injuries to the labor commission, and they must also give notice of the date on which the initial payment of any claim for compensation has been made. The failure of an employee to give notice of injury, file claim, or bring suit within the time limit, however, will not deprive him of the right to compensation where such failure was caused by the employer or insurer. The Ohio law now provides (H. B. 618) that application for compensation for death from an occupational disease must be filed within 6 months.

In Oregon (ch. 436) if an injured workman, receiving compensation for temporary total disability, dies after 1 year from the date of the injury, the commission may permit a claim to be filed within 60 days from the date of death. In Wyoming (ch. 128) the employee must report the accident within 24 hours, but failure to give notice does not bar recovery, if the employer had actual notice.

Administration and Settlement of Claims

The Connecticut Legislature authorized (p. 433) the commissioners to hold hearings in certain towns in each district. In Florida (ch. 18413) the legislature changed the method of collecting the award in case of default. Georgia vested the deputies of the department of industrial relations with the same power and authority as a director (p. 528), and by the same act limited the time in which the department may review an award or settlement to 2 years from the date the department is notified of final payment. Act No. 333 (p. 230) created within the department of labor an industrial board which will enforce the workmen's compensation law.

An amendment to the Kentucky law (ch. 25, 4th Spec. Sess.) requires that an award must be made within 30 days after the final submission of the application for a hearing, but this time may be extended to 90 days if the records are complicated or the questions of law are unusual.

The Department of Labor and Industry of Michigan is to consist of six members (instead of the former limit of four), three of whom must be attorneys (Act 267). In Montana, by chapter 61, the board is

authorized to rescind, alter, or amend an award within 4 years, instead of within the former 2-year limit. The time within which a claim may be filed in the district court for the enforcement of an award was fixed at 1 year in New Mexico, instead of 6 months (ch. 92). In Ohio (H. B. 79) the commission must pass definitely upon each issue raised in a claim, and the order of the commission must state the grounds on which the claim is denied. House bill 235 established four boards of claims, composed of three members each, to be located throughout the State. These boards will have the powers of the commission with reference to hearings, investigations, and awards, with certain exceptions.

Any employee of the State of South Carolina or any political subdivision, department, county, or municipal corporation may bring suit to recover the benefits to which he is entitled under the act (Act 667). The provisions of the act with regard to the attendance of witnesses and the production of records was also changed.

The powers of the commissioner or examiner in Wisconsin were enlarged by authorizing him to review, set aside, modify, or confirm compromises of claims (ch. 180). Wyoming (ch. 128) authorized the State treasurer to appear in the district court and defend claims.

Insurance

In a supplementary law (ch. 63) Alaska provided that in proceedings under the workmen's compensation act, the insurer may be made a party defendant. In Colorado (ch. 277) the premium on the bond furnished by the State treasurer as custodian of the State insurance fund must now be paid from the fund instead of from the State treasury.

The Illinois Legislature provided for insurance of employers who have been rejected by an insurance carrier (p. 689). When an application for insurance has been rejected by three carriers, the industrial commission may designate a carrier who is required to issue insurance. The losses thus incurred will be equitably distributed among all the carriers. In Wyoming (ch. 128) every employer engaged in an extra-hazardous business is required to pay a monthly sum equal to 6 percent of his pay roll for the first year, to be deposited to the credit of the industrial accident board, and thereafter the monthly payments will be 2 percent of his pay roll, but not less than $3,000.

The Maryland Industrial Accident Commission was authorized to fix the minimum premium to be paid by the employer insuring in the State accident fund (ch. 426). In Maine, chapter 130 created a recess committee to study the subject of a State fund for workmen's compensation. In New Jersey notice of cancelation of insurance must be given by registered mail (ch. 134). That State also provided that any

insurance policy issued contrary to the provisions of the act will be construed as containing such provision (ch. 165). In Oklahoma (p. 487) a board of managers of the State insurance fund which will have charge of the administration of the fund was established; while house resolution No. 8 provided for the appointment of a committee to investigate this fund. In Puerto Rico (No. 39) changes were made in the provision of the law relating to the actuary to be employed by the manager of the State Fund. This official must consult and cooperate with the manager in the annual review and assessment of premium rates and submit periodic reports to the Governor and the legislature. In Ohio, house bill 617 made amendments to the workmen's compensation law concerning pay-roll records and the requirement of audits, and authorized the commission to permit the issuance of certificates of coverage for periods of less than 8 months. New York enacted several chapters relating to the insurance features of the act (chs. 87, 106, 108, 559, 574, 684). California also made several changes in the insurance features of the act, by chapters 90, 218, 494, 724, and 893.

The Oregon commission (ch. 344) was authorized to readjust the rates of contribution of all employers annually, based upon the hazard of each classification of industry. By the terms of chapter 317 in Massachusetts, the insurers are required to pay the cost of appointing guardians, conservators, etc. The rate of tax on insurance premiums and on uninsured employers was increased in South Carolina (Act 667). Tennessee employers who carry no insurance must pay a tax under the provisions of chapter 108. In Washington (ch. 89) several changes were made in the provisions governing insurance and it is provided, among other things, that the director of labor and industry may make corrections in classifications or changes in rates. In Wisconsin (ch. 180) if an insurance company attempts to influence an employer to refuse employment or to discharge employees the license of such insurer may be revoked, while several other changes in the provisions of the law relating to insurance were made by chapters 219 and 329.

Accident Prevention

In Florida employers are required to furnish safety devices and safeguards (ch. 18413). Compensation is increased 50 percent in New Mexico (ch. 92) when an injury is caused by the failure of the employer to provide safety devices required by law. The additional amount is recoverable from the employer only.

Appeals

The procedure governing appeals was changed slightly in Florida, by chapter 18413. Idaho (ch. 175) now requires that appeals be taken

to the supreme court instead of to the district court. In Wyoming (ch. 128) the time within which a disputed award may be appealed has been extended from 1 to 2 years, and the injured workman may select his own attorney in appeals to the supreme court. In Texas (S. B. 64), in the trial of a case appealed from the board, certain legal papers are presumed to be true as pleaded and properly filed unless denied by verified pleadings.

Miscellaneous

Illegally employed minors.—Under the Florida law double compensation must be paid in case of injuries to an illegally employed minor (ch. 18413); the employer in such cases is liable for the increased benefit. The Pennsylvania law (No. 323) provides that a minor is not barred from compensation because the employment was obtained by misrepresentation of his age, nor because he was violating the child-labor law or a rule of industry or an order of his employer. A minor receiving an injury while employed by his parents may file a claim for compensation against them.

Chapter 565 of the New York law changed from 16 to 18 years the age at which a minor may apply to the superintendent of schools, or other certificating officer, for an age certificate.

Dependency.—Illegitimate children were covered by chapter 64 in Minnesota, and Montana (ch. 53) provided that orphans will be entitled to compensation until the age of 21. In Wyoming (ch. 128) awards to parents may be made only to parents who are dependent.

Suits for damages.—For failure to insure or self-insure, an injured employee or his dependents may elect to take compensation or sue for damages, with the common-law defenses abrogated, under chapter 64 of the 1937 law of Minnesota.

By chapter 92, New Mexico repealed a former provision and declared that in an action to recover damages for personal injury sustained by an employee on the ground of want of ordinary care of the employer, the defenses of assumption of risk, fellow servant's fault, or contributory negligence, unless willful, may not be used. However, an employer who has made an election and has complied with the provisions of the act is not subject to any other liability, except as provided for in the act.

In West Virginia (ch. 104) a change was made in the provisions of the law authorizing suits for damages in cases where the employer did not elect to come under the act. Casual employers under this amendment are liable only for injuries caused by their wrongful acts.

Attorney's fees.—Chapter 162 of Montana authorized the industrial accident board to employ an extra attorney and pay the necessary traveling expenses of its employees in the investigation and defense of cases under plan 3 of the act. By the same chapter the power of

the board to fix fees is limited to those of the claimant's attorney. The New Mexico Legislature has increased fees for attorneys from 5 to 10 percent of the award. The court, however, may increase this amount. In fixing attorney's fees in Texas (S. B. 64) the court must take into consideration the benefits received by the claimant as a result of the services of the attorney. In West Virginia, by chapter 104, attorney's fees have been limited to specified amounts and hereafter not more than $600, or 25 percent, of the total award may be paid. In Georgia (p. 528) it was provided that a person prosecuting or defending a claim without reasonable grounds may be assessed the attorney's fees of the opposing party.

Medical fees, etc.—The Georgia Legislature (p. 528) provided that physicians may not collect their fees until certain required reports have been made, and persons soliciting employment concerning claims or accepting unauthorized fees are liable to fine or imprisonment.

Other legislation.—In addition to the appointment of committees in several States to investigate occupational diseases, Oklahoma (H. Res. No. 42) authorized a committee to revise the workmen's compensation act. In that State, also, the office of medical adviser to the State industrial commission was created (p. 487).

Convict Labor

PRISON LABOR CONDITIONS IN GEORGIA

AS MOST of the prisoners in the State of Georgia are housed in and work from road camps, a system that has met with considerable criticism, the Prison Industries Reorganization Administration attaches considerable importance to its survey of the situation in the State.[1] Among the remedial measures recommended is abolition of the present practice of turning State prisoners over to the county convict camps. For such inmates as it is desired to place upon road work, State camps should be developed, in the opinion of the Administration, and consolidated camps under State control are favored for misdemeanants. In addition the Administration recommends establishment of a nonpolitical board to administer the prison system; classification of prisoners so that mentally and physically ill persons will be separated from others, and young persons serving their first terms from those having criminal records; establishment of educational and vocational training programs sufficient to eliminate illiteracy and to give trade and agricultural training to promising young persons; development of 10 or more State-use industries at Reidsville, the new Federal prison; revamping of the probation and parole laws; and construction of cottage-type institutions for woman prisoners regardless of the length of the sentence in any case.

In Georgia the administration of prisons is primarily vested in the counties, with the State exercising only supervisory powers over the care and treatment of prisoners. In contrast with common practice under which the States assume complete responsibility for felony prisoners, Georgia sends most of its convicts to county road camps, where they work and are maintained. Only 10 percent of the felony prisoners—those who are physically incapacitated or incorrigible and definitely unfit for road work—are maintained in the two State institutions. Misdemeanants are quartered with other State prisoners and all work together on the roads. The State maintains six road camps of its own under the Highway Department and the remainder are operated by the counties.

Three periods can be traced in the development of the prison system of the State. (1) The period preceding the Civil War, during which the problem was mainly one of a simple system of discipline for the

[1] The Prison Industries Reorganization Administration. The Prison Labor Problem in Georgia. Washington, 1937.

minor offenses of the slaves, who constituted the larger part of the population. Prison housing was necessary only for the few felony prisoners and for misdemeanants and persons awaiting trial. (2) The period lasting through the reconstruction era after the Civil War and into the early part of the twentieth century, when the number of offenders increased alarmingly. Vagrancy was particularly troublesome. During this time was begun the system of binding out vagrants and State prisoners, for a consideration, to contractors who worked them, maintained them, and in addition by 1900 were paying into the State treasury nearly a million dollars a year for their services. Increasing abuses, inherent in this scheme, became so flagrant that public opinion forced the elimination in 1908 of the leasing of convicts to private contractors. (3) The present prison plan may be said to have begun with the creation in 1897 of a State prison commission. As a result of its policies, prisoners were distributed in county camps and only a small number were housed in the State penitentiary.

As the counties have tended to avail themselves less and less of the services of the prisoners to whom they are entitled, the State has faced an increasing problem of maintaining offenders in inadequate institutions. This condition has now been ameliorated by the purchase of a prison farm in 1931 by the State and construction of a Federal institution adjoining it. The existence of these facilities makes the time opportune for reorganization, in the opinion of the Prison Administration.

On December 31, 1936, there were 4,653 felony prisoners and 3,130 misdemeanants in the State institutions and county and highway road camps. The number of prisoners has been increasing rapidly in recent years, as has also the proportion of white as compared with colored inmates. Large groups of prisoners are young—that is, 24 years or under—making it important that their prison experience shall not be such as to prevent the possibility of productive future lives. The large majority of the felony prisoners are unskilled vocationally and one-fourth are completely illiterate.

Of the 159 counties in the State, 125 had road camps for these prisoners early in 1937. Standards vary widely and the report here reviewed states:

> The only common motive which can be found for the management of these county camps is that under Georgia's present system they must all attempt to make a profit from the labor of the prisoners confined in them if they wish to avoid increasing local taxes.

Each county is providing for its own misdemeanants, and such felons as it requisitions from the prison commission of the State, out of funds allotted by the State highway board for road work. The only means of securing additional reimbursement is the pursuit of a vigorous policy of arrests yielding added numbers of prisoners who

could be leased to other counties. In small counties, where there is little road building and prisoners are few, supervisory costs are high. Problems of this kind complicate the establishment of adequate standards.

In the 14 county camps inspected in connection with the Administration's study, buildings are in some instances modern and fairly well managed, but this is not general. On the average one guard is assigned to eight men. It is still fairly common to find men working in shackles, and little attempt is made to segregate prisoners of different types. Without modern hospitals the older camps are unable to give adequate medical care.

No misdemeanants are employed or housed in the State highway department camps. The work done is under State supervision and on State roads. The Administration report summarizes the situation in these camps by stating:

> At best, however, these camps may be considered a sort of optional branch of the prison set-up, characterized by almost the same indefiniteness as exists in county camp relationships.

Labor Organizations and Conferences

BRITISH TRADE-UNION MEMBERSHIP, 1936

A GAIN of nearly a half million members in 1936 was reported by British trade-unions to the Ministry of Labor.[1] The aggregate membership for 1936, based on provisional figures, was 5,307,689, an increase of 9 percent over the 1935 membership. Thus the British trade-union movement has regained, in terms of membership, the ground lost by the general strike of 1926 and the depression years which followed. The 1936 membership figure exceeds by approximately 89,000 that of 1926, and by 916,000 that of 1933, which was the lowest in the 10-year period.

Unions in 9 industrial groups increased their membership more than 10 percent during the year. These unions were in quarrying and mining other than coal (30.4 percent); iron, steel, and tinplate manufacture (18.4 percent); engineering trades (15.4 percent); furniture making (10.2 percent); painting and decorating (10.7 percent); common building labor (13.4 percent); transport and general labor (16.2 percent); commerce and distribution (12.2 percent); and entertainment and sports (10.2 percent).

Although the total female membership increased only 5.1 percent between 1935 and 1936, striking increases were reported in some industries, notably agriculture and horticulture, metals and machinery, and transportation. Over 70 percent of the women holding membership in British trade-unions are, however, found in the clothing and textile industries, the teaching profession, and in the national and local government services. In those fields, greater-than-average membership gains were reported by the unions in the Government services, clothing manufacture, and the flax and jute branch of the textile industry.

The number of unions in classified industries in the United Kingdom and their membership in 1936 are shown in the following table.

[1] Great Britain. Ministry of Labor Gazette (London), October 1937, pp. 380 and 404.

Number and Membership of Trade-Unions in United Kingdom, 1936, by Industry Groups and Sex of Members

Industry group	Number of unions	Membership		
		Males	Females	Total
All groups	1,041	4,505,914	801,775	5,307,689
Agriculture, horticulture, etc	1	33,135	400	33,535
Coal mining	95	672,247	1,634	673,881
Other mining and quarrying	7	4,814	279	5,093
Pottery and glass	17	12,440	7,423	19,863
Metals, machines, conveyances, etc.:				
Iron, steel, tinplate, etc., manufacture	3	86,846	1,342	88,188
Engineering, iron founding, shipbuilding, other metal-working and vehicle building	94	591,961	5,895	597,856
Textile:				
Cotton	166	111,610	153,784	265,394
Wool, worsted, and shoddy	24	10,729	1,031	11,760
Flax and jute	19	4,895	16,024	20,919
Hosiery	6	5,047	11,082	16,129
Bleaching, dyeing, finishing, etc	26	60,877	33,193	94,070
Other textile	27	9,906	10,872	20,778
Clothing:				
Boot and shoe	6	64,193	31,079	95,272
Tailoring and other clothing	16	27,540	52,810	80,350
Food, drink, and tobacco	7	26,037	5,283	31,320
Woodworking and furniture manufacture:				
Furniture	8	25,025	3,311	28,336
Other	20	27,755	1,906	29,661
Paper, printing, etc	27	158,984	44,404	203,388
Building, public-works contracting, etc.:				
Bricklayers and masons	5	64,837	----------	64,837
Carpenters and joiners	1	120,823	----------	120,823
Painters and decorators	6	49,110	----------	49,110
Builders' laborers	4	10,690	----------	10,690
Other	17	52,722	----------	52,722
Other manufacturing industries	24	15,421	3,401	18,822
Transport and general labor:				
Railway service	8	445,876	5,921	451,797
Water transport	13	77,243	415	77,658
Other transport (road, dock, etc.) and general labor	17	916,294	59,136	975,430
Commerce, distribution, and finance:				
Commerce and distribution	14	170,898	64,329	235,227
Banking, insurance, etc	21	79,920	8,737	88,657
National and local government	271	416,043	102,356	518,399
Teaching	25	85,972	160,348	246,320
Entertainments and sport	10	21,376	5,487	26,863
Miscellaneous	36	44,648	9,893	54,541

BRITISH TRADES UNION CONGRESS, 1937 [1]

A MEMBERSHIP of over 4,000,000 was represented by 620 delegates at the British Trades Union Congress of 1937, which met at Norwich, September 6–10. Among the social, economic, and organizational matters discussed were a revised pension plan, measures for improving the British workmen's compensation system, a 40-hour work week, vacations with pay, and strengthening organization among women.

In his opening address Ernest Bevin, president of the British Trades Union Congress, said in dealing with the general subject of labor legislation:

> We must consider carefully the question as to how far the State should be permitted to interfere in the regulation of wages and conditions. Our movement is a voluntary one, and the claim for State regulations must not be carried too far. * * * There are some industries in which, to prevent sweating, State regula-

[1] Based on report from Herschel V. Johnson, charge d'affaires ad interim, at American Embassy, London, Sept. 14, 1937, and Labour (official organ of the British Trades Union Congress), September 1937.

tion is essential. There are some matters in industry, like health, where State regulation is essential. In other industries the legalizing of voluntary agreements is all that should be accepted. In the remainder it is far better to maintain standards by trade-union action wherever we can.

A "program of 13 points for the continuance of prosperity" was presented by Mr. Bevin to the congress. As summarized in the London Daily Herald of September 7, the points bearing directly on labor and industry called for (1) the creation of "great schemes of public works and plans in readiness to start work directly the boom eases off"; (2) raising the standard of living of industrial workers "and with it the purchasing power of the agricultural worker"; (3) straightening out, raising, and extending unemployment insurance, and increasing the amount paid to unemployed workers; (4) the inauguration of "an adequate consolidated pensions scheme" that would "settle the question of retirement from industry once and for all"; and dealing "with the problem of shortening hours of labor."

Specific action was taken by the convention on the last two points. The general council was instructed to continue its effort to secure the 40-hour workweek without reduction in wages; and the recommendations of the National Council of Labor dealing with contributory old-age pensions were adopted.

The plan for old-age pensions adopted by the convention calls for considerable liberalization of the present system, not only in the amount of the pension but in qualifying conditions. Upon retirement from wage-earning employment at the age of 65 years, single persons under the labor plan would receive a State pension of £1 per week instead of the 10s. now paid, and married couples, 35s. a week. Wives over 55 years of age would become pensionable as soon as their husbands qualified under the scheme. Persons over 60 years of age who have been unemployed for long periods and who are certified by the Unemployment Assistance Board as being unlikely to secure employment would become eligible to pensions on the same terms.

Foreign competition with the British film industry was the subject of discussion and resolutions by the convention, which instructed its general council to demand "protection sufficient to enable unemployed film workers to become employed in the industry," and that steps be taken "to reduce American domination of the British film industry."

TRADES AND LABOR CONGRESS OF CANADA, 1937 [1]

POSITIVE action by Provincial legislatures to secure to Canadian workers the right to organize, and legislative changes in the civil and

[1] Based on reports of convention in the Labor Gazette (Department of Labor of Canada), October 1937 (p. 1080), and Canadian Congress Journal (official organ of the Trades and Labor Congress of Canada), September 1937.

criminal codes of the various Provinces to make picketing legal, were among the important demands of organized labor in Canada as voiced at the fifty-third annual convention of the Trades and Labor Congress of Canada, held at Ottawa, September 13–18, 1937. The convention reiterated the position taken by the two preceding congresses in calling for amendment of the British North America Act to enable the Dominion Government to enact social legislation of national scope, and restated the demand of the Canadian trade-unionists for specific labor legislation proposed by the 1936 convention.[2]

Continued growth was indicated by the membership of 131,105 represented by the 476 delegates to the convention, as compared to 112,972 members represented by fewer than 400 delegates in 1936. Delegates to the 1937 convention were reported as "representing practically every trade and calling in the Dominion."

The Dominion Minister of Labor addressed the convention at the opening session. Referring to the demand of organized labor in Canada for an amendment to the organic act that will establish national jurisdiction over certain types of social legislation, he called the attention of the delegates to the recently appointed Royal Commission on Dominion-Provincial Relations and expressed the belief that as representatives of the workers the Trades and Labor Congress would take full advantage of its opportunity to place its views before that body. The Minister of Labor also discussed the general need and desire for industrial peace and held that while "there is no ready-made formula by which it can be assured * * * our experience has proved that much can be accomplished once employers and employees are brought into an habitual relationship of conference and direct negotiation."

In that connection the report of the executive council to the convention and the action of the convention treated at considerable length the question of the workers' right to organize and to bargain collectively. As stated by the executive council the right to organize "has long been recognized in a negative way, but there is no law which guarantees it." Accordingly, the executive council, as directed by the 1936 convention, drafted a bill for introduction into the legislatures of the various Provinces, which would specifically grant statutory recognition of the right of association and make it "lawful for employees to form themselves into a trade-union" and "to bargain collectively with their employer or employers; and to conduct such bargaining through the employees' trade-union and through the duly chosen officers of such union." The executive council reported that the bill had been enacted into law in Alberta and Nova Scotia, while "the principle was also accepted by the Manitoba and Quebec legislatures."

[2] See Monthly Labor Review, December 1936, p. 1462.

In acting upon the movement to legalize the right to organize, the convention recommended that the draft bill be strengthened by the adoption of certain features of the American labor relations acts, particularly those dealing with company unions and individual contracts. The convention also endorsed the recommendation of the executive council that the Dominion Government be requested to set an example to private industry in the matter of recognition of the right to organize, by accepting the principle "in all contracts awarded by the Dominion and in those in which the Dominion contributes directly or indirectly, as is now done with respect to fair wages and hours of labor."

The executive council further recommended the drafting of the model bill to deal with the issuance of injunctions in industrial disputes, a number of which, of a "sweeping and severe" character, were issued in the Dominion in the past year. The convention also demanded legislation making it a criminal offense for corporations to employ undercover men to spy on workers.

The resolution adopted by the convention dealing with amendments to the Canadian organic act, which was substituted for various proposals submitted to the convention, was as follows:

> *Resolved*, That this Trades and Labor Congress of Canada request the Dominion Government to so amend the British North America Act to make possible the Dominion Government taking over unemployment and all social legislation that is interprovincial in its character; that an economic conference composed of all sections of society be called by the Dominion Government in view of formulating a plan to bring the changes mentioned above; and be it further *Resolved*, That, pending the enactment of said amendments to the British North America Act, efforts should be made, through an interprovincial conference or other agencies, to coordinate the social legislation of the various Provinces, thereby creating laws that would be Dominion-wide and overcome the objections made to most if not all of the social legislation of the Federal Government because of some clause or technicality in the British North America Act.

Specific types of social legislation called for by the convention included the establishment of a system of national unemployment insurance and of State hospitalization and medicine. Changes in the old-age pension act were recommended to make pensions payable at 60 years of age and to extend coverage to both man and wife after the man becomes 60 years of age; to increase the amount of the pension and to remove the requirement that property be signed over to the Government; and to make incomes of less than $1,000 exempt from deductions.

The convention favored the adoption of a housing program, in which the following principles should be recognized: That all work undertaken under a housing program be paid for at union rates; that organized labor be represented on all commissions appointed in connection with housing promotion; and that rents on houses so built should not exceed one-fifth of the tenant's wages.

Other labor legislation urged by the convention included compulsory vacations with pay for all workers, and uniform workmen's compensation laws in all Provinces embodying the principle of "blanket coverage of occupational diseases and 100 percent compensation for all accidents and occupational diseases."

Protest was lodged against efforts to amend Canadian immigration laws "to restrict the free entry of officials of trade-unions and labor organizations, especially from the United States," and the president of the Trades and Labor Congress, in his address to the convention, commended the Prime Minister and his Cabinet for their resistance to those efforts. The convention declared for the 6-hour day and 5-day week with no reduction in wages, and opposed compulsory incorporation of trade-unions.

The officers elected by the convention for the ensuing term are: P. M. Draper (Ottawa), president; Percy R. Bengough (Vancouver), D. W. Morrison (Glace Bay), and R. Trepenier (Montreal), vice presidents; and Robert J. Tallon (Calgary), secretary-treasurer Niagara Falls, Ontario, was selected as the convention city of 1938

Industrial Disputes

TREND OF STRIKES

PRELIMINARY estimates of strikes in October and November 1937 indicate a continuation of the downward trend in strikes which has taken place since June. There were about 13 percent fewer strikes in November than in October, although the number of workers involved in November strikes was almost as great. The number of man-days idle in November was 15 percent less than in October, and was smaller than in any preceding month in 1937.

The estimates for November 1937 indicate more strikes than in any November for the past 20 years. Except for 1933 and 1936, there were more workers involved than in any November since 1927—the

Trend of Strikes, January 1936 to November 1937 [1]

Year and month	Number of strikes					Workers involved in strikes		Man-days idle during month
	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	
1936								
Total for year	----	2,172	----	----	----	788,648	----	13,901,956
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
1937								
January	100	172	272	133	139	108,697	214,344	2,720,553
February	139	209	348	203	145	112,095	239,109	1,519,850
March	145	605	750	504	246	287,365	355,096	3,276,419
April	246	522	768	496	272	220,347	389,316	3,345,462
May	272	582	854	538	316	319,731	437,237	2,937,842
June	316	585	901	559	342	282,051	473,818	4,958,387
July	342	432	774	500	274	140,827	351,021	3,023,198
August	274	406	680	411	269	134,667	230,859	2,218,582
September	269	321	590	347	243	84,032	154,140	1,424,819
October [1]	243	300	543	328	215	70,000	130,000	1,300,000
November [1]	215	260	475	285	190	68,000	115,000	1,100,000

[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.

earliest year for which comparable figures are avilable. There were more man-days idle, however, in November of 1927, 1933, and 1936. As compared with November a year ago, the 1937 figures show an increase of 91 percent in number of strikes, substantially the same in number of workers involved, but a decrease of 43 percent in man-days of idleness. The number of man-days idle in November 1936 was high principally because of the large maritime strikes in progress during the entire month.

The preliminary data for October and November 1937, based on newspaper reports and other information available as this issue goes to press, are necessarily subject to change as further information is received. 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 SEPTEMBER 1937 [1]

THERE were more strikes in September 1937 than in any September since 1919. Detailed information has been obtained on 321 strikes which began during the month and in which more than 84,000 workers were involved. There were 269 strikes which continued into September from preceding months, making a total of 590 strikes in progress during the month, involving 154,000 workers and causing nearly 1,425,000 man-days of idleness. While the number of workers involved and the number of man-days idle were greater than in September a year ago, they were much smaller than the corresponding figures for 1933, 1934, and 1935. In other words, strikes in September of this year were more numerous than in preceding years but they were, on the average, not so large.

A little more than half of the 321 strikes in September occurred in 5 industry groups. There were 40 in the textile industries, 36 in transportation and communication, 36 in the lumber industries, 34 in trade, and 26 in domestic and personal-service industries. The greatest number of man-days of idleness were in the lumber industries (215,161), mostly in furniture; textiles (194,648), chiefly in wearing apparel; building and construction (184,644); domestic and personal service (120,930); transportation and communication (89,685), largely motortruck drivers; and transportation-equipment manufacturing (79,692), including automobiles, aircraft, and steam and electric cars.

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

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

Industry	Beginning in September		In progress during September		Man-days idle during September
	Number	Workers involved	Number	Workers involved	
All industries	321	84,032	590	154,140	1,424,819
Iron and steel and their products, not including machinery	12	3,617	19	5,515	50,766
Blast furnaces, steel works, and rolling mills	2	1,040	2	1,040	1,200
Cast-iron pipe and fittings	1	405	1	405	2,025	
Forgings, iron and steel			1	894	15,198
Hardware	3	343	3	343	3,698
Steam and hot-water heating apparatus and steam fittings	1	30	3	365	7,000
Stoves	2	645	3	835	5,382
Tin cans and other tinware	1	650	3	883	11,239
Wirework	1	419	2	465	3,664
Other	1	85	1	85	1,360
Machinery, not including transportation equipment	17	2,465	35	5,311	71,509
Agricultural implements	2	107	2	107	705
Electrical machinery, apparatus, and supplies	3	456	8	1,368	17,845
Foundry and machine-shop products	8	1,424	14	1,979	19,612
Radios and phonographs	1	160	3	817	17,643
Other	3	318	8	1,040	15,704
Transportation equipment	4	3,406	9	6,850	79,692
Aircraft	1	1,388	1	1,388	27,760
Automobiles, bodies and parts			4	3,127	24,381
Cars, electric- and steam-railroad	2	1,917	2	1,917	21,636
Shipbuilding	1	101	1	101	303
Other			1	317	5,612
Nonferrous metals and their products	8	3,392	13	4,664	31,772
Brass, bronze, and copper products	2	3,144	2	3,144	21,392
Clocks and watches and time-recording devices	1	25	3	348	2,182
Jewelry			1	42	42
Lighting equipment	1	74	2	418	5,308
Stamped and enameled ware			1	563	563
Other	4	149	4	149	2,274
Lumber and allied products	36	10,403	62	16,961	215,161
Furniture	22	8,203	34	10,202	110,948
Millwork and planing	6	890	9	973	22,114
Sawmills and logging camps	2	453	5	3,626	43,487
Other	6	857	14	2,160	38,612
Stone, clay, and glass products	12	1,477	24	2,406	24,454
Brick, tile, and terra cotta	2	149	5	340	4,521
Cement	3	668	4	907	8,811
Glass	2	486	5	653	4,831
Marble, granite, slate, and other products	1	15	2	147	2,892
Pottery	1	11	3	103	941
Other	3	148	5	256	2,458
Textiles and their products	40	9,853	95	21,655	194,648
Fabrics:					
Cotton goods	2	842	4	1,178	17,892
Dyeing and finishing textiles	2	1,790	3	1,870	7,555
Silk and rayon goods	3	215	9	1,028	11,018
Woolen and worsted goods	1	166	7	3,726	26,266
Other	1	18	3	142	2,938
Wearing apparel:					
Clothing, men's	1	25	3	1,475	5,825
Clothing, women's	12	1,780	28	2,709	26,750
Corsets and allied garments			1	25	275
Men's furnishings	1	150	3	307	1,925
Hats, caps, and millinery	3	2,245	7	2,755	22,342
Shirts and collars	2	335	3	415	2,845
Hosiery	3	405	7	1,529	28,321
Knit goods	4	223	6	1,448	20,125
Other	5	1,659	11	3,048	20,571
Leather and its manufactures	4	505	12	2,760	29,190
Boots and shoes	1	173	7	2,158	21,680
Leather	2	278	3	483	7,283
Other leather goods	1	54	2	119	227

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

Industry	Beginning in September		In progress during September		Man-days idle during September
	Number	Workers involved	Number	Workers involved	
Food and kindred products	17	2,377	34	5,570	63,812
Baking	6	404	16	1,218	17,424
Beverages	3	102	5	1,042	5,650
Canning and preserving	2	752	3	789	1,833
Confectionery	2	880	3	887	7,907
Flour and grain mills	1	90	1	90	1,800
Slaughtering and meat packing	2	137	5	1,532	29,150
Other	1	12	1	12	48
Tobacco manufactures	1	430	4	681	5,988
Cigars			3	251	5,128
Other	1	430	1	430	860
Paper and printing	11	1,077	23	2,976	35,153
Boxes, paper	2	185	5	784	10,551
Paper and pulp	1	80	4	434	4,224
Printing and publishing:					
Book and job	1	150	3	656	11,182
Newspapers and periodicals	3	281	4	517	4,262
Other	4	381	7	585	4,934
Chemicals and allied products	5	362	7	1,092	12,06
Druggists' preparations	1	125	1	125	875
Fertilizers	1	24	1	24	168
Paint and varnishes	2	143	3	643	5,280
Other	1	70	2	300	5,740
Rubber products	1	101	2	613	3,065
Other rubber goods	1	101	2	613	3,065
Miscellaneous manufacturing	13	3,543	23	5,370	56,991
Broom and brush	1	102	5	351	5,312
Furriers and fur factories			1	750	15,750
Other	12	3,441	17	4,269	35,929
Extraction of minerals	3	797	12	3,127	34,807
Coal mining, anthracite	1	361	3	1,502	4,212
Coal mining, bituminous	1	400	6	1,091	17,677
Metalliferous mining			1	228	5,700
Quarrying and nonmetallic mining			1	270	6,750
Crude petroleum producing	1	36	1	36	468
Transportation and communication	36	19,158	41	19,766	89,685
Water transportation	16	1,855	17	1,938	8,497
Motortruck transportation	10	16,568	10	16,568	70,717
Motorbus transportation	3	422	3	422	1,069
Taxicabs and miscellaneous	4	276	7	671	9,203
Steam railroad			1	130	130
Telephone and telegraph	3	37	3	37	69
Trade	34	2,925	58	8,366	58,829
Wholesale	12	759	18	1,047	9,860
Retail	22	2,166	40	7,319	48,969
Domestic and personal service	26	9,589	54	13,765	120,930
Hotels, restaurants, and boarding houses	5	193	15	2,165	30,989
Personal service, barbers, beauty parlors	1	500	1	500	1,500
Laundries	11	3,840	22	4,936	37,836
Dyeing, cleaning, and pressing	3	4,333	9	5,419	48,222
Elevator and maintenance workers (when not attached to specific industry)	6	723	7	745	2,383
Professional service	1	8	4	374	7,563
Recreation and amusement			1	90	1,890
Professional			1	15	120
Semiprofessional, attendants, and helpers	1	8	2	269	5,553
Building and construction	18	4,029	28	20,284	184,644
Buildings, exclusive of P. W. A.	13	3,245	20	18,343	174,111
All other construction (bridges, docks, etc., and P. W. A. buildings)	5	784	8	1,941	10,533
Agriculture and fishing	1	400	1	400	400
Agriculture	1	400	1	400	400
W. P. A., relief, and resettlement projects	3	628	3	628	4,951
Other nonmanufacturing industries	18	3,490	27	5,006	48,746

Seventy-six of the 321 strikes beginning in September were in the State of New York. This was more than began in any other four States and constituted nearly one-fourth of the total strikes, and 30 percent of the total workers in strikes, in the entire country. The States with the next highest numbers were Pennsylvania (30), Ohio (16), Wisconsin (15), California, Missouri, and New Jersey (14 each), Illinois and Michigan (13 each), and Indiana (12). The greatest number of man-days of idleness because of strikes during the month were in New York, Pennsylvania, and California.

Fifteen of the 590 strikes in progress during September extended into two or more States. The largest of these were a strike of cleaners and dyers in New York and New Jersey from September 13 to 20, and a strike of millinery workers in New York, New Jersey, and Connecticut, which began September 21 and was not settled at the end of the month.

TABLE 2.—*Strikes in September 1937, by States*

State	Beginning in September		In progress during September		Man-days idle during September
	Number	Workers involved	Number	Workers involved	
All States	321	84,032	590	154,140	1,424,819
Alabama	5	264	8	716	11,677
Arkansas	2	447	7	953	18,459
California	14	6,927	30	10,954	108,221
Colorado	1	17	3	570	6,422
Connecticut	6	1,929	9	2,302	38,351
District of Columbia	2	44	4	74	1,258
Florida	2	38	3	56	344
Georgia	2	292	3	424	5,939
Idaho	1	7	2	235	5,798
Illinois	13	4,172	21	5,837	51,879
Indiana	12	4,330	27	8,327	69,393
Iowa	8	701	9	713	3,271
Kansas	2	501	2	501	3,653
Kentucky	3	211	6	257	4,620
Louisiana	1	72	2	672	2,166
Maine	2	42	2	42	186
Maryland	4	219	5	365	4,177
Massachusetts	9	1,883	17	3,260	39,225
Michigan	13	2,845	20	4,479	40,015
Minnesota	3	1,462	6	1,726	24,588
Mississippi			1	211	4,431
Missouri	14	1,426	31	6,749	41,807
Montana	2	34	3	74	400
Nebraska	1	306	1	306	1,530
New Hampshire			1	125	2,625
New Jersey	14	1,431	32	4,727	37,671
New York	76	25,322	140	47,785	390,181
North Carolina	5	1,416	6	1,716	13,130
North Dakota	1	38	1	38	152
Ohio	16	3,359	30	10,059	85,186
Oklahoma	2	72	2	72	576
Oregon	5	1,156	7	4,079	47,965
Pennsylvania	30	6,274	63	12,712	145,092
Rhode Island	6	284	6	284	1,783
Tennessee	3	765	5	1,151	13,131
Texas	4	252	8	909	10,036
Utah			1	64	576
Virginia	3	182	6	563	9,401
Washington	4	338	10	2,176	21,126
West Virginia	3	556	7	1,013	10,629
Wisconsin	15	5,108	27	6,265	67,555
Wyoming	1	97	1	97	582
Interstate	11	9,213	15	10,502	79,618

An average of 262 workers was involved in each of the 321 strikes beginning in September. In table 3 the strikes in each industry group are classified according to the number of workers involved. Eighteen percent of the strikes involved less than 20 workers each and 54 percent involved less than 100 each. Only one September strike involved as many as 5,000 workers.

TABLE 3.—*Strikes Beginning in September 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	321	58	117	109	17	19	1	-------
Manufacturing								
Iron and steel and their products, not including machinery	12	-------	6	3	2	1	-------	-------
Machinery, not including transportation equipment	17	2	7	8	-------	-------	-------	-------
Transportation equipment	4	-------	-------	1	1	2	-------	-------
Nonferrous metals and their products	8	-------	6	1	-------	1	-------	-------
Lumber and allied products	36	6	5	19	3	3	-------	-------
Stone, clay, and glass products	12	2	7	3	-------	-------	-------	-------
Textiles and their products	40	5	18	12	2	3	-------	-------
Leather and its manufactures	4	-------	2	2	-------	-------	-------	-------
Food and kindred products	17	5	8	2	2	-------	-------	-------
Tobacco manufactures	1	-------	-------	1	-------	-------	-------	-------
Paper and printing	11	2	5	4	-------	-------	-------	-------
Chemicals and allied products	5	1	2	2	-------	-------	-------	-------
Rubber products	1	-------	-------	1	-------	-------	-------	-------
Miscellaneous manufactures	13	1	1	9	1	1	-------	-------
Nonmanufacturing								
Extraction of minerals	3	-------	1	2	-------	-------	-------	-------
Transportation and communication	36	8	12	12	-------	3	1	-------
Trade	34	12	15	7	-------	-------	-------	-------
Domestic and personal service	26	5	6	10	2	3	-------	-------
Professional service	1	1	-------	-------	-------	-------	-------	-------
Building and construction	18	1	10	3	3	1	-------	-------
Agriculture and fishing	1	-------	-------	1	-------	-------	-------	-------
W. P. A., relief, and resettlement projects	3	-------	-------	3	-------	-------	-------	-------
Other nonmanufacturing industries	18	7	6	3	1	1	-------	-------

Union-organization matters were the major issues in about 60 percent of the strikes, including a similar proportion of workers involved, beginning in September. About one-fourth of the strikes, with the same proportion of workers involved, were over wage-and-hour issues. Demands for wage-and-hour adjustments also were factors in many of the strikes called primarily for union recognition. About 15 percent of the strike activity was concerned with such matters as jurisdiction, union rivalry, and specific grievances over working conditions. (See table 4.)

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

Major issues	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues	321	100.0	84,032	100.0
Wages and hours	76	23.7	20,581	24.5
Wage increase	48	15.0	16,419	19.6
Wage decrease	6	1.9	1,778	2.1
Wage increase, hour decrease	19	5.9	2,200	2.6
Hour decrease	3	.9	184	.2
Union organization	196	61.0	50,387	60.0
Recognition	41	12.8	4,428	5.3
Recognition and wages	42	13.1	9,557	11.4
Recognition and hours	2	.6	275	.3
Recognition, wages, and hours	65	20.1	22,329	26.6
Closed shop	35	10.9	9,624	11.5
Discrimination	5	1.6	3,129	3.7
Other	6	1.9	1,045	1.2
Miscellaneous	49	15.3	13,064	15.5
Sympathy	3	.9	377	.4
Rival unions or factions	15	4.7	6,055	7.2
Jurisdiction	4	1.2	998	1.2
Other	26	8.2	5,540	6.6
Not reported	1	.3	94	.1

TABLE 5.—*Duration of Strikes Ending in September 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	347	109	54	97	62	14	11
Manufacturing							
Iron and steel and their products, not including machinery	12	5	2	2	1	1	1
Machinery, not including transportation equipment	22	6	3	9	2	1	1
Transportation equipment	6	1	3		2		
Nonferrous metals and their products	7	2	1	2	1	1	
Lumber and allied products	27	6	2	11	7	1	
Stone, clay, and glass products	11	2		5	4		
Textiles and their products	56	12	10	17	12	3	2
Leather and its manufactures	7		2	3	2		
Food and kindred products	23	8	4	2	4	2	3
Tobacco manufactures	2	1		1			
Paper and printing	12	3	2	5	1	1	
Chemicals and allied products	3		1	1	1		
Rubber products	1			1			
Miscellaneous manufactures	14	3	2	5	4		
Nonmanufacturing							
Extraction of minerals	5	2			2	1	
Transportation and communication	30	23	2	4		1	
Trade	37	12	9	9	5	1	1
Domestic and personal service	36	10	5	9	9	1	2
Professional service	1				1		
Building and construction	17	5	3	6	2		1
Agriculture and fishing	1	1					
W. P. A., relief, and resettlement projects	3	1	1	1			
Other nonmanufacturing industries	14	6	2	4	2		

Approximately 60 percent (347) of the 590 strikes in progress during September were terminated during the month, with an average

duration of 22 calendar days. Thirty-one percent of these strikes were terminated less than a week after they began, 44 percent lasted from a week to a month, 22 percent from 1 to 2 months, and 3 percent (11 strikes) had been in progress for 3 months or longer. The largest strikes in the latter group were the Montgomery Ward & Co. strike at Kansas City, Mo., which began May 25 and was terminated early in September, and a strike at the Cleveland Worsted Mills Co. plants in Cleveland and Ravenna, Ohio, which had been in progress since June 21.

Forty-three percent of the strikes ending in September, including 55 percent of the total workers involved, were settled through negotiations carried on directly between employers and representatives of organized workers. Government conciliators and labor boards assisted in settling 39 percent of the strikes, which included 36 percent of the workers. As shown in table 6, 15 percent of the strikes, including 7 percent of the workers, were terminated without formal settlements. Most of these strikes ended when employers went out of business or replaced the strikers with new employees.

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

Negotiations toward settlements carried on by—	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	347	100.0	98,776	100.0
Employers and workers directly	5	1.4	662	.7
Employers and representatives of organized workers directly	150	43.2	54,008	54.7
Government conciliators or labor boards	136	39.2	35,984	36.4
Private conciliators or arbitrators	4	1.2	974	1.0
Terminated without formal settlement	52	15.0	7,148	7.2

Classifications of the 347 strikes ending in September by results are shown in tables 7 and 8, the latter indicating the results in relation to major issues involved. Forty-five percent of the strikes, including 54 percent of the workers involved, resulted in substantial gains to the workers; 30 percent of the strikes, including 25 percent of the workers, resulted in compromise settlements; and 17 percent of the strikes, including 9 percent of the workers, brought little or no gains.

A larger proportion of wage-and-hour strikes were successful from the workers' standpoint than of strikes in which the major issues were union-organization matters. In the first group the workers won 62 percent of the strikes, compromised 29 percent, and lost 9 percent, as compared respectively with 44, 34, and 21 percent of the union-organization strikes. Of the 24,353 workers involved in the wage-and-hour strikes, 76 percent obtained substantially all their demands, 19 percent obtained compromises, and 4½ percent gained little or

nothing. Of the 56,593 workers involved in the union-organization strikes, 57 percent won substantial gains, 29 percent obtained compromises, and 14 percent gained little or nothing.

TABLE 7.—*Results of Strikes Ending in September 1937*

Results	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	347	100.0	98,776	100.0
Substantial gains to workers	156	44.9	53,294	54.0
Partial gains or compromises	106	30.5	24,591	24.9
Little or no gains to workers	60	17.3	9,062	9.2
Jurisdiction, rival union, or faction settlements	21	6.1	11,297	11.4
Indeterminate	1	.3	300	.3
Not reported	3	.9	232	.2

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

Major issues	Total	Strikes resulting in—					
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdiction, rival union or faction settlement	Indeterminate	Not reported
	Number of strikes						
All issues	347	156	106	60	21	1	3
Wages and hours	84	52	24	8			
Wage increase	48	30	15	3			
Wage decrease	7	3	2	2			
Wage increase, hour decrease	26	17	6	3			
Hour decrease	3	2	1				
Union organization	211	93	72	45			1
Recognition	43	18	7	18			
Recognition and wages	51	27	21	3			
Recognition and hours	1	1					
Recognition, wages, and hours	78	33	30	15			
Closed shop	27	7	12	8			
Discrimination	4	2	1	1			
Other	7	5	1				1
Miscellaneous	52	11	10	7	21	1	2
Sympathy	5	1	2	1		1	
Rival unions or factions	15				15		
Jurisdiction	6				6		
Other	24	10	8	6			
Not reported	2						2

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

Major issues	Total	Strikes resulting in—					
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdiction, rival union or faction settlement	Indeterminate	Not reported
	Number of workers involved						
All issues	98,776	53,294	24,591	9,062	11,297	300	232
Wages and hours	24,353	18,534	4,731	1,088			
Wage increase	18,820	14,942	3,239	639			
Wage decrease	1,837	1,649	84	104			
Wage increase, hour decrease	3,512	1,832	1,335	345			
Hour decrease	184	111	73				
Union organization	56,593	32,461	16,250	7,789			93
Recognition	9,427	2,073	2,415	4,939			
Recognition and wages	8,494	4,771	3,450	273			
Recognition and hours	10	10					
Recognition, wages, and hours	31,973	22,394	7,894	1,685			
Closed shop	4,416	1,491	2,077	848			
Discrimination	1,135	1,082	9	44			
Other	1,138	640	405				93
Miscellaneous	17,830	2,299	3,610	185	11,297	300	139
Sympathy	1,300	870	123	7		300	
Rival unions or factions	9,432				9,432		
Jurisdiction	1,865				1,865		
Other	5,094	1,429	3,487	178			
Not reported	139						139

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, NOVEMBER 1937

DURING November 1937, conciliators of the Department of Labor mediated in 144 disputes, which involved directly and indirectly about 86,418 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 55 of these disputes, 62 were pending at the close of the month, 8 were referred to other services, 10 were settled by the disputants themselves before the arrival of the conciliator, and 9 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 selection of a sole bargaining agency. Some involved hours, overtime rates of pay, vacation with pay, seniority rights, and general working conditions.

These 144 disputes were scattered among 28 different States and the District of Columbia. Workers involved in the disputes are classified in table 2. Number of strikes, 71; controversies, 73.

TABLE 1.—*Disputes Handled by Department of Labor Conciliators, November 1937, by States*

State	Total disputes		Threatened strikes and controversies		Strikes	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States	144	[1] 86,418	73	[1] 49,999	71	36,419
Alabama	2	506			2	506
California	9	6,260	3	4,700	6	1,560
District of Columbia	5	2,821	1	312	4	2,509
Florida	2	19,800	2	19,800		
Illinois	11	[1] 2,947	8	[1] 2,654	3	293
Indiana	5	[1] 253	4	253	1	(1)
Louisiana	2	173			2	173
Maine	1	110	1	110		
Maryland	1	600			1	600
Massachusetts	2	4,191	1	3,575	1	616
Michigan	3	11,312	1	250	2	11,062
Minnesota	4	6,868	1	2,700	3	4,168
Missouri	4	937	1	78	3	859
Montana	3	[1] 128	2	[1] 128	1	(1)
New Jersey	2	239			2	239
New York	11	5,631	9	4,547	2	1,084
North Carolina	1	65			1	65
Ohio	14	6,027	8	652	6	5,375
Oregon	1	700	1	700		
Oklahoma	1	4			1	4
Pennsylvania	30	[1] 7,479	9	[1] 2,655	21	[1] 4,824
Rhode Island	3	[1] 501	3	[1] 501		
South Carolina	1	200	1	200		
Texas	5	[1] 2,503	3	[1] 1,213	2	1,290
Tennessee	4	2,291	4	2,291		
Virginia	5	3,096	1	2,375	4	721
Washington	4	357	2	(1)	2	357
West Virginia	4	229	3	115	1	114
Wisconsin	4	190	4	190		

[1] Exact number not known.

TABLE 2.—*Disputes Handled by Conciliators, by Craft of Workers Involved, November 1937*

Craft	Total disputes		Threatened strikes and controversies		Strikes	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All crafts	144	[1] 86,418	73	[1] 49,999	71	[1] 36,419
Agriculture	1	135			1	135
Automobiles	4	12,068			4	12,068
Bakery workers	1	250			1	250
Brick and clay workers	2	168			2	168
Building	7	[1] 1,151	4	[1] 250	3	901
Candy makers	2	[1] 139			2	[1] 139
Cannery workers	1	490			1	490
Cigarmakers	2	21,875	2	21,875		
Cleaners and dyers	2	[1] 80	2	[1] 80		
Clerks	6	[1] 5,239	3	[1] 3,000	3	2,239
Clothing workers	2	[1] 108	2	[1] 108		
Drivers	11	3,061	1	39	10	3,022
Drug handlers	1	(1)			1	(1)
Electrical workers	10	[1] 1,395	6	190	4	1,205
Engineers	1	312	1	312		
Food handlers	2	290	2	290		
Glaziers	2	2,630	1	2,500	1	130
Hotel and restaurant	5	771	1	26	4	745
Jewelry	2	1,215	2	1,215		
Laborers, common	1	(1)	1	(1)		
Laundry	3	[1] 172	1	20	2	[1] 152
Leather	2	3,596	2	3,596		
Longshoremen	3	4,800	2	4,200	1	600
Mechanics	12	[1] 4,459	10	[1] 4,259	2	200
Metals	4	1,405	2	1,380	2	25
Millinery	1	350	1	350		
Milling	1	39			1	39
Mine, mill, and smelter	2	1,652	2	1,652		
Newspaper handlers	5	475	2	160	3	315
Oil	2	2,800	1	2,000	1	800
Papermakers	1	18	1	18		
Pottery	1	95			1	95
Printing and binding	9	[1] 941	6	[1] 255	3	686
Rubber	2	[1] 5,000			2	[1] 5,000
Ships and shipyards	3	372			3	372
Shoeshiners	2	[1] 9	2	[1] 9		
Steel and iron	6	1,439	4	1,110	2	329
Stone	1	200	1	200		
Sulphur	1	(1)	1	(1)		
Textiles	7	[1] 1,695	4	[1] 801	3	894
Theater janitors	1	26	1	26		
Timber	1	4,000			1	4,000
Upholsterers	1	20			1	20
Vineyards	1	150			1	150
Window cleaners	2	[1] 18			2	18
Woodworkers	2	210	1	78	1	132
Miscellaneous	3	[1] 1,100	1	(1)	2	1,100

[1] Exact number not known.

LEGISLATION ON FAMILY ALLOWANCES IN ITALY, 1937

THE FAMILY-ALLOWANCE system in Italy was extended and improved under the law of June 17, 1937, which came into operation on August 2 of that year, and the decree of July 21, 1937, which contains the rules for making the law effective.

This new legislation [1] makes compulsory the payment of family allowances to heads of families, whatever their age, sex, or nationality, who are employed as wage earners in the service of others. These grants, however, are not made to employed persons whose net salary exceeds 2,000 lire [2] per month; to domestic servants and persons in family service; to the wife, parents, or other relatives within the third degree of kindred of the employer; to home workers; nor to artisans and other independent workers. The military and civil staff are not covered by this new legislation nor are persons receiving wages and dependent on the State, the supplementary staff of the post and telegraph offices, the personnel of the Royal Household, nor employees of the Provinces, communes, public charitable institutions, or other public agencies.[3]

In accordance with article 3 of the decree of June 17, 1937, a collective agreement providing for the payment of family allowances to employees of commercial firms was signed on August 3, 1937, by the two Fascist confederations of commerce.

Contributions

Family allowances are provided for through employers' and workers' contributions, the amount of contribution being based on the amount of the gross wage of the individual worker. The State also assists in the case of professional workers where such assistance is permitted. The contribution of the State to the payment of family allowances in industry and agriculture is proportionate to the requirements of the department concerned. In no case may the sums exceed 0.60 lira for each weekly allowance granted or 0.10, 1.20, or 2.40 lire, respectively, when the allowance is paid daily, fortnightly, or monthly. The

[1] Italy. Istituto Nazionale Fascista della Previdenza Sociale. Supplément de la Revue, Les Assurances Sociales (Rome), July–August 1937, pp. 431–434.

[2] Exchange rate of lira in August 1937=5.26 cents.

[3] Allowances are already being paid to persons in the public service.

contribution of the State cannot be expended for family allowances to an employed person whose net salary exceeds 1,000 lire per month.

In industry the employers contribute 3.50 percent of the gross remuneration and the workers 1 percent. In agriculture, for journeymen (skilled workers employed as individual share tenants), the employer's and worker's contributions are, respectively, 0.35 and 0.10 lira per working day. For workers at fixed wages or on similar conditions working as share tenants, the monthly contributions for worker and employer are 2.50 and 9 lire, respectively. For employees, the contributions of the employer and employee are, respectively, 3.50 and 1 percent of the gross salary.

The contribution payable for commercial employees and for workers employed by professional men and artists is 4 percent of the remuneration of each worker—1 percent chargeable to the worker and 3 percent to the employer.

Benefits

The allowances for wage earners are payable on behalf of each dependent child under 14 years of age, to workers not classed as employees or performing equivalent functions. This limit of age may be extended to 16 years, if the dependent child "by reason of serious mental or bodily infirmity is absolutely and permanently incapacitated for gainful employment" or is attending a first-grade vocational or secondary school. For children of employees the limit of age is 18 years.

The weekly allowances for each dependent child (computed per day, fortnight, or month, on the basis of 6 days per week, 4 weeks per month) are shown in the following table:

Weekly Rates of Family Allowances in Italy Under Law of June 17, 1937, and Monthly Rates Under Collective Agreements of Aug. 3, 1937

Status of allocatee	Number of dependent children		
	1 child	2 or 3 children	4 or more children
Weekly allowances under law of June 17, 1937, to heads of familes—			
In industry:	*Lire*	*Lire*	*Lire*
Workers	3.60	4.80	6.00
Employees	4.80	6.00	7.20
In agriculture:			
Journeymen, skilled workmen, regular wage earners [1]	2.40	3.60	4.80
Employees	4.80	6.00	7.20
Monthly allowances under collective agreements to heads of families:			
Commercial employees:			
Clerks, commercial travelers, canvassers engaged as salesmen	19.20	24.00	28.80
Working staff	14.40	20.40	26.40
Workers employed by professional men and artists	[2]	[2]	[2]

[1] Under individual and collective share-tenancy arrangements.
[2] The same as for commercial employees.

FAMILY ALLOWANCES IN NEW ZEALAND, 1936–37[1]

DURING the year ended March 31, 1937, the number of claims for family allowances filed under the New Zealand act[2] providing such benefits totaled 1,417, and the number of claims carried over from the preceding year was 225, making a total of 1,642 claims to be handled. Of these 1,642 cases, 1,131 were accepted and 308 rejected. Of the rejected applications, 100 were claims of families whose incomes exceeded the limit beyond which these subsidies are not paid. The new claims of Maoris which were handled in 1936–37 numbered 379, of which 241 were granted and 138 rejected.

The total amount paid out for 1936–37 was £130,730,[3] the total annual value of all allowances in force at the end of that year amounting to £125,702.

The number of children in the 9,515 families receiving allowances March 31, 1937, was 43,454, of whom 24,424 were in families having more than 2 children. The average number of children per family was 4.56. The distribution of the 1,131 families granted allowances in the year 1936–37, according to the number of children in the family, is shown in the following statement:

	Number of families		*Number of families*
3 children	606	8 children	14
4 children	281	9 children	6
5 children	115	11 children	1
6 children	77	12 children	1
7 children	30		

The weekly incomes of the 1,131 families whose claims for allowances were granted in the year under review are given below:

	Number of families
£1 or under	29
Over £1 and up to £2	196
Over £2 and up to £3	525
Over £3 and up to £4	171
Over £4	210

[1] Data are from New Zealand Pensions Department. Thirty-ninth annual report, for the year ended March 31, 1937. Wellington, 1937.

[2] The Family Allowances Act was passed in 1926 and came into force Apr. 1, 1927. It provides for allowances at the rate of 2s. per week for each child in excess of 2. The average weekly income of the applicant and his wife and children, including allowance, must not exceed £4 (reduced to £3 5s. by section 26 of the National Expenditure Adjustment Act, 1932, and restored to £4 under the Family Allowances Amendment Act, 1936), plus 2s. for each child in excess of 2. For the purposes of the act the term "child" in general means a child under the age of 15. The application is made by the father but the allowance is generally paid to the mother.

[3] Average exchange rate of New Zealand pound, September 1937=$3.98.

Labor Turn-Over

LABOR TURN-OVER IN MANUFACTURING, OCTOBER 1937

AN INCREASE in the lay-off rate of manufacturing establishments in October as compared with September was indicated by labor turn-over reports received by the Bureau of Labor Statistics. This marked rise from 2.84 in September to 4.45 per 100 employees in October was accompanied by a decline in the accession rate from 3.78 to 2.84 during the same period.

The quit rate decreased from 1.59 per 100 employees in September to 1.05 in October. No change was shown in the discharge rate. The total separation rate rose from 4.62 for the preceding month to 5.69 in October.

Compared with the corresponding month in 1936, decreases were shown in the quit and discharge rates. The lay-off rate increased from 1.72 to 4.45 and the total separation rate from 3.25 to 5.69 per 100 employees. The accession rate declined from 4.83 in October 1936 to 2.84 in October 1937.

A comparison of turn-over rates indicates that the number of workers who quit their jobs in October 1937, and those who were reported as discharged, was smaller than the average monthly number in 1936. The smaller number of quits and discharges, however, was offset by a larger number of lay-offs. This caused the total separation rate to rise above the average monthly rate in 1936.

The average monthly accession rate in 1936 was 4.35 per 100 employees, as compared with 2.84 in October 1937.

All Manufacturing

The Bureau of Labor Statistics' survey of labor turn-over covers more than 5,000 representative manufacturing establishments, which in October employed nearly 2,700,000 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, classified into quit, discharge, and lay-off rates, and the accession rate for each month of 1936 and for the first 10 months of 1937 for manufacturing as a whole. The average monthly rates for 1936 are also presented.

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

Class of rate and year	January	February	March	April	May	June	July	August	September	October	November	December	Average
Quit rate:													
1937	1.27	1.19	1.43	1.38	1.37	1.89	1.25	1.23	1.59	1.05	------	------	------
1936	.71	.68	.86	1.16	1.06	1.13	1.15	1.23	1.57	1.29	1.13	1.05	1.09
Discharge rate:													
1937	.21	.22	.24	.23	.21	.19	.21	.19	.19	.19	------	------	------
1936	.20	.17	.19	.21	.20	.23	.23	.27	.26	.24	.21	.22	.22
Lay-off rate:[1]													
1937	1.90	1.44	1.53	1.48	1.79	1.94	2.06	2.57	2.84	4.45	------	------	------
1936	2.66	2.21	1.83	1.92	2.06	1.92	1.84	3.23	1.47	1.72	1.70	2.14	2.06
Total separation rate:													
1937	3.38	2.85	3.20	3.09	3.37	4.02	3.52	3.99	4.62	5.69	------	------	------
1936	3.57	3.06	2.88	3.29	3.32	3.28	3.22	4.73	3.30	3.25	3.04	3.41	3.37
Accession rate:													
1937	4.60	4.71	4.74	4.04	3.56	3.69	3.36	3.36	3.78	2.84	------	------	------
1936	3.65	2.95	3.97	4.46	4.05	4.49	4.94	4.72	5.09	4.83	4.60	4.41	4.35

[1] Including temporary, indeterminate, and permanent lay-offs.

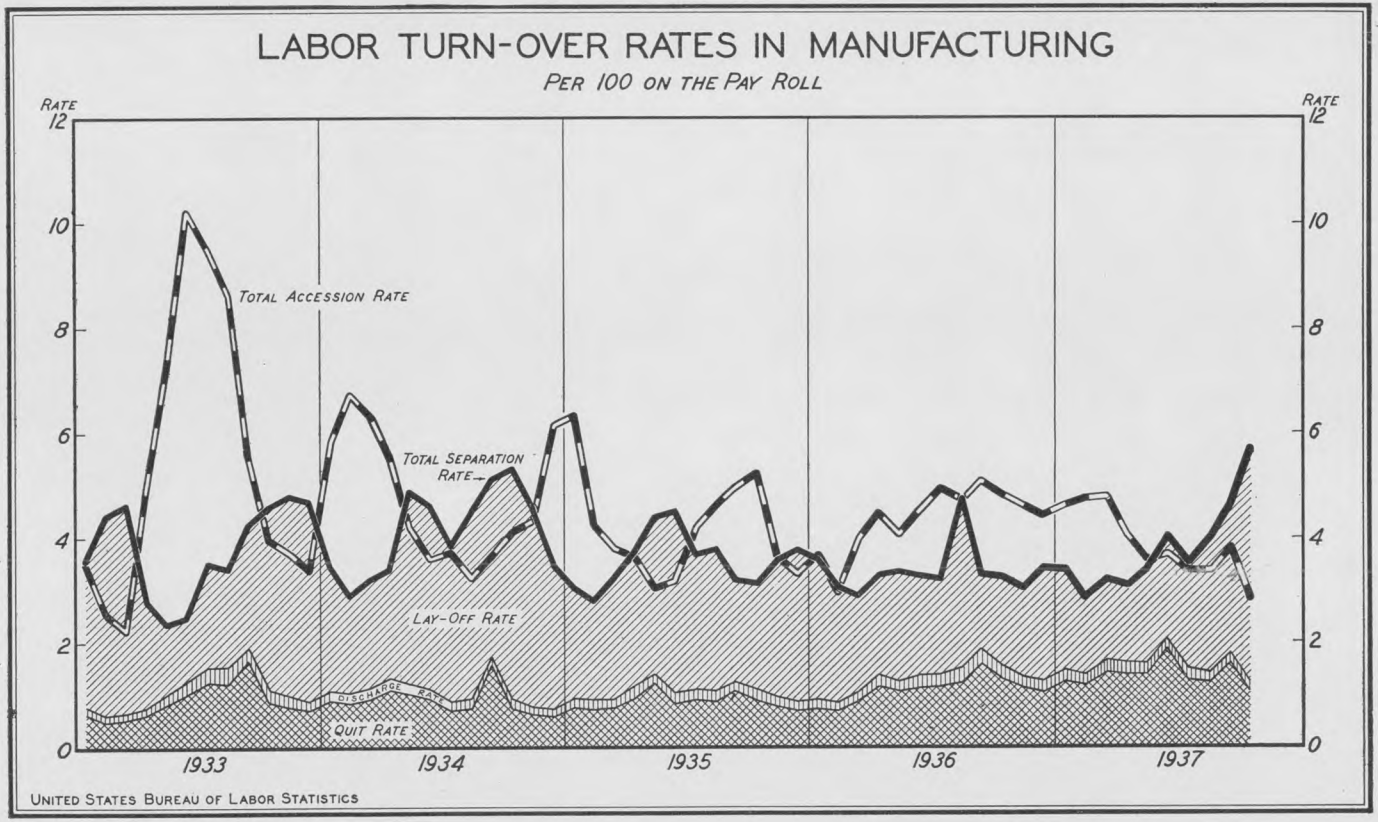
Twenty Industries

In addition to turn-over rates for manufacturing as a whole, details of labor turn-over are available for 20 separate manufacturing industries. These data include for the first time the turn-over rates for the knit goods and woolens and worsteds industries.

The highest accession rate (8.37 per 100 employees) occurred in slaughtering and meat packing; the lowest (0.67) in plants manufacturing rubber tires.

Sawmills reported the highest quit rate (2.25). Petroleum refining and rubber tires registered a quit rate of 0.53. The highest discharge rate (0.43) was shown in rayon plants; the lowest (0.03) in the men's clothing industry. Radios and phonographs reported the highest lay-off rate (11.53) and total separation rate (13.06). The lowest lay-off rate (0.40) and total separation rate (1.92) occurred in the cigar and cigarette industry.

The total separation rates were higher in October than in the preceding month in automobile parts, boots and shoes, brick, tile and terra cotta, cotton manufacturing, electrical machinery, foundries and machine shops, furniture, iron and steel, knit goods, men's clothing, petroleum refining, radios and phonographs, rayon, rubber tires, and sawmills. In other industries lower total separation rates were shown.



The accession rates were higher in boots and shoes, cigars and cigarettes, cotton, furniture, hardware, knit goods, men's clothing, and petroleum refining. In 12 industries lower hiring rates were shown.

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

Class of rates	October 1937	September 1937	October 1936	October 1937	September 1937	October 1936	October 1937	September 1937	October 1936
	Automobiles and bodies			Automobile parts			Boots and shoes		
Quit	0.96	0.97	1.74	1.13	1.30	1.91	0.84	1.18	1.07
Discharge	.15	.29	.31	.34	.26	.53	.13	.12	.24
Lay-off	2.33	5.56	1.85	4.00	2.63	1.40	5.52	3.33	2.42
Total separation	3.44	6.82	3.90	5.47	4.19	3.84	6.49	4.63	3.73
Accession	8.26	21.04	16.85	7.03	12.15	12.93	9.59	1.16	1.86
	Brick, tile, and terra cotta			Cigars and cigarettes			Cotton manufacturing		
Quit	0.96	1.62	1.16	1.38	1.73	1.92	1.16	1.72	1.93
Discharge	.20	.30	.21	.14	.12	.27	.20	.19	.29
Lay-off	9.32	2.79	3.39	.40	.37	.74	5.01	3.58	1.19
Total separation	10.48	4.71	4.76	1.92	2.22	2.93	6.37	5.49	3.41
Accession	2.51	3.09	4.49	3.31	3.17	3.61	3.10	2.29	4.24
	Electrical machinery			Foundries and machine shops			Furniture		
Quit	0.84	1.47	0.98	0.87	1.41	1.15	1.76	4.31	1.79
Discharge	.22	.18	.19	.22	.22	.28	.30	.31	.36
Lay-off	4.06	1.13	.51	4.40	2.39	1.32	5.49	2.68	2.84
Total separation	5.12	2.78	1.68	5.49	4.02	2.75	7.55	7.30	4.99
Accession	1.36	2.59	5.69	1.56	2.72	4.76	3.68	3.42	6.31
	Hardware			Iron and steel			Knit goods		
Quit	0.90	1.17	1.15	1.62	1.39	1.39	1.09	1.45	1.18
Discharge	.15	.17	.25	.09	.09	.10	.12	.08	.12
Lay-off	2.98	2.71	.34	3.66	1.17	.93	2.29	1.69	1.41
Total separation	4.03	4.05	1.74	5.37	2.65	2.42	3.50	3.22	2.71
Accession	3.32	3.25	6.95	.73	1.92	3.04	2.29	1.84	2.79
	Men's clothing			Petroleum refining			Radios and phonographs		
Quit	0.87	1.09	0.90	0.53	0.99	0.54	1.29	2.18	(1)
Discharge	.03	.06	.11	.07	.07	.18	.24	.51	(1)
Lay-off	6.32	4.18	4.28	3.62	2.08	1.43	11.53	2.15	(1)
Total separation	7.22	5.33	5.29	4.22	3.14	2.15	13.06	4.84	(1)
Accession	3.70	2.68	4.57	2.45	1.64	1.74	1.80	2.50	(1)
	Rayon			Rubber tires			Sawmills		
Quit	0.81	1.34	0.74	0.53	0.75	0.82	2.25	3.17	1.62
Discharge	.43	.20	.17	.07	.09	.14	.26	.37	.31
Lay-off	9.43	3.89	.19	5.45	1.12	.33	10.21	3.54	3.78
Total separation	10.67	5.43	1.10	6.05	1.96	1.29	12.72	7.08	5.71
Accession	.91	1.38	1.88	.67	1.24	4.02	3.02	4.58	4.48
	Slaughtering and meat packing			Woolen and worsted goods					
Quit	0.68	0.98	1.46	0.74	1.25	0.75			
Discharge	.18	.22	.27	.09	.22	.07			
Lay-off	5.56	5.82	4.71	5.83	12.12	1.47			
Total separation	6.42	7.02	6.44	6.66	13.59	2.29			
Accession	8.37	8.77	6.34	3.68	4.79	3.77			

[1] No data available.

Minimum Wages and Maximum Hours

MINIMUM WAGES FOR MARITIME WORKERS

PREVAILING wages were adopted by the United States Maritime Commission as a minimum requirement, effective November 1, 1937, on vessels receiving operating-differential subsidy from the Federal Government.[1] This action was taken under the powers conferred on the Commission by the Merchant Marine Act, 1936. The order affecting wages also established rules as to minimum manning scales and reasonable working conditions for approximately 10,000 seamen serving as officers and crews on the subsidized ships. Vacations with pay were granted to both licensed and unlicensed crew. In fixing these minimum standards the Commission stated that it was "relying upon the assurance of the ship operators that such minimum requirements would not be regarded as maximum standards." Thus the way is left open to increase wages by collective bargaining between owners and seamen.

Practically all deck and engine department men, but only about 56 percent of the workers in the steward's department, are covered by the minimum-wage scales prescribed. In the latter department it was possible to fix rates for the 2,300 utility men (waiters, stewards, and bellboys), but for the 1,700-odd other employees the duties and wages varied so widely that the establishment of minimum rates was felt to be impossible.

The table following shows minimum monthly wage scales for licensed and unlicensed personnel and radio operators.

For purposes of establishing minimum wages for licensed personnel, vessels are divided into seven different classes, based upon the number of screws (single or twin) and the power tonnage. The wages authorized vary from class to class and this accounts for the range in monthly wages appearing in the table.

Minimum manning scales provide that in all vessels of class C power tonnage and above (i. e., all but the two smallest type vessels) a chief engineer and at least four other engineers, of whom at least three are licensed, must be carried. The smaller vessels, those 7,501 to 12,000 tons, must carry one wiper and those of 12,001 power tonnage and over must carry two such employees. The requirements for other classes will be prescribed at a later date.

[1] United States Maritime Commission. Press release No. 122, October 21, 1937.

34189—38——13

Minimum Monthly Wage Scale on Subsidized Vessels

Class of employee	Wages
Licensed officers	
Deck department:	
First officer	$180–$265
Second officer	155– 210
Third officer	140– 185
Fourth officer	140– 170
Other	115
Engineer department:	
Chief	265– 390
First assistant officer	180– 265
Second assistant officer	155– 210
Third assistant officer	140– 185
Fourth assistant officer	160– 170
Other	115– 140
Unlicensed personnel	
Deck department:	
Boatswain	85.00
Boatswain's mate	82.50
Carpenter	85.00
Carpenter's mate	80.00
Storekeeper	77.50
Quartermaster	77.50
Able seaman	72.50
Ordinary seaman	55.00
Watchman	72.50
Unlicensed personnel—Continued	
Deck department—continued	
Deck boy	$50.00
Engine department:	
Junior engineer	110.00
Oiler	82.50
Water tender	82.50
Fireman	72.50
Storekeeper	82.50
Wiper	60.00
Steward's department (passenger vessels):	
Utility man	55.00
Waiter	55.00
Steward	55.00
Bellboy	35.00
Steward's department (freight vessels):	
Chief steward	120.00
Chief cook	105.00
Second cook and baker	90.00
Messman	60.00
Messboy	55.00
Radio operators	
One-operator vessels	125.00
Two-operator vessels	110.00

Licensed and unlicensed personnel on all types of ships receiving the subsidy are expected to obey orders of superiors promptly.

Recognized holidays include New Year's, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. When these days fall on Sunday, the following Monday is deemed a holiday.

The master of a vessel is required to make a weekly inspection of the entire ship to insure cleanliness and orderliness.

Subsistence allowances for licensed officers and radio operators are fixed at $3 a day, with $2 additional when they are required to sleep ashore; travel in the course of employment from one port to another must be compensated for at the rate of $3.75 per day (unless subsistence is provided), plus cost of first-class transportation. These men are entitled to return transportation and subsistence as provided and full wages, if a vessel is withdrawn from service. For unlicensed personnel, subsistence allowances are $1.80 per day without lodging and $1 additional when they are required to sleep ashore. The travel allowance is $2.50 per day. Such workers also are entitled to return transportation to the port where shipping articles were signed, in case a vessel is withdrawn from service.

Vacations with pay at the rate of 14 consecutive days per year are to be granted to licensed personnel and radio men for each year of continuous service beginning November 1, 1937. For the first year unlicensed personnel are entitled to 7 days and for each subsequent year 14 days with full pay. Vacations are cumulative to the extent mutually agreed upon and allowable at times that are convenient

to the operating necessities of the service. No cash allowance may be made in lieu of vacations. If employment is terminated at the end of 6 months of continuous service through no fault of the employee, he is entitled to the pro rata share of the annual vacation. Continuous service is not regarded as broken by temporary furlough, under the order, but no vacation may accrue during the period of the furlough.

No licensed officer or radio operator may be laid off over a Saturday afternoon, Sunday, or holiday. Vessels operating on a regular schedule must have a full complement of licensed officers at all times, unless the time between arrival and sailing from a port exceeds 15 days or the vessel is to be withdrawn from service, provided that officers whose employment has been terminated or who are on vacation need not be replaced.

PROGRESS OF STATE MINIMUM-WAGE LEGISLATION, 1937

By Louise Stitt and Florence P. Smith, *U. S. Women's Bureau*

ON MARCH 29, 1937, the United States Supreme Court upheld the constitutionality of the minimum-wage law of the State of Washington. This decision removed all doubt concerning the validity of this type of legislation for women, and activities for the extension of minimum-wage legislation were undertaken almost immediately following the decision.

Legislatures of three States—Arizona, Oklahoma, and Pennsylvania—which were in session at the time of or following the decision passed minimum-wage laws before their adjournment. A bill which had been passed by the Nevada Legislature was signed by the Governor of that State on the day the Court made its favorable ruling. The Colorado and Utah Legislatures, within a few weeks after the decision, appropriated funds for the administration of minimum-wage laws which had long been on the statute books of those States, but which had never been put into operation because of lack of funds. Attorneys general were consulted in jurisdictions where minimum-wage laws had earlier been invalidated as a result of the adverse decision of the Supreme Court in the District of Columbia minimum-wage case in 1923, and rulings reestablishing the laws of Arkansas, the District of Columbia and Puerto Rico were the result. The Minnesota law, which in 1925 had been held valid only for minors, was declared by the attorney general of that State in 1937 again to be applicable to women.

Before the Supreme Court decision, 17 States had minimum-wage laws, 2 of which had not been in operation due to lack of appropriations. At the end of 1937, 22 States,[1] the District of Columbia, and Puerto Rico had such legislation, and in most of these jurisdictions the Court's decision has resulted in very active programs for carrying out the provisions of the law.

Several States, the laws of which require that the minimum wage shall be sufficient to meet the necessary cost of living of employed women, have made studies to determine the amount necessary to enable a self-supporting woman to live at a socially acceptable standard. Utah and the District of Columbia have recently issued

[1] Arizona, Arkansas, California, Colorado, Connecticut, Illinois, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Washington, and Wisconsin.

wage orders effective February 1938, for the retail trade, which are based upon the cost of living. The wages provided for in these orders, $16 for a 42½-hour week in Utah, and $17 for a week ranging from 40 to 48 hours in the District of Columbia, are among the highest yet established by any minimum-wage State.[2]

Twelve new orders have been adopted by the States since the Court's decision, and 13 others, which before the decision were directory (i. e., violations of which are not punishable by fine and imprisonment), have since been made mandatory. Oregon since March 29, 1937, has revised 11 of its minimum-wage orders, increasing for the most part the hourly rates and shortening the weekly hours.

The minimum-wage law of Oklahoma is the only State law so far passed which applies to men as well as to women. Eight wage boards have been convened by the Oklahoma Industrial Welfare Commission since October 1, 1937. The recommendations of none of these boards have yet been approved by the Commission. When they are, a large proportion of the wage-earning men and women in Oklahoma will be covered by minimum-wage orders.

The table which follows contains a summary of the provisions of all minimum-wage orders adopted or made mandatory during the year 1937.

[2] A wage of $18 for a week of 48 hours for all women is fixed in the Nevada law itself.

Provisions of State Minimum-Wage Orders Adopted or Mandatory in 1937

State and industry covered	Hours	Wage rates for—	
		Experienced workers	Learners
	Women and Minors		
District of Columbia			
Retail trade (adopted Dec. 14, 1937; effective Feb. 14, 1938).[a]	40 per week (maximum 48, 8 per day)	$17 per week	$13 per week for first 6 months, $15 per week for second 6 months.
Illinois			
Laundry (directory July 15, 1935; mandatory Aug. 2, 1937):			
District I	40 per week	28.0 cents per hour, $11.20 per week	
	Less than 25 per week	30.8 cents per hour	
	Over 40–44 per week	28.0 cents per hour [1]	
	Over 44 per week (maximum 48)	42.0 cents per hour [1]	
District II	40 per week	25.0 cents per hour, $10 per week	
	Less than 25 per week	27.5 cents per hour	
	Over 40–44 per week	25.0 cents per hour [1]	
	Over 44 per week (maximum 48)	37.5 cents per hour [1]	
District III	40 per week	23.0 cents per hour, $9.20 per week	
	Less than 25 per week	25.3 cents per hour	
	Over 40–44 per week	23.0 cents per hour [1]	
	Over 44 per week (maximum 48)	34.5 cents per hour [1]	
Wash dress (adopted November 1937; effective May 1, 1938).	40 per week	37.0 cents per hour, $14.80 per week	$7.40 first 8 weeks, $11.10 second 8 weeks.
	Over 40 per week (maximum 48)	1.1 times basic rate	
Massachusetts			
Laundry and dry cleaning (directory Oct. 1, 1935; mandatory Oct. 1, 1937).	35 per week (maximum 48, 9 per day)	30 cents per hour	27.5 cents per hour, for 4 weeks.
	Less than 35 per week	33 cents per hour (but total pay need not exceed basic minimum for 35-hour week).	Do.
Electrical equipment and supplies (directory May 1, 1936; mandatory Oct. 1, 1937).	Maximum 48 per week, 9 per day	35 cents per hour	30 cents per hour for 6 months (3 months in 1 factory).
Retail stores (directory Oct. 1, 1936; mandatory Oct. 1, 1937):			
Cities over 500,000 population	Full-time week, 36 hours or over (maximum 48 per week, 9 per day).	$14.50 per week	$13.50 for service of less than 1 year, workers under 19 years; $12.50, workers under 18 years.
Cities over 30,000 and under 500,000 population.	do	$14 per week	$13 for service of less than 1 year, workers under 19 years; $12, workers under 18 years.
Places of 30,000 population and under	do	$13.50 per week	$12.50 for service of less than 1 year, workers under 19 years; $12, workers under 18.

Boot and shoe cut stock and findings (directory Mar. 1, 1937; mandatory Oct. 1, 1937).	Full time (maximum 48 per week, 9 per day).	$14.70 per week	$12 per week for service of less than 3 months.
Men's clothing and raincoats (directory Mar. 1, 1937; mandatory Oct. 1, 1937):			
Men's and boys' wool clothing	36 per week	40 cents per hour	$9 per week for 1–3 months; $12 per week for 3–9 months.
Raincoats	40 per week	$14.50 per week	Do.
Candy (directory Mar. 1, 1937; mandatory Oct. 1, 1937).	48 per week (maximum 9 per day)	$14.40 per week, 30 cents per hour	$9.60 per week, 20 cents per hour, for less than 6 months' service; $12 per week, 25 cents per hour for 6 months to 1 year.
Men's furnishings (directory Mar. 1, 1937; mandatory Oct. 1, 1937).	40 per week (maximum 48, 9 per day)	$14 per week, 35 cents per hour	$8.50 per week, 21.25 cents per hour, for less than 3 months' service; $10 per week, 25 cents per hour, for 3–6 months' service.
Brush (directory Mar. 1, 1937; mandatory Oct. 1, 1937).	Maximum 48 per week, 9 per day	32.5 cents per hour	24 cents per hour for less than 6 months' service.
Women's clothing (directory Mar. 1, 1937; mandatory Oct. 1, 1937).	do	35 cents per hour	25 cents per hour, for 36 weeks.
Corset (directory Apr. 1, 1937; mandatory Oct. 1, 1937).	Full time (maximum 48 per week, 9 per day).	$14 per week, 29½ cents per hour	$10 per week, 20⅝ cents per hour, for workers under 17 years, less than 1 year in industry.
Stationery goods and envelopes (directory July 15, 1937):			
Workers 18 years of age and over	44 or less per week	$14.50 per week	$11.50 per week.
	Over 44 per week (maximum 48 per week, 9 per day).	33 cents per hour	26.25 cents per hour, for service of less than 9 months.
Workers under 18 years	44 or less per week	$13.75 per week	
	Over 44 per week (maximum 48 per week, 9 per day).	31.25 cents per hour	
Toys, games, and sporting goods (directory Aug. 1, 1937).	40 per week (maximum 48, 9 per day)	$14 per week, 35 cents per hour	$11 per week, 27.5 cents per hour, for service of 1–6 weeks; $13 per week, 32.5 cents per hour, for 6 weeks–1 year.
Women's and children's underwear, neckwear, and cotton garments (directory, Oct. 1, 1937).	do	do	$8.50 per week, 21.25 cents per hour, for service of less than 3 months; $10 per week, 25 cents per hour, for 3 to 6 months.
New Hampshire			
Clothing and accessories (directory Dec. 1, 1936; mandatory Oct. 1, 1937):			
Winter outfits and men's clothing	48 per week, 10 per day	25 cents per hour	15 cents per hour.
Handkerchiefs, aprons, gloves, house dresses, etc.	do	20 cents per hour	Do.
Hosiery and knit goods (directory, May 1, 1937).	do	27.5 cents per hour	15 cents per hour, for service of less than 6 months.

[a] Order in final form provides further: Minimum is for standard week which may be less than 40 hours. Rates for minor learners, $13 for 12 months, $15 for next 6 months or, if female, until 18 years of age. For less than standard week: Women, 40 cents an hour; minor learners, 30 cents.

[1] Rate not yet mandatory.

Provisions of State Minimum-Wage Orders Adopted or Mandatory in 1937—Continued

State and industry covered	Hours	Wage rates for—	
		Experienced workers	Learners
	Women and Minors		
New Jersey			
Laundry (directory, Sept. 6, 1937):			
Zone A [2]	40 per week (maximum 54, 10 per day)	33 cents per hour	
	Less than 40 per week	1.1 times basic rate	
Zone B [3]	40 per week (maximum 54, 10 per day)	30 cents per hour	
	Less than 40 per week	1.1 times basic rate	
Suburban zone [4]	40 per week, (maximum 54, 10 per day)	26 cents per hour	
Ohio			
Hotels and restaurants (directory July 1, 1936; mandatory May 1, 1937):			
Cities of 100,000 population or over:			
Service occupations [5]	48 per week	$7.50 per week, 15.62 cents per hour	
	Less than 48 per week	25 cents per hour	
Nonservice occupations [5]	48 per week	$10.50 per week, 21.875 cents per hour	
	Less than 48 per week	32 cents per hour	
Cities of 5,000 and under 100,000 population:			
Service occupations [5]	48 per week	$7 per week, 14.58 cents per hour	
	Less than 48 per week	24 cents per hour	
Nonservice occupations [5]	48 per week	$9 per week, 18.75 cents per hour	
	Less than 48 per week	31 cents per hour	
Cities of under 5,000 population:			
Service occupations [5]	48 per week	$6.25 per week, 13.02 cents per hour	
	Less than 48 per week	23 cents per hour	
Nonservice occupations [5]	48 per week	$8 per week, 16.66 cents per hour	
	Less than 48 per week	30 cents per hour	
Resident employees	Maximum, 48 per week	15 cents per hour	
Oregon			
Mercantile (mandatory, Sept. 14, 1937):			
Adults	44 per week, 8 per day	30 cents per hour	27.5 cents per hour (for service of less than 6 months).
Juniors (i. e., under 18 years)	do	27.5 cents per hour	

	Women		
Laundry, cleaning and dyeing (mandatory, Sept. 14, 1937).	44 per week, 8 per day	30 cents per hour	
	Over 44 per week or over 8 to 9 per day (maximum, 60 per week).	1.5 times regular rate	
Needlecraft (mandatory, Sept. 14, 1937)	44 per week, 8 per day (48 per week, 9 per day, for two 6-week periods each year).	30 cents per hour	22 cents per hour for first 4 months, 25 cents per hour for second 4 months, 27.5 cents per hour for third 4 months.
Manufacturing (mandatory, Sept. 14, 1937)	44 per week, 8 per day	do	Do.
Public housekeeping (mandatory, Sept. 14, 1937).	do	do	Do.
Office occupations (mandatory, Sept. 14, 1937).	do	35 cents per hour	Do.
Personal service (mandatory, Sept. 14, 1937)	do	30 cents per hour	Do.
Telephone and telegraph (mandatory, Sept. 14, 1937).	do	do	Do.
Cherry stemming and pitting (mandatory, Oct. 6, 1937).	do	32.5 cents per hour	22.5 cents per hour (for 96 hours).
	Females		
Fruit and vegetable packing, drying, preserving, or canning (mandatory, May 1, 1937).	10 per day	35 cents per hour	
	Over 10 to 12 per day	1.5 times basic rate	
	Over 12 per day	Twice basic rate	
	Seventh day—First 8 hours	1.25 times basic rate	
	Seventh day—Over 8 to 12 hours	1.5 times basic rate	
	Seventh day—Over 12 hours	Twice basic rate	
	Males		
Do		45 cents per hour	
	Minors		
Any occupation (mandatory, Sept. 14, 1937)	44 per week, 8 per day	14 years—20 cents per hour; 15 years—25 cents per hour; 16–17 years—apprentice rates fixed for specific occupations.	

[2] Passaic, Bergen, Hudson, Essex, Morris, Union and Middlesex counties.
[3] Mercer, Camden, Burlington, Somerset, Gloucester; and (from June 1 to Oct. 1) Atlantic, Ocean, and Monmouth Counties.
[4] Sussex, Warren, Hunterdon, Salem, Cumberland, Cape May; and (from Oct. 1 to June 1) Atlantic, Ocean, and Monmouth Counties.

Provisions of State Minimum-Wage Orders Adopted or Mandatory in 1937—Continued

State and industry covered	Hours	Wage rates for—	
		Experienced workers	Learners
	Women and Minors		
Rhode Island			
Jewelry (directory Mar. 1, 1937; mandatory, Aug. 1, 1937).	48 per week, 9 per day	30 cents per hour	
Wearing apparel and allied occupations (directory, Oct. 18, 1937).	do	35 cents per hour	20 cents per hour, for first 240 hours, 25 cents per hour, for next 240 hours.
Utah			
Retail trade (adopted, Nov. 26, 1937; effective, Feb. 1, 1938).	42½ per week	$16 per week	
	Over 42½ per week (maximum, 48 per week)	1.5 times basic rate	
	Less than 42½ per week	45 cents per hour	
Washington			
Canning (mandatory, May 6, 1937)		37.5 cents per hour	
Beauty culture (mandatory, Sept. 7, 1937)	48 per week	$15 per week	
	Less than 48 per week	35 cents per hour	

[1] 6.25 cents per hour above rates shown, if meals are not furnished.

CRITERIA FOR MINIMUM-WAGE DETERMINATIONS

CERTAIN BASIC standards of adequacy are generally recognized as inherent in the concept of a minimum wage based on the cost of living. The purpose of minimum-wage legislation has been variously expressed in the laws as the establishment of wage levels "necessary for health and welfare," or sufficient for "decent maintenance" and "adequate living." In the actual administration of these laws, however, this social objective must be stated in terms of the many factors involved in determining living standards and of their money cost. As a means of crystallizing "the somewhat vague welfare concept" back of minimum-wage laws, and of helping administrative agencies to establish acceptable standards, the economics division of the Bureau of Home Economics of the Department of Agriculture and the Women's Bureau of the Department of Labor have formulated criteria which are recommended for use in drawing up cost-of-living budgets as a basis for fixing minimum wages.[1]

Pointing out that "there is no one cost-of-living figure," and that "to say just what goods and services are needed for 'proper living' or 'decent maintenance' is not easy," the Government agencies making the recommendations present certain standards of food, clothing, housing, and other essentials of living as the minimum level consistent with human welfare. The self-supporting woman living alone, without dependents or income other than her own earnings, is the unit upon which the recommendations are based, since traditionally minimum-wage rates for women assume the support of only one person. Differences in climate, customs, and facilities are given due weight in the criteria presented for the consideration of administrative agencies and advisory bodies concerned with the determination of acceptable living standards upon which to base wage rates.

Food Standards

Because of accurate and generally accessible information, based upon scientific knowledge, food standards may be determined more readily than other important factors. Those presented in the study are based upon accepted scientific criteria of nutrition and health as outlined in diet plans offered by the United States Department of Agriculture.[2] Of the four plans described, the restricted diet and the liberal diet are dismissed from consideration, the first, because it is insufficient both in quantity and in nutritive value, and the second,

[1] Factors to be Considered in Preparing Minimum Wage Budgets for Women, prepared by Economics Division, Bureau of Home Economics, United States Department of Agriculture, in cooperation with Women's Bureau, United States Department of Labor; and The Practical Pricing of Budgets to be Used in Establishing Minimum Wages, prepared by the Retail Price Division, Bureau of Labor Statistics, Department of Labor. Washington, 1937 (mimeographed).

[2] United States Department of Agriculture. Farmers' Bull. No. 1757: Diets to Fit the Family Income

because it represents a food level not generally obtainable when costs must be considered.

The other two plans deal with an adequate diet at low cost and at moderate cost. The low-cost adequate diet, represented in the report by typical menus, meets, the report holds, all known nutritional needs with at least a 50-percent margin of safety, and provides variety as well as the most economical combination of foods suitable tor consumption over an indefinite period of time. In fact, the report states, the foods specified in the low-cost adequate diet plan afford "better nutrition than a large proportion of this country attains." But, it emphasizes, low nutrition standards should not, because of that fact, be accepted as the basis for minimum-wage determination, since the purpose of the minimum wage is "to prevent such conditions, not to perpetuate them."

Standards for Personal Appearance

Requirements of healthfulness, cleanliness, and acceptability according to social customs should determine basic standards of personal attire and grooming, and quality and style of clothing should be considered. Criteria for the adequacy of standards of personal appearance cannot be fixed with scientific precision, largely because of the esthetic and social factors that enter into the problem. The requirement of acceptability is regarded as of first importance psychologically, since the working woman will "try to meet the standards of her group, even though by so doing she cuts expenses for food and medical care below the safety margin." Hence, in addition to adequacy in quantity, variety to meet seasonal needs, and suitability, clothing allowances must be sufficient to enable the worker "to dress according to the social customs of her group." For the same reason, toilet preparations, cosmetics, and beauty-parlor services, including permanent waves, are listed as "living essentials" to be considered in determining living expenses.

Maintenance costs of clothing—for laundering, dry cleaning, and repairing—constitute another essential for which provision must be made. Specific recommendations for consideration in making up a clothing budget for working women are that garments should be of serviceable materials, well cut and of good workmanship, and that "the importance of style in the satisfaction which clothes give the wearer should not be forgotten."

Standards for Living Quarters

Since the Government agencies compiling the recommended minimum standards accepted the self-supporting woman living alone as the basis of the budget estimates, living quarters are expressed in terms

of one-room occupancy in a lodging house or in the home of another person.

A single room of adequate size, so arranged as to insure privacy, is the recommended minimum for living accommodations, since "the conditions under which most women work would seem to justify the expense for the greater relaxation possible with a single room." In any case, one bed for each person, with good springs and mattress, sufficient bedding, and one or two clean sheets weekly, as dictated by local custom, should be the accepted standard. The room should have "at least one window which will open", screened and opening onto a street or yard, not an airshaft; and cross-ventilation should be possible. Adequate heat, light, and closet space are essential requirements, and the suggested list of minimum furniture includes a bureau or chest of drawers for each person using the room, one or more chairs, at least one of which should be upholstered, a desk or small table, some kind of floor covering, and curtains or window shades.

A modern bath and toilet in good repair, used by no more than five persons, is included in the specifications for acceptable living quarters, and service to the lodger should provide at least two clean bath towels and two clean hand towels weekly. Where laundry facilities are provided but are customarily subject to charge, allowance should be made for that item in the budget, in addition to room rent.

In large cities, a telephone in the house through which the lodger may send and receive calls should be a requisite. Finally, a place for entertaining guests, outside the sleeping room, should be among the privileges obtainable at the amount allotted for living accommodations.

Accessibility of transportation facilities, desirability of the neighborhood, and standards of cleanliness of the houses offering lodgings are all factors to be considered in fixing a minimum allowance for housing in the cost-of-living budget.

Standards For Other Living Essentials

Many budgets, adequate with respect to physical needs, fail to meet the requirements of other factors necessary to normal living, and by so doing, according to the Government authorities, threaten the level which a minimum wage seeks to establish. In large part the items included in this classification have grown out of changed modes of living and the needs and desires created by science and technological development. But the demand for these goods and services expresses normal desires, and is strong enough, the study holds, that "they will be bought, even at the sacrifice of the old-established trio—food, clothing and shelter." Hence they must be recognized among the accepted standards of living.

Medical care, transportation, education and reading, recreation, contributions, occupational expenses, insurance, and a reserve for

emergencies, are listed by the Government agencies as essentials for which provision must be made in any plans for a satisfactory level of living. Standards and estimates adopted by the Committee on the Costs of Medical Care are accepted as minimum requirements to be met by minimum-wage budgets, with the addition of an extra allowance to provide for a medicine chest. Transportation allowances should leave a sufficient margin beyond daily requirements to and from work to take care of trips to church, theaters, and other forms of recreation, and necessary errands. Although the inclusion of the cost of a daily and Sunday newspaper in a minimum budget is seldom questioned, the Government agencies feel that more opportunity for reading should be provided, and recommend an allowance for magazine subscriptions and rental library fees.

Minimum standards for recreation include a vacation of at least one week, attendance at moving-picture theaters from three times a month to once a week, and the possibility of participating in organized recreation activities such as sports, dances, lectures, and concerts. Some allowance for radios and hobbies is also recommended.

Contributions to one's church and organized or personal charities, occupational expenses (which include union dues and any other expense incident to employment), and fixed deductions from earnings under the Federal old-age benefit scheme must be taken into consideration, and "all minimum-wage budgets should allow for premiums on insurance with death benefits sufficient for burial expenses." Reserve funds for periods of unemployment not protected by unemployment insurance, and for illness and other emergencies, should also be taken into consideration in estimating costs of normal living.

WAGES AND HOURS OF UNION STREET-RAILWAY EMPLOYEES, 1937

THE average hourly wage rate for union motormen, conductors, and bus operators [1] advanced 4.6 percent between May 15, 1936, and May 15, 1937.[2] In 1937 the average rate was 72.8 cents per hour and in 1936 it was 69.6 cents per hour.

Distributions of members in 1936 and 1937 according to wage rates are shown in table 1. The upward shift of rates is evident in the decreased percentages shown in 1937 at each of the classifications under 70 cents per hour. In both years the largest group of members had rates between 70 and 80 cents per hour. The percentage of members having rates of 70 cents and over, however, changed from 58.1 in 1936 to 69.1 in 1937.

TABLE 1.—*Distribution of Union Street-Railway Employees by Hourly Rate Groups, May 15, 1937, and May 15, 1936*

Classified hourly rate	May 15, 1937	May 15, 1936
Average rate per hour	$0.728	$0.696
Percent of members whose rates were—		
30 and under 40 cents		(1)
40 and under 50 cents	0.2	0.8
50 and under 60 cents	3.5	9.2
60 and under 70 cents	27.2	31.9
70 and under 80 cents	58.5	49.6
80 and under 90 cents	10.6	8.5

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

Rate increases were reported in 123 quotations, received from 38 cities and covering 79.1 percent of the membership from whom comparable rates were received. There was no change in hourly rates in 31 reports from 8 cities, covering 20.9 percent of the members. No rate decreases were reported.

Table 2 shows the changes in rates over the year and the distribution of the comparable membership according to the percentage change in

[1] Motormen, conductors, and bus drivers on city and city-suburban lines operated by the same company.

[2] This report is based on a survey of wages in the union agreements of street-railway employees in 48 cities. Similar studies have been made by the Bureau of Labor Statistics each year since 1921. All of the averages and comparisons presented in the text have been based upon schedules showing rates in both years for the same occupations. These quotations covered 47,635 members. Additional reports were received for 5,940 members for whom no comparable rates for 1936 were shown. The average 1937 rate for the entire 53,575 members reported was 72.9 cents per hour. The weights used in computing averages are the number of members reported for 1937.

rates. The actual rate increases ranged from one-half of 1 cent to 11 cents per hour.

TABLE 2.—*Percent of Union Street-Railway Employes Affected by Various Wage-Rate Changes, May 15, 1937, Compared With May 15, 1936*

Classified percentage change in rates	Number of quotations showing		Percent of members affected	
	Increase	No change	Increase	No change
Total quotations	123	31	79.1	20.9
Less than 2 percent	4		1.2	
2 and less than 4 percent	20		10.8	
4 and less than 6 percent	34		42.4	
6 and less than 8 percent	20		7.5	
8 and less than 10 percent	22		11.6	
10 and less than 12 percent	9		2.2	
12 and less than 14 percent	9		1.0	
14 and less than 16 percent	3		2.1	
16 and less than 18 percent	2		.3	

Hours per Day and Week

The 8-hour day is provided in a great majority of union agreements, although the 8½-hour and 9-hour day are fairly common. In a few cases the maximum hours are as low as 6 or as high as 10 per day. These hours are not set as absolute, but the company is usually required to adjust its schedules so that the majority of the "runs" approximate the hours provided. Due to the variations in service necessary in streetcar and bus operations, it is not required that the day's work be continuous. Usually, however, it is provided that operators whose runs are broken be given their total daily time within a specified number of hours. In most cases it is required that the day's work be completed within a period of 13½ hours, although some agreements allow a spread of 15 hours.

The usual workweek is 6 days, although a number of agreements specify 5 days. One (that with the Salt Lake City interurban line) allows work on every day of the week.

Pay for Overtime and Extra Work

Overtime is generally defined in the agreements as time in excess of the scheduled time for a regular "run." In some cases it is provided that overtime rates shall not apply to operators of cars or busses reaching the terminus late, unless it is due to causes beyond their control. Extra work in addition to the regular runs is usually reserved for members on the "extra board." In emergencies a regular operator may be given an extra run but only at the overtime rate.

The rate for overtime work is time and a half in all but a few cases where straight pay or slightly higher than straight rates are provided. Many agreements specify that overtime must be paid for and cannot be canceled by granting time off later.

Because uninterrupted streetcar and bus service requires a supply of extra or substitute employees to be constantly on call, such workers are usually required to report periodically during the day at a central place. These workers are generally paid for a specified number of hours on duty, whether or not they are actually put to work.

Other types of pay provisions establish pay at the usual rate for time spent waiting for repairs, answering complaints, making out reports, etc. Somewhat higher minimum rates are established in most cases for work with snow equipment, on routes involving delivery of newspapers, and for time spent in instructing new employees. If an employee is temporarily transferred to a new job, he is paid whichever rate is higher, that of his own or the new job.

Holidays and Vacations

Because continuous service is necessary, these workers do not observe the usual holidays. In most cases provision is made for 1 day off in 7, or 2 consecutive days off in 8. These weekly rest days are regularly scheduled. In some cases certain other holidays may be taken off, this privilege being granted on the basis of seniority or in order of indication of preference.

Only a few agreements provide for 1- or 2-week vacations with pay after a specified period of service. The granting of leave without pay for a limited time (usually up to 2 months) is a common provision. Leave without pay is specifically provided for employees wishing to absent themselves on union business. The length of such leave is often limited to from 1 to 3 months unless the time is extended by mutual agreement. In some cases special arrangements must be made if more than a given number of employees wish to take such leave at the same time. All of these leave rights carry the concomitant right to reinstatement on the job without loss of seniority.

Employment Provisions

Membership in the union is required in only a minority of the agreements. When required, it is extended to employees who have completed the probationary employment of from 2 weeks to 3 months. A number of agreements provide that members suspended or expelled by the union must be discharged from the service.

In San Francisco, Calif., Indianapolis, Ind., Des Moines, Iowa, and Madison, Wis., the company assumes the obligation of collecting the union dues. In most of the other cities the union is permitted to have a representative present at the barn on pay days for the purpose of collecting dues.

Most agreements provide that the union may set up a bulletin board in each barn for the purpose of displaying announcements of

interest to its members. In Chicago, Ill., the agreement with the elevated lines provides that the company shall maintain for each regular employee a $1,000 life insurance policy and a health policy which will pay $20 per week during illness.

The regulation of scheduled runs or routes of street-railway workers is one of the most important elements in the labor contract. These provisions are too varied and detailed in character to be described here. The general method of assigning runs is through a periodic bidding (from two to four times a year) by each regular employee for the desired schedule. Assignment is then made according to seniority. The same bidding system is instituted for new jobs established when one type of service is abandoned for another.

Seniority likewise governs the movement of personnel in lay-off, reemployment, and promotion. The unit of seniority varies from a rating by department of service to a company-wide standing. The right of transfer, however, usually results in seniority standing according to length of service with the company rather than in a particular branch or department.

A specified period of notice is usually required before lay-offs go into effect. Similar notice of intention to reemploy must be given before an employee can be considered as resigning from the service and forfeiting his seniority rights if he does not answer the call. Occasionally a time limit of 1 or 2 years is set on the period of lay-off during which a worker's seniority status remains intact. This limitation also applies to workers on lay-off due to disability. Promotions are made in accordance with seniority unless an employee is not considered qualified. The possibility of abuse in making such exceptions to the seniority rule is curtailed by requirements for notification of vacancies before they are permanently filled, for written statement of reasons if seniority is not observed, or for the granting of a trial on the job to the senior employee.

Rates Paid in Each City

The rates per hour in force on May 15, 1937, and May 15, 1936, in each city are shown in the following table. Since the hours of work are irregular, depending upon the "run," it is impracticable to list them.

TABLE 3.—*Union Rates of Wages of Street-Railway Employees, May 15, 1936, and May 15, 1937, by Cities*

City and classification	Rates of wages per hour [1]	
	May 15, 1937	May 15, 1936
Atlanta, Ga.		
2-man cars:		
First 9 months	$0.500	$0.500
10 to 18 months	.550	.550
After 1½ years	.580	.580
1-man cars:		
First 9 months	.570	.570
10 to 18 months	.620	.620
After 1½ years	.650	.650
Bus drivers	.600	.600
Birmingham, Ala.		
2-man cars:		
First year	.565	.525
Second year	.585	.545
Third year	.615	.575
1-man cars:		
First year	.615	.575
Second year	.635	.595
Third year	.665	.625
Bus drivers:		
First year	.615	.575
Second year	.635	.595
Third year	.665	.625
Boston, Mass.		
Surface lines:		
2-man cars:		
First 3 months	.595	.595
4 to 12 months	.655	.655
After 1 year	.750	.750
1-man cars	.850	.850
Rapid transit lines:		
Guards:		
First 3 months	.595	.595
4 to 12 months	.655	.655
After 1 year	.750	.750
Motormen: After 1 year	.800	.800
Bus drivers	.850	.850
Butte, Mont.		
1-man cars	[2].800	[2].700
Charleston, S. C.		
1-man cars:		
First 3 months	.525	.490
4 to 12 months	.545	.510
After 1 year	.565	.530
Bus drivers	.565	.530
Chicago, Ill.		
Surface lines:		
2-man cars:		
First 3 months	.730	.680
4 to 12 months	.750	.710
After 1 year	.770	.730
Owl cars	.790	.750
1-man cars	.850	.810
Owl cars	.870	.830
Bus drivers:		
Gas and trolley	.850	.810
Owl gas and trolley	.870	.830
Elevated lines:		
Conductors	.736	.698
Motormen:		
First 3 months	[3].727	.687
4 to 12 months	[3].736	.696
After 1 year	[3].781	.741
Chicago, Ill.—Continued		
Elevated lines—Continued.		
Guards, regular	[3]$0.718	$0.678
Guards, extra:		
First 3 months	[3].690	.651
4 to 12 months	[3].700	.660
After 1 year	[3].709	.669
Cincinnati, Ohio		
2-man cars:		
First 3 months	[4].570	.550
4 to 12 months	[4].600	.580
After 1 year	[4].620	.600
1-man cars:		
First 3 months	[4].640	.620
4 to 12 months	[4].670	.650
After 1 year	[4].690	.670
Bus drivers:		
Valley, after 1 year	[4].690	.670
City, after 1 year	[4].690	.660
Cleveland, Ohio		
2-man cars:		
First 3 months	.670	.610
4 to 12 months	.700	.640
After 1 year	.720	.660
Bus drivers:		
First 3 months	.740	.660
4 to 12 months	.770	.690
After 1 year	.790	.710
Columbus, Ohio		
2-man cars:		
First 3 months	.490	----------
4–12 months	.520	----------
After 1 year	.540	----------
1-man cars and class A bus drivers:		
First 3 months	.570	----------
4–12 months	.600	----------
After 1 year	.620	----------
Class B bus drivers:		
First 3 months	.540	----------
4–12 months	.570	----------
After 1 year	.590	----------
Class C bus drivers:		
First 3 months	.490	----------
4–12 months	.520	----------
After 1 year	.540	----------
Davenport, Iowa		
(See Rock Island (Ill.) district.)		
Dayton, Ohio		
Motormen:		
First 3 months	.580	.530
4–12 months	.600	.550
After 1 year	.620	.570
Denver, Colo.		
2-man cars	.615	[2].580
1-man cars and bus drivers	.665	[2].630
Des Moines, Iowa		
1-man cars and bus drivers:		
First 3 months	.611	.580
4–12 months	.640	.610
After 1 year	.683	.653

[1] Overtime rate is 1½ of regular rate except where otherwise specified.
[2] Straight pay for overtime. [3] 3 cents per hour increase June 1, 1937. [4] 5 cents per hour increase July 1, 1937.

TABLE 3.—*Union Rates of Wages of Street-Railway Employees, May 15, 1936, and May 15, 1937, by Cities*—Continued

City and classification	Rates of wages per hour	
	May 15, 1937	May 15, 1936
Detroit, Mich.		
2-man cars	[5] $0.780	$0.750
1-man cars	[5] .830	.800
Bus drivers	[5] .830	.800
Erie, Pa.		
Bus drivers:		
First 3 months	[2] .580	[6] .535
4–12 months	[2] .630	[6] .560
After 1 year	[2] .660	[6] .585
Grand Rapids, Mich.		
Bus drivers	[2] .500	[2] .440
Indianapolis, Ind.		
1-man cars and bus drivers:		
First year	[2] .550	[2] .520
After 1 year	[2] .560	[2] .530
After 2 years	[2] .570	[2] .540
After 3 years	[2] .580	[2] .550
After 4 years	[2] .590	[2] .560
Fifth to ninth year	[2] .600	[2] .570
Ninth to tenth year	[2] .610	[2] .580
After 10 years	[2] .620	[2] .590
Little Rock, Ark.		
1-man cars and bus drivers:		
First 6 months	[7] .400	.400
7–12 months	[7] .420	.420
Second year	[7] .450	.450
Third year	[7] .480	.480
After 3 years	[7] .540	.540
North Little Rock Division:		
1-man cars and bus drivers:		
First 6 months	.400	.400
7–12 months	.410	.410
Second year	.420	.420
After 2 years	.450	.450
Madison, Wis.		
Bus drivers:		
First 6 months	[2] .500	[2] .450
7–12 months	[2] .530	[2] .480
13–18 months	[2] .550	[2] .500
After 18 months	[2] .570	[2] .520
Manchester, N. H.		
1-man cars:		
First 3 months	.550	.500
4–12 months	.610	.550
After 1 year	.670	.600
Memphis, Tenn.		
2-man cars:		
First year	.525	.495
Second year	.575	.545
After 2 years	.625	.595
1-man cars and bus drivers:		
First year	.575	.545
Second year	.625	.595
After 2 years	.675	.645
Milwaukee, Wis.		
2-man cars:		
First year	$0.580	$0.560
Second year	.600	.580
Third year	.620	.600
Fourth year	.640	.620
1-man cars and bus drivers:		
First year	.630	.610
Second year	.650	.630
Third year	.670	.650
Fourth year	.690	.670
Minneapolis, Minn.		
2-man cars:		
First year	.560	.520
Second year	.590	.550
Third year	.620	.580
1-man cars and bus drivers:		
First year	.600	.560
Second year	.630	.590
Third year	.670	.630
Moline, Ill.		
(See Rock Island (Ill.) district.)		
Newark, N. J.		
1-man cars and bus drivers:		
First 3 months	.610	.590
4–12 months	.630	.610
After 1 year	.650	.630
New Haven, Conn.		
1-man cars:		
First 3 months	.600	.550
4–12 months	.630	.580
After 1 year	.670	.620
Bus drivers (city)	.670	.620
New Orleans, La.		
Bus drivers:		
First 5 months	[2] .400	[2] .350
6–12 months	[2] .410	[2] .360
13–18 months	[2] .420	[2] .370
19–24 months	[2] .430	[2] .380
25–30 months	[2] .440	[2] .390
31–48 months	[2] .450	[2] .400
After 4 years	[2] .450	[2] .410
New York, N. Y.		
Bus drivers:		
First year	.550	.550
Second year	.570	.570
Third year	.600	.600
Fourth year	.630	.630
Fifth year	.700	.700
Oklahoma City, Okla.		
1-man cars:		
City:		
First 6 months	.478	.455
7–12 months	.500	----------
Second year	.525	----------
After 2 years	.560	.528
Interurban	.570	.538

[2] Straight pay for overtime.
[5] 93 cents per hour for overtime.
[6] 1¼ pay for overtime.
[7] May 22, 1937, increased 4 cents per hour.

TABLE 3.—*Union Rates of Wages of Street-Railway Employees, May 15, 1936, and May 15, 1937, by Cities*—Continued

City and classification	Rates of wages per hour	
	May 15, 1937	May 15, 1936
Oklahoma City, Okla.—Contd.		
Bus drivers:		
First 6 months	$0.478	$0.455
7–12 months	.500	
Second year	.525	
After 2 years	.560	.538
Peoria, Ill.		
1-man cars and bus drivers:		
Less than 1 year	[8].610	[8].560
1–2 years	[8].630	[8].580
After 2 years	[8].650	[8].600
Pittsburgh, Pa.		
1-man cars:		
First 3 months	.810	.810
4–12 months	.870	.870
After 1 year	[9].890	.890
Bus drivers:		
First 3 months	.630	
4–12 months	.680	
After 1 year	[10].700	
Portland, Maine		
1-man cars	.650	.600
Portland, Oreg.		
2-man cars:		
First 3 months	.710	.600
4–9 months	.740	.630
After 9 months	.760	.650
1-man cars and bus drivers:		
First 3 months	.780	.670
4–9 months	.810	.700
After 9 months	.830	.720
Providence, R. I.		
1-man cars and bus drivers:		
First 3 months	.670	.670
4–12 months	.700	.700
After 1 year	.720	.720
Rochester, N. Y.		
2-man cars—Subway	.570	.565
1-man cars:		
4–12 months	.580	.575
After 1 year	.600	.595
Bus drivers after 1 year	.600	.565
Rock Island (Ill.) district		
1-man cars and bus drivers:		
First 6 months	[11].590	.545
7–12 months	[11].610	.565
After 1 year	[11].630	.585
St. Louis, Mo.		
2-man cars:		
First 6 months	$0.520	[12]
7–12 months	.580	[12]
13–18 months	.640	[12]
After 1½ years	.690	[12]
1-man cars and bus drivers:		
First 6 months	.590	[12]
7–12 months	.650	[12]
13–18 months	.710	[12]
After 1½ years	.760	[12]
St. Paul, Minn.		
2-man cars:		
First year	.560	.520
Second year	.590	.550
Third year	.620	.580
1-man cars and bus drivers:		
First year	.600	.560
Second year	.630	.590
Third year	.670	.630
Salt Lake City, Utah		
Interurban lines:		
2-man cars:		
Passenger	[2].500	[2].500
Freight	[2].520	[2].520
1-man cars	[2].500	[2].500
City lines:		
1-man cars and bus drivers:		
First year	.520	.460
After 1 year	.600	.530
San Antonio, Tex.		
Bus drivers	.720	.650
San Francisco, Calif.		
2-man cars:		
First 6 months	.575	.525
7–12 months	.600	.550
13–18 months	.625	.575
19 months–2½ years	.650	.600
After 2½ years	.675	.625
1-man cars and bus drivers:		
First 6 months	.650	
7–12 months	.675	
13–18 months	.700	
19 months–2½ years	.725	.650
After 2½ years	.750	.675
Municipal lines:		
2-man cars	.750	.750
Motor-coach drivers	.800	.800
Cable cars: Gripmen and conductors	.675	[2].625
Scranton, Pa.		
1-man cars and bus drivers	[13].710	.690

[2] Straight pay for overtime.
[8] Regular rate plus 12½ cents per hour for overtime.
[9] Rate raised to 95½ cents per hour Oct. 15, 1937.
[10] Rate increased 8 cents per hour Oct. 15, 1937.
[11] 2 cents per hour increase June 1, 1937.
[12] Agreement of June 1, 1936, changed time required to reach maximum rate from 3 years to 1½ years. Rates for May 15, 1936, not comparable.
[13] 5 days' annual vacation paid at $5 per day.

TABLE 1.—*Union Rates of Wages of Street-Railway Employees, May 15, 1936, and May 15, 1937, by Cities*—Continued

City and classification	Rates of wages per hour	
	May 15, 1937	May 15, 1936
Seattle, Wash.		
2-man cars:		
Conductors	$0.740	$0.740
Operators or gripmen	.810	.810
1-man cars and bus drivers	.800	.800
South Bend, Ind.		
1-man cars and bus drivers	[2].525	.450
Springfield, Mass.		
1-man cars:		
First 3 months	.620	.560
4–9 months	.670	.610
After 9 months	.710	.650
Bus drivers	.710	.650
Toledo, Ohio		
1-man cars and bus drivers:		
First 6 months	.620	.570
7–12 months	.640	.590
After 1 year	.670	.620
Washington, D. C.		
2-man cars:		
First 3 months	$0.610	$0.590
4–12 months	.650	.630
After 1 year	.670	.650
1-man cars and bus drivers:		
First 3 months	.680	.650
4–12 months	.720	.690
After 1 year	.740	.710
Youngstown, Ohio		
1-man cars and bus drivers:		
First 3 months	.530	.520
4–12 months	.620	.610
After 1 year	[14].660	.650

[2] Straight pay for overtime.
[14] 1 week vacation with pay.

FARM WAGE AND LABOR SITUATION, OCTOBER 1, 1937

WAGE RATES of hired farm labor averaged $3 more per month with board and $3.87 more without board on October 1, 1937, than on the same date a year previous, and the general wage level was the highest recorded by the United States Bureau of Agricultural Economics, for October, since 1930. That Bureau reported an average wage of $25.51 per month with board and $36.71 without board for October 1, 1937, as compared with corresponding rates of $22.51 and $32.84 for October 1, 1936. Daily rates were also somewhat higher, averaging $1.39 with board and $1.83 without board, in comparison with $1.18 and $1.59, respectively, on October 1, 1936. The rate per day without board ranged from 85 cents in South Carolina to $3.20 in California, and the rate with board, from 65 cents in South Carolina to $2.30 in Utah.

The demand for labor was 91.7 percent and the supply 80.6 percent of normal on October 1, 1937, against a demand of 83.7 percent and a supply of 85.8 percent of normal on October 1, 1936.

Table 1, taken from a report of the Bureau of Agricultural Economics dated October 15, 1937, shows average farm wages, supply of and demand for farm labor, and number of persons employed per farm, on October 1, 1937, as compared with July 1, 1937, July 1 and October 1, 1936, and, for wage rates, with the annual average, 1910–14.

TABLE 1.—*Average Farm Wage Rates and Employment at Specified Periods*

Item	Annual average, 1910–14	July 1, 1936	Oct. 1, 1936	July 1, 1937	Oct. 1, 1937
Farm wage index	100	108	110	123	126
Farm wage rates:					
Per month, with board	$20.41	$22.07	$22.51	$25.28	$25.51
Per month, without board	$29.09	$32.21	$32.84	$36.14	$36.71
Per day, with board	$1.10	$1.15	$1.18	$1.34	$1.39
Per day, without board	$1.43	$1.54	$1.59	$1.76	$1.83
Supply of and demand for farm labor (percent of normal):					
Supply		88.9	85.8	82.4	80.6
Demand		82.7	83.7	90.7	91.7
Supply as percentage of demand		107.5	102.5	90.8	87.9
Number of persons employed per farm:[1]					
Family labor		2.23	2.14	2.19	2.04
Hired labor		1.01	1.07	1.07	1.10
Combined		3.24	3.21	3.26	3.14

[1] On farms of crop reporters.

Average farm wage rates per month and per day, with board and without board, on October 1, 1936 and 1937, are shown in table 2, by geographic division, the data being from Crops and Markets, issued by the Department of Agriculture, for October 1937.

TABLE 2.—*Average Farm Wage Rates on October 1 of 1936 and 1937, by Geographic Division*

Geographic division	Per month, with board		Per month, without board		Per day, with board		Per day, without board	
	1936	1937	1936	1937	1936	1937	1936	1937
United States	$22.51	$25.51	$32.84	$36.71	$1.18	$1.39	$1.59	$1.83
New England	31.05	33.47	52.69	55.99	1.73	1.95	2.52	2.71
Middle Atlantic	27.37	31.12	43.06	48.09	1.63	1.95	2.23	2.55
East North Central	27.09	31.87	37.70	44.16	1.47	1.83	1.98	2.36
West North Central	25.20	28.97	34.94	39.58	1.34	1.64	1.82	2.17
South Atlantic	15.64	17.52	23.07	25.54	.84	.94	1.10	1.24
East South Central	14.83	16.96	21.89	24.18	.76	.86	1.01	1.13
West South Central	18.38	20.07	26.53	29.22	.95	1.07	1.23	1.35
Mountain	34.47	38.09	49.38	53.54	1.70	1.87	2.19	2.43
Pacific	41.52	46.70	62.84	69.08	1.89	2.19	2.65	3.09

SALARIES OF OFFICE WORKERS IN NEW YORK CITY, MAY 1937

WEEKLY salaries of clerical workers in New York City averaged $30.89 in May 1937, according to a survey by the industrial bureau of the Merchants Association of New York (New York City) covering 297 companies with 43,592 office employees. Typists formed the lowest salary group, with an average of $22.67, a low of $10, and a high of $47.30. The highest salaries were paid to accountants, who averaged $52.14, with a low of $18.46 and a high of $225. The businesses covered included financial houses, insurance companies,

public utilities, retail and wholesale trade, hotels and restaurants, warehousing and trucking, engineering (consulting and professional), real estate companies, and various manufacturing industries.

A tabulation of the salaries of employees of 66 companies shows increases in average salaries in May 1937, as compared with July 1935, ranging from 0.16 percent for typists to 27.14 percent for machine bookkeepers, with a decrease of 0.51 percent for male stenographers and secretaries. There were decreases in the lowest brackets for machine bookkeepers, male stenographers and secretaries, chief and supervisory clerks, and file clerks, and in the highest brackets for nonmachine bookkeepers; while the lowest rates paid to telephone operators and female stenographers and secretaries, and the highest rates paid to dictaphone operators, remained the same.

Table 1 shows the low, high, and average weekly salaries in the different occupation groups in May 1937 and the percent of change between July 1935 and May 1937, for employees of the 66 companies for which comparative figures were available.

TABLE 1.—*Weekly Salaries of Office Workers in New York City, May 1937, and percent of Change, July 1935 to May 1937*

Occupation	Number of companies reporting	Number of employees covered	Weekly salaries			Percent of change in average [1] salaries, July 1935 to May 1937, 66 companies
			Low	High	Average [1]	
All occupations	297	43,592	$9.50	$575.00	$30.89	+6.11
Accountants	178	1,061	18.46	225.00	52.14	+10.83
Auditors	88	491	19.80	208.00	51.91	+21.30
Bookkeepers, machine operators	168	926	15.00	71.15	26.81	+27.14
Bookkeepers, nonmachine operators	215	1,306	12.00	90.00	31.35	+4.08
Stenographers and secretaries, male	86	342	15.00	140.60	35.52	−.51
Stenographers and secretaries, female	281	5,413	14.00	100.00	31.28	+7.89
Typists	199	2,838	10.00	47.30	22.67	+.16
Dictaphone operators	81	435	15.00	54.17	25.29	+4.26
Telephone operators	262	1,079	15.00	75.00	25.83	+10.25
Office-machine operators	178	2,178	12.00	65.76	24.92	+.21
Chief and supervisory clerks	222	3,034	15.00	575.00	54.45	+11.12
File clerks	209	1,904	11.00	61.22	22.77	+.17
All other clerical occupations	260	22,585	9.50	225.00	28.85	+3.06

[1] Weighted.

Table 2 gives, by occupation group, the numerical distribution among the various salary brackets, in May 1937, of the 43,592 clerical employees covered in the survey.

TABLE 2.—*Distribution of Clerical Workers in New York City, by Salary Groups, May 1937*

Earnings group	Total	Accountants	Auditors	Bookkeepers		Stenographers and secretaries	
				Machine operators	Others	Male	Female
Number of reporting companies	297	178	88	168	215	86	281
Number of employees covered	43,592	1,061	491	926	1,306	342	5,413
Weekly earnings of—							
Over $300	1						
$225.00 to $300.00	3	1					
$200.00 to $224.99	2		1				
$175.00 to $199.99	4	2					
$150.00 to $174.99	12						
$140.00 to $149.99	10					1	
$130.00 to $139.99	15	2	2				
$120.00 to $129.99	30	4	2				
$110.00 to $119.99	40	9	7				
$100.00 to $109.99	82	8	9			1	1
$90.00 to $99.99	121	27	12		1	4	4
$85.00 to $89.99	105	18	7		1	1	2
$80.00 to $84.99	143	36	9		1	1	3
$75.00 to $79.99	246	49	16		3	5	7
$70.00 to $74.99	226	38	14	1	5	1	10
$65.00 to $69.99	371	57	21	1	6	3	27
$60.00 to $64.99	557	58	28	2	17	6	42
$55.00 to $59.99	665	62	34	1	17	7	71
$50.00 to $54.99	1,136	104	46	15	46	9	143
$45.00 to $49.99	1,531	171	77	10	76	15	202
$40.00 to $44.99	2,585	148	57	14	91	27	377
$35.00 to $39.99	3,864	75	61	54	151	40	604
$30.00 to $34.99	7,554	78	51	139	233	94	1,380
$25.00 to $29.99	8,131	65	20	372	255	69	1,325
$20.00 to $24.99	8,699	43	15	229	250	46	852
$15.00 to $19.99	7,147	6	2	88	148	12	356
$10.00 to $14.99	311				5		7
Less than $10	1						

Earnings group	Typists	Dictaphone operators	Telephone operators	Office-machine operators	Chief and supervisory clerks [1]	File clerks	All other clerical occupations
Number of reporting companies	199	81	262	178	222	269	260
Number of employees covered	2,838	435	1,079	2,178	3,034	1,904	22,585
Weekly earnings of—							
Over $300					1		
$225.00 to $300.00					1		1
$200.00 to $224.99					1		
$175.00 to $199.99					1		1
$150.00 to $174.99					10		2
$140.00 to $149.99					5		4
$130.00 to $139.99					10		1
$120.00 to $129.99					21		3
$110.00 to $119.99					20		4
$100.00 to $109.99					45		18
$90.00 to $99.99					56		17
$85.00 to $89.99					53		23
$80.00 to $84.99					75		18
$75.00 to $79.99			1		118		47
$70.00 to $74.99					105		52
$65.00 to $69.99				2	175		79
$60.00 to $64.99			1		245	1	157
$55.00 to $59.99				1	268	3	201
$50.00 to $54.99		3	1	3	369	5	392
$45.00 to $49.99	9	4	8	9	392	13	545
$40.00 to $44.99	22	1	9	30	524	36	1,249
$35.00 to $39.99	59	14	44	70	224	68	2,400
$30.00 to $34.99	325	70	178	298	179	195	4,334
$25.00 to $29.99	555	123	370	598	104	267	4,008
$20.00 to $24.99	877	167	320	782	22	533	4,563
$15.00 to $19.99	963	53	147	380	10	751	4,231
$10.00 to $14.99	28			5		32	234
Less than $10							1

[1] Includes department heads.

EARNINGS OF OFFICE EMPLOYEES IN SAN JUAN

THE AVERAGE full-time weekly wage of 789 office employees in 115 establishments in San Juan, according to a survey in 1937, was $19.78—males receiving $21.83 and females $14.45. The lowest full-time weekly wage reported for the workers covered was $7.50 for male collectors, and the highest was $57.32 for male auditors, as shown in the following table:[1]

Average Full-Time Weekly Earnings of Office Employees, San Juan, 1937

Occupation	Average full-time earnings	Occupation	Average full-time earnings
All occupations	$19.78	Collectors, males	$7.50
Males	21.83	Correspondents	27.80
Females	14.45	Males	26.82
		Females	33.33
Auditors, males	57.32	Messengers, males	9.51
Bookkeepers and accountants	27.98	Receiving and paying tellers	21.96
Males	28.32	Males	23.37
Females	21.42	Females	12.12
Cashiers	25.37	Stenographers	15.09
Males	26.79	Males	16.77
Females	21.88	Females	14.42
Clerks	16.79		
Males	17.98		
Females	12.98		

The average full-time weekly hours of both sexes were 46.7, the average for males being 46.8 per week, and for females 46.6.

EARNINGS OF INDUSTRIAL WORKERS IN GERMANY, 1936

THE AVERAGE gross hourly earnings of German workers in 1936 varied widely in the different industries. The following table is based upon the findings of a wage investigation made by the German Statistical Office in 16 selected industries in March, June, September, and December 1936.[2] It indicates that for male skilled workers there was a range in gross hourly earnings (i. e., without deductions for various taxes, fees, and collections) from 58.6 pfennige in sawmills to 120.1 pfennige in the book-printing industry. Wages of semiskilled workers ranged from 46.2 pfennige in the clothing industry to 87.8 pfennige in the chemical industry. Those of women varied from 37.4 pfennige in the building-materials, pottery, and glass industries to 53.3 pfennige in the paper-products industry.

[1] Puerto Rico. Department of Labor. Puerto Rico Labor News, San Juan, November 1937, pp. 1, 2.
[2] Germany. Statistisches Reichsamt. Wirtschaft und Statistik, 2. Oktober-heft, Nr. 20, 1937, pp. 823, 824.

Average Hourly and Weekly Gross Earnings of Workers in Germany in 1936, by Industry

[Exchange rate of German mark (100 pfennigs) in 1936=40 cents]

Industry and group of workers	Average gross earnings	
	Per hour	Per week
	Pf.	*Marks*
Iron and steel works	86.6	44.25
Workers, first grade	92.3	47.39
Workers, third grade	85.9	43.70
Helpers	74.8	38.35
Metal-working industry	85.7	42.35
Skilled workers, male	98.5	49.28
Semiskilled workers, male	86.8	42.96
Helpers	67.0	32.96
Female	51.6	24.43
Chemical industry	82.0	37.96
Skilled workers, male	104.1	49.75
Semiskilled workers, male	87.8	40.92
Female	51.7	23.01
Building materials, pottery, and glass industry	62.7	29.83
Skilled workers, male	72.7	34.73
Semiskilled workers, male	60.1	28.59
Female	37.4	17.60
Building trades	71.4	-------
Masons	82.4	-------
Carpenters, plasterers, and cement workers, skilled	85.1	-------
Helpers and cement workers	69.7	-------
Underground workers	62.1	-------
Sawmills	54.6	26.29
Skilled and semiskilled workers	58.6	28.60
Helpers	51.2	24.39
Woodworking and furniture manufacture	70.8	34.37
Skilled workers	76.7	37.19
Semiskilled workers	64.5	31.41
Helpers	50.5	24.43
Paper industry	63.6	31.30
Skilled and semiskilled workers, male	71.1	35.96
Unskilled workers, male	64.8	31.93
Female	42.1	19.40
Paper-products industry	57.8	27.31
Skilled workers, male	94.5	45.95
Helpers, male	63.6	31.29
Skilled workers, female	53.3	25.15
Helpers, female	40.0	18.44
Printing, books	106.4	50.50
Skilled helpers, male	120.1	56.86
Technical helpers, male	99.0	47.80
Technical helpers, female	50.6	23.91
Lithography and offset printing	81.6	38.73
Skilled helpers, male	113.7	53.87
Technical helpers, male	76.8	37.30
Technical helpers, female	44.3	20.84
Textile industry	55.3	23.34
Skilled workers, male	69.4	29.49
Helpers, male	53.4	23.12
Skilled workers, female	49.3	20.66
Helpers, female	37.3	15.82
Clothing industry	54.6	25.39
Skilled workers, male and female	81.1	38.40
Semiskilled workers, male and female	46.2	21.38
Shoe industry	63.1	27.65
Factory workers, male	77.2	33.64
Factory workers, female	50.6	22.26
Confectionery and bakery industries	50.6	23.78
Skilled workers, male	85.5	41.56
Helpers, male	66.7	32.60
Skilled workers, female	48.8	22.44
Helpers, female	43.2	20.10
Brewing industry	100.9	43.70
Skilled workers	104.5	44.87
Unskilled workers	91.1	39.04
Skilled employees	104.5	45.95

Employment Offices

OPERATIONS OF THE UNITED STATES EMPLOYMENT SERVICE, NOVEMBER 1937

INCREASED registrations for work by job seekers were reported by offices of the United States Employment Service throughout the country during November. Almost 300,000 new applicants registered with the public employment offices for the first time during November and, including the renewals of previously registered persons, almost three-quarters of a million applicants were moved into the active file during the month. Employment offices during the month made 224,226 placements of all types.

The volume of 299,196 new registrations received by the Employment Service offices during November, 2.8 percent more than the number reported in the preceding month, represented a counter-seasonal move. In each of the preceding 3 years the number of new applicants registered during November was less than the total in October. In addition to the new applications, 463,845 renewals were received from previously inactive registrants. The total of 763,041 applications for jobs from persons who were not seeking work through the employment offices in the preceding month (the sum of new applications and renewals) was 11.5 percent higher than the number received in October and 7.6 percent higher than the total volume of applications received in November 1936, 1 year earlier.

Placements by the employment offices continued in large volume although decreases were reported from the previous month and from the same month 1 year earlier. Placements of all types numbered 224,226, the largest proportion, 157,531, being with private employers. Placements on public nonrelief work numbered 63,785. In addition, 2,910 assignments on relief projects were made through the offices.

The volume of private placements was 25.1 percent less than the number reported in October and for the first time in 18 months showed a decrease from the number of private placements for the corresponding month 1 year earlier. The decline from November 1936, however, was very small, being only 0.8 percent.

The public placements, which include jobs filled with private contractors operating on public works as well as placements with public units carrying on works activities, showed a seasonal decline of 29.4 percent from the preceding month.

The private jobs filled included 91,327 placements of men and 66,204 placements of women. The decline in placements of men was much greater than was true for women, being 31.4 percent smaller in November than in October compared to a drop of 14.2 percent for women. The declines in private placements were felt generally throughout the country, only five States not showing a drop.

Reflecting the increased volume of registrations from job seekers, the active file increased slightly to a total of 4,421,076. This volume, which includes applications of 3,417,002 men and 1,004,074 women, is still 35.4 percent smaller than it was 1 year ago, in November 1936. Although the number of male applicants in the active file increased by 0.9 percent, the number of women dropped 0.2 percent. Active-file registrations include the applications of persons seeking better jobs and of security-wage workers on relief-works projects, as well as those of totally unemployed registrants. Increases in the active file were reported in 33 States.

TABLE 1.—*Summary of Operations of United States Employment Service, November 1937*

Activity	Number	Percent of change from—		
		October 1937	November 1936	November 1935
New applications	299,196	+2.8	−11.8	−45.6
Total placements	224,226	−26.1	−32.3	−67.2
Private	157,531	−25.1	−.8	+130.7
Public	63,785	−29.4	−56.9	−28.8
Relief	2,910	+8.8	−87.9	−99.4
Active file	4,421,076	+.6	−35.4	−47.7

Activities of the employment offices for veterans during November closely paralleled those for nonveteran registrants. Summary totals of the principal operating activities are shown in table 2.

TABLE 2.—*Summary of Veterans' Activities of United States Employment Service, November 1937*

Activity	Number	Percent of change from—		
		October 1937	November 1936	November 1935
New applications	11,164	+17.8	−19.2	−52.8
Total placements	12,464	−25.9	−41.8	−74.9
Private	7,171	−27.6	−16.8	+101.3
Public	4,941	−26.0	−60.2	−49.2
Relief	352	+45.5	−73.5	−99.0
Active file	244,114	+2.8	−33.2	−52.8

TABLE 3.—*Operations of United States Employment Service, November 1937*

TOTAL

Division and State	Placements							New applications		Active file	
		Private				Public					
	Total[1]	Total	Percent of change from October	Regular (over month)	Temporary (1 month or less)	Number	Percent of change from October	Number	Percent of change from October	Nov. 30	Percent of change from Oct. 31
United States	224,226	157,531	−25.1	61,553	95,978	63,785	−29.4	299,196	+2.8	4,421,076	+0.6
New England	7,347	4,833	−27.1	2,699	2,134	2,445	−43.0	22,537	+18.1	370,696	+.7
Maine	676	103	−19.5	68	35	573	−53.8	1,708	+45.9	18.194	+14.8
New Hampshire	1,085	770	+.4	518	252	308	−45.9	1,603	+16.2	17,840	+9.8
Vermont	767	392	−37.2	189	203	375	−35.2	1,108	+31.4	7,348	+17.3
Massachusetts	1,890	1,264	−30.9	660	604	626	−32.0	9,097	+11.0	239,383	−3.5
Rhode Island	634	479	−32.5	233	246	128	−45.8	3,385	+50.0	36,422	+1.9
Connecticut	2,295	1,825	−29.1	1,031	794	435	−41.7	5,636	+7.6	51,509	+12.7
Middle Atlantic	26,464	19,128	−35.1	8,710	10,418	6,805	−32.8	51,984	−2.3	1,032,606	−4.0
New York	15,740	11,662	−36.7	4,787	6,875	3,904	−22.2	22,522	−11.6	254,913	−7.0
New Jersey	3,804	3,444	−19.2	1,632	1,812	358	−26.9	9,358	+1.1	169,524	+1.8
Pennsylvania	6,920	4,022	−40.5	2,291	1,731	2,543	−45.0	20,104	+8.6	608,169	−4.2
East North Central	42,250	33,558	−26.8	14,347	19,211	8,273	−36.4	66,538	+2.0	897,851	+4.8
Ohio	11,302	8,789	−25.0	3,524	5,265	2,482	−36.4	14,879	−3.4	256,289	+3.5
Indiana	3,686	3,324	−25.5	2,106	1,218	332	−47.0	9,050	−5.5	104,369	+1.7
Illinois	17,554	13,968	−21.0	5,307	8,661	3,545	−29.2	18,590	−3.5	287,027	+5.0
Michigan	4,783	3,756	−41.1	1,510	2,246	863	−50.7	9,856	+4.8	131,048	+5.6
Wisconsin	4,925	3,721	−33.6	1,900	1,821	1,051	−39.2	14,163	+21.9	119,118	+9.2
West North Central	27,057	16,718	−18.3	6,753	9,965	9,947	−31.8	26,910	+2.2	486,198	+2.4
Minnesota	6,314	4,251	−26.9	2,047	2,204	1,979	−29.8	6,816	+18.6	111,602	+3.6
Iowa	6,257	4,078	−24.1	1,549	2,529	1,906	−47.0	4,548	−1.4	55,500	+9.0
Missouri	4,398	2,922	−14.3	1,438	1,484	1,475	−28.9	6,483	−15.9	142,661	−7.7
North Dakota	3,030	2,367	+20.3	676	1,691	661	+3.6	1,772	+7.2	25,891	+2.3
South Dakota	2,117	643	−9.3	166	477	1,450	−21.0	1,327	+15.8	53,156	+37.9
Nebraska	3,031	1,245	−22.2	492	753	1,786	−35.7	3,108	+6.1	40,206	+7.6
Kansas	1,910	1,212	−23.8	385	827	690	−17.8	2,856	+12.7	57,182	−4.9
South Atlantic	27,351	14,433	−32.1	6,470	7,963	12,017	−24.8	32,185	+.5	468,171	+1.7
Delaware	934	787	−47.3	201	586	144	+22.0	815	+2.4	10,252	+6.4
Maryland	2,118	1,138	−32.1	590	548	980	−17.4	4,486	+33.0	35,865	−1.8
District of Columbia	1,996	1,835	−12.7	796	1,039	161	−1.2	2,481	+1.6	29,959	+13.7
Virginia	4,077	1,819	−23.5	828	991	2,250	−5.8	4,130	+4.9	49,230	+1.1
West Virginia	3,078	1,423	−27.2	702	721	810	−52.5	2,821	−13.7	67,964	−1.2
North Carolina	5,318	3,432	−36.9	1,589	1,843	1,886	−42.1	7,918	+17.1	74,683	+3.3
South Carolina	2,726	1,372	−50.4	490	882	1,344	−20.1	2,163	−7.2	48,460	+6.0
Georgia	6,117	2,627	−23.5	1,274	1,353	3,488	−16.8	6,181	−19.9	89,620	−2.9
Florida	987	0	-------	0	0	954	−25.6	1,190	−15.4	62,138	+3.3
East South Central	11,909	5,072	−30.5	2,813	2,259	6,749	−30.3	16,906	−13.9	346,027	−3.6
Kentucky	2,744	1,225	−26.3	620	605	1,492	−34.4	3,350	−12.0	103,406	−7.6
Tennessee	3,175	1,685	−17.8	1,075	610	1,490	−26.0	4,338	+1.9	111,368	+.7
Alabama	2,759	2,083	−38.7	1,074	1,009	658	−32.0	5,995	−5.5	69,863	+5.5
Mississippi	3,231	79	−58.0	44	35	3,109	−29.8	3,223	−38.4	61,390	−12.7
West South Central	44,227	38,166	−1.8	6,104	32,062	6,003	−13.5	28,758	−2.0	369,511	+.3
Arkansas	2,890	2,605	−.5	490	2,115	277	−48.9	1,601	+12.0	42,920	−.4
Louisiana	3,661	3,091	+1.7	2,305	786	568	−29.1	5,184	+9.0	59,280	−.8
Oklahoma	4,140	2,895	+5.5	343	2,552	1,242	−3.8	3,638	+23.8	91,343	+4.8
Texas	33,536	29,575	−3.0	2,966	26,609	3,916	−9.1	18,335	−9.4	175,968	−1.4
Mountain	13,713	8,015	−40.8	4,310	3,705	5,511	−29.8	13,091	+7.4	149,258	+7.4
Montana	2,777	1,592	+20.2	1,043	549	1,183	−35.4	1,020	−11.0	20,826	−8.1
Idaho	1,226	864	−54.7	386	478	353	−55.5	1,511	+19.4	13,910	+18.2
Wyoming	920	367	−44.9	158	209	408	−45.0	607	−13.5	4,986	+34.0
Colorado	3,483	1,852	−49.9	769	1,083	1,615	−13.8	4,846	+14.6	52,461	+15.6
New Mexico	1,550	886	−52.4	652	234	659	−28.0	1,249	+2.2	22,766	−17.2
Arizona	1,880	1,242	−14.2	693	549	629	−11.3	1,932	+8.0	15,556	+2.5
Utah	1,333	911	−57.2	428	483	421	−42.4	1,402	+30.8	15,193	+55.6
Nevada	544	301	−41.0	181	120	243	−6.5	524	−31.6	3,560	+18.0
Pacific	23,908	17,608	−34.5	9,347	8,261	6,035	−23.6	40,287	+18.3	300,758	+3.3
Washington	2,923	1,340	−46.3	605	735	1,561	−26.2	6,193	+46.8	59,189	+16.7
Oregon	2,245	1,105	−45.8	427	678	906	−30.3	4,604	+20.6	42,631	+12.9
California	18,740	15,163	−32.1	8,315	6,848	3,568	−20.5	29,490	+13.2	198,938	−1.9

[1] Includes 2,910 security-wage placements on work-relief projects.

TABLE 3.—*Operations of United States Employment Service, November 1937*—Contd.

MEN

Division and State	Placements							New applications		Active file	
		Private				Public					
	Total[1]	Total	Percent of change from October	Regular (over 1 month)	Temporary (1 month or less)	Number	Percent of change from October	Number	Percent of change from October	Nov. 30	Percent of change from Oct. 31
United States	156,732	91,327	−31.4	30,238	61,089	62,655	−30.0	201,667	+2.0	3,417,002	+0.9
New England	4,756	2,294	−33.2	1,255	1,039	2,399	−43.3	15,122	+14.1	273,514	+1.3
Maine	616	43	+10.3	22	21	573	−53.6	1,254	+33.3	15,676	+13.5
New Hampshire	829	519	+2.6	329	190	304	−45.6	1,028	+10.2	13,601	+9.5
Vermont	591	216	−42.1	87	129	375	−35.1	799	+32.5	5,830	+20.0
Massachusetts	1,216	596	−37.8	306	290	620	−32.3	6,215	+5.6	174,160	−3.4
Rhode Island	324	177	−31.4	74	103	124	−43.4	2,176	+58.0	25,762	+3.7
Connecticut	1,180	743	−42.9	437	306	403	−44.3	3,650	+3.9	38,485	+13.8
Middle Atlantic	15,120	8,174	−44.9	3,739	4,435	6,468	−34.7	33,708	+.5	806,734	−4.5
New York	9,250	5,427	−44.0	2,126	3,301	3,666	−25.1	14,382	−7.1	196,362	−7.3
New Jersey	1,501	1,143	−28.8	652	491	356	−26.6	5,889	−1.3	135,716	+2.7
Pennsylvania	4,369	1,604	−54.6	961	643	2,446	−46.0	13,437	+11.0	474,656	−5.2
East North Central	25,146	16,595	−36.7	6,080	10,515	8,162	−36.7	43,489	+3.0	709,470	+5.1
Ohio	6,892	4,425	−31.5	1,457	2,968	2,443	−36.8	10,275	−3.0	203,504	+4.5
Indiana	1,812	1,467	−37.2	803	664	323	−47.0	5,523	−5.2	83,626	−.2
Illinois	10,483	6,951	−30.1	2,343	4,608	3,504	−29.6	11,056	−6.4	223,991	+4.9
Michigan	3,038	2,020	−53.7	776	1,244	855	−50.8	7,310	+14.1	107,464	+8.1
Wisconsin	2,921	1,732	−44.3	701	1,031	1,037	−39.0	9,325	+22.9	90,885	+8.6
West North Central	20,054	9,816	−24.9	3,107	6,709	9,862	−32.0	17,216	+1.6	390,181	+3.3
Minnesota	4,300	2,259	−34.6	930	1,329	1,959	−30.0	4,126	+10.7	87,544	+4.6
Iowa	4,625	2,471	−30.4	712	1,759	1,883	−47.5	3,025	+5.1	44,085	+10.3
Missouri	3,102	1,626	−16.9	653	973	1,475	−28.7	4,028	−14.5	113,491	−8.6
North Dakota	2,202	1,549	+5.0	391	1,158	651	+3.7	1,002	−12.8	20,338	+2.6
South Dakota	1,858	413	−14.1	75	338	1,433	−21.1	906	+30.5	45,538	+44.1
Nebraska	2,484	706	−31.3	173	533	1,778	−35.9	2,179	+7.4	32,609	+8.0
Kansas	1,483	792	−29.4	173	619	683	−17.8	1,950	+11.1	46,576	−3.8
South Atlantic	20,539	7,744	−39.2	2,689	5,055	11,908	−25.1	21,615	−7.9	339,605	+1.5
Delaware	439	294	−57.5	87	207	144	+23.1	485	−10.4	7,389	+7.2
Maryland	1,655	689	−38.3	334	355	966	−18.5	3,175	+32.7	28,224	−3.0
District of Columbia	762	620	−14.6	229	391	142	−11.8	1,331	+8.7	19,623	+11.1
Virginia	3,256	1,009	−33.1	347	662	2,242	−5.8	2,340	−10.1	33,603	−.5
West Virginia	2,269	620	−39.6	238	382	804	−52.7	1,860	−22.6	55,773	−1.4
North Carolina	3,723	1,867	−38.3	628	1,239	1,856	−42.5	5,436	+11.0	50,751	+5.6
South Carolina	2,252	908	−56.9	237	671	1,336	−20.2	1,654	−12.8	34,761	−7.3
Georgia	5,213	1,737	−31.3	589	1,148	3,474	−16.6	4,524	−31.3	64,341	−2.9
Florida	970	0	-------	0	0	944	−26.3	810	−12.6	45,140	+3.1
East South Central	9,752	2,963	−34.9	1,409	1,554	6,706	−30.5	12,432	−20.2	266,417	−3.0
Kentucky	2,135	641	−22.7	271	370	1,468	−34.7	2,004	−16.2	82,546	−7.6
Tennessee	2,233	744	−25.1	381	363	1,489	−25.9	2,789	−8.0	86,855	+.1
Alabama	2,186	1,529	−40.5	732	797	643	−32.9	4,797	−10.3	53,311	+7.5
Mississippi	3,198	49	−69.2	25	24	3,106	−29.9	2,842	−41.0	43,705	−10.8
West South Central	32,316	26,341	−4.2	3,031	23,310	5,932	−13.5	19,491	−2.5	281,342	+.3
Arkansas	2,206	1,929	+5.2	175	1,754	270	−49.8	1,030	+14.1	34,522	−1.0
Louisiana	2,385	1,820	−14.6	1,324	496	563	−28.6	3,347	−.5	46,397	−.9
Oklahoma	2,942	1,731	+4.2	60	1,671	1,208	−3.5	2,659	+35.2	73,987	+5.9
Texas	24,783	20,861	−4.6	1,472	19,389	3,891	−9.1	12,455	−9.5	126,436	−1.9
Mountain	11,069	5,415	−49.5	2,843	2,572	5,478	−29.7	9,640	+9.7	120,503	+8.5
Montana	2,635	1,460	+23.5	950	510	1,175	−35.4	753	−16.1	16,862	−8.2
Idaho	884	527	−66.1	177	350	348	−55.8	1,204	+29.0	12,070	+20.2
Wyoming	739	189	−60.7	63	126	405	−45.3	411	−22.7	3,896	+39.9
Colorado	2,686	1,069	−62.5	334	735	1,608	−13.3	3,488	+19.2	40,882	+19.7
New Mexico	1,321	661	−57.6	484	177	656	−26.7	933	+3.0	18,662	−18.5
Arizona	1,405	770	−12.9	448	282	627	−11.2	1,539	+14.4	12,778	+3.0
Utah	949	550	−70.8	219	311	418	−42.7	921	+30.5	12,445	+55.4
Nevada	450	209	−45.9	128	81	241	−6.6	391	−28.0	2,908	+20.5
Pacific	17,980	11,985	−40.1	6,085	5,900	5,740	−26.2	28,954	+20.9	229,236	+5.0
Washington	2,412	841	−49.9	339	502	1,554	−26.2	4,851	+53.4	50,157	+19.2
Oregon	1,877	747	−53.2	160	587	897	−30.5	3,772	+25.9	34,726	+15.6
California	13,691	10,397	−37.9	5,586	4,811	3,289	−25.0	20,331	+14.3	144,353	−1.3

[1] Includes 2,750 security-wage placements on work-relief projects.

TABLE 3.—*Operations of United States Employment Service, November 1937*—Contd.

WOMEN

Division and State	Placements					New applications		Active file	
	Total [1]	Private				Number	Percent of change from October	November 30	Percent of change from October 31
		Total	Percent of change from October	Regular (over 1 month)	Temporary (1 month or less)				
United States	67,494	66,204	−14.2	31,315	34,889	97,529	+4.4	1,004,074	−0.2
New England	2,591	2,539	−20.6	1,444	1,095	7,415	+27.2	97,182	−.8
Maine	60	60	−32.6	46	14	454	+97.4	2,518	+24.0
New Hampshire	256	251	−3.8	189	62	575	+28.9	4,239	+10.7
Vermont	176	176	−29.9	102	74	309	+28.8	1,518	+8.0
Massachusetts	674	668	−23.4	354	314	2,882	+24.8	65,223	−3.9
Rhode Island	310	302	−33.2	159	143	1,209	+37.5	10,660	−2.2
Connecticut	1,115	1,082	−15.0	594	488	1,986	+15.2	13,024	+9.5
Middle Atlantic	11,344	10,954	−25.1	4,971	5,983	18,276	−7.1	225,872	−2.2
New York	6,490	6,235	−28.6	2,661	3,574	8,140	−18.5	58,551	−6.1
New Jersey	2,303	2,301	−13.3	980	1,321	3,469	+5.5	33,808	−1.7
Pennsylvania	2,551	2,418	−25.1	1,330	1,088	6,667	+4.1	133,513	−.5
East North Central	17,104	16,963	−13.6	8,267	8,696	23,049	+.0	188,381	+3.7
Ohio	4,410	4,364	−17.1	2,067	2,297	4,604	−4.3	52,785	−.4
Indiana	1,874	1,857	−12.5	1,303	554	3,527	−6.0	20,743	+10.2
Illinois	7,071	7,017	−9.3	2,964	4,053	7,534	+1.2	63,036	+5.5
Michigan	1,745	1,736	−13.7	734	1,002	2,546	−15.1	23,584	−4.6
Wisconsin	2,004	1,989	−20.2	1,199	790	4,838	+20.0	28,233	+11.2
West North Central	7,003	6,902	−6.7	3,646	3,256	9,649	+3.2	96,017	−.8
Minnesota	2,014	1,992	−15.7	1,117	875	2,690	+33.1	24,058	+.1
Iowa	1,632	1,607	−11.8	837	770	1,523	−12.2	11,415	+4.3
Missouri	1,296	1,296	−10.7	785	511	2,455	−18.2	29,170	−4.3
North Dakota	828	818	+65.9	285	533	770	+52.8	5,553	+1.3
South Dakota	259	230	+.9	91	139	421	−6.9	7,618	+9.7
Nebraska	547	539	−5.8	319	220	929	+3.2	7,597	+5.8
Kansas	427	420	−10.3	212	208	906	+16.3	10,606	−9.8
South Atlantic	6,812	6,689	−21.4	3,781	2,908	10,570	+23.4	128,566	+2.0
Delaware	495	493	−38.5	114	379	330	+29.4	2,863	+4.3
Maryland	463	449	−19.7	256	193	1,311	+33.5	7,641	+3.1
District of Columbia	1,234	1,215	−11.7	567	648	1,150	−5.5	10,336	+18.9
Virginia	821	810	−6.9	481	329	1,790	+34.2	15,627	+4.5
West Virginia	809	803	−13.5	464	339	961	+11.1	12,191	−.4
North Carolina	1,595	1,565	−35.1	961	604	2,482	+33.0	23,932	−1.4
South Carolina	474	464	−29.5	253	211	509	+16.7	13,699	+2.9
Georgia	904	890	−1.8	685	205	1,657	+46.6	25,279	−3.0
Florida	17	0	.....	0	0	380	−20.7	16,998	+3.6
East South Central	2,157	2,109	−23.2	1,404	705	4,474	+10.3	79,610	−5.6
Kentucky	609	584	−30.0	349	235	1,346	−4.8	20,860	−8.0
Tennessee	942	941	−11.0	694	247	1,549	+26.1	24,513	+3.1
Alabama	573	554	−32.8	342	212	1,198	+19.9	16,552	−.4
Mississippi	33	30	+3.4	19	11	381	−8.4	17,685	−17.0
West South Central	11,911	11,825	+3.8	3,073	8,752	9,267	−1.0	88,169	+.1
Arkansas	684	676	−14.0	315	361	571	+8.6	8,398	+2.4
Louisiana	1,276	1,271	+40.1	981	290	1,837	+32.1	12,883	−.4
Oklahoma	1,198	1,164	+7.6	283	881	979	+0.7	17,356	+.5
Texas	8,753	8,714	+1.1	1,494	7,220	5,880	−9.1	49,532	−.3
Mountain	2,644	2,600	−8.0	1,467	1,133	3,451	+1.3	28,755	+3.1
Montana	142	132	−7.7	93	39	267	+7.2	3,964	−7.4
Idaho	342	337	−4.5	209	128	307	−7.8	1,840	+6.5
Wyoming	181	178	−3.8	95	83	196	+15.3	1,090	+16.5
Colorado	797	783	−7.2	435	348	1,358	+4.1	11,579	+3.2
New Mexico	229	225	−25.5	168	57	316	.0	4,104	−10.3
Arizona	475	472	−16.3	205	267	393	−11.5	2,778	.0
Utah	384	381	+22.1	209	172	481	+31.4	2,748	+56.7
Nevada	94	92	−25.8	53	39	133	−40.4	652	+8.1
Pacific	5,928	5,623	−18.2	3,262	2,361	11,333	+12.2	71,522	−1.8
Washington	511	499	−38.8	266	233	1,342	+27.2	9,032	+4.9
Oregon	368	358	−19.4	267	91	832	+1.3	7,095	+2.4
California	5,049	4,766	−15.1	2,729	2,037	9,159	+11.3	54,585	−3.4

[1] Includes 1,130 public placements and 160 security-wage placements on work-relief projects.

TABLE 4.—*Operations of United States Employment Service, November 1937*

VETERANS

Division and State	Placements							New applications		Active file	
		Private				Public					
	Total [1]	Total	Percent of change from October	Regular (over 1 month)	Temporary (1 month or less)	Number	Percent of change from October	Number	Percent of change from October	Nov. 30	Percent of change from Oct. 31
United States	12,464	7,171	−27.6	2,119	5,052	4,941	−26.0	11,164	+17.8	244,114	+2.8
New England	421	192	−28.9	92	100	194	−38.8	1,172	+41.2	24,589	+3.8
Maine	32	7	+16.7	6	1	25	−75.5	78	+95.0	1,293	+16.8
New Hampshire	62	40	+66.7	26	14	22	−18.5	71	+115.2	1,120	+9.4
Vermont	28	10	−56.5	0	10	18	0	30	+57.9	338	+30.5
Massachusetts	103	43	−47.6	24	19	60	−26.8	645	+21.7	17,163	+.4
Rhode Island	35	22	0	5	17	12	−25.0	98	+53.1	1,695	+6.9
Connecticut	161	70	−38.1	31	39	57	−20.8	250	+73.6	2,980	+13.2
Middle Atlantic	1,190	579	−40.8	201	378	490	−33.6	1,416	+13.7	52,162	−5.5
New York	643	359	−41.9	91	268	264	−21.0	455	+25.7	12,724	−9.3
New Jersey	119	96	−1.0	53	43	23	+47.7	285	−.7	9,878	−2.9
Pennsylvania	428	124	−52.9	57	67	203	−43.6	676	+13.4	29,560	−4.6
East North Central	2,165	1,403	−35.0	428	975	735	−27.5	2,429	+19.2	51,494	+6.1
Ohio	636	381	−36.9	109	272	252	−28.4	547	+17.6	14,607	+7.1
Indiana	101	83	−54.9	38	45	18	−59.1	334	+4.4	6,452	−.4
Illinois	933	647	−22.8	175	472	285	−17.2	705	+23.5	16,612	+5.7
Michigan	214	154	−44.6	54	100	52	−52.3	361	+28.0	7,067	+2.4
Wisconsin	281	138	−45.7	52	86	128	−22.4	482	+20.5	6,756	+16.6
West North Central	1,871	940	−21.7	250	690	834	−30.1	915	−3.4	30,944	+5.4
Minnesota	404	189	−31.5	74	115	206	−25.4	193	−8.1	7,928	+8.9
Iowa	680	395	−19.4	68	327	199	−38.0	210	+19.3	3,783	+14.6
Missouri	250	128	−18.5	50	78	121	−37.3	251	−14.9	8,805	−6.1
North Dakota	89	46	−23.3	13	33	43	+26.5	41	−4.7	1,234	+4.6
South Dakota	153	37	−7.5	7	30	116	−15.3	22	−8.3	3,086	+42.7
Nebraska	144	48	−15.8	17	31	96	−40.7	98	−6.7	2,460	+7.6
Kansas	151	97	−19.2	21	76	53	−24.3	100	+6.4	3,648	−3.0
South Atlantic	1,240	582	−31.9	179	403	622	−29.9	918	+19.1	21,836	+3.4
Delaware	26	18	−52.6	4	14	8	−27.3	10	−16.7	501	+24.3
Maryland	145	68	−25.3	31	37	77	−13.5	156	+54.5	2,166	−6.9
District of Columbia	109	82	−1.2	19	63	27	−34.1	107	+2.9	2,245	+12.5
Virginia	176	84	−22.9	34	50	91	−38.1	104	+3.0	1,762	+3.4
West Virginia	181	53	−33.8	21	32	96	−45.5	103	+53.7	3,288	+3.2
North Carolina	169	90	−45.1	34	56	79	−46.3	210	+43.8	2,659	+10.3
South Carolina	119	60	−43.4	12	48	57	−5.0	59	+11.3	1,810	+7.4
Georgia	263	127	−31.0	24	103	136	−12.8	137	−4.9	3,145	−.2
Florida	52	0	-------	0	0	51	−15.0	32	−25.6	4,260	+.2
East South Central	644	237	−27.5	91	146	399	−24.1	543	+16.5	14,093	+.2
Kentucky	181	58	−28.4	16	42	120	−44.4	93	−19.8	4,550	−4.1
Tennessee	187	53	−14.5	21	32	134	−3.6	169	+15.0	5,004	+3.1
Alabama	178	122	−32.6	52	70	54	−23.9	196	+64.7	2,903	+6.2
Mississippi	98	4	+33.3	2	2	91	−9.0	85	+1.2	1,636	−5.3
West South Central	2,060	1,544	+12.4	182	1,362	514	−11.1	883	+30.4	17,276	+9.1
Arkansas	182	151	+14.4	12	139	30	+3.4	80	+23.1	2,201	+13.2
Louisiana	160	118	+6.3	73	45	42	−41.7	161	+29.8	3,414	+6.3
Oklahoma	348	207	+24.7	7	200	141	+64.0	117	+21.9	4,390	+11.0
Texas	1,370	1,068	+10.7	90	978	301	−23.0	525	+33.9	1,271	+8.2
Mountain	878	372	−40.6	159	213	482	−19.9	610	+21.8	8,521	+9.8
Montana	171	70	−20.5	36	34	101	−27.3	52	+20.9	1,035	+.8
Idaho	95	38	−65.8	12	26	49	−25.8	82	+15.5	881	+17.3
Wyoming	64	12	−42.9	4	8	43	−39.4	29	−14.7	302	+38.5
Colorado	193	71	−43.7	26	45	122	−4.7	206	+35.5	2,965	+18.5
New Mexico	69	31	−49.2	21	10	34	−46.0	38	−7.3	1,217	−22.0
Arizona	131	81	−6.9	47	34	48	+6.7	128	+34.7	961	+4.7
Utah	89	35	−62.8	6	29	53	−25.4	50	+42.9	960	+49.8
Nevada	66	34	−10.5	7	27	32	+68.4	25	−16.7	200	+15.6
Pacific	1,995	1,322	−37.4	537	785	671	−18.4	2,278	+13.7	23,199	+6.0
Washington	227	83	−51.7	37	46	142	−16.5	309	+82.8	4,576	+21.8
Oregon	205	82	−55.7	16	66	123	−22.6	338	+49.6	3,839	+18.8
California	1,563	1,157	−34.0	484	673	406	−17.6	1,631	+1.4	14,784	−.8

[1] Includes 352 security-wage placements on work-relief projects.

Trend of Employment and Pay Rolls

SUMMARY OF REPORTS FOR NOVEMBER 1937

ON THE BASIS of reports from approximately 135,000 establishments, it is estimated that nearly 560,000 fewer workers were employed in November than in October in all manufacturing industries combined and in the 16 nonmanufacturing industries surveyed monthly by the Bureau of Labor Statistics. Weekly wage disbursements were $25,500,000 smaller.

A comparison with November 1936 showed that employment in these combined industries was at approximately the same level, the estimated totals indicating a gain over the year interval of 3,000 workers. Weekly wage disbursements in these industries were estimated to be $11,400,000 greater in November 1937 than in the same month a year ago.

According to a preliminary tabulation by the Interstate Commerce Commission, class I railroads employed 1,047,960 workers in November, exclusive of executives, officials, and staff assistants. This represented a decrease of 55,273 since October.

Employment in the judicial and military services of the Federal Government was greater in November than in the preceding month, while employment in the legislative service remained virtually the same, and a decrease occurred in the executive service. Employment reports on programs financed in whole or in part from Federal funds showed a small increase on projects financed by the Reconstruction Finance Corporation and fewer employees working on projects financed by the Public Works Administration, on projects financed from regular Federal appropriations, and on Federal projects under The Works Program. The number of workers employed on projects operated by the Works Progress Administration and on work projects of the National Youth Administration and Student Aid increased. There was a decrease in the number of workers in the Civilian Conservation Corps.

Industrial and Business Employment

Employment declines from October to November were shown in manufacturing and in 15 of the 16 nonmanufacturing industries surveyed.

In manufacturing the employment decrease was 5.8 percent, or

479,000 wage earners. This was coupled with a reduction of 10.6 percent ($21,540,000) in weekly factory wage disbursements. Employment and pay-roll recessions in manufacturing industries have been shown in November in 14 of the preceding 18 years for which data are available, but they were less marked than those in November 1937 with but one exception (November 1920), when the employment decrease over the month interval was 6.0 percent.

The factory employment index for November (94.7) was 2.3 percent below the November 1936 figure, indicating 182,000 fewer wage earners in manufacturing establishments. The November 1937 pay-roll index (89.5) was 1.3 percent lower than the level of a year ago, indicating a reduction of $2,360,000 in weekly factory wages.

Of the 89 manufacturing industries covered, 6 reported increased employment over the month interval and 7 reported larger pay rolls. Employment in aluminum manufactures showed an employment increase of 18.0 percent, largely because of the resumption of operations following the settlement of labor disputes.

The most pronounced losses in employment in the manufacturing industries were of a seasonal nature. In many instances, however, the usual seasonal curtailments were accentuated by a slackening of business activity. Among the industries in which seasonal recessions were factors contributing to the sharply reduced forces in November were canning and preserving (36.1 percent), radios and phonographs (21.9 percent), millinery (15.8 percent), stoves (15.9 percent), woolen and worsted goods (12.5 percent), men's clothing (12.3 percent), sawmills (9.8 percent), women's clothing (10.3 percent), and boots and shoes (10.9 percent).

Other declines in industries of major importance were blast furnaces, steel works, and rolling mills (7.6 percent), cotton goods (2.9 percent), steam railroad repair shops (2.8 percent), baking (2.3 percent), knit goods (3.8 percent), paper and pulp (3.2 percent), furniture (8.4 percent), silk and rayon goods (10.3 percent), petroleum refining (1.4 percent), glass (3.0 percent), chemicals (4.0 percent), dyeing and finishing (3.0 percent), electrical machinery, apparatus, and supplies (5.2 percent), foundries and machine shops (5.1 percent), and automobiles (0.6 percent).

Employment decreases ranging from 6.1 to 9.8 percent were shown in cast-iron pipe, iron and steel forgings, steam and hot-water heating apparatus, textile machinery and parts, typewriters, brass-bronze-copper, stamped and enameled ware, brick-tile-terra cotta, cotton small wares, leather, fertilizers, rubber boots and shoes, rubber tires, and rubber goods other than shoes and tires.

Converting the above percentages into aggregate figures, the industries in which the largest number of wage earners were released from employment over the month interval and the estimated declines in number of wage earners were canning and preserving (56,200), blast furnaces, steel works, and rolling mills (36,200), sawmills (24,400), men's clothing (23,300), boots and shoes (21,000), foundry and machine-shop products (22,300), women's clothing (20,700), cotton goods (12,400), woolen and worsted goods (15,300), electrical machinery, apparatus, and supplies (13,800), radios and phonographs (12,900), furniture (12,600), silk and rayon goods (9,800), knit goods (8,100), steam-railroad repair shops (7,600), stoves (8,100), baking (5,200), paper and pulp (4,500), automobiles (2,800), brass-bronze-copper (4,900), brick-tile-terra cotta (4,600), and stamped and enameled ware (3,300).

In most instances, the pay-roll declines in manufacturing industries were more pronounced than the employment decreases, due principally to generally reduced operating schedules and to plant shut-downs in a number of States for the Armistice Day holiday and election day.

Approximately 80,000 fewer workers were employed in November in the combined 16 nonmanufacturing industries surveyed than in the preceding month and weekly pay rolls in these industries were $4,000,000 lower.

Employment in retail trade decreased 0.5 percent between October and November, indicating 17,100 fewer workers employed in November than in the preceding month. This decrease is the first October to November recession in retail-trade employment since 1932, the average November gain over the preceding 5 years being 23,800 workers. The general merchandising group of retail establishments (department, variety, and general merchandising stores, and mail-order houses) expanded their forces as is customary in November, employment rising 1.6 percent over the month interval. Other lines of retail trade in which gains of a seasonal nature were shown included furniture, jewelry, and cigar stores. Employment in retail food stores showed a slight gain (0.1 percent). Substantial declines, seasonal in character, were reported in lumber and building materials (3.5 percent), wearing apparel (4.1 percent), and wood-coal-ice (6.6 percent). Smaller losses were reported in the automotive group and drug stores.

Metalliferous mines reported a sharp decline in employment (9.0 percent) over the month interval, due primarily to poor market conditions and the close of the ore-shipping season on the Great Lakes. Employment in private building construction continued to recede in November, reflecting seasonal curtailment. Reports received from 11,019 contractors showed a decrease of 6.4 percent. The declines of 6.3 percent in dyeing and cleaning and 6.4 percent in quarries and

nonmetallic mines also reflected seasonal recessions. Laundries reduced their working forces 2.2 percent and the remaining nonmanufacturing industries which reported fewer employees (anthracite and bituminous-coal mining, crude-petroleum producing, telephone and telegraph, electric light and power, electric-railroad and motorbus operation and maintenance, wholesale trade, hotels, and insurance) showed decreases ranging from one-tenth of 1 percent to 1.3 percent. Brokerage firms reported 0.8 percent more employees on their pay rolls in November than in the preceding month.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, November 1937 (Preliminary Figures)*

Industry	Employment			Pay rolls			Average weekly earnings		
	Index, November 1937	Percentage change from—		Index, November 1937	Percentage change from—		Average in November 1937	Percentage change from—	
		October 1937	November 1936		October 1937	November 1936		October 1937	November 1936
All manufacturing industries combined [1]	(*1923–25 = 100*) 94.7	−5.8	−2.3	(*1923–25 = 100*) 89.5	−10.6	−1.3	$23.92	−5.1	+1.0
Class I steam railroads [2]	59.4	−5.0	−2.8	(3)	(3)	(3)	(3)	(3)	(3)
Coal mining:	(*1929 = 100*)			(*1929 = 100*)					
Anthracite	50.5	−.9	−1.9	45.1	−11.6	+12.1	26.00	−10.8	+14.3
Bituminous	82.1	−1.0	−.3	77.8	−9.5	−3.5	24.00	−8.6	−3.2
Metalliferous mining	75.4	−9.0	+19.9	71.6	−12.4	+31.1	30.05	−3.7	+9.3
Quarrying and nonmetallic mining	49.9	−6.4	−5.3	41.7	−15.4	−4.0	21.48	−9.6	+1.4
Crude-petroleum producing	77.2	−.3	+5.5	70.2	+.5	+16.9	34.12	+.8	+10.8
Public utilities:									
Telephone and telegraph	79.1	−1.0	+7.3	91.1	−3.4	+11.7	30.57	−2.4	+4.1
Electric light and power and manufactured gas	97.3	−1.3	+4.0	103.8	−1.4	+13.1	34.44	−.1	+8.7
Electric-railroad and motorbus operation and maintenance	73.2	−.3	+.2	71.9	+.8	+3.2	32.21	+1.0	+3.0
Trade:									
Wholesale	93.5	−.5	+4.2	78.3	−1.3	+7.2	30.27	−.8	+2.8
Retail	91.7	−.5	+1.8	75.3	−.8	+7.4	21.65	−.3	+5.8
General merchandising	109.8	+1.6	+.5	97.1	+.9	+6.2	18.37	−.6	+5.8
Other than general merchandising	86.9	−1.2	+2.1	70.8	−1.3	+7.7	24.55	−.2	+5.4
Hotels (year-round) [4]	88.9	−.3	+5.1	77.9	+.2	+11.9	15.25	+.5	+6.4
Laundries	88.0	−2.2	+1.2	79.2	−2.8	+6.3	16.90	−.7	+5.1
Dyeing and cleaning	80.0	−6.3	−1.6	62.9	−11.9	+4.5	19.55	−6.0	+6.2
Brokerage	(3)	+.8	−4.6	(3)	+1.1	−2.0	38.60	+.4	+2.8
Insurance	(3)	−.1	+1.7	(3)	+1.8	+5.4	39.15	+1.8	+3.6
Building construction	(3)	−6.4	−4.3	(3)	−8.1	+4.8	30.52	−1.8	+9.6

[1] Revised indexes; adjusted to 1933 Census of Manufactures.
[2] Preliminary; source—Interstate Commerce Commission.
[3] Not available.
[4] Cash payments only; the additional value of board, room, and tips cannot be computed.

Class I railroads employed 55,273 fewer workers (exclusive of executives, officials, and staff assistants), according to a preliminary report of the Interstate Commerce Commission. This report showed 1,047,960 such workers on pay rolls in November. Pay-roll figures for November were not available when this report was prepared.

For October, the wage disbursements were $168,938,278 and for September, $163,645,431, a gain over the month interval of $4,292,847, or 3.2 percent.

Hours and earnings.—Factory wage earners worked 35.4 hours per week in November, according to reports covering full- and part-time workers. This figure was 5.7 percent lower than the October average. Average hourly earnings, however, advanced 0.3 percent to 66.7 cents, while average weekly earnings dropped 5.1 percent to $23.92. Comparisons with November 1936 show a decrease of 12.7 percent over the year interval in average hours worked per week, a gain of 15.2 percent in average hourly earnings and a gain of 1.0 percent in average weekly earnings.

Only 1 of the 14 nonmanufacturing industries for which man-hour data are available (electric-railroad and motorbus operation and maintenance) showed a gain (0.2 percent) in average hours worked per week. Increases in average hourly earnings were shown for 8 of these industries. Average weekly earnings were larger for 5 of the 16 nonmanufacturing industries covered.

A summary of employment and pay-roll indexes and average weekly earnings in November 1937 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, is presented in table 1.

Public Employment

In November employment on construction projects financed from Public Works Administration funds totaled 121,000, a decrease of 28,000, or 19.0 percent, compared with October. Decreases occurred in the number of workers employed on Federal and non-Federal projects financed from funds provided by the National Industrial Recovery Act and on projects financed from funds provided by the Emergency Relief Appropriation Acts of 1935 and 1936. Projects financed by the Public Works Extension Act of 1937 are just getting under way, and this is the first month for which data were available. Pay-roll disbursements for the month amounted to more than $10,959,000 on all P. W. A. projects.

Employment on construction projects financed from regular Federal appropriations was lower in November than in the preceding month. Compared with October there was a decrease of 7,000 in the number employed. Decreases in employment were reported for the following types of projects: Public roads, reclamation, locks and dams, and streets and roads. There was virtually no change in the number of workers employed on naval vessel construction. All other types of projects registered gains in employment. Pay-roll disbursements totaling $20,304,000 were $607,000 less than in October.

There was a small increase in the number of workers on projects financed by the Reconstruction Finance Corporation. More than 4,000 workers were employed. The gain in employment on water and sewerage projects more than offset decreases in the number of workers employed on building construction and miscellaneous projects. Pay rolls for the month on all types of projects exceeded $602,000.

The number of wage earners on projects financed by The Works Program in November was 2,134,000, an increase in the employment level of 54,000 compared with October. Of the total number employed in November, 185,000 were working on Federal projects under The Works Program, 1,567,000 on projects operated by the Works Progress Administration, and 382,000 on work projects of the National Youth Administration and Student Aid. Pay-roll disbursements totaling $97,549,000 were $895,000 more than in October.

In the regular services of the Federal Government increases in employment were reported in the judicial and military services. Employment in the legislative service was virtually the same and a decrease occurred in the executive service. Of the 820,000 employees in the executive service in November, 112,000 were working in the District of Columbia and 708,000 outside the District. Approximately 83.5 percent of the total number of employees in the executive service were paid from regular appropriations and 16.5 percent from emergency funds. Among the departments reporting pronounced decreases in employment were the Department of Agriculture, the Post Office Department, the Department of Labor, and the Public Works Administration. Increases occurred in the Treasury Department and Department of the Interior.

Decreases in the number of workers employed occurred in all groups of workers in the Civilian Conservation Corps. During November 351,000 workers were employed, a decrease of 13,000 compared with the preceding month. There were 302,000 enrollees, 6,000 reserve officers, 300 nurses, 2,000 educational advisers, and 41,000 supervisory and technical workers. Pay-roll disbursements for all workers totaled $16,335,000.

A total of 193,000 workers were employed on road projects financed wholly from State funds. This was an increase of 5,000 over the number employed in October. Employment increased on new road construction projects and on maintenance projects. Of the total number employed 84.7 percent were engaged in maintenance work and 15.3 percent on new construction. For both types of work pay rolls totaled $12,777,000.

A summary of Federal employment and pay-roll statistics for October and November is given in table 2.

TABLE 2.—*Summary of Federal Employment and Pay Rolls, November 1937*[1] *(Preliminary Figures)*

Class	Employment		Percentage change	Pay rolls		Percentage change
	November	October		November	October	
Federal services:						
Executive[2]	[a] 819,927	[3] 827,727	−0.9	$119,163,057	[3] $122,986,050	−3.1
Judicial	1,999	1,975	+1.2	547,685	501,589	+9.2
Legislative	5,345	5,347	[4]	1,219,978	1,229,405	−.8
Military	323,403	322,763	+.2	24,659,262	25,207,388	−2.2
Construction projects:						
Financed by P. W. A.[5]	121,102	149,564	−19.0	10,959,110	12,903,311	−15.1
Financed by R. F. C.[6]	4,421	4,261	+3.8	602,221	558,419	+7.8
Financed by regular Federal appropriations	211,004	218,347	−3.4	20,303,903	20,911,266	−2.9
Federal projects under The Works Program	184,654	192,631	−4.1	10,857,382	11,452,256	−5.2
Projects operated by W. P. A.	1,566,697	1,527,604	+2.6	82,714,339	81,486,784	+1.5
National Youth Administration:						
Work projects	125,922	[3] 122,827	+2.5	2,225,961	[3] 2,165,339	+2.8
Student Aid	256,636	[3] 237,307	+8.1	1,751,568	[3] 1,549,634	+13.0
Civilian Conservation Corps	350,714	363,256	−3.5	16,335,299	15,622,911	+4.6

[a] Of this decrease in November of 7,800 workers, 1,300 employees were transferred from pay rolls of the United States Employment Service to State pay rolls.

[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 112,827 employees and pay-roll disbursements of $13,706,788 for November and 114,846 employes and pay-roll disbursements of $14,019,780 for October.

[3] Revised.

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

[5] 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 80,541 wage earners and $6,814,004 pay roll for November; 101,864 wage earners and $8,252,933 pay roll for October; covering P. W. A. projects financed from E. R. A. A. 1935, 1936, and 1937 funds.

[6] Includes 167 employees and pay-roll disbursements of $11,824 for November and 78 employees and pay-roll disbursements of $6,206 for October on projects financed by the RFC Mortgage Co.

DETAILED REPORTS FOR INDUSTRIAL AND BUSINESS EMPLOYMENT, OCTOBER 1937

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 October, insofar as industrial and business employment is concerned, are reproduced in this section of the Monthly Labor Review.

Figures on employment and pay rolls in industrial and business industries 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 August, September, and October 1937 are presented in table 1. The August and September 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, October, September, and August 1937*

MANUFACTURING

[Indexes are based on 3-year average 1923–25=100 and are adjusted to 1933 Census of Manufactures]

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	Oct. 1937	Sept. 1937	Aug. 1937	Oct. 1937	Sept. 1937	Aug. 1937	Oct. 1937	Sept. 1937	Aug. 1937	Oct. 1937	Sept. 1937	Aug. 1937	Oct. 1937	Sept. 1937	Aug. 1937
All manufacturing industries	**100.5**	**102.1**	**102.3**	**100.1**	**100.1**	**103.8**	**$25.39**	**$24.92**	**$25.87**	**37.6**	**37.4**	**38.7**	***Cents*** **66.6**	***Cents*** **65.8**	***Cents*** **65.7**
Durable goods	**97.6**	**97.3**	**98.1**	**101.7**	**99.4**	**104.0**	**28.83**	**28.18**	**29.31**	**39.1**	**38.6**	**40.1**	**73.0**	**72.4**	**72.2**
Nondurable goods	**103.6**	**107.3**	**106.9**	**98.2**	**100.9**	**103.5**	**21.37**	**21.30**	**22.03**	**35.9**	**36.1**	**37.2**	**59.6**	**59.0**	**58.9**
Durable goods															
Iron and steel and their products, not including machinery	**105.8**	**108.8**	**108.7**	**106.8**	**112.8**	**120.4**	**28.50**	**29.37**	**31.52**	**37.0**	**37.8**	**40 0**	**76.8**	**76.8**	**77.5**
Blast furnaces, steel works, and rolling mills	117.5	121.4	121.4	118.9	129.7	142.3	29.96	31.65	34.74	35.7	37.5	40.5	83.7	84.2	85.7
Bolts, nuts, washers, and rivets	84.8	87.5	86.7	96.9	96.9	100.7	25.94	25.21	26.48	38.2	37.6	39.6	68.0	67.3	67.3
Cast-iron pipe	62.1	64.9	67.6	46.3	48.9	53.5	19.98	20.15	21.28	34.4	35.1	37.2	57.7	56.7	56.9
Cutlery (not including silver and plated cutlery) and edge tools	89.8	89.9	89.1	85.9	86.7	85.1	24.06	24.32	24.09	40.4	40.7	40.9	60.6	61.0	60.1
Forgings, iron and steel	71.6	73.0	71.8	67.6	69.6	67.1	28.86	29.23	28.61	39.5	39.7	39.8	73.3	73.9	72.2
Hardware	94.4	92.6	89.8	114.5	101.4	103.8	27.26	24.58	26.02	39.3	36.5	38.6	69.3	67.2	67.5
Plumbers' supplies	93.6	94.5	93.6	76.2	72.7	76.6	25.83	24.57	25.84	39.0	37.2	39.7	66.4	65.9	65.1
Steam and hot-water heating apparatus and steam fittings	73.5	77.4	76.4	66.6	72.2	71.7	26.24	26.97	27.11	37.7	38.7	39.1	69.4	69.7	69.0
Stoves	108.3	113.4	112.6	94.2	97.8	96.9	25.59	25.37	25.28	39.3	38.9	39.3	65.4	65.3	64.7
Structural and ornamental metalwork	79.1	82.3	81.4	81.6	83.9	84.7	29.04	28.69	29.20	40.9	40.7	41.5	71.2	70.6	70.5
Tin cans and other tinware	100.8	114.0	117.9	107.5	122.6	128.8	23.85	23.97	24.30	38.6	39.7	41.1	62.0	60.8	59.2
Tools (not including edge tools, machine tools, files, and saws)	97.0	98.4	100.4	100.7	103.6	106.7	24.20	24.54	24.81	39.0	39.7	40.2	61.9	61.6	61.6
Wirework	187.2	170.3	171.3	202.3	166.8	160.7	26.79	24.47	23.46	37.9	35.6	34.4	70.8	68.7	68.3
Machinery, not including transportation equipment	**128.9**	**130.7**	**130.2**	**134.2**	**134.3**	**137.1**	**28.86**	**28.47**	**28.97**	**39.9**	**39.7**	**40.8**	**72.0**	**71.6**	**71.0**
Agricultural implements	150.5	147.2	141.0	203.5	189.2	184.2	30.14	28.78	29.06	40.6	38.8	40.1	74.5	74.4	73.1
Cash registers, adding machines, and calculating machines	136.3	136.5	135.0	148.4	146.5	140.0	33.61	33.20	32.06	41.1	40.9	40.3	82.5	81.9	80.2
Electrical machinery, apparatus, and supplies	119.3	121.3	121.0	124.8	124.1	126.8	28.65	28.05	28.72	39.0	38.4	39.5	73.6	73.1	72.7
Engines, turbines, tractors, and water wheels	152.5	153.6	151.1	159.4	158.8	155.5	32.36	32.00	32.07	39.4	39.2	39.4	82.5	82.2	81.5
Foundry and machine-shop products	110.4	111.9	112.5	113.5	114.2	118.9	28.69	28.42	29.19	40.6	40.4	42.0	70.6	70.3	69.4
Machine tools	157.7	157.6	154.6	170.3	165.5	160.2	33.31	32.36	31.94	45.1	44.2	44.0	73.9	73.3	72.7

Radios and phonographs	200.5	208.3	203.5	165.5	173.9	175.8	21.67	21.94	22.78	35.6	36.9	38.1	61.1	60.0	61.0
Textile machinery and parts	82.8	84.0	85.8	80.9	85.2	88.2	26.26	27.18	27.57	39.3	41.3	41.6	67.2	65.9	66.5
Typewriters and parts	147.9	151.2	152.0	128.4	142.8	143.8	23.17	25.20	25.25	37.0	39.5	39.7	62.6	63.8	63.6
Transportation equipment	**122.7**	**107.0**	**111.8**	**139.9**	**104.4**	**112.8**	**33.37**	**30.57**	**31.71**	**37.7**	**35.0**	**36.0**	**88.6**	**87.4**	**88.5**
Aircraft	784.0	766.8	812.1	723.0	670.4	750.8	28.17	26.71	29.28	40.6	38.5	41.5	69.5	69.3	70.6
Automobiles	133.9	112.5	118.7	138.3	105.6	115.3	34.07	30.93	32.08	37.3	34.2	34.9	91.4	90.4	92.0
Cars, electric- and steam-railroad	67.9	68.5	72.7	82.5	79.7	87.4	29.13	27.89	28.84	38.9	37.4	39.4	74.8	74.7	73.3
Locomotives	64.1	64.4	63.3	56.0	55.0	52.6	34.08	33.28	32.25	44.0	43.7	43.6	77.4	76.1	74.0
Shipbuilding	106.8	106.2	102.4	124.4	119.0	118.8	31.54	30.34	31.44	37.3	35.8	38.2	83.0	83.2	81.7
Railroad repair shops	**59.0**	**60.4**	**62.1**	**64.9**	**63.1**	**67.3**	**31.58**	**30.05**	**31.13**	**43.2**	**41.0**	**44.3**	**73.4**	**73.4**	**70.5**
Electric railroad	63.3	63.4	63.0	68.0	67.7	68.7	30.46	30.24	30.81	43.7	43.6	44.7	68.0	67.9	67.5
Steam railroad	58.7	60.2	62.0	64.9	62.9	67.4	31.76	30.02	31.17	43.2	40.8	44.3	73.8	73.8	70.7
Nonferrous metals and their products	**112.7**	**114.1**	**112.8**	**109.9**	**110.1**	**109.9**	**26.18**	**25.95**	**26.22**	**39.7**	**39.1**	**39.6**	**65.8**	**66.0**	**65.6**
Aluminum manufactures	104.7	131.0	132.6	115.9	135.7	141.2	27.63	26.05	26.82	40.4	39.5	41.1	68.4	66.0	65.3
Brass, bronze, and copper products	113.1	114.8	116.9	106.7	113.2	116.6	26.76	27.94	28.21	36.7	38.1	38.7	73.0	73.4	73.0
Clocks and watches and time-recording devices	127.5	127.0	123.7	132.7	128.0	121.9	23.62	22.91	22.40	41.1	40.1	39.8	57.5	57.2	56.3
Jewelry	106.4	101.1	95.9	89.4	81.7	74.1	25.80	24.73	23.28	43.2	40.7	39.8	59.2	60.0	57.8
Lighting equipment	100.1	97.2	90.8	104.3	98.5	86.8	26.18	25.50	24.15	39.9	39.1	37.3	65.7	65.4	64.9
Silverware and plated ware	80.8	79.5	76.3	80.4	81.4	72.5	27.10	27.81	26.00	42.4	43.5	40.5	64.3	64.7	64.7
Smelting and refining—copper, lead, and zinc	92.1	93.0	92.1	90.7	88.6	92.4	29.10	28.01	29.56	41.7	40.2	42.3	69.8	69.7	69.8
Stamped and enameled ware	154.0	153.2	153.4	156.9	149.2	157.0	23.70	22.69	23.83	39.1	37.3	39.1	60.6	60.9	61.1
Lumber and allied products	**69.5**	**71.8**	**73.0**	**65.3**	**68.2**	**71.4**	**21.23**	**21.41**	**22.08**	**40.3**	**40.3**	**42.0**	**53.3**	**53.8**	**53.2**
Furniture	86.8	89.1	89.2	76.8	78.2	79.2	21.11	20.85	21.04	40.4	40.5	41.2	52.4	51.6	51.3
Lumber:															
Millwork	54.3	55.6	57.1	51.7	53.2	56.1	21.90	22.09	22.74	40.2	40.8	42.3	54.5	54.3	53.9
Sawmills	52.7	54.7	55.9	49.4	52.6	56.2	21.13	21.65	22.70	40.2	40.0	42.4	53.6	55.0	54.2
Stone, clay, and glass products	**71.4**	**72.7**	**71.9**	**69.6**	**69.9**	**70.5**	**24.74**	**24.38**	**24.84**	**38.7**	**38.3**	**39.7**	**63.9**	**64.3**	**63.0**
Brick, tile, and terra cotta	50.0	52.3	52.0	44.2	46.4	46.2	21.19	21.64	21.75	39.6	39.4	40.9	53.3	54.9	53.1
Cement	69.2	69.9	69.9	72.2	72.8	77.1	26.34	26.20	27.63	39.1	38.5	41.2	67.3	68.0	67.1
Glass	109.9	111.1	109.6	119.2	118.7	120.3	26.10	25.68	26.35	37.5	36.8	38.7	70.0	70.0	68.5
Marble, granite, slate, and other products	43.4	44.9	44.5	37.8	39.8	39.7	25.37	25.71	26.04	38.7	38.7	39.6	66.2	66.9	65.7
Pottery	78.6	77.0	75.8	72.9	66.8	64.7	24.29	22.71	22.47	39.8	39.4	39.2	62.1	61.6	61.4
Nondurable goods															
Textiles and their products	**96.8**	**101.6**	**102.8**	**88.2**	**87.1**	**92.1**	**16.87**	**16.99**	**17.77**	**32.8**	**33.2**	**34.4**	**52.1**	**51.6**	**51.5**
Fabrics	91.9	94.9	97.3	81.0	85.3	90.0	16.45	16.79	17.41	33.6	34.4	35.3	49.4	49.2	49.1
Carpets and rugs	88.7	99.4	100.8	64.2	84.5	97.6	17.07	20.05	22.80	26.4	30.8	35.4	64.6	65.0	64.5
Cotton goods	93.9	98.4	100.8	85.1	92.5	97.0	14.30	14.84	15.20	33.7	34.9	35.7	42.4	42.4	42.5
Cotton small wares	98.4	97.8	96.4	96.8	95.9	90.8	18.35	18.02	17.50	37.1	37.0	35.8	50.3	49.6	49.7
Dyeing and finishing textiles	112.2	110.5	109.4	94.6	94.9	93.8	20.49	20.86	20.83	35.3	36.3	36.4	57.5	57.1	56.8
Hats, fur-felt	83.0	85.5	88.7	62.0	69.2	87.0	20.20	21.92	26.78	26.7	30.8	36.4	72.4	70.9	76.3
Knit goods	116.3	116.5	116.3	122.8	116.9	119.4	18.33	17.43	17.85	35.6	34.3	35.4	52.3	52.0	51.3
Silk and rayon goods	75.4	79.9	80.2	62.4	68.2	65.7	16.02	16.55	15.89	34.2	35.1	34.1	46.9	46.9	46.0
Woolen and worsted goods	68.4	70.4	78.3	52.8	57.6	68.5	17.73	18.82	20.18	30.3	32.1	34.4	58.6	58.9	58.9

‡‡ footnotes at end of table.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, October, September, and August 1937*—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average earnings [1]		
	Oct. 1937	Sept. 1937	Aug. 1937	Oct. 1937	Sept. 1937	Aug. 1937	Oct. 1937	Sept. 1937	Aug. 1937	Oct. 1937	Sept. 1937	Aug. 1937	Oct. 1937	Sept. 1937	Aug. 1937
Nondurable goods—Continued															
Textiles and their products—Continued.													*Cents*	*Cents*	*Cents*
Wearing apparel	112.1	114.4	113.0	87.0	87.0	92.4	$17.99	$17.53	$18.81	31.3	30.8	32.3	57.4	56.3	56.3
Clothing, men's	103.5	108.7	111.0	80.2	83.9	91.8	18.14	18.12	19.45	29.5	29.8	31.6	62.1	61.7	61.1
Clothing, women's	150.4	152.2	146.2	110.1	106.3	114.7	20.29	18.94	21.47	31.2	30.1	32.3	61.7	58.4	60.1
Corsets and allied garments	89.7	88.9	88.1	87.3	84.2	81.7	16.17	15.62	15.27	33.3	32.6	32.2	47.8	47.5	47.5
Men's furnishings	135.9	127.7	127.6	111.8	95.4	102.4	14.79	13.43	14.03	35.6	31.6	33.0	37.6	38.1	37.8
Millinery	52.0	56.7	52.9	35.5	49.0	40.3	20.30	25.05	22.12						
Shirts and collars	120.7	119.2	116.0	112.5	103.0	102.8	13.97	12.88	12.77	34.7	32.8	33.8	40.8	40.4	38.9
Leather and its manufactures	**89.5**	**92.7**	**96.6**	**66.3**	**71.6**	**83.7**	**17.14**	**17.94**	**20.29**	**31.8**	**32.9**	**37.8**	**54.2**	**55.0**	**54.1**
Boots and shoes	90.7	94.0	98.6	58.7	64.5	78.7	15.50	16.49	19.24	30.4	31.7	37.6	51.9	53.0	51.9
Leather	89.6	92.5	93.9	95.0	98.6	103.8	23.60	23.70	24.64	37.5	37.7	38.9	63.3	63.0	62.8
Food and kindred products	**125.0**	**137.8**	**132.5**	**125.0**	**133.2**	**131.2**	**23.77**	**23.03**	**23.80**	**40.9**	**40.5**	**41.0**	**58.8**	**57.0**	**58.0**
Baking	138.4	136.7	135.3	137.3	136.1	132.4	25.84	25.90	25.37	43.0	42.8	42.3	60.6	60.8	60.4
Beverages	202.7	223.3	230.7	222.4	253.0	273.4	32.36	33.27	34.95	39.2	40.2	42.1	83.5	83.2	83.4
Butter	86.4	91.6	94.3	70.3	73.8	77.8	22.71	22.35	22.99						
Canning and preserving	185.9	311.5	278.0	187.7	307.1	293.9	16.24	15.75	16.90	36.3	36.9	38.5	46.5	44.3	45.5
Confectionery	95.5	85.4	73.3	98.4	89.0	75.2	18.62	18.79	18.55	41.3	40.8	38.6	45.5	46.5	48.3
Flour	76.9	76.8	77.5	80.9	80.7	80.2	27.30	27.15	26.63	45.6	45.3	45.0	59.0	59.2	58.2
Ice cream	68.8	82.2	89.8	63.9	74.0	84.2	28.54	27.83	28.71	46.1	46.3	49.7	60.1	59.7	57.6
Slaughtering and meat packing	89.4	86.8	86.8	100.1	98.0	96.6	28.01	28.35	27.99	40.8	41.1	40.2	68.8	69.1	69.6
Sugar, beet	253.0	91.6	71.3	224.3	100.7	74.6	20.97	26.01	23.89	41.6	44.7	38.1	52.4	59.6	63.5
Sugar refining, cane	68.8	67.2	76.9	64.2	60.1	81.2	25.97	24.96	29.36	38.5	36.2	42.9	66.8	69.0	67.1
Tobacco manufactures	**62.6**	**62.1**	**61.8**	**57.9**	**56.5**	**57.2**	**17.03**	**17.12**	**17.39**	**37.6**	**37.0**	**37.8**	**45.1**	**46.0**	**46.0**
Chewing and smoking tobacco and snuff	56.2	55.8	55.7	68.2	70.0	66.3	18.20	18.81	17.85	35.8	37.2	35.5	51.3	51.0	50.7
Cigars and cigarettes	63.3	62.8	62.5	56.6	54.9	56.1	16.80	16.79	17.30	37.9	37.0	38.1	44.4	45.5	45.5
Paper and printing	**107.9**	**107.7**	**106.3**	**105.1**	**103.7**	**102.6**	**28.26**	**27.89**	**28.03**	**38.7**	**38.4**	**39.1**	**75.6**	**75.1**	**74.1**
Boxes, paper	104.8	102.8	102.6	108.9	103.3	102.8	21.35	20.53	20.57	40.8	39.2	39.3	52.7	52.8	52.8
Paper and pulp	117.3	119.1	119.1	116.7	117.6	123.8	24.90	24.71	26.01	39.5	39.2	41.5	63.1	63.0	62.8
Printing and publishing:															
Book and job	98.8	98.9	96.9	92.6	92.8	89.6	29.71	29.69	29.30	38.3	38.6	38.5	78.5	77.9	77.0
Newspapers and periodicals	107.5	105.9	102.9	107.3	103.8	99.1	37.59	37.03	36.16	37.1	36.9	36.6	97.4	96.5	94.9
Chemicals and allied products, and petroleum refining	**126.5**	**128.6**	**124.9**	**137.5**	**139.0**	**140.7**	**28.32**	**28.19**	**29.33**	**39.2**	**39.0**	**39.4**	**73.4**	**74.0**	**75.1**
Other than petroleum refining	126.7	128.9	124.1	136.1	137.7	137.7	25.99	25.92	26.72	40.3	40.2	40.1	65.4	66.1	67.2
Chemicals	135.2	137.4	137.2	150.6	150.9	156.1	30.84	30.47	31.56	39.6	38.9	40.6	77.9	78.4	77.8

Cottonseed—oil, cake, and meal	127.1	120.7	54.3	118.9	112.4	47.9	13.14	13.14	12.14	54.1	53.2	48.0	24.5	24.9	25.4
Druggists' preparations	114.8	114.1	111.8	128.9	127.3	123.0	24.47	24.29	24.12	39.6	40.8	39.8	58.4	57.8	57.6
Explosives	97.3	97.6	95.8	110.5	106.4	107.1	32.18	30.89	32.10	40.5	38.9	40.1	79.5	79.5	80.1
Fertilizers	80.5	84.6	73.2	83.2	97.2	79.0	17.16	19.16	17.91	38.8	41.1	39.2	44.2	46.7	45.9
Paints and varnishes	131.6	132.4	132.8	134.1	131.6	135.4	28.17	27.53	28.06	40.5	39.6	40.7	69.7	69.6	69.0
Rayon and allied products	387.5	407.1	403.4	374.9	393.6	400.7	23.89	23.88	24.53	37.4	38.4	38.8	63.8	64.6	63.1
Soap	102.8	103.1	101.9	121.1	122.1	117.7	28.55	28.68	27.98	40.0	39.9	39.3	71.9	72.7	71.6
Petroleum refining	125.7	127.2	128.2	142.3	143.1	150.5	34.43	34.16	35.66	35.9	35.5	37.2	96.9	97.4	97.1
Rubber products	**97.7**	**98.0**	**97.9**	**94.3**	**97.4**	**97.0**	**25.83**	**26.64**	**26.53**	**33.8**	**34.5**	**34.7**	**79.0**	**79.1**	**78.6**
Rubber boots and shoes	77.5	78.7	77.1	70.4	75.9	73.2	22.83	24.24	23.85	37.5	40.0	39.7	60.9	60.6	60.1
Rubber goods, other than boots, shoes, tires, and inner tubes	137.3	134.7	135.1	139.5	132.6	134.1	23.61	22.60	22.89	38.8	37.5	38.2	61.4	60.6	60.3
Rubber tires and inner tubes	87.0	88.3	88.4	84.3	90.4	89.8	28.24	29.76	29.55	29.3	30.8	30.9	96.6	97.0	96.3

NONMANUFACTURING

[Indexes are based on 12-month average 1929=100]

Coal mining:															
Anthracite	51.0	48.2	41.2	51.0	31.5	27.2	29.14	18.99	19.25	31.4	20.8	21.7	91.2	90.8	92.1
Bituminous	82.9	80.5	78.8	86.0	77.7	73.8	26.25	24.37	23.58	29.6	27.5	26.6	88.7	89.0	89.4
Metalliferous mining	82.9	84.1	83.4	81.7	82.2	83.0	31.26	31.22	31.62	44.2	43.6	44.5	70.8	71.6	71.1
Quarrying and nonmetallic mining	53.3	54.7	54.9	49.3	50.1	53.2	23.70	22.86	24.06	42.6	42.1	44.3	55.4	53.9	54.1
Crude-petroleum producing	77.5	78.2	79.3	69.9	71.2	70.8	33.64	33.93	33.50	39.9	40.0	39.5	83.3	83.9	83.9
Public utilities:															
Telephone and telegraph	79.9	80.1	79.8	94.3	92.3	92.1	31.44	31.58	30.94	39.9	39.1	39.0	83.5	83.9	82.4
Electric light and power and manufactured gas	98.5	98.6	98.3	105.3	104.0	102.6	34.23	33.96	33.64	40.4	40.2	39.3	85.1	85.2	86.2
Electric-railroad and motorbus operation and maintenance	73.4	73.7	73.4	71.4	71.6	73.1	31.93	31.71	32.71	45.9	46.0	47.1	68.7	68.1	68.5
Trade:															
Wholesale	94.0	93.0	91.8	79.3	78.3	79.0	30.45	30.60	31.31	42.9	42.6	43.4	70.6	71.7	72.3
Retail	92.1	90.7	86.2	75.9	74.4	72.3	21.96	21.87	22.58	43.0	42.7	43.5	56.5	56.2	56.6
General merchandising	103.1	103.7	93.8	96.2	92.4	85.7	18.55	18.62	19.21	39.4	39.1	39.0	51.5	51.6	52.8
Other than general merchandising	87.9	87.3	84.2	71.7	70.7	69.5	24.89	24.64	25.18	44.2	43.9	44.8	58.1	57.6	57.8
Hotels (year-round) [2]	89.2	88.1	86.8	77.7	76.1	74.4	15.11	15.00	14.86	47.1	47.4	47.3	31.7	31.6	31.1
Laundries	89.9	93.7	94.2	81.5	84.4	86.0	16.96	16.84	17.17	42.1	42.5	43.5	40.3	39.7	39.6
Dyeing and cleaning	85.3	86.7	84.9	71.4	72.8	69.0	20.78	20.61	20.23	42.6	43.9	43.2	49.9	47.4	47.3
Brokerage [3]	−2.9	−1.9	−1.3	−3.2	−2.5	−1.6	38.52	38.77	38.85	(4)	(4)	(4)	(4)	(4)	(4)
Insurance [3]	−.1	−.2	+.3	+.3	−2.4	−1.6	38.45	38.59	38.93	(4)	(4)	(4)	(4)	(4)	(4)
Building construction [3]	−3.3	−.7	+2.4	−3.0	−2.2	+5.2	31.22	31.76	32.28	34.3	34.1	34.7	90.8	92.8	93.0

[1] Average weekly earnings are computed from figures furnished by all reporting establishments. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments as all reporting firms do not furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

[2] Cash payments only; the additional value of board, room, and tips cannot be computed.

[3] Indexes of employment and pay rolls not available; percentage changes from preceding month substituted.

[4] Not available.

Indexes of Employment and Pay Rolls, January 1936 to October 1937

Indexes of employment and pay rolls are given in tables 2 and 3 for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for 13 nonmanufacturing industries, including 2 subgroups under retail trade, by months, from January 1936 to October 1937, inclusive. The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to October 1937.

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 October 1937 reports were received from 25,571 manufacturing establishments employing 4,969,493 workers, whose weekly earnings were $126,168,101. 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.

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]

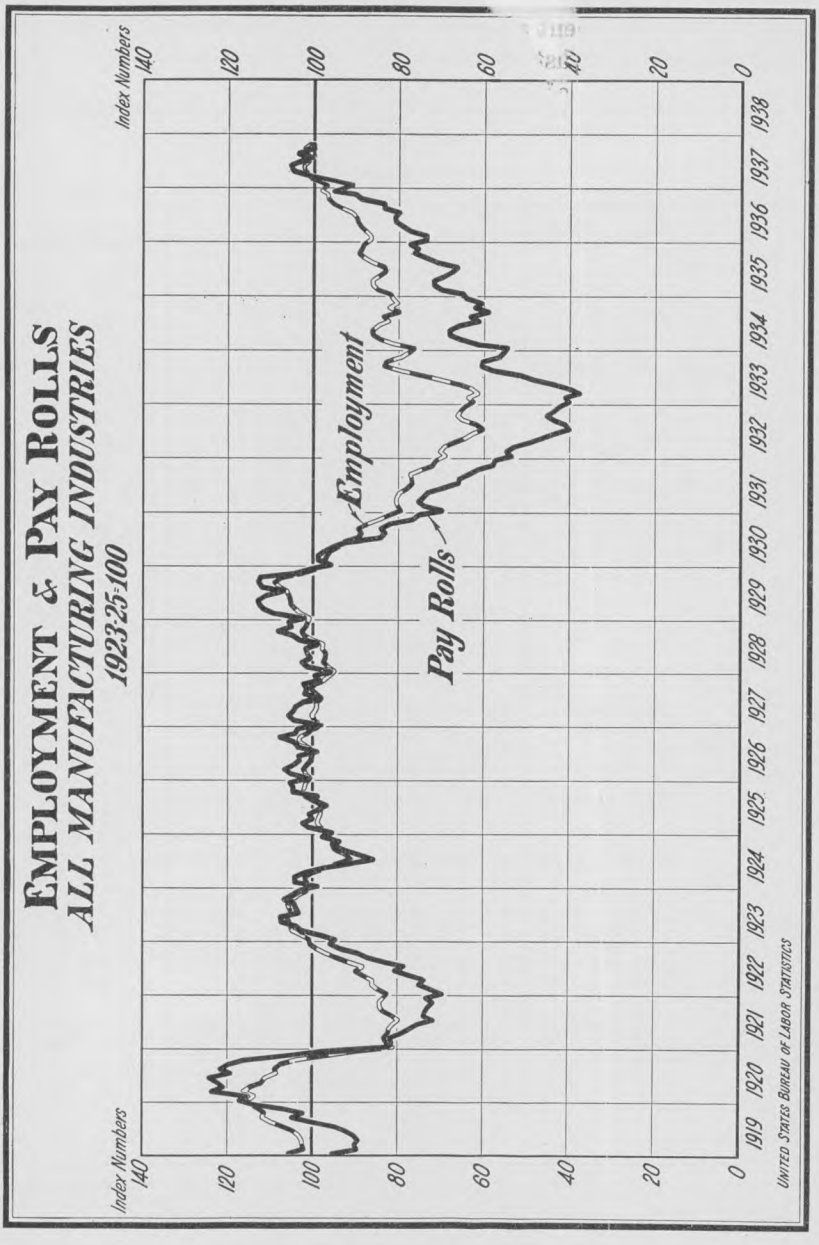
Month	Manufacturing											
	Total				Durable goods [2]				Nondurable goods [3]			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	86.8	96.5	73.8	90.7	78.7	90.4	66.9	86.6	95.4	103.0	82.5	96.0
February	86.9	99.0	73.7	95.8	78.6	93.2	66.6	92.5	95.8	105.2	82.7	99.9
March	87.9	101.1	77.6	101.1	80.2	96.4	71.8	100.0	96.1	106.1	84.9	102.6
April	89.1	102.1	79.3	104.9	82.3	98.6	76.0	106.4	96.3	105.9	83.5	102.9
May	89.8	102.3	80.8	105.2	84.0	99.9	78.5	107.5	96.0	104.8	83.8	102.3
June	90.1	101.1	81.1	102.9	84.7	98.8	79.0	104.6	95.9	103.5	83.9	100.8
July	91.2	101.4	80.2	100.4	84.6	98.9	75.9	100.7	98.2	104.1	85.6	100.0
August	93.5	102.3	83.5	103.8	84.7	98.1	77.0	104.0	102.8	106.9	91.8	103.5
September	95.5	102.1	83.6	100.1	85.7	97.3	77.2	99.4	105.9	107.3	91.6	100.9
October	96.7	100.8	89.0	100.3	89.2	97.5	85.3	101.7	104.7	104.2	93.7	98.6
November	96.9	-------	90.7	-------	91.0	------	88.9	-------	103.3	-------	92.9	------
December	98.1	-------	95.2	-------	92.7	------	93.4	-------	104.0	-------	97.5	------
Average	91.9	-------	82.4	-------	84.7	------	78.0	-------	99.5	-------	87.9	------

[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.

The indexes for 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, including executives. 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.

TABLE 3.—*Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries, January 1936 to October 1937* [1]

[12-month average 1929=100]

Month	Anthracite mining				Bituminous coal				Metalliferous mining				Quarrying and nonmetallic mining			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	59.1	54.1	54.4	42.7	79.8	84.6	70.6	79.9	54.2	66.8	41.7	58.4	39.4	45.7	25.5	34.6
February	61.2	52.7	76.7	41.0	80.2	84.8	78.4	82.4	55.5	69.6	42.8	63.4	36.9	46.7	23.9	37.8
March	52.5	48.9	42.6	37.8	80.4	85.9	70.2	88.4	55.9	73.1	45.1	70.6	42.2	49.1	30.9	41.3
April	49.8	54.0	28.6	63.9	77.5	72.6	62.6	54.4	57.5	76.2	45.5	76.9	48.4	53.1	36.1	48.1
May	54.9	51.0	56.3	44.4	76.2	77.8	62.2	67.8	60.8	78.5	47.7	79.8	52.0	54.9	42.1	51.4
June	51.2	51.1	42.0	50.9	75.7	77.9	61.5	71.2	61.9	79.5	48.2	77.7	53.5	55.4	44.0	52.6
July	48.4	45.0	37.2	35.2	75.5	75.8	62.6	66.4	61.3	82.0	46.1	77.8	54.4	55.5	43.9	50.8
August	41.1	41.2	31.4	27.2	76.9	78.8	65.4	73.8	61.6	83.4	48.2	83.0	55.3	54.9	46.2	53.2
September	47.6	48.2	34.9	31.5	78.2	80.5	71.0	77.7	63.1	84.1	50.0	82.2	54.9	54.7	44.8	50.1
October	49.9	51.0	48.5	51.0	81.1	82.9	79.2	86.0	64.2	82.9	53.7	81.7	54.6	53.3	46.2	49.3
November	51.5	-----	40.3	-----	82.3	-----	80.7	-----	62.9	-----	54.6	-----	52.6	-----	43.5	-----
December	54.8	-----	55.4	-----	83.9	-----	85.0	-----	64.4	-----	57.7	-----	49.4	-----	39.4	-----
Average	51.8	-----	45.7	-----	79.0	-----	70.8	-----	60.3	-----	48.4	-----	49.5	-----	38.9	-----

Month	Crude-petroleum producing				Telephone and telegraph				Electric light and power, and manufactured gas				Electric-rail road and motorbus operation and maintenance [3]			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	71.1	72.7	55.7	61.2	70.1	74.4	75.0	83.6	86.1	92.1	84.8	92.3	70.7	72.5	65.0	68.0
February	70.8	73.5	55.7	64.1	69.9	74.8	76.2	82.2	86.1	92.2	84.7	93.6	71.7	72.5	68.3	68.7
March	70.9	74.2	56.0	63.9	70.2	75.4	77.2	87.2	86.8	92.4	85.9	94.8	71.2	72.6	67.8	69.2
April	71.3	75.8	57.1	67.7	70.8	76.6	76.0	86.3	88.0	93.1	86.2	95.5	71.3	72.9	65.9	69.4
May	72.7	76.7	58.0	68.2	71.6	77.7	78.5	89.5	89.0	94.6	87.0	97.9	71.5	73.3	66.1	70.1
June	73.7	78.5	58.9	70.4	72.1	78.5	77.4	88.6	90.4	96.3	88.1	100.4	71.7	73.3	66.8	71.1
July	75.4	78.5	60.4	70.5	73.1	79.7	79.9	92.1	91.7	97.5	89.8	102.2	72.4	73.4	66.5	70.8
August	75.0	79.3	59.7	70.8	73.5	79.8	81.2	92.1	93.1	98.3	89.8	102.6	72.4	73.4	66.5	73.1
September	74.5	[2]78.2	60.4	71.2	73.7	80.1	78.8	[2]92.3	93.5	[2]98.6	91.4	[2]104.0	72.8	73.7	66.4	71.6
October	73.6	77.5	59.6	69.9	73.8	79.9	83.1	94.3	94.0	98.5	92.7	105.3	73.1	73.4	67.7	71.4
November	73.2	-----	60.1	-----	73.7	-----	81.6	-----	93.5	-----	91.8	-----	73.0	-----	69.7	-----
December	72.4	-----	61.3	-----	73.6	-----	82.4	-----	93.2	-----	93.8	-----	72.5	-----	69.3	-----
Average	72.9	-----	58.6	-----	72.2	-----	78.9	-----	90.5	-----	88.8	-----	72.0	-----	67.2	-----

[1] Comparable indexes for earlier years for all of these industries, except year-round hotels, will be found in the February 1935 and subsequent issues of the Monthly Labor Review. Comparable indexes for year-round hotels will be found in the September 1935 issue of the Monthly Labor Review.

[2] Revised.

[3] Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, table 1.

TABLE 3.—*Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries, January 1936 to October 1937*—Continued

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	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	85.6	90.7	66.6	72.6	80.4	85.4	62.1	68.0	88.2	95.1	76.4	83.8	78.4	82.9	59.1	64.7
February	85.0	92.0	66.6	74.1	79.7	85.2	61.6	67.9	85.1	93.9	73.9	82.9	78.3	82.9	59.1	64.8
March	85.6	92.1	69.0	75.0	81.9	88.5	63.5	70.5	90.9	100.3	77.3	87.6	79.5	85.4	60.7	67.0
April	85.7	91.9	67.9	75.4	85.2	88.8	65.3	71.9	97.4	99.6	81.0	89.1	82.0	86.0	62.1	68.3
May	84.6	90.8	68.2	76.1	85.0	89.9	65.8	73.5	95.5	102.1	80.8	91.5	82.3	86.7	62.7	69.8
June	84.6	90.3	68.4	76.3	85.5	90.5	66.4	74.4	96.4	102.9	81.3	92.5	82.6	87.2	63.3	70.6
July	85.4	90.6	69.0	76.9	83.2	87.6	65.1	72.8	90.7	95.9	77.3	87.3	81.2	85.4	62.6	69.8
August	86.3	91.8	69.7	79.0	82.4	86.2	64.4	72.3	89.4	93.8	76.4	85.7	80.5	84.2	61.9	69.5
September	88.0	93.0	70.5	78.3	86.6	[2]90.7	66.6	[2]74.4	98.5	[2]103.7	82.8	[2]92.4	83.5	[2]87.3	63.3	70.7
October	89.0	94.0	71.5	79.3	88.7	92.1	68.3	75.9	103.9	108.1	87.2	96.2	84.7	87.9	64.4	71.7
November	89.7	-----	73.1	-----	90.1	-----	70.1	-----	109.3	-----	91.4	-----	85.1	-----	65.7	-----
December	91.0	-----	72.8	-----	99.6	-----	75.9	-----	143.4	-----	116.2	-----	88.1	-----	67.6	-----
Average	86.7	-----	69.4	-----	85.7	-----	66.3	-----	99.1	-----	83.5	-----	82.2	-----	62.7	-----

Month	Year-round hotels				Laundries				Dyeing and cleaning			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
January	81.9	85.5	64.9	70.4	81.5	88.5	68.3	76.4	71.5	76.8	51.6	55.6
February	82.8	86.4	66.5	72.5	81.2	88.6	67.8	76.3	70.3	76.2	49.0	54.6
March	82.8	86.9	66.0	72.7	82.1	88.7	69.9	77.5	74.7	81.1	56.4	61.7
April	83.2	88.4	66.3	74.5	83.2	88.5	70.9	78.5	81.8	84.9	64.1	68.8
May	84.1	87.7	67.0	73.6	85.5	90.3	75.6	81.4	87.3	88.6	72.2	73.9
June	83.9	86.9	66.6	74.0	87.2	93.5	75.8	85.5	87.5	92.1	69.2	79.2
July	83.3	86.1	66.0	73.3	90.5	95.2	79.0	86.9	85.5	86.0	64.8	68.0
August	83.2	86.8	66.1	74.4	89.6	94.2	76.7	86.0	83.5	84.9	63.2	69.0
September	84.2	88.1	67.5	76.1	89.6	93.7	76.6	84.4	86.7	86.7	66.1	72.8
October	85.4	89.2	69.6	77.7	87.6	89.9	75.3	81.5	86.5	85.3	66.7	71.4
November	84.6	-----	69.6	-----	87.0	-----	74.5	-----	81.3	-----	60.2	-----
December	84.0	-----	69.8	-----	87.6	-----	76.1	-----	77.7	-----	57.3	-----
Average	83.6	-----	67.2	-----	86.1	-----	73.9	-----	81.2	-----	61.7	-----

[2] Revised.

Trend of Industrial and Business Employment, by States

A comparison of employment and pay rolls, by States and geographic divisions, in September and October 1937, 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 September and October 1937, 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 October 1937	Percentage change from September 1937	Amount of pay roll (1 week) October 1937	Percentage change from September 1937	Number of establishments	Number on pay roll October 1937	Percentage change from September 1937	Amount of pay roll (1 week) October 1937	Percentage change from September 1937
				Dollars					*Dollars*	
New England	**13,390**	**913,233**	**−1.8**	**21,071,759**	**−3.8**	**3,575**	**631,513**	**−2.8**	**13,917,079**	**−6.0**
Maine	798	53,840	−4.4	1,121,213	−4.7	294	42,599	−5.5	845,012	−6.2
New Hampshire	609	37,753	−4.8	736,382	−8.9	205	30,376	−5.8	562,305	−11.3
Vermont	457	17,690	−.6	401,539	+.2	150	10,994	−.3	247,697	+.7
Massachusetts	[1] *8,342*	*498,639*	*−1.8*	*11,503,736*	*−4.6*	*1,760*	*295,644*	*−2.7*	*6,376,532*	*−8.0*
Rhode Island	1,247	90,819	−2.6	2,016,558	−2.4	420	71,266	−4.0	1,498,557	−4.2
Connecticut	1,937	214,492	−.3	5,292,331	−1.9	746	180,634	−1.4	4,386,976	−3.1
Middle Atlantic	**32,670**	**2,324,414**	**−.4**	**62,927,908**	**+1.0**	**5,418**	**1,333,845**	**−.9**	**34,973,447**	**−1.0**
New York	20,500	1,017,684	−.6	28,645,844	−.3	[2] *2,237*	*472,578*	*−1.7*	*12,873,285*	*−2.4*
New Jersey	4,337	364,845	−1.6	9,579,881	+.1	[3] *841*	*275,016*	*+1.4*	*7,165,922*	*+3.8*
Pennsylvania	7,833	941,885	+.3	24,702,183	+2.9	*2,340*	*586,251*	[4] *−1.3*	*14,954,240*	[4] *−2.2*
East North Central	**24,792**	**2,520,949**	**+1.2**	**71,563,350**	**+4.8**	**8,374**	**1,923,919**	**+1.1**	**55,748,827**	**+5.1**
Ohio	8,242	674,606	−.2	18,489,386	+.3	2,579	501,090	−.8	14,049,929	−.5
Indiana	*2,607*	*306,018*	*−1.7*	*8,199,972*	*−.1*	*951*	*250,799*	*−2.6*	*6,899,137*	*−.6*
Illinois	[5] *6,343*	*665,212*	*−1.8*	*18,114,508*	*−.7*	*2,446*	*465,179*	*−3.0*	*12,694,141*	*−1.1*
Michigan	3,906	606,157	+10.2	19,671,594	+19.7	*950*	*516,733*	*+11.4*	*16,995,376*	*+20.1*
Wisconsin	[6] *3,694*	*268,956*	*−2.6*	*7,087,890*	*+2.0*	[7] *1,448*	*190,118*	[4] *−3.8*	*5,110,244*	[4] *+1.1*
West North Central	**11,830**	**452,239**	**+([8])**	**11,137,027**	**+1.4**	**2,439**	**229,060**	**+.1**	**5,582,443**	**+1.7**
Minnesota	2,206	94,035	−1.7	2,518,877	+1.0	417	44,809	−1.7	1,190,500	+2.7
Iowa	1,720	68,321	−1.2	1,654,121	−.3	423	40,279	−2.7	996,884	−2.3
Missouri	3,120	181,620	+.7	4,372,838	+2.4	884	100,964	+.9	2,288,887	+2.7
North Dakota	531	5,252	−.2	133,911	+1.0	58	687	−2.7	19,453	−1.8
South Dakota	469	6,355	+4.5	149,765	+4.6	37	2,343	+13.1	58,345	+10.5
Nebraska	1,521	35,005	+5.1	832,232	+4.2	154	12,850	+13.6	315,129	+10.6
Kansas	[9] *2,263*	*61,651*	[10] *−.7*	*1,475,283*	[4] *−.6*	*466*	*27,128*	*−1.8*	*715,245*	*−1.2*
South Atlantic	**11,086**	**871,403**	**−.8**	**17,757,227**	**+.1**	**2,772**	**574,256**	**−2.4**	**10,696,976**	**−2.3**
Delaware	218	17,307	−5.8	422,274	−3.5	85	12,820	−8.3	303,345	−5.5
Maryland	*1,588*	*136,330*	*−2.6*	*3,314,842*	*−1.4*	*575*	*97,374*	[4] *−4.4*	*2,359,678*	[4] *−1.9*
District of Columbia	1,108	42,339	+2.7	1,094,275	+3.6	35	3,165	−.3	108,789	−1.1
Virginia	2,159	121,427	−.9	2,405,052	+.9	473	82,442	−2.5	1,576,775	−.4
West Virginia	1,249	161,553	+.3	4,274,214	+3.0	250	60,729	−1.8	1,609,107	−.2
North Carolina	1,446	159,034	−2.8	2,441,507	−3.9	571	143,765	−2.6	2,171,278	−4.3
South Carolina	777	72,875	−1.2	1,082,832	−2.7	212	64,202	−1.4	917,903	−3.2
Georgia	1,493	116,190	−.6	1,903,617	−.9	372	88,871	−.9	1,295,437	−1.6
Florida	1,048	44,348	+8.1	818,614	+4.4	199	20,888	+2.1	354,664	+.4
East South Central	**4,315**	**313,414**	**−1.4**	**6,033,840**	**−.3**	**1,019**	**196,795**	**−2.6**	**3,534,461**	**−3.2**
Kentucky	1,367	91,134	−2.1	2,052,650	+.5	299	38,145	−5.0	794,749	−6.0
Tennessee	1,455	110,293	−1.3	2,018,503	−1.1	383	81,388	−2.2	1,444,277	−2.7
Alabama	927	93,283	−.8	1,659,080	−1.2	241	65,249	−1.8	1,111,872	−3.5
Mississippi	566	18,704	−1.6	303,607	+5.3	96	12,013	−1.4	183,563	+7.0
West South Central	**4,733**	**216,079**	**+.1**	**5,009,771**	**+.6**	**1,130**	**108,037**	**+.1**	**2,342,432**	**−.2**
Arkansas	[11] *610*	*28,686*	*+3.6*	*526,885*	*+2.5*	*239*	*20,162*	*+3.8*	*344,698*	*+1.7*
Louisiana	1,013	51,532	−.8	1,018,027	+([8])	233	27,161	−2.1	478,437	−2.2
Oklahoma	1,405	47,311	+.4	1,202,488	+1.3	136	12,646	+([8])	311,568	+2.1
Texas	[12] *1,705*	*88,550*	*−.7*	*2,262,371*	+([8])	*522*	*48,068*	*−.2*	*1,207,729*	*−.5*
Mountain	**4,322**	**158,865**	**+2.9**	**4,261,330**	**+4.0**	**562**	**51,564**	**+10.3**	**1,268,235**	**+8.1**
Montana	697	25,149	+3.2	773,837	+3.8	82	6,182	+11.5	182,320	+15.3
Idaho	450	12,910	+12.2	341,890	+6.5	52	4,822	+35.8	120,217	+18.4
Wyoming	329	10,559	+4.9	313,354	+7.7	38	2,431	+27.4	74,384	+25.2
Colorado	1,248	53,309	+3.6	1,337,181	+5.7	187	22,278	+11.3	526,446	+7.5
New Mexico	312	7,267	−1.1	165,896	+2.6	32	857	−3.4	15,300	−4.5
Arizona	478	19,589	−2.2	560,537	−.2	39	3,397	−5.4	87,906	−2.1
Utah	601	26,523	+2.5	659,850	+3.2	107	10,621	+3.6	232,458	+1.5
Nevada	207	3,559	−5.4	108,785	−3.0	25	976	−2.2	29,204	−1.2

See footnotes at end of table

TABLE 4.—*Comparison of Employment and Pay Rolls in Identical Establishments in September and October 1937, by Geographic Divisions and by States*—Continued

Geographic division and State	Total—All groups					Manufacturing				
	Number of establishments	Number on pay roll October 1937	Percentage change from September 1937	Amount of pay roll (1 week) October 1937	Percentage change from September 1937	Number of establishments	Number on pay roll October 1937	Percentage change from September 1937	Amount of pay roll (1 week) October 1937	Percentage change from September 1937
				Dollars					*Dollars*	
Pacific	9,931	491,093	−4.8	13,776,022	−1.4	2,504	287,181	−7.5	7,809,353	−3.8
Washington	3,023	114,237	−2.0	2,987,511	−1.7	559	67,518	−3.5	1,644,113	−5.1
Oregon	1,330	59,601	−6.9	1,591,966	−3.7	307	36,868	−9.8	946,275	−6.8
California	[13] *5,578*	*317,255*	*−5.3*	*9,196,545*	*−.9*	*1,638*	*182,795*	*−8.5*	*5,218,965*	*−2.8*

[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 automobile 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 Cities

A comparison of employment and pay rolls in September and October 1937 is made in table 5 for 13 cities which had a population of 500,000 or over in 1930. The figures represent reports from cooperating establishments and cover both full- and part-time workers in miscellaneous manufacturing and nonmanufacturing industries as well as in the manufacturing and nonmanufacturing industries presented in table 3 except building construction.

TABLE 5.—*Comparison of Employment and Pay Rolls in Identical Establishments in September and October 1937, by Principal Cities*

City	Number of establishments	Number on pay roll October 1937	Percentage change from September 1937	Amount of pay roll (1 week) October 1937	Percentage change from September 1937
New York, N. Y.	15,281	674,029	+0.8	$18,212,687	+1.9
Chicago, Ill.	4,475	511,032	−1.0	14,643,324	−.3
Philadelphia, Pa.	2,375	225,267	+.9	6,124,490	+2.2
Detroit, Mich.	1,678	396,597	+13.7	13,634,875	+23.3
Los Angeles, Calif.	2,928	164,090	+(1)	4,664,887	+2.4
Cleveland, Ohio	1,786	150,350	+1.1	4,255,351	+3.0
St. Louis, Mo.	1,589	142,326	−.9	3,556,693	+.4
Baltimore, Md.	1,231	108,621	−.7	2,742,639	+.1
Boston, Mass.	3,756	192,643	−.1	4,674,398	−2.8
Pittsburgh, Pa.	1,240	236,998	−.3	6,583,220	−1.8
San Francisco, Calif.	1,614	88,840	−2.6	2,705,294	−(1)
Buffalo, N. Y.	919	71,095	−2.0	2,048,338	−2.6
Milwaukee, Wis.	1,064	112,480	−2.3	3,199,221	+2.7

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

CHANGE IN METHOD OF COUNTING GREAT BRITAIN'S UNEMPLOYED

PERSONS AT WORK on the day of the unemployment count in Great Britain are no longer classed as unemployed, even though their names are carried on the live register of employment exchanges, according to an official announcement.[1] This action was taken to insure that the figures will show more accurately the conditions with respect to unemployment on any given day. Statistics for September 1937 were the first to be published on the new basis. It was found that the total number of registered unemployed in Great Britain in that month, excluding persons who had work on the day of the count, was 3.6 percent less than the figure representing the total registration, that is, 1,339,204 as compared with 1,388,600.

The Ministry of Labor postponed making this change until it was believed that a practical method had been found for securing complete information on the status of registrants. Under the system adopted, one week will elapse between the day of the count and publication of the figures. In this period, cases about which information is wanted will be checked to ascertain whether the respective registrants were actually unemployed. If persons are found to have been at work, their names will be dropped from the count for the day in question. The need for introducing this procedure arose from the fact that for some years it has not been considered necessary to have unemployed workers report at the exchange daily to furnish proof of unemployment. As a result the person who reported on Friday or Saturday of one week might be regarded as unemployed on the following registration day, Monday, notwithstanding that he might have secured a job of which notification had not yet reached the exchange.

In future it is expected that unemployment statistics will cover a Monday near the middle of each month.

Casual employment showed the greatest proportionate decrease in unemployment as a result of the changed method of counting. In this group a proportion of nearly one in seven of those who would have been classed as unemployed under the earlier system was shown by the new method to be actually at work on the day of the September count. This class of work is normally intermittent, and the check of registrants in the week following the date fixed for taking the count showed the degree of inaccuracy to which the figures would be subject without detailed investigation. The new procedure did not make any material difference in the figures for unemployed men and women. For juveniles there was a greater proportionate reduction in the number registered than for adults.

[1] Great Britain. Ministry of Labor Gazette, October 1937 (p. 379)

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, NOVEMBER 1937 [1]

IN NOVEMBER building-construction activity, as measured by the value of permits issued, was lower than in the preceding month. Reports from 1,502 identical cities with a population of 2,500 or more showed a decrease of 14.9 percent. Decreases occurred in all classes of building construction. There was a decline of 4.1 percent in the permit valuation for new residential construction, 30.1 percent for new nonresidential construction, and 1.7 percent for additions, alterations, and repairs.

Compared with the corresponding month of 1936, the estimated cost of building construction in November declined 7.2 percent. The marked decrease in the value of permits issued for new residential construction (26.5 percent) more than offset increases of 19.4 and 6.4 percent in the value of permits issued for new nonresidential construction and for additions, alterations, and repairs, respectively.

Comparison of November 1937 with October 1937 and November 1936

A summary of building construction in 1,502 identical cities in November 1937, October 1937, and November 1936 is given in table 1.

TABLE 1.—*Summary of Building Construction in 1,502 Identical Cities, November 1937*

Class of construction	Number of buildings			Estimated cost		
	November 1937	Percentage change from—		November 1937	Percentage change from—	
		October 1937	November 1936		October 1937	November 1936
All construction	45,146	−22.7	−6.6	$105,769,879	−14.9	−7.2
New residential	7,809	−16.3	−23.7	43,713,688	−4.1	−26.5
New nonresidential	9,245	−25.5	−9.4	37,580,337	−30.1	+19.4
Additions, alterations, and repairs	28,092	−23.4	+0.7	24,475,854	−1.7	+6.4

A summary of the estimated cost of housekeeping dwellings and of the number of families provided for in new dwellings in 1,502 iden-

[1] More detailed information by geographic divisions and individual cities is given in a separate pamphlet entitled "Building Construction, November 1937," copies of which will be furnished upon request.

tical cities, having a population of 2,500 and over is shown in table 2 for the months of November 1937, October 1937, and November 1936.

TABLE 2.—*Estimated Cost of Housekeeping Dwellings and Number of Families Provided for in 1,502 Identical Cities, November 1937*

Type of dwelling	Estimated cost of housekeeping dwellings			Number of families provided for in new dwellings		
	November 1937	Percentage change from—		November 1937	Percentage change from—	
		October 1937	November 1936		October 1937	November 1936
All types	$42,861,680	−3.5	−27.5	10,695	−7.7	−27.4
1-family	30,029,046	−15.1	−26.4	7,227	−16.5	−23.0
2-family [1]	1,888,968	−7.1	−13.3	711	−11.2	−16.5
Multifamily [2]	10,943,666	+55.9	−32.4	2,757	+29.4	−38.6

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Analysis by Size of City, November 1937

Table 3 shows the estimated cost of building construction for which permits were issued in November 1937, compared with October 1937 and November 1936, by size of city and by class of construction.

TABLE 3.—*Estimated Cost of Building Construction for Which Permits Were Issued, by Size of City, November 1937*

Size of city	Total construction			New residential buildings		
	Estimated cost, November 1937	Percentage change from—		Estimated cost, November 1937	Percentage change from—	
		October 1937	November 1936		October 1937	November 1936
Total, all cities	$105,769,879	−14.9	−7.2	$43,713,688	−4.1	−26.5
500,000 and over	39,198,215	−21.6	−2.7	17,919,066	+32.0	−13.2
100,000 and under 500,000	20,247,490	−24.6	−22.5	7,118,904	−23.0	−49.1
50,000 and under 100,000	12,870,879	+10.6	+24.0	3,473,749	−31.9	−31.2
25,000 and under 50,000	10,611,359	−3.6	−6.3	4,181,114	−12.5	−13.5
10,000 and under 25,000	12,880,517	−9.4	−15.3	6,008,124	−13.4	−29.5
5,000 and under 10,000	6,478,190	−8.0	−7.5	3,058,491	−19.6	−27.0
2,500 and under 5,000	3,483,229	−1.4	−4.5	1,954,240	−9.4	−12.7
	New nonresidential buildings			Additions, alterations, and repairs		
Total, all cities	$37,580,337	−30.1	+19.4	$24,475,854	−1.7	+6.4
500,000 and over	11,569,134	−58.3	+10.7	9,710,015	+12.1	+5.7
100,000 and under 500,000	6,997,140	−39.2	+11.0	6,131,446	+0.5	+5.0
50,000 and under 100,000	7,662,687	+121.1	+145.0	1,734,443	−43.4	−21.2
25,000 and under 50,000	3,952,692	+2.6	−13.4	2,477,553	+4.2	+29.2
10,000 and under 25,000	4,233,194	−4.0	+1.6	2,639,199	−8.4	+5.2
5,000 and under 10,000	2,039,216	+10.8	+6.9	1,380,483	−1.0	+52.0
2,500 and under 5,000	1,126,274	+17.4	+17.3	402,715	−3.7	−10.5

The estimated cost of housekeeping dwellings for which permits were issued in the 1,502 identical cities reporting for October and November 1937, together with the number of family-dwelling units provided in new dwellings, by size of city, is given in table 4.

TABLE 4.—*Estimated Cost of Housekeeping Dwellings and Number of Families Provided for in 1,502 Identical Cities, by Size of City, October and November 1937*

Size of city	Estimated cost of housekeeping dwellings			Number of families provided for in—							
				All types		1-family dwellings		2-family dwellings [1]		Multifamily dwellings [2]	
	November 1937	October 1937	Percentage change	November 1937	October 1937	November 1937	October 1937	November 1937	October 1937	November 1937	October 1937
Total, all cities	$42,861,680	$44,435,916	−3.5	10,695	11,588	7,227	8,656	711	801	2,757	2,131
500,000 and over	17,896,566	13,482,817	+32.7	4,042	3,266	1,560	1,901	175	171	2,307	1,194
100,000 and under 500,000	6,978,904	9,242,132	−24.5	1,970	2,575	1,601	1,939	195	249	174	387
50,000 and under 100,000	3,461,749	4,241,179	−18.4	909	1,175	742	891	102	119	65	165
25,000 and under 50,000	3,645,306	4,778,738	−23.7	935	1,217	794	1,036	57	91	84	90
10,000 and under 25,000	6,003,824	6,889,426	−12.9	1,491	1,766	1,343	1,520	92	104	56	142
5,000 and under 10,000	2,963,591	3,645,438	−18.7	788	999	703	822	43	35	42	142
2,500 and under 5,000	1,911,740	2,156,186	−11.3	560	590	484	547	47	32	29	11

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Construction During 11 Months, 1936 and 1937

Cumulative totals for the first 11 months of 1937 compared with the same months of the preceding year are shown in table 5. The data are based on reports received from cities having a population of 2,500 and over.

TABLE 5.—*Estimated Cost of Building Construction in Cities of 2,500 Population and Over, First 11 Months, 1936 and 1937, by Class of Construction*

Class of construction	Estimated cost of building construction, first 11 months of—		Percentage change
	1937	1936	
All construction	$1,500,327,742	$1,362,825,043	+10.1
New residential	666,221,509	635,931,050	+4.8
New nonresidential	496,785,197	435,112,875	+14.2
Additions, alterations, and repairs	337,321,036	291,781,118	+15.6

Table 6 presents the estimated cost of housekeeping dwellings and number of family-dwelling units provided in cities with a population of 2,500 and over, for the first 11 months of 1936 and 1937.

TABLE 6.—*Estimated Cost and Number of Families Provided for in Cities of 2,500 Population and Over, First 11 Months, 1936 and 1937, by Type of Dwelling*

Type of dwelling	Housekeeping dwellings					
	Estimated cost			Number of families provided for		
	First 11 months of—		Percentage change	First 11 months of—		Percentage change
	1937	1936		1937	1936	
All types	$655,615,924	$627,343,976	+4.5	162,768	155,415	+4.7
1-family	483,149,234	423,919,916	+14.0	110,346	97,606	+13.1
2-family [1]	28,690,572	22,678,503	+26.5	10,324	8,255	+25.1
Multifamily [2]	143,776,118	180,745,557	−20.5	42,098	49,554	−15.0

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

The information on building permits issued November 1937, October 1937, and November 1936 is based on reports received by the Bureau of Labor Statistics from 1,502 identical cities having 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 cost figures 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 November 1937 the value of Federal and State buildings for which contracts were awarded in these 1,502 cities amounted to $1,963,000; in October 1937, to $2,982,000; and in November 1936, to $7,469,000.

Construction From Public Funds

The value of contracts awarded and force-account work started during November 1937, October 1937, and November 1936 on construction projects financed from various Federal funds is shown in table 7.

TABLE 7.—*Value of Contracts Awarded and Force-Account Work Started on Projects Financed From Federal Funds, November 1937, October 1937, and November 1936* [1]

Federal agency	Value of contracts awarded and force-account work started		
	November 1937	October 1937 [2]	November 1936
Total	$67,129,786	$105,326,762	[3] $103,077,660
Public Works Administration:			
Federal	347,041	1,255,085	2,663,917
Non-Federal:			
N. I. R. A.	3,124,696	1,654,487	6,798,474
E. R. A. A.	26,379,666	8,030,495	[3] 36,079,926
Federal projects under The Works Program	153,321	5,571,928	[2] 24,432,350
Regular Federal appropriations	37,125,062	88,814,767	[2] 33,102,993

[1] Preliminary, subject to revision.
[2] Revised.
[3] Revised; includes $4,105,600 low-cost housing projects (Housing Division, P. W. A.).

The value of public-building and highway construction awards financed wholly from appropriations from State funds, as reported by the various State governments for November 1937, October 1937, and November 1936, is shown in table 8.

TABLE 8.—*Value of Public-Building and Highway-Construction Awards Financed Wholly From State Funds*

Type of project	Value of contracts		
	November 1937	October 1937	November 1936
Public buildings	$1,305,240	$2,328,097	$1,592,627
Highway construction	6,629,309	8,992,314	5,286,234

VOLUME OF RESIDENTIAL CONSTRUCTION, 1920–37

By HERMAN B. BYER, *Bureau of Labor Statistics*

THE Bureau of Labor Statistics has been collecting data concerning building permits issued, since the year 1920. Up to 1933 the Bureau's reports covered cities having a population of 25,000 and over. During that year the extent of coverage was increased to take in all cities having a population of 10,000 or over. Again, in 1936, the scope of the Bureau's inquiry was increased to include all cities having a population of 2,500 or more.

Up to the present time, reports of the Bureau have dealt only with data from reporting cities. The 1936 increase in coverage, however, enables the Bureau to make estimates of dwelling units provided for the entire urban area of the United States.

Dwellings Provided in Urban Areas

Dwelling units were provided in new housekeeping dwellings for 167,216 families in the urban area of the United States during the first 9 months of 1937. This was an increase of approximately 20,000 units or 13 percent as compared with the corresponding period of 1936. These estimates are based on building-permit reports received by the Bureau of Labor Statistics from more than 1,500 cities having a population of approximately 59,000,000 or 85 percent of the entire urban population of the United States. The urban area of the United States, as defined by the Bureau of the Census, consists of 3,165 cities of 2,500 or more population with an aggregate population in 1930 of 68,955,000.

Reports on building permits are received by the Bureau from all cities having a population of 50,000 or over. The cities of 25,000 to 50,000 population reporting to the Bureau include nearly 90 percent of the total population of all cities of this size. For cities of 10,000 to 25,000 the corresponding coverage figure is about 75 percent, for cities of 5,000 to 10,000 it is approximately 45 percent, and for cities of 2,500 to 5,000 it is 35 percent.

The term "city," as used in this report, is synonymous with the census term "urban places," which is defined to mean in general "cities or other incorporated places having a population of 2,500 or more." [1]

[1] There are, however, certain exceptions to this definition. See "Fifteenth Census of the United States." Population, vol. II, ch. 1.

The method employed in estimating the number of family-dwelling units provided in the population groups where the Bureau does not have full coverage was as follows: The relationship was computed between the percentage increase in population of the reporting cities between 1920 and 1930, and the number of dwelling units provided in these cities per 10,000 population. The rate of growth in the nonreporting cities between 1920 and 1930 was then used to arrive at an estimated rate of building per 10,000 population, at which dwelling units in the nonreporting cities were provided. The number of dwelling units per 10,000 population so derived was then multiplied by the 1930 population of the nonreporting cities. The result shows the estimated total of dwelling units provided in nonreporting areas. The total number of dwelling units was apportioned by type of dwelling in accordance with the distribution shown in the reporting cities.

Satellite [2] and nonsatellite cities were treated as separate groups, in preparing the estimates by the above process. Each population group was also treated separately. Public housing was excluded in estimating for the nonreporting cities, but was, of course, included in the totals.

Totals for each geographic division, each population group, and for the United States were built up on the estimates of construction for satellite and nonsatellite cities by population group, within each individual State.

The above-described method, with slight modification, is the same as used by David L. Wickens and Ray R. Foster of the National Bureau of Economic Research in estimating nonfarm residential construction for 1936. This study is described in the succeeding article, "Number of Dwelling Units Built in Urban and Nonfarm Areas, 1920 to 1936."

Table 1, following, shows the number of family-dwelling units provided in the one-family, two-family, and multifamily dwellings in the urban area of the United States, by quarters, for the period January 1936 to September 1937, inclusive.

While there was a substantial gain in the number of dwelling units provided during the first 9 months of 1937 as a whole, a reversal of the trend during the third quarter resulted in a drop of 22 percent in the number of dwelling units provided in this period, as compared with July, August, and September of 1936.

Normally, building-permit figures are higher during the second quarter than during any other period of the year. In 1936, however, permits reached a peak in the third quarter, and even in the fourth quarter there were nearly as many dwelling units provided as in the second quarter. The number of dwelling units provided during the third

[2] Satellite cities are urban places falling within the metropolitan areas of large cities.

quarter of the current year was not only less than during the second quarter, but even lower than during January, February, and March.

TABLE 1.—*Family-Dwelling Units Provided in Total Urban Area, January 1936 to September 1937, by Quarters*

Period	Dwelling units provided in—			
	All types	1-family dwellings	2-family dwellings [1]	Multi-family dwellings [2]
1936:				
First quarter	31,608	21,798	1,826	7,984
Second quarter	53,660	36,360	3,038	14,262
Third quarter	62,398	38,553	3,253	20,592
Fourth quarter	51,307	34,546	3,046	13,715
1937:				
First quarter	54,078	34,017	3,258	16,803
Second quarter	64,519	45,951	4,136	14,432
Third quarter	48,619	38,115	3,225	7,279

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

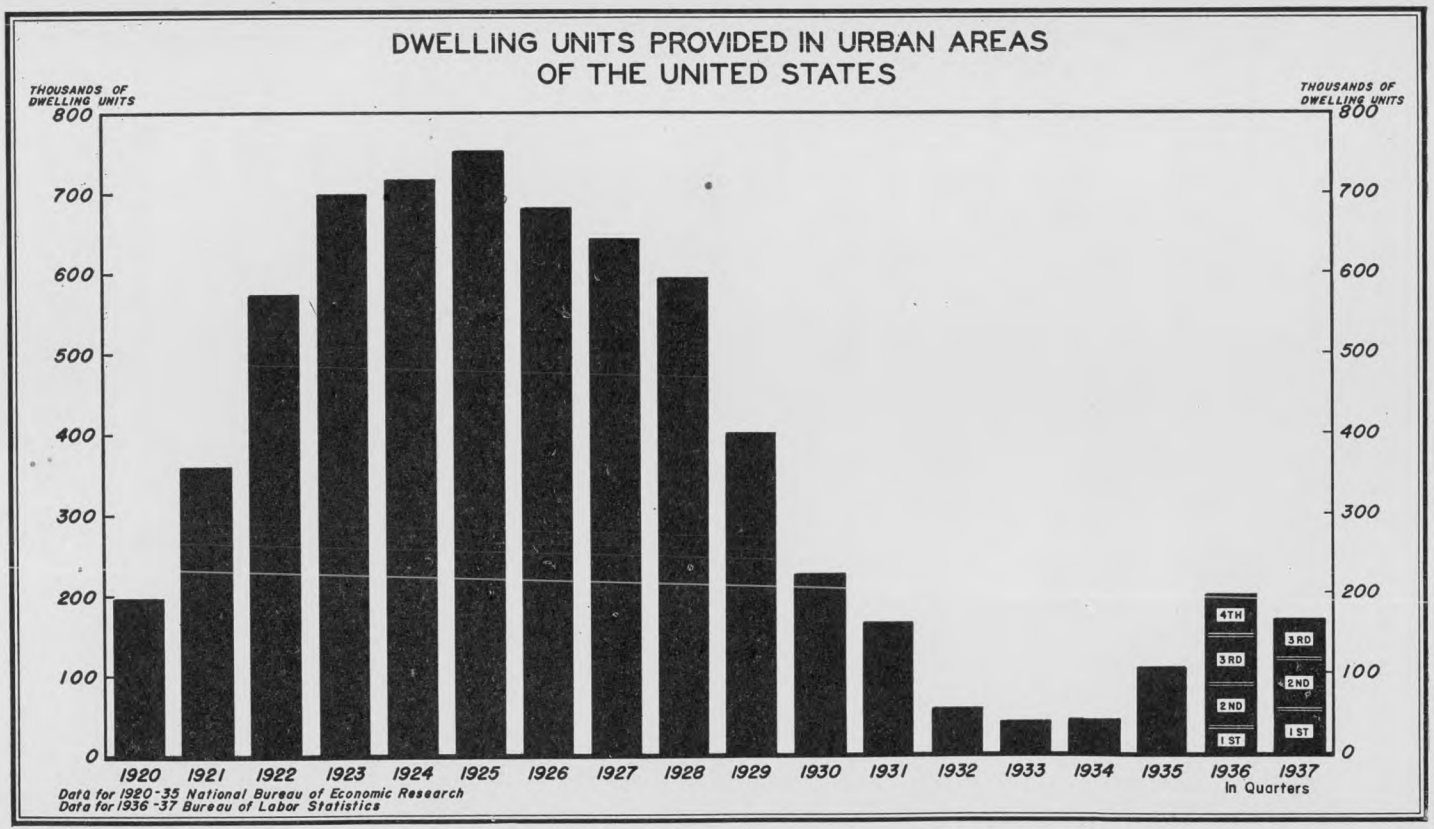
A comparison of the dwelling units provided during the first 9 months of 1937 with 1936 is shown in table 2 by cities grouped according to size.

TABLE 2.—*Estimated Family-Dwelling Units Provided by New Construction in Urban Areas, First 9 Months of 1936 and 1937, by Size of City*

Cities with population of—	Number of dwellings provided, first 9 months of—							
	1937	1936	1937	1936	1937	1936	1937	1936
	All types		1-family dwellings		2-family dwellings [1]		Multifamily dwellings [2]	
500,000 and over	51,374	51,374	22,467	20,453	2,205	1,632	26,702	29,289
100,000 and under 500,000	27,763	25,505	21,246	16,432	2,381	1,580	4,136	7,493
50,000 and under 100,000	12,646	9,778	9,514	7,642	1,221	871	1,911	1,265
25,000 and under 50,000	13,840	11,752	11,805	9,569	1,063	864	972	1,319
10,000 and under 25,000	27,292	20,919	23,703	18,323	1,582	1,271	2,007	1,325
5,000 and under 10,000	18,506	16,004	15,548	13,308	1,128	1,114	1,830	1,582
2,500 and under 5,000	15,795	12,334	13,800	10,984	1,039	785	956	565
Total	167,216	147,666	118,083	96,711	10,619	8,117	38,514	42,838
Percent of change from first 9 months of 1936	+13.2		+22.1		+30.8		−10.1	

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Except for the 14 cities having a population of over half a million, the cities in all population groups provided more family-dwelling units in 1-family dwellings than in apartment houses. Even in the cities having a population of over half a million, there was a decline in the percentage of families provided for in apartment houses. During the first 9 months of 1936, nearly 60 percent of all new dwelling units were in apartment houses in the 14 largest cities, whereas during the same period of the current year, slightly more than 50 percent were in this type of structure.



The statement below and the preceding chart show the number of dwelling units provided in the entire urban area of the United States for the years 1920 to 1936, and for the first 9 months of 1937. The data for the years 1920 to 1935 are estimates by the National Bureau of Economic Research and those for the years 1936 and 1937 are estimates made by the Bureau of Labor Statistics. These estimates are based on reports of building permits received by the Bureau of Labor Statistics for the years 1920 to 1937.

	Dwelling units provided		*Dwelling units provided*
1920	196, 000	1929	400, 000
1921	359, 000	1930	224, 000
1922	574, 000	1931	164, 000
1923	698, 000	1932	56, 000
1924	716, 000	1933	40, 000
1925	752, 000	1934	41, 000
1926	681, 000	1935	106, 000
1927	643, 000	1936	199, 000
1928	594, 000	1937 (first 9 months)	167, 000

In each of the years 1936 and 1937 approximately as many dwelling units were built in the urban areas of the United States as during 1920. The rate of building in 1936 and 1937 was about five times as great as during 1933 and 1934, the years when building reached its lowest point. However, the 1937 rate of construction was only slightly more than one-fourth as much as during the peak years of 1924 and 1925.

It is the intention of the Bureau of Labor Statistics to issue these estimates of dwelling units provided in the urban area of the United States, each quarter, in the future. The Bureau also hopes, in the very near future, to continue the series inaugurated and published by the National Bureau of Economic Research [3] by making dollar-volume estimates of construction in the urban areas. Within another year the Bureau's expanded coverage in the field of building-permit reporting should permit estimates on both dwelling units and dollar volume for the entire nonfarm area of the United States.

Review of Bureau's Reports on Construction

Data on building permits have been collected by the Bureau since 1920. During that year, information was collected from 207 cities having a population of 35,000 or over. Beginning with the year 1921, the Bureau increased its coverage to take in all cities having a population of 25,000 and over. Data are now available for 257 identical cities covering indicated expenditures for new residential buildings; new nonresidential buildings; additions, alterations, and repairs; and total building construction, as well as the number of family-dwelling

[3] See p. 254.

units provided in 1-family, 2-family, and multifamily dwellings for the years 1921 to 1937, inclusive.

For the first 8 years, 1921 to 1928, these data were collected on an annual basis only, except for the cities having a population of 100,000 or over, for which data were collected semiannually. Beginning with September 1929, however, the Bureau began issuing monthly reports on building construction for cities having a population of 25,000 or over, new cities being added to the list when the Bureau of the Census estimated that their population reached that figure.

In 1933, the scope of the building-permit series was extended to take in all cities having a population of 10,000 or over. This increased the number of cities reporting from approximately 365 to more than 820. Again in 1936 the Bureau extended its coverage to take in all urban places, i. e., incorporated places having a population of 2,500 or over. This increased the number of cities reporting to more than 1,700. It has been on this broad basis that the 1936–37 estimates described above have been made.

Beginning with January 1938 the Bureau expects further to increase its coverage to include all incorporated places. This will allow the Bureau to make estimates of dwelling units provided in the entire nonfarm area of the United States.

Previous to 1920, data on building permits had been collected for a limited number of cities by the Geological Survey. The first interest of the Survey in its compilation of data appeared to be in the materials used in construction; i. e., whether or not the buildings were built of wood, brick, stone, or concrete.

The entrance of the United States into the World War caused a check in building operations in 1917 and 1918 and the need for additional housing became acute, as the building of new homes did not keep pace with the increase in population. There was a great demand for living quarters, rents rapidly increased, and housing conditions became congested. The public interest in building operations centered not in material used in construction or the amount of building as a whole, but primarily in the number of dwelling units provided. With this phase of the problem in mind, the Bureau of Labor Statistics undertook to continue the reports issued by the Geological Survey, and to enlarge the inquiry to cover the intended use of buildings constructed and to ascertain the number of family-dwelling units provided by new building each year.

In carrying on this work, the Bureau has had the very helpful cooperation of local building inspectors of the Building Officials' Conference of America. At the beginning, few cities were making reports on building construction and each city which made annual reports had its own form. It was necessary, therefore, for the Bureau to send its agents to the cities to compile the building-permit

data. For the year 1921 the Bureau's agents visited more than 100 cities. Gradually, however, the form designed by the Bureau was adopted by almost all cities and since 1930 data from all cities reporting have been collected by mail on uniform schedules.

NUMBER OF DWELLING UNITS BUILT IN URBAN AND NONFARM AREAS, 1920–36

By DAVID L. WICKENS and RAY R. FOSTER, *National Bureau of Economic Research*

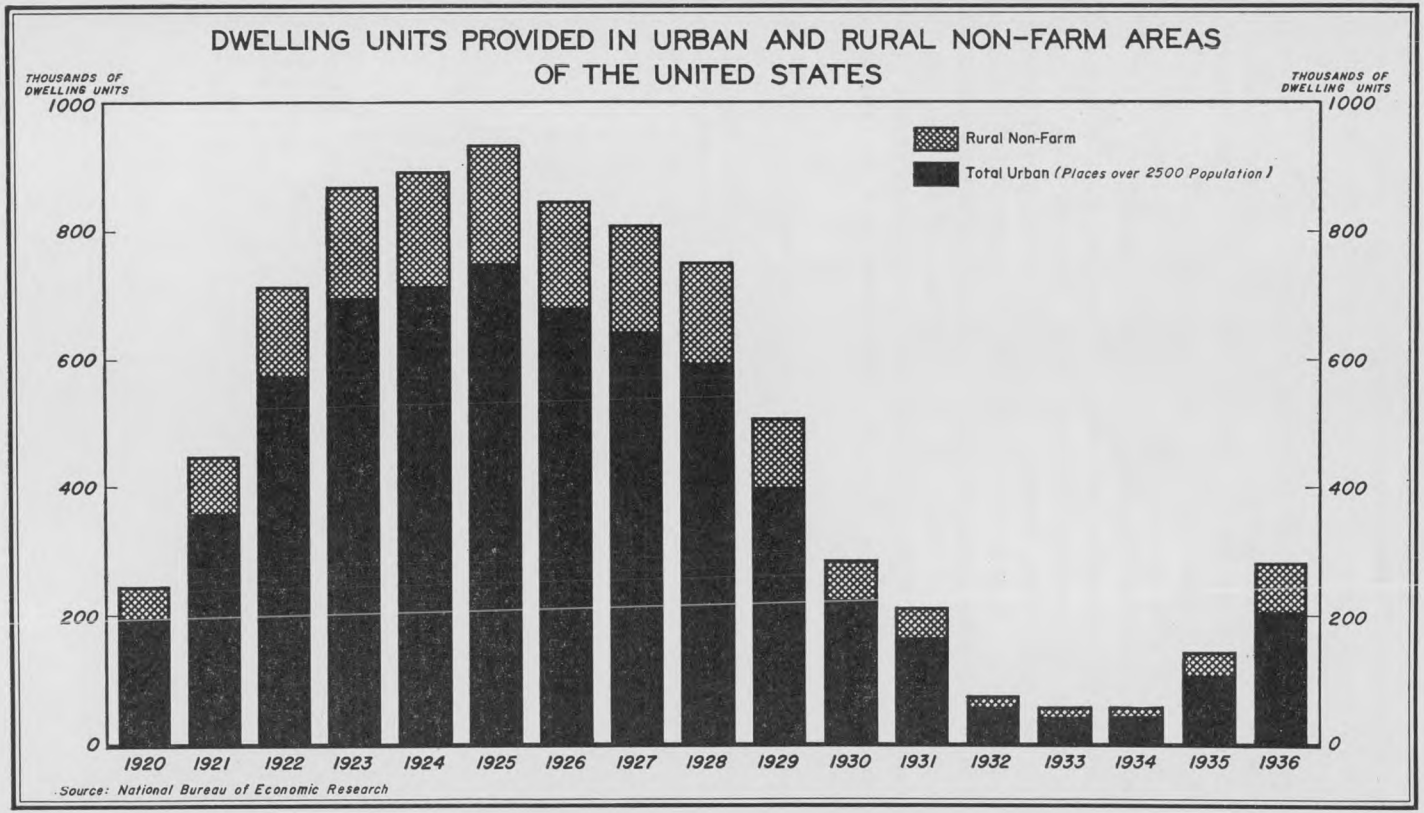
THE PRECEDING article presented the new series of estimates being made by the Bureau of Labor Statistics on the number of dwelling units provided in urban areas of the United States during each quarter of 1936 and the first three quarters of 1937 and related these estimates to comparable figures for the period 1920–36 prepared by the National Bureau of Economic Research.[1] The present article presents a brief discussion of the National Bureau's estimates for the years 1920–36, covering not only the urban areas but also rural nonfarm areas (i. e., towns and villages under 2,500 population).

A considerable volume of building takes place in the small towns under 2,500, particularly those which are suburbs of large metropolitan centers. As shown in the accompanying table and chart, the number of units provided in the rural nonfarm areas in recent years has been a larger proportion of the nonfarm total than in earlier years, reflecting in part the continuous shift of building from the large cities to the suburban areas. Furthermore, the estimated total of 77,000 units provided in rural nonfarm areas in 1936 represents a recovery to 42 percent of the 1925 peak. This is in contrast to the 1936 estimate for urban areas, which was slightly more than one-fourth of the corresponding 1925 peak in urban dwelling units provided.

As also noted in the preceding article, the Bureau of Labor Statistics and the National Bureau of Economic Research used the same basic method in estimating the number of urban dwelling units provided during the year 1936, employing per capita building rates adjusted for variations in population growth. This method is dictated to a considerable extent by the nature of the data currently available, the principal limitation being the absence of information concerning the increase in number of families since 1930. For earlier years the methods used in deriving the National Bureau estimates made use of ratios of units built to increase in number of families in reporting cities during the 10-year period 1920–1929, inclusive.[2] These ratios, with

[1] National Bureau of Economic Research, Bulletin No. 65: Nonfarm Residential Construction, 1920–36. Sept. 15, 1937.

[2] For a more detailed description of the methods used, see National Bureau of Economic Research Bulletin No. 65, pp. 11–19.



84189—38—17

modifications, were applied to the increase in number of families in unreported areas to estimate the aggregate volume of building in those areas for the 10 years. Then the number of dwelling units built each year from 1920 to 1936 was estimated, based on the year-to-year trends of building in the reporting cities, and on the relationships found in the 10-year aggregates, together with separate estimates for 1935 and 1936 based on the enlarged sample of reporting cities, and other data. Principal reliance was placed on the Bureau of Labor Statistics building-permit reports for 257 cities having more than 25,000 population and reporting continuously since 1921.

The figures presented are estimates, subject to the limitations imposed by deficiencies in the basic data. Revision may be required as more complete data become available and techniques of estimating are improved. This applies particularly to estimates of building in the rural nonfarm areas, for which at present building-permit data are not available. A check on the correctness of the methods used for estimating the volume of residential construction in the current decade will be possible when the 1940 census data on families and homes become available.

Estimated Number of Dwelling Units, Built Annually in Nonfarm Areas of the United States, 1920–36 [1]

Year	Urban [2]	Rural nonfarm	Total nonfarm
1920	196,000	51,000	247,000
1921	359,000	90,000	449,000
1922	574,000	142,000	716,000
1923	698,000	173,000	871,000
1924	716,000	177,000	893,000
1925	752,000	185,000	937,000
1926	681,000	168,000	849,000
1927	643,000	167,000	810,000
1928	594,000	159,000	753,000
1929	400,000	109,000	509,000
1930	224,000	62,000	286,000
1931	164,000	48,000	212,000
1932	56,000	18,000	74,000
1933	40,000	14,000	54,000
1934	41,000	14,000	55,000
1935	106,000	38,000	144,000
1936	[3] 205,000	77,000	282,000

[1] Source: National Bureau of Economic Research Bulletin 65.

[2] Places over 2,500 population. Differs from "urban" classification as shown in National Bureau of Economic Research Bulletin 65 (table 3–B), which includes building in places under 2,500 population within environs of metropolitan districts, designated as "rural environs." These rural environs were considered as urban in character for purposes of estimating building volume as shown in Bulletin 65.

[3] As published. See preceding article (p. 252), for later estimate by Bureau of Labor Statistics based on more complete sample data than were available at time National Bureau estimate was made.

Retail Prices

FOOD PRICES IN NOVEMBER 1937

RETAIL food costs declined 1.5 percent between October and November. The decrease was due primarily to a sharp break in meat prices, particularly beef and pork.

The food cost index for November was 83.6 percent of the 1923–25 average. This is lower than the index has been at any time since December 1936. It is 1.4 percent above the level of a year ago. Despite the recent decline, meats show the largest advance in costs above last year's level. Fruit and vegetable costs are 15.2 percent below November 1936. All the major commodity groups are well below the November 1929 level when the food cost index was 106.7.

Details by Commodity Groups

The cost of cereals and bakery products declined 0.8 percent. Prices were lower for seven of the eight cereal items. Corn meal showed the largest decrease, 5.2 percent. Wheat flour dropped 4.0 percent with price reductions in 42 cities. Advances of 0.1 percent for whole-wheat bread and 1.0 percent for pound cake were the only changes in the bakery product items.

Meat costs dropped 5.6 percent, the largest change for any month since January 1935. Meat costs were lower in each of the 51 cities, the reductions ranging from 0.1 percent in San Francisco to 12.4 percent in Philadelphia. Prices declined for 19 of the 21 items in the meat group. Decreases of more than 5.0 percent were shown for four of the six beef items and for all seven of the pork items. The cost of beef fell 6.7 percent, while pork dropped 7.4 percent. Roasting chicken prices declined 2.1 percent.

The dairy products group continued its seasonal advance with an increase of 1.7 percent. Butter and fresh milk prices rose 1.9 percent. Higher prices were reported for butter in 37 cities and for fresh milk in 5 cities. The largest increase in fresh milk prices was approximately 1 cent a quart in New York City, Rochester, and St. Paul.

NOTE.—All percentages referred to in this report are based on prices and indexes computed to three decimal places.

Cream and cheese prices rose 1.1 and 0.5 percent, respectively. The only decline in the dairy products group was 0.2 percent for evaporated milk.

The 4.1 percent increase in egg prices was less than the usual advance between October and November. Higher prices were reported in 42 cities and lower prices in 9. The largest increases occurred in the South Atlantic and North Central areas. Egg prices were 5.8 percent below the November 1936 level.

Fruit and vegetable costs declined 0.4 percent. The cost of the fresh items in this group advanced 0.1 percent, with higher prices for eight items and lower prices for five. The price of oranges dropped 23.8 percent. Apples advanced 3.0 percent; potatoes, 2.8 percent; lemons, 5.4 percent; and onions, 6.9 percent. The canned products decreased 0.6 percent, with changes ranging from a decline of 1.4 percent for canned corn to an advance of 1.7 percent for canned peas. Lower prices for all six of the dried products included in the index resulted in a 5.6 percent drop for this subgroup. Navy beans, which registered the largest decline, 11.5 percent, dropped to their lowest level since August 1936.

The cost of beverages and chocolate decreased 0.3 percent. Coffee prices declined 0.3 percent. Cocoa and chocolate prices were lower by 0.9 and 0.7 percent, respectively. The price of tea rose 1.0 percent, continuing the gradual upward trend of the past 20 months.

The index for fats and oils dropped 3.5 percent. Six of the seven items in this group showed lower prices. Lard, which made the greatest decline, 6.4 percent, was closely followed by lard compound, 5.2 percent.

The cost of sugar and sweets moved down 0.4 percent Lower prices were reported for all four items in the group. Sugar declined 0.4 percent, breaking the upward movement of the past few months.

Indexes of retail food costs for November and October 1937, together with corresponding indexes for November 1936, 1932, and 1929, are shown in table 1. The chart on page 259 shows trends in the cost of all foods and of each major commodity group for the period from January 1929 to November 1937, inclusive.

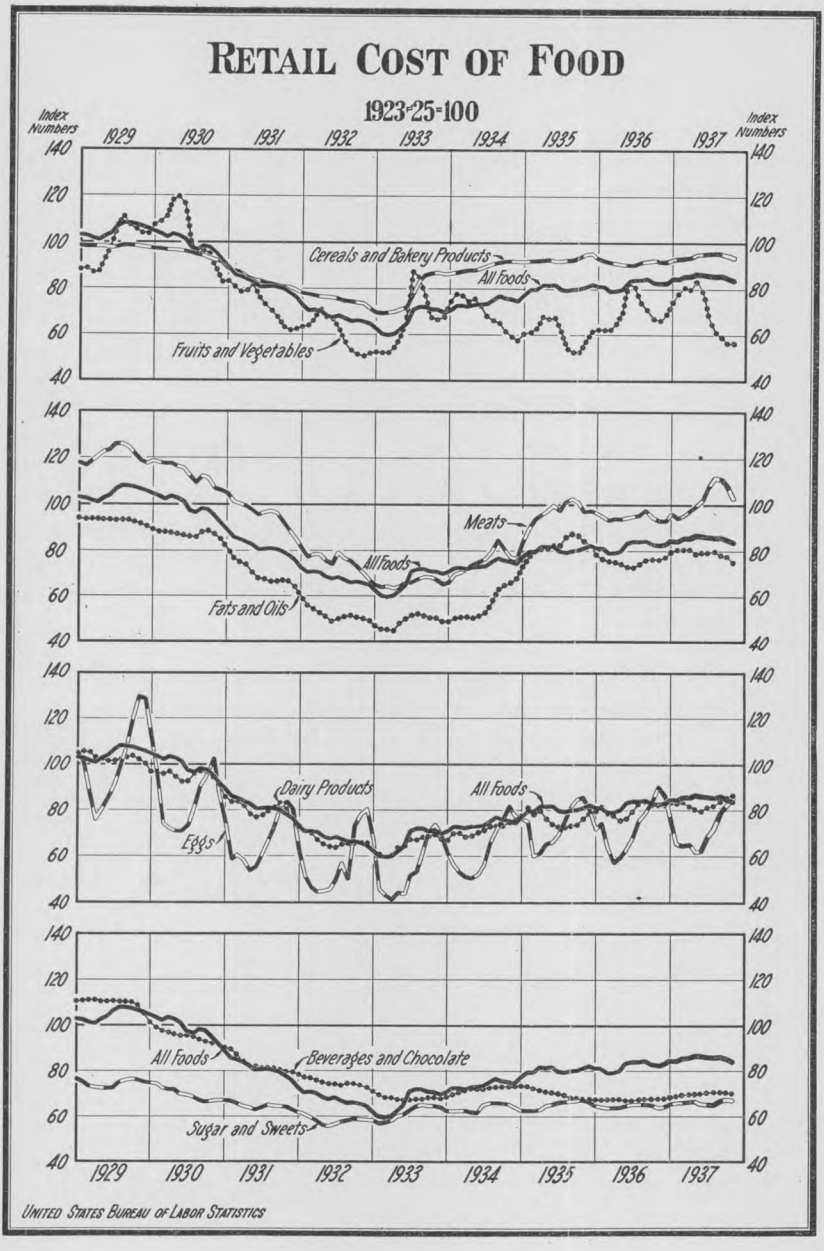


TABLE 1.—*Indexes of Retail Food Costs in 51 Large Cities Combined,[1] by Commodity Groups*

November and October 1937 and November 1936, 1932, and 1929

[1923-25=100]

Commodity group	1937		1936	1932	1929
	Nov. 16	Oct. 12	Nov. 17	Nov. 15	Nov. 15
All foods	83.6	84.9	82.5	65.6	106.7
Cereals and bakery products	94.0	94.7	91.9	73.3	98.2
Meats	102.8	108.8	93.2	70.0	118.8
Dairy products	86.6	85.1	82.2	65.8	102.0
Eggs	84.9	81.6	90.1	78.4	129.5
Fruits and vegetables	56.2	56.5	66.3	50.4	103.9
Fresh	53.5	53.5	64.5	49.0	104.2
Canned	80.5	81.0	81 5	67.6	94.9
Dried	64.1	67.9	69.2	50.6	108.5
Beverages and chocolate	70.1	70.3	67.7	73.8	108.9
Fats and oils	74.8	77.5	76.2	50.0	91.8
Sugar and sweets	67.1	67.4	63.8	58.8	76.2

[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.

Prices of 58 of the 84 items in the index declined between October and November, 21 increased, and 5 showed no change. Compared with a year ago, the November prices are higher for 51 items and lower for 33. Average prices of each of the 84 foods for 51 cities combined are shown in table 2 for November and October 1937, and for November 1936.

TABLE 2.—*Average Retail Prices of 84 Foods in 51 Large Cities Combined*[1]

November and October 1937 and November 1936

[*Indicates the 42 foods included in indexes prior to Jan. 1, 1935]

Article		1937		1936
		Nov. 16	Oct. 12	Nov. 17
Cereals and bakery products:				
Cereals:		*Cents*	*Cents*	*Cents*
*Flour, wheat	pound	4.5	4.7	4.9
*Macaroni	do	15.1	15.2	15.2
*Wheat cereal	28-oz. package	24.5	24.5	24.2
*Corn flakes	8-oz. package	7.7	7.7	8.0
*Corn meal	pound	5.1	5.4	5.4
Hominy grits	24-oz. package	9.4	9.7	9.8
*Rice	pound	8.1	8.3	8.6
*Rolled oats	do	7.4	7.4	7.4
Bakery products:				
*Bread, white	do	8.9	8.9	8.2
Bread, whole-wheat	do	9.8	9.8	9.3
Bread, rye	do	10.1	10.1	9.0
Cake	do	25.4	25.1	25.4
Soda crackers	do	17.6	17.6	18.2
Meats:				
Beef:				
*Sirloin steak	do	41.5	46.1	38.8
*Round steak	do	38.4	41.9	34.8
*Rib roast	do	33.7	36.1	29.4
*Chuck roast	do	26.1	28.3	23.2
*Plate	do	17.9	18.7	15.3
Liver	do	25.1	25.5	25.3
Veal:				
Cutlets	do	44.7	46.2	40.4
Pork:				
*Chops	pound	34.1	37.2	31.7
Loin roast	do	28.6	31.2	26.0
*Bacon, sliced	do	43.1	45.5	39.7

[1] Prices for individual cities are combined with the use of population weights.

TABLE 2.—*Average Retail Prices of 84 Foods in 51 Large Cities Combined*—Continued

November and October 1937 and November 1936—Continued

[* Indicates the 42 foods included in indexes prior to Jan. 1, 1935]

Article	1937		1936
	Nov. 16	Oct. 12	Nov. 17
Meats—Continued.			
Pork—Continued.	*Cents*	*Cents*	*Cents*
Bacon, strip, do	36.2	38.3	34.3
*Ham, sliced, do	49.7	53.1	48.5
Ham, whole, do	29.9	32.7	30.7
Salt pork, do	25.2	27.0	24.2
Lamb:			
Breast, do	14.6	14.8	12.5
Chuck, do	24.7	24.7	21.1
*Leg, do	31.0	31.0	27.7
Rib chops, do	38.3	39.3	33.8
Poultry:			
*Roasting chickens, do	35.8	36.5	29.8
Fish:			
Salmon, pink, 16-oz. can	14.0	13.9	12.9
*Salmon, red, do	26.7	26.8	24.9
Dairy products:			
*Butter, pound	43.2	42.3	39.6
*Cheese, do	29.6	29.4	29.3
Cream, ½ pint	14.9	14.7	15.7
Milk, fresh (delivered and store)[2], quart	12.7	12.5	12.2
*Milk, fresh (delivered), do	13.0	12.7	12.4
*Milk, evaporated, 14½-oz. can	7.6	7.6	7.9
*Eggs, dozen	43.8	42.1	46.9
Fruits and vegetables:			
Fresh:			
Apples, pound	4.4	4.3	5.8
*Bananas, do	6.2	6.3	6.6
Lemons, dozen	36.3	34.5	29.2
*Oranges, do	34.2	44.9	33.4
Beans, green, pound	12.4	9.5	10.4
*Cabbage, do	3.0	3.0	3.2
Carrots, bunch	5.1	5.1	5.1
Celery, stalk	8.6	8.1	8.1
Lettuce, head	7.3	7.7	7.9
*Onions, pound	4.0	3.8	3.0
*Potatoes, do	1.9	1.9	2.9
Spinach, do	6.2	7.5	6.6
Sweetpotatoes, do	3.3	3.4	3.7
Canned:			
Peaches, No. 2½ can	19.6	19.7	18.4
Pears, do	21.8	21.9	22.2
Pineapple, do	23.1	23.1	22.5
Asparagus, No. 2 can	30.0	29.9	27.0
Beans, green, do	11.6	11.6	12.1
*Beans with pork, 16-oz. can	8.0	8.1	7.4
*Corn, No. 2 can	12.2	12.4	12.9
*Peas, do	16.0	15.7	16.3
*Tomatoes, do	9.1	9.1	9.5
Tomato soup, 10½-oz. can	7.9	7.9	8.1
Dried:			
Peaches, pound	16.5	16.9	17.6
*Prunes, do	10.2	10.5	10.3
*Raisins, 15-oz. package	10.3	10.3	9.8
Black-eyed peas, pound	8.5	9.0	9.5
Lima beans, do	10.1	10.7	11.6
*Navy beans, do	7.2	8.1	8.8
Beverages and chocolate:			
*Coffee, do	25.8	25.8	24.3
*Tea, do	[3] 18.4	73.0	70.8
Cocoa, 8-oz. can	10.1	10.2	10.2
Chocolate, 8-oz. package	16.5	16.6	16.1
Fats and oils:			
*Lard, pound	16.1	17.1	16.4
Lard compound, do	13.8	14.5	15.2
*Vegetable shortening, do	20.4	21.1	21.3
Salad oil, pint	25.1	25.1	25.2
Mayonnaise, ½ pint	17.6	17.6	16.8
*Oleomargarine, pound	17.7	17.9	18.7
Peanut butter, do	19.1	19.4	18.9
Sugar and sweets:			
*Sugar, do	5.6	[4] 5.7	5.5
Corn sirup, 24-oz. can	14.4	14.6	14.2
Molasses, 18-oz. can	14.5	14.5	14.4
Strawberry preserves, pound	22.4	22.4	20.6

[2] Average prices of milk delivered by dairies and sold in grocery stores, weighted according to the relative proportion distributed by each method.

[3] Quarter pound.

[4] Revised to include only quotations for sales in units of 10 pounds each.

Details by Regions and Cities

The 1.5-percent decline in the food cost index resulted from lower costs in 49 cities, a slight advance in one city, and no change in another. The decreases were largest in Atlanta, Philadelphia, and Birmingham. Each of these cities reported a drop in meat costs which was considerably greater than the average for all cities combined. In addition, cereal costs declined substantially in Atlanta and Birmingham. In St. Paul, the rise in the price of fresh milk contributed materially to the slight advance in food costs for the city.

Indexes of the retail cost of food by cities and regions are given in table 3 for November and October 1937 and for November of earlier years.

TABLE 3.—*Indexes of the Average Retail Cost of All Foods, by Regions and Cities* [1]

November and October 1937 and November 1936, 1935, 1933, 1932, and 1929

[1923-25=100]

Region and city	1937		1936	1935	1933	1932	1929
	Nov. 16	Oct. 12	Nov. 17	Nov. 19	Nov. 21	Nov. 15	Nov. 15
Average: 51 cities combined	**83.6**	**84.9**	**82.5**	**81.5**	**[2] 70.9**	**65.6**	**106.7**
New England	**83.8**	**85.0**	**80.1**	**80.3**	**71.1**	**66.5**	**107.2**
Boston	81.9	82.8	77.8	78.3	69.9	65.8	106.9
Bridgeport	88.9	90.1	84.8	86.5	74.2	70.1	107.0
Fall River	86.4	88.0	81.6	81.5	70.5	64.0	106.3
Manchester	83.5	84.5	81.9	82.3	71.8	65.5	105.4
New Haven	87.9	89.6	84.7	85.8	74.2	69.2	109.4
Portland, Maine	82.8	84.0	80.7	80.3	71.8	65.2	107.3
Providence	83.7	84.9	81.0	79.6	70.3	65.4	106.3
Middle Atlantic	**84.9**	**86.1**	**82.8**	**82.7**	**72.3**	**67.9**	**107.0**
Buffalo	81.1	83.0	80.5	80.5	70.8	64.4	107.2
Newark	88.3	89.5	84.3	84.4	73.5	71.9	106.5
New York	87.3	87.3	82.9	83.6	74.1	71.2	106.7
Philadelphia	83.3	87.2	85.3	83.9	72.6	66.8	108.1
Pittsburgh	83.5	83.6	80.2	80.0	67.9	63.1	106.7
Rochester	83.1	83.8	82.6	80.0	69.7	62.8	106.1
Scranton	77.3	79.7	79.6	78.9	70.6	63.8	108.5
East North Central	**83.6**	**85.0**	**82.9**	**80.8**	**69.8**	**63.3**	**107.6**
Chicago	85.0	86.5	84.7	80.8	69.9	67.8	109.2
Cincinnati	84.2	85.6	85.3	84.7	72.5	62.9	112.3
Cleveland	83.7	84.3	80.3	79.1	68.9	61.1	103.9
Columbus, Ohio	80.9	83.3	83.6	82.6	70.4	61.3	107.4
Detroit	82.4	83.7	81.4	80.8	68.6	57.5	105.6
Indianapolis	81.8	83.6	82.7	79.9	69.3	61.9	109.3
Milwaukee	86.9	88.5	85.3	82.5	72.4	66.7	108.1
Peoria	81.5	83.8	83.2	81.3	71.3	63.0	107.9
Springfield, Ill	80.5	81.8	82.9	79.9	68.0	61.2	106.3
West North Central	**85.2**	**85.7**	**86.6**	**84.2**	**70.5**	**64.6**	**107.7**
Kansas City	83.4	85.0	85.7	82.7	69.7	66.6	107.6
Minneapolis	87.5	87.7	89.9	86.4	72.6	65.6	109.5
Omaha	80.2	80.8	83.6	81.5	67.5	61.4	104.0
St. Louis	88.0	88.2	87.4	85.5	71.1	64.7	109.1
St. Paul	84.1	83.4	85.3	83.4	71.6	63.5	106.4

[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 for regions and for the United States with the use of population weights.

[2] Revised.

TABLE 3.—*Indexes of the Average Retail Cost of All Foods, by Regions and Cities*—Con.

November and October 1937 and November 1936, 1935, 1933, 1932, and 1929—Continued

[1923-25=100]

Region and city	1937		1936	1935	1933	1932	1929
	Nov. 16	Oct. 12	Nov. 17	Nov. 19	Nov. 21	Nov. 15	Nov. 15
South Atlantic	**81.8**	**83.4**	**82.4**	**81.7**	**70.0**	**64.1**	**105.2**
Atlanta	77.5	81.2	79.2	78.7	65.7	59.8	104.6
Baltimore	86.6	87.4	85.3	84.6	73.0	66.5	105.4
Charleston, S. C	83.3	85.6	83.3	82.0	69.6	64.0	106.1
Jacksonville	79.7	81.9	79.8	78.8	66.1	61.0	100.7
Norfolk	80.0	81.0	82.3	81.8	70.9	66.6	112.0
Richmond	76.4	77.9	81.1	78.1	67.3	61.1	102.6
Savannah	82.3	84.2	82.7	81.5	69.6	63.3	107.5
Washington, D. C	85.6	86.3	84.5	85.7	73.6	67.5	106.1
East South Central	**77.4**	**79.7**	**79.3**	**76.7**	**66.3**	**61.0**	**105.3**
Birmingham	72.8	76.0	75.7	71.8	63.7	59.2	102.5
Louisville	87.1	88.0	87.3	87.0	70.3	63.3	110.7
Memphis	79.3	80.9	81.1	78.8	69.2	63.2	106.7
Mobile	78.0	79.9	77.3	76.4	65.4	62.0	103.0
West South Central	**81.2**	**82.8**	**81.9**	**80.3**	**69.2**	**62.3**	**104.3**
Dallas	78.8	81.0	80.0	79.7	68.8	63.1	104.9
Houston	81.2	82.5	82.3	79.1	67.3	58.7	102.4
Little Rock	79.2	80.4	80.5	78.1	66.3	60.0	107.9
New Orleans	84.8	86.2	84.1	84.5	72.9	66.6	105.1
Mountain	**85.6**	**86.9**	**86.8**	**83.7**	[2] **69.7**	**64.2**	**104.0**
Butte	80.1	82.5	81.4	78.2	63.9	61.9	105.5
Denver	88.0	89.2	89.9	86.3	71.2	66.2	103.6
Salt Lake City	82.8	84.1	82.9	81.1	[2] 68.7	61.5	104.2
Pacific	**80.9**	**82.1**	**81.0**	**79.3**	[2] **71.8**	**66.4**	**105.0**
Los Angeles	75.3	77.6	77.8	75.5	[2] 70.2	62.8	103.1
Portland, Oreg	83.4	85.0	83.2	80.1	65.7	64.4	106.1
San Francisco	86.2	86.2	83.8	83.0	[2] 75.9	71.5	107.2
Seattle	83.2	83.9	82.5	80.9	70.1	65.4	104.4

[2] Revised.

The Bureau of Labor Statistics collects prices in 11 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 October and November 1937 are shown in table 4 for nine of the cities.

TABLE 4.—*Percentage Changes in Retail Food Costs for Specified Cities*

November 1937 Compared with October 1937

Region and city	Percentage change Nov. 16, 1937, compared with Oct. 12, 1937								
	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	−3.2	−1.4	−3.9	+2.6	+23.9	−14.2	−1.9	+0.6	+1.2
Sioux Falls	0	−1.3	−4.7	+.6	+19.7	+5.4	−1.6	−2.9	−.1
Wichita	−.9	−1.1	−8.5	+.2	+3.4	+6.8	−1.8	−3.1	−.6
South Atlantic:									
Columbia, S. C	−1.6	−2.0	−8.0	+.5	−8.4	+5.6	−.6	−.1	+.5
Winston-Salem	−1.5	−1.5	−3.0	+.8	+3.0	−3.3	−.1	−1.0	+.3
East South Central:									
Jackson	−1.3	−.8	−3.6	+2.9	+2.7	−4.6	−3.0	+1.2	+3.1
Knoxville	−4.0	−4.0	−3.8	−.5	+2.7	−9.5	−.1	−4.2	+.3
West South Central:									
El Paso	−1.7	−.6	−2.7	+.4	+.8	−4.3	−.3	−3.0	−.2
Oklahoma City	−3.4	−1.4	−5.9	+.5	−2.9	−8.2	−.6	−1.2	−.4

RETAIL PRICES OF FOOD IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES

THE accompanying table brings together the index numbers of retail prices of food published by certain foreign countries and those of the United States Bureau of Labor Statistics. The base periods used in the original reports have been retained. Indexes are shown for each year from 1926 to 1932, inclusive, and for the months as indicated since March 1933.

As shown in the table, the number of articles included in the indexes for the various countries differs widely. The indexes are not absolutely comparable from month to month over the entire period for certain countries, owing to slight changes in the list of commodities and localities included on successive dates.

TABLE 5.—*Indexes of Retail Food Prices in the United States and in Foreign Countries*

Country	United States	Australia	Austria	Belgium	Bulgaria	Canada	China	Czechoslovakia [1]
Computing agency	Bureau of Labor Statistics	Bureau of Census and Statistics	Federal Statistics Bureau	Ministry of Labor and Social Welfare	General Direction of Statistics	Dominion Bureau of Statistics	National Tariff Commission	Central Bureau of Statistics
Number of localities	51	30	Vienna	59	12	69	Shanghai	Prague
Commodities included	84 foods [2]	44 foods and groceries	18 foods	33 foods	35 foods	46 foods	24 foods	35 foods
Base=100	1923–25	1923–27 (1,000)	July 1914	1921	1926	1926	1926	July 1914
1926	108.5	1,027	116	[3] 170.7	100.0	100.0	100.0	800
1927	104.5	1,004	119	[3] 207.5	97.8	98.0	106.7	850
1928	103.3	989	119	[3] 207.4	102.5	98.6	92.1	842
1929	104.7	1,047	122	[3] 218.4	106.4	101.0	98.4	813
1930	99.6	946	118	[3] 208.6	86.7	98.6	118.8	782
1931	82.0	830	108	[3] 176.4	68.0	77.3	107.5	712
1932	68.3	800	110	[3] 149.9	62.8	64.3	101.3	677
1933								
March	59.8	734	103	150.4	63.1	60.4	92.3	649
June	64.9	759	106	143.4	60.2	62.2	84.1	676
September	72.0	768	104	151.2	60.4	65.9	88.0	644
December	69.7	769	104	153.6	62.4	66.6	79.8	634
1934								
March	72.7	774	101	141.1	62.7	72.9	75.0	623
June	73.3	777	102	134.0	60.7	67.6	75.4	653
September	77.0	791	101	146.1	61.0	68.8	106.7	633
December	74.8	794	100	144.0	62.1	69.3	90.4	622
1935								
March	79.8	795	98	130.8	60.7	69.5	85.7	629
June	81.7	805	103	141.4	60.0	69.3	89.5	679
September	80.0	826	101	154.3	59.1	70.9	89.8	671
October	80.2	827	103	159.5	59.6	72.4	86.3	668
November	80.9	820	103	162.7	60.6	73.2	90.3	665
December	82.1	813	102	160.1	61.1	73.7	88.9	670
1936								
January	81.2	812	102	161.4	60.6	73.9	93.3	673
February	80.9	815	101	161.7	61.3	72.9	98.6	677
March	79.2	807	99	158.5	60.5	73.4	102.2	673
April	79.3	815	98	155.3	59.8	71.0	97.9	674
May	80.0	816	99	151.1	59.8	71.3	97.6	677
June	83.4	818	103	153.3	60.1	71.3	99.3	683
July	84.0	825	100	149.0	61.2	72.6	99.8	675
August	84.0	839	101	155.7	59.8	74.7	105.7	672
September	84.3	842	101	160.2	60.4	75.1	102.3	667
October	82.8	844	101	164.7	61.9	74.4	102.7	667
November	82.5	847	102	168.5	63.1	75.0	103.3	661
December	82.9	854	101	169.0	63.5	75.3	106.8	661
1937								
January	84.6	857	100	171.3	63.5	75.2	111.3	664
February	84.5	848	99	172.6	63.9	75.6	111.0	670
March	85.4	842	99	170.5	63.6	75.7	104.9	665
April	85.6	848	98	167.2	63.6	76.3	103.7	663
May	86.5	846	99	166.4	63.9	76.6	104.3	666
June	86.3	847	101	169.7	65.1	76.4	104.0	683
July	85.9	853	100	175.7	66.6	77.2	106.0	679
August	85.5	852	99	177.4	----------	79.1	128.5	673
September	85.8	----------	99	182.2	----------	78.3	141.4	669
October	84.9	----------	100	183.5	----------	78.9	126.9	660

[1] (Nominal index.) Koruna devalued approximately 16 percent by law of Oct. 9, 1936.
[2] Based on 42 foods prior to Jan. 2, 1935.
[3] Average computed by Bureau of Labor Statistics.

TABLE 5.—*Indexes of Retail Food Prices in the United States and in Foreign Countries*—Continued

Country	Estonia	Finland	France	Germany	Hungary	India	Ireland	Italy
Computing agency	Bureau of Statistics	Ministry of Social Affairs	Commission of Cost of Living	Federal Statistical Bureau	Central Office of Statistics	Labor Office	Department of Industry and Commerce	Office Provincial of Economy
Number of localities	Tallin	36	Paris	72	Budapest	Bombay	105	Milan
Commodities included	52 foods	14 foods	Foods	37 foods	12 foods	17 foods	29 foods	18 foods
Base=100	1913	1935	January–June 1914	October 1913–July 1914	1913	July 1914	July 1914	January–June 1914
1926	118	----------	[3] 529	144.4	113.3	[3] 152	179	654.7
1927	112	----------	[3] 536	151.9	124.8	[3] 151	170	558.7
1928	120	----------	[3] 539	152.3	127.7	[3] 144	169	517.0
1929	126	----------	[3] 584	154.5	124.1	[3] 146	169	542.8
1930	103	----------	[3] 609	142.9	105.1	[3] 134	160	519.3
1931	90	----------	[3] 611	127.6	96.2	[3] 102	147	451.9
1932	80	----------	[3] 548	112.3	91.2	[3] 102	141	431.0
1933								
March	75	----------	542	109.4	86.1	98	[4] 130	416.6
June	74	----------	532	113.7	84.4	95	[4] 126	402.9
September	81	----------	530	114.4	77.3	94	[4] 129	401.5
December	79	----------	548	117.8	74.3	88	[4] 140	408.9
1934								
March	78	----------	548	116.5	75.7	84	[4] 133	406.8
June	77	----------	544	117.8	79.6	85	[4] 129	383.3
September	73	----------	525	119.2	77.9	90	[4] 134	377.8
December	72	----------	516	119.1	75.7	90	[4] 143	390.5
1935								
March	76	----------	494	118.8	78.2	89	[4] 136	389.8
June	73	----------	491	120.6	79.8	92	[4] 132	398.3
September	77	----------	466	120.9	85.0	94	[4] 140	403.9
October	83	----------	----------	119.6	84.2	94	----------	415.5
November	83	----------	----------	119.9	83.6	96	150	416.9
December	83	----------	481	120.9	84.9	96	----------	422.0
1936								
January	84	100	----------	122.3	85.8	96	----------	428.5
February	86	100	----------	122.3	86.7	93	145	425.7
March	87	100	495	122.2	87.3	94	----------	425.5
April	87	98	----------	122.4	88.5	92	----------	424.6
May	87	96	----------	122.4	88.2	92	141	431.5
June	90	97	514	122.8	86.4	92	----------	431.8
July	----------	98	----------	124.0	85.8	93	----------	431.5
August	93	----------	----------	124.2	87.5	93	145	427.0
September	91	99	525	122.0	88.0	94	----------	434.7
October	92	100	----------	121.7	88.1	95	----------	448.1
November	90	101	----------	121.3	86.7	96	155	448.2
December	92	101	562	121.0	88.5	95	----------	450.4
1937								
January	97	102	----------	121.4	93.2	97	----------	454.0
February	97	105	----------	121.9	93.6	97	153	459.1
March	97	106	604	122.3	93.4	96	----------	455.3
April	95	105	----------	122.3	92.6	96	----------	457.8
May	94	103	----------	122.4	92.2	96	152	459.6
June	96	104	629	122.9	92.3	98	----------	464.9
July	96	106	----------	124.5	93.0	----------	----------	481.0
August	94	111	----------	124.0	93.3	----------	154	486.8
September	95	111	----------	122.0	95.8	----------	----------	502.6
October	95	----------	----------	121.3	----------	----------	----------	----------

[3] Average computed by Bureau of Labor Statistics.
[4] Index for preceding month.

TABLE 5.—*Indexes of Retail Food Prices in the United States and in Foreign Countries*—Continued

Country	Netherlands	New Zealand	Norway	Poland	South Africa	Sweden	Switzerland	United Kingdom
Computing agency	Bureau of Statistics	Census and Statistics Office	Central Bureau of Statistics	Central Statistical Office	Office of Census and Statistics	Board of Social Welfare	Federal Labor Office	Ministry of Labor
Number of localities	Amsterdam	25	31	Warsaw	9	49	34	509
Commodities included	Foods	58 foods	89 foods	25 foods	20 foods	49 foods	28 foods	14 foods
Base=100	1911–13	1926–30 (1,000)	July 1914	1928	1914 (1,000)	July 1914	June 1914	July 1914
1926	161.3	1,026	198	88.5	[3] 1,178	[3] 158	160	164
1927	162.9	983	175	102.0	[3] 1,185	[3] 152	158	160
1928	166.4	1,004	168	100.0	[3] 1,169	[3] 154	157	157
1929	162.4	1,013	158	97.0	[3] 1,153	[3] 150	156	154
1930	150.2	974	152	83.7	[3] 1,101	[3] 140	152	145
1931	135.7	845	139	73.9	[3] 1,049	[3] 129	141	131
1932	119.2	775	134	64.9	[3] 958	[3] 125	125	126
1933								
March	115.5	712	130	60.0	950	[5] 119	116	119
June	116.5	723	130	59.5	989	[5] 120	116	114
September	121.1	746	132	56.0	987	[5] 123	117	122
December	128.3	751	129	56.5	1,050	[5] 120	117	126
1934								
March	125.5	769	128	54.6	1,038	120	115	120
June	123.2	778	132	51.2	1,041	[5] 123	115	117
September	123.6	771	135	51.4	1,027	[5] 125	114	126
December	122.3	792	134	48.6	1,021	[5] 124	114	127
1935								
March	118.5	819	135	47.4	1,024	[5] 126	112	122
June	117.6	835	138	49.6	1,039	[5] 129	113	120
September	117.2	837	140	52.2	1,003	----------	116	125
October	----------	875	142	52.4	998	131	117	128
November	----------	873	142	52.0	1,006	----------	118	131
December	119.2	855	142	48.7	1,014	----------	118	131
1936								
January	----------	841	142	47.7	1,016	132	118	131
February	----------	830	143	46.9	1,016	----------	118	130
March	117.0	827	144	46.9	1,015	----------	118	129
April	----------	845	145	48.4	1,024	134	119	126
May	----------	861	144	49.3	1,029	----------	119	125
June	118.5	869	145	48.4	1,030	----------	120	126
July	----------	875	145	48.6	1,011	134	120	129
August	----------	878	142	48.0	1,003	----------	120	129
September	120.9	899	143	48.3	1,000	----------	121	131
October	123.5	894	143	49.4	1,002	132	123	132
November	123.6	901	144	49.6	1,007	----------	123	136
December	122.1	914	145	50.3	1,000	----------	123	136
1937								
January	123.5	910	148	52.5	1,001	133	126	136
February	122.2	916	150	54.5	1,004	----------	129	135
March	123.0	923	152	54.7	1,013	----------	129	135
April	125.4	943	155	52.9	1,022	137	129	135
May	125.9	951	156	53.9	1,030	----------	129	136
June	129.3	945	157	54.7	1,029	----------	131	136
July	130.1	954	161	53.8	1,023	138	131	140
August	130.0	956	161	53.2	1,016	----------	130	140
September	128.6	----------	163	----------	1,011	----------	130	140
October	130.4	----------	----------	----------	----------	140	130	143

[3] Average computed by Bureau of Labor Statistics.
[4] Index for following month.

Wholesale Prices

WHOLESALE PRICES IN NOVEMBER 1937

WHOLESALE commodity prices, as measured by the index number of the Bureau of Labor Statistics, declined for the fourth consecutive month. The all-commodity index for November followed a 2.3-percent drop in October and fell 2.5 percent. Price declines during the month were widespread, with all groups, with the exception of metals and metal products, sharing in the drop.

The November decline placed the composite index of wholesale prices at 83.3 percent of the 1926 average. It shows a decline of 5.3 percent since the April high of 88.0 and records the lowest level reached since December 1936.

The recession in prices began during the latter part of April of this year. The index continued steadily downward to July when a slight reaction resulted in an increase of 0.8 percent. During August and September minor decreases were shown in the index. In October a sharp decrease of 2.3 percent was followed by the further steep decline of 2.5 percent in November. The accumulated drop from July to November was 5.2 percent.

Of the 10 major commodity groups included in the Bureau's general index, 9 showed declines during the month, ranging from 0.4 percent for fuel and lighting materials to 5.8 percent for farm products. The metals and metal products group increased 0.4 percent. Four of the groups—farm products, foods, textile products, and chemicals and drugs—showed a lower average than for November 1936. The 6 remaining groups—hides and leather products, fuel and lighting materials, metals and metal products, building materials, house-furnishing goods, and miscellaneous commodities—were above the level of a year ago, with increases ranging from 1.8 percent for fuel and lighting materials to 10.1 percent for metals and metal products.

Average prices of raw materials reached the lowest point since June 1936. The index for semimanufactured articles continued downward and reached a new low for 1937, but remained 1.5 percent above the level for a year ago. Prices for finished products declined for the second consecutive month following a steady rise for the first 9 months of 1937. The decrease for November was 1.6 percent; and notwithstanding this drop the index for finished products was 5.0 percent above November 1936.

Nonagricultural commodity prices, as reflected by the index for "All commodities other than farm products" decreased 1.9 percent during the month. The group "All commodities other than farm products and foods" declined 0.9 percent. The level for prices of both nonagricultural commodities (which includes food) and industrial commodities (excluding food) was approximately 4 percent above last year.

A comparison of the November 1937 level of wholesale commodity prices with October 1937 and November 1936 is shown in table 1.

TABLE 1.—*Comparison of Index Numbers of Wholesale Prices for November 1937 With October 1937 and November 1936*

[1926=100]

Commodity group	November 1937	October 1937	Change from a month ago	November 1936	Change from a year ago
All commodities	83.3	85.4	−2.5	82.4	+1.1
Farm products	75.7	80.4	−5.8	85.1	−11.0
Foods	83.1	85.5	−2.8	83.9	−1.0
Hides and leather products	101.4	106.7	−5.0	97.0	+4.5
Textile products	71.2	73.5	−3.1	73.5	−3.1
Fuel and lighting materials	78.2	78.5	−.4	76.8	+1.8
Metals and metal products	96.8	96.4	+.4	87.9	+10.1
Building materials	93.7	95.4	−1.8	87.7	+6.8
Chemicals and drugs	80.2	81.2	−1.2	82.5	−2.8
Housefurnishing goods	90.4	91.0	−.7	82.3	+9.8
Miscellaneous	75.4	76.2	−1.0	73.4	+2.7
Raw materials	77.2	80.7	−4.3	83.1	−7.1
Semimanufactured articles	79.8	82.5	−3.3	78.6	+1.5
Finished products	86.7	88.1	−1.6	82.6	+5.0
All commodities other than farm products	84.8	86.4	−1.9	81.7	+3.8
All commodities other than farm products and foods	84.3	85.1	−.9	81.0	+4.1

Wholesale Price Level in November

The November composite index of wholesale prices was 83.3 percent of the 1926 average and represented the low point reached during the year. Compared with the high point of 88.0 in April, the current index was down 5.3 percent. It was 1.1 percent above the level for November 1936. The combined decrease for October and November was 4.7 percent.

During the month of November the farm products group led in price declines which amounted to 5.8 percent. Hides and leather products fell 5.0 percent; textile products, 3.1 percent; foods, 2.8 percent; building materials, 1.8 percent; chemicals and drugs, 1.2 percent; miscellaneous commodities, 1.0 percent; housefurnishing goods, 0.7 percent; and fuel and lighting materials, 0.4 percent. Contrasted with these declines metals and metal products advanced 0.4 percent.

The number of price changes within each of the 10 major commodity groups which influenced the movement of the all-commodity index during November are shown in table 2.

TABLE 2.—*Number of Items Changing in Price From October to November 1937*

Commodity group	Increases	Decreases	No change
All commodities	105	278	401
Farm products	22	42	3
Foods	33	52	37
Hides and leather products	0	19	22
Textile products	2	67	43
Fuel and lighting materials	9	10	5
Metals and metal products	23	23	84
Building materials	2	29	55
Chemicals and drugs	6	10	73
Housefurnishing goods	3	4	54
Miscellaneous	5	22	25

The sharp decline in prices for agricultural commodities was largely responsible for the drop of 4.3 percent in the index for the raw materials group. The level for the group was 7.1 percent below that of a year ago. Average prices for semimanufactured articles recorded an additional decline of 3.3 percent during November, but were 1.5 percent above November 1936. The index for the finished products group decreased 1.6 percent during the month, but still remained 5 percent above the November 1936 average.

According to the index for "All commodities other than farm products," nonagricultural commodity prices fell 1.9 percent. The index for the group (84.8) was 3.8 percent higher than for the corresponding month of 1936.

During the month the index for industrial commodity prices, as measured by the group for "All commodities other than farm products and foods," was 0.9 percent lower than in October. The November 1937 level (84.3) was 4.1 percent higher than a year ago.

The decrease of 5.8 percent in the average prices for farm products was largely the result of a 10.1-percent drop in grains and a 12.5-percent decline for livestock and poultry. The large subgroup of "Other farm products" recorded an increase of 0.9 percent. Important farm products showing declines of 3 or more percent during the month were corn, wheat, calves, cows, steers, hogs, sheep, live poultry, cotton, oranges, hops, seeds, dried beans, and wool. Contrasted with these price declines were increases in average prices for eggs, lemons, fresh milk, and white and sweet potatoes. The November farm products index (75.7) was 11.0 percent under that for November 1936, and was the lowest level reached since December 1934.

In the foods group, cereal products declined 3.7 percent; fruits and vegetables, 1.1 percent; and meats, 8.5 percent during the month. At the same time, dairy products advanced 4.1 percent and the subgroup of "Other foods" increased 0.3 percent. Lower prices were quoted for rye and wheat flour, grits, corn meal, dried apples, prunes, raisins, fresh beef, fresh and cured pork, veal, cocoa beans and powdered cocoa, coffee, copra, glucose, lard, black pepper, corn starch,

edible tallow, and vegetable oils. Individual food items for which higher prices were reported were butter, rice, bananas, canned corn and string beans, lamb and mutton. The November 1937 index for the food group (83.1) was only 1.0 percent below the level of November 1936. The current level was the lowest reached during the past 12 months.

Continued drastic declines in average prices of hides, skins, and leather and lesser decreases for shoes and other leather products including luggage accounted for the 5.0 percent drop in the index for hides and leather products. Hides and skins averaged 19.2 percent lower in price and leather prices generally dropped 4.6 percent. Average prices for shoes were 0.7 percent lower and other leather products were down 0.2 percent. The index for hides and skins decreased 22.5 percent during the previous 3 months and was the lowest reached since September 1936.

The index for the textile products group dropped 3.1 percent. Further drastic reductions in average prices for cotton textiles, silk and rayon, and woolen and worsted materials were largely responsible for the drop. Clothing prices on the average and also knit goods were 2.4 percent lower, while other textile products, which include cordage and fabrics, remained firm. Individual textile items showing marked price declines were men's four-piece suits, work pants, denims, drillings, cotton flannel, print cloth, sheeting, shirting, ticking, cotton yarns, women's silk hoisery, women's dress goods, suitings, trousering, worsted yarns, and cotton rope. The current textile products index (71.2) was the lowest reached since September 1936, and was 3.1 percent below the level of 12 months ago.

Average prices for fuel and lighting materials showed the second monthly drop since March of this year. The decrease of 0.4 percent was largely caused by the 1.8-percent decline in prices for petroleum products. Lower average refinery prices for gasoline, both regular and natural, primarily resulted in the decline for the subgroup of petroleum products. Prices for kerosene in the New York market averaged higher. The subgroups of bituminous coal and gas also declined. Average prices for coke were fractionally higher while electricity and anthracite were considerably higher during the month.

Higher prices for agricultural implements and motor vehicles more than counterbalanced continued weakness in prices for iron and steel items, nonferrous metals, and plumbing and heating, and caused the index for the metals and metal products group to advance 0.4 percent. The current index for agricultural implements (95.9) was the highest reached since February 1930, when the index was 97.3 percent of the 1926 average. Contrasted to this was the lower level reached for nonferrous metals (78.5), which dropped 15.2

percent since September. Slightly higher average prices were reported for both passenger cars and motortrucks. Individual items showing lower prices during the month were butts, scrap steel, antimony, babbitt, electrolytic copper, pig lead, lead pipe, copper and brass products, pig tin, pig zinc, and heating boilers.

TABLE 3.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities*

[1926=100]

Group and subgroup	Nov. 1937	Oct. 1937	Nov. 1936	Nov. 1935	Nov. 1934	Nov. 1933	Nov. 1932	Nov. 1931	Nov. 1930
All commodities	83.3	85.4	82.4	80.6	76.5	71.1	63.9	70.2	81.3
Farm products	75.7	80.4	85.1	77.5	70.8	56.6	46.7	58.7	79.3
Grains	69.2	77.0	102.9	77.9	87.2	61.3	33.2	51.3	64.0
Livestock and poultry	86.2	98.5	79.7	83.1	54.0	41.2	41.9	55.7	77.7
Other farm products	70.7	70.1	82.9	73.5	75.8	64.3	53.9	63.1	85.4
Foods	83.1	85.5	83.9	85.1	75.1	64.3	60.6	71.0	86.2
Dairy products	89.2	85.7	88.2	81.1	78.6	67.2	62.3	80.7	95.6
Cereal products	81.5	84.6	85.9	97.2	91.0	85.8	62.7	73.1	75.7
Fruits and vegetables	61.5	62.2	74.8	63.2	65.3	61.7	52.4	65.1	82.9
Meats	98.3	107.4	85.2	94.3	68.4	48.2	53.7	67.7	91.4
Other foods	73.6	73.4	81.4	80.8	74.0	66.4	67.7	68.0	81.5
Hides and leather products	101.4	106.7	97.0	95.0	84.2	88.2	71.4	81.6	94.2
Shoes	106.9	107.6	99.3	99.6	97.3	99.0	84.2	92.5	100.3
Hides and skins	94.6	117.1	101.2	96.0	63.1	70.1	46.1	49.0	75.1
Leather	92.7	97.2	88.4	88.1	70.8	79.3	61.9	78.8	93.2
Other leather products	103.1	103.3	95.9	86.3	85.7	87.9	81.9	101.1	104.8
Textile products	71.2	73.5	73.5	73.4	69.7	76.8	53.9	62.2	74.2
Clothing	87.3	89.4	81.5	80.7	78.4	88.0	62.2	72.6	83.5
Cotton goods	70.5	73.1	85.5	85.8	84.4	86.0	53.6	58.1	77.5
Knit goods	64.2	65.8	61.2	63.2	61.0	72.5	51.0	59.0	72.8
Silk and rayon	30.1	30.6	33.4	35.0	25.8	30.4	29.5	41.8	46.6
Woolen and worsted goods	85.1	90.1	84.3	80.7	74.1	84.4	55.3	64.2	74.7
Other textile products	69.0	69.0	66.5	68.5	68.5	75.8	67.1	72.5	78.0
Fuel and lighting materials	78.2	78.5	76.8	74.5	74.4	73.5	71.4	69.4	75.3
Anthracite	79.8	78.8	82.4	83.0	82.1	81.8	88.8	94.2	89.6
Bituminous coal	99.2	99.3	97.2	98.5	96.4	90.7	80.4	83.7	89.1
Coke	105.4	105.3	97.8	88.9	85.6	83.2	75.6	81.4	83.9
Electricity	(1)	81.0	82.7	86.2	94.0	93.8	103.1	103.4	102.2
Gas	(1)	83.6	81.9	86.6	92.4	94.6	100.0	100.1	97.0
Petroleum products	60.6	61.7	58.1	52.5	50.5	51.6	48.2	42.5	53.3
Metals and metal products	96.8	96.4	87.9	86.9	86.2	82.7	79.6	82.6	87.8
Agricultural implements	95.9	94.2	92.9	94.6	91.9	83.7	84.6	85.5	94.5
Iron and steel	99.3	99.7	88.9	87.0	86.0	81.5	79.4	81.5	86.8
Motor vehicles	102.5	97.8	92.0	93.8	94.7	90.9	92.7	95.2	96.1
Nonferrous metals	78.5	85.5	75.4	71.3	67.7	68.0	49.1	54.7	70.6
Plumbing and heating	79.6	80.6	76.7	71.1	68.8	73.7	67.5	81.4	83.3
Building materials	93.7	95.4	87.7	85.8	85.0	84.9	70.7	76.2	85.5
Brick and tile	92.9	93.4	88.8	88.3	91.2	84.7	75.4	81.4	89.4
Cement	95.5	95.5	95.5	95.5	93.9	91.2	79.0	74.6	91.1
Lumber	94.8	97.3	86.6	81.8	81.2	86.5	56.6	65.9	80.2
Paint and paint materials	81.5	84.2	80.5	80.3	78.8	76.3	68.5	77.5	84.7
Plumbing and heating	79.6	80.6	76.7	71.1	68.8	73.7	67.5	81.4	83.3
Structural steel	114.9	114.9	97.1	92.0	92.0	86.8	81.7	81.7	81.7
Other building materials	98.7	100.2	90.9	90.6	89.4	88.4	80.1	81.9	89.2
Chemicals and drugs	80 2	81.2	82.5	81.2	76.9	73.4	72.4	76.1	86.0
Chemicals	84.2	85.3	89.2	88.4	80.9	79.2	79.7	80.6	90.1
Drugs and pharmaceuticals	76.8	78.3	77.9	74.7	73.5	58.4	55.0	61.3	66.9
Fertilizer materials	71.9	72.5	68.0	67.5	64.6	67.8	63.5	70.1	82.1
Mixed fertilizers	74.5	74.9	69.6	67.6	73.5	68.5	65.6	77.7	91.1
Housefurnishing goods	90.4	91.0	82.3	81.0	81.3	81.0	73.7	80.9	91.5
Furnishings	94.8	94.9	85.7	84.7	84.3	82.8	74.7	79.7	89.9
Furniture	86.0	87.1	78.8	77.1	78.4	79.4	72.7	82.3	93.2
Miscellaneous	75.4	76.2	73.4	67.4	70.6	65.5	63.7	68.7	74.1
Automobile tires and tubes	57.4	56.4	50.1	45.0	47.5	43.2	44.6	46.0	50.2
Cattle feed	83.3	83.6	126.0	69.1	108.2	63.5	40.8	59.8	83.0
Paper and pulp	90.4	92.4	81.5	79.4	82.1	82.5	73.4	80.8	84.6
Rubber, crude	30.6	33.6	37.1	27.1	26.6	17.5	7.2	9.6	18.6
Other miscellaneous	83.5	84.6	81.7	80.2	80.8	78.4	81.5	86.7	91.1
Raw materials	77.2	80.7	83.1	77.2	72.2	62.4	54.2	62.0	76.8
Semimanufactured articles	79.8	82.5	78.6	76.2	71.1	71.4	58.9	64.9	76.1
Finished products	86.7	88.1	82.6	82.7	79.3	75.2	69.3	74.8	84.1
All commodities other than farm products	84.8	86.4	81.7	81.1	77.7	74.2	67.5	72.6	81.6
All commodities other than farm products and foods	84.3	85.1	81.0	78.8	78.0	77.2	69.8	73.5	81.1

[1] Data not yet available.

The index for the building materials group declined 1.8 percent during the month. This decrease was caused by lower average prices for lumber, paint materials, and other building materials including rosin and prepared roofing. Structural steel and cement prices remained firm. Among more important individual items showing price decreases were front brick, yellow pine lath, Douglas fir and gum lumber, yellow pine flooring, carbon black, red lead, litharge, chinawood and linseed oils, prepared roofing, and rosin. The current index for building materials (93.7) was the lowest reached since February 1937, but was 6.8 percent above a year ago. In the decline for the chemicals and drugs group each subgroup shared. Drugs and pharmaceuticals dropped 1.9 percent, chemicals were 1.3 percent lower, fertilizer materials decreased 0.8 percent, and mixed fertilizers eased off 0.5 percent.

Both housefurnishings and furniture shared in the 0.7-percent drop in the index for the housefurnishing goods group. The decline placed the index for the group at 90.4 percent of the 1926 average.

Average wholesale prices for automobile tires and tubes increased 1.8 percent during November. Cattle feed prices declined 0.4 percent. Average prices for crude rubber dropped 8.9 percent and prices for paper and pulp fell 2.2 percent. The index for "Other miscellaneous" commodities decreased 1.3 percent because of lower prices for caskets, cylinder oils, laundry starch, and soap powder and chips.

Index numbers for the groups and subgroups of commodities for October and November 1937 and for November for each of the past 7 years are shown in table 3.

Index Numbers by Commodity Groups, 1926 to November 1937

Index numbers of wholesale prices by commodity groups, by years from 1926 to 1936, inclusive, and by months from January 1936 to November 1937, 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
By months:											
1936:											
January	78.2	83.5	97.1	71.7	75.1	86.7	85.7	80.5	81.4	67.8	80.6
February	79.5	83.2	96.1	71.0	76.1	86.7	85.5	80.1	81.5	68.1	80.6
March	76.5	80.1	94.9	70.8	76.2	86.6	85.3	79.3	81.4	68.3	79.6
April	76.9	80.2	94.6	70.2	76.4	86.6	85.7	78.5	81.5	68.6	79.7
May	75.2	78.0	94.0	69.8	76.0	86.3	85.8	77.7	81.5	69.2	78.6
June	78.1	79.9	93.8	69.7	76.1	86.2	85.8	78.0	81.4	69.7	79.2
July	81.3	81.4	93.4	70.5	76.2	86.9	86.7	79.4	81.2	71.0	80.5
August	83.8	83.1	93.6	70.9	76.3	87.1	86.9	79.8	81.4	71.5	81.6
September	84.0	83.3	94.6	70.9	76.1	86.8	87.1	81.7	81.7	71.3	81.6
October	84.0	82.6	95.6	71.6	76.8	86.9	87.3	82.2	82.0	71.5	81.5
November	85.1	83.9	97.0	73.5	76.8	87.9	87.7	82.5	82.3	73.4	82.4
December	88.5	85.5	99.7	76.3	76.5	89.6	89.5	85.3	83.2	74.5	84.2
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	89.5	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

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 October 1934 pamphlet on Wholesale Prices.

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
1926	100.0	100.0	100.0	100.0	100.0
1927	96.5	94.3	95.0	94.6	94.0
1928	99.1	94.5	95.9	94.8	92.9
1929	97.5	93.9	94.5	93.3	91.6
1930	84.3	81.8	88.0	85.9	85.2
1931	65.6	69.0	77.0	74.6	75.0
1932	55.1	59.3	70.3	68.3	70.2
1933	56.5	65.4	70.5	69.0	71.2
1934	68.6	72.8	78.2	76.9	78.4
1935	77.1	73.6	82.2	80.2	77.9
1936	79.9	75.9	82.0	80.7	79.6
1936:					
January	78.1	74.8	82.4	80.9	78.8
February	79.1	74.6	82.2	80.7	79.0
March	77.4	74.4	81.3	80.2	78.9
April	77.0	74.5	81.6	80.1	78.9
May	75.8	74.1	80.5	79.2	78.8
June	77.6	73.9	80.7	79.4	78.8
1936—Continued.					
July	79.8	75.2	81.6	80.3	79.5
August	81.5	75.6	82.4	80.9	79.7
September	81.8	75.9	82.3	80.9	79.6
October	82.1	76.2	82.0	80.9	80.1
November	83.1	78.6	82.6	81.7	81.0
December	85.6	82.3	83.8	83.1	82.2
1937:					
January	88.1	85.4	84.9	84.6	83.4
February	88.3	85.5	85.4	85.0	84.1
March	90.1	89.6	86.4	86.3	85.5
April	88.7	89.5	87.4	86.9	86.5
May	87.1	87.5	87.5	86.7	86.3
June	86.1	86.8	87.7	86.8	86.1
July	86.5	87.0	88.8	87.5	86.3
August	84.8	86.6	89.0	87.6	86.1
September	84.4	85.3	89.1	87.6	85.9
October	80.7	82.5	88.1	86.4	85.1
November	77.2	79.8	86.7	84.8	84.3

Weekly Fluctuations

A sharp downward tendency was registered in wholesale commodity prices throughout the 4 weeks of November. The cumulative decline in the all-commodity index from the last week of October to the last week of November was 2.4 percent.

Hides and leather products and farm products led the price recession with decreases during the 4-week period of 5.8 and 5.7 percent, respectively. Textile product prices dropped 3.6 percent from October 30 to November 27, and foods fell 2.7 percent during the same period. Price changes from week to week in the fuel and lighting materials, building materials, chemicals and drugs, housefurnishing goods, and miscellaneous commodity groups were comparatively slight and had little effect on the all-commodity index. However, all of these groups, except metals and metal products, averaged lower. An increase in motor vehicle prices toward mid-November caused the metals and metal products group index to show a net gain of 0.8 percent between October 30 and November 27.

Weekly price variations in the major commodity groups during November 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, October and November 1937*

[1926=100]

Commodity group	Nov. 27, 1937	Nov. 20, 1937	Nov. 13, 1937	Nov. 6, 1937	Oct. 30, 1937	Oct. 23, 1937	Oct. 16, 1937	Oct. 9, 1937	Oct. 2,[1] 1937
All commodities	82.0	82.9	83.2	83.8	84.0	84.9	85.2	86.0	86.9
Farm products	73.4	75.9	77.8	77.7	77.8	80.7	80.3	82.7	85.4
Foods	81.5	83.2	83.6	84.3	83.8	85.0	85.4	86.9	87.8
Hides and leather products	100.2	101.8	103.0	104.2	106.4	106.9	107.7	108.1	108.2
Textile products	70.0	70.5	71.0	71.6	72.6	72.8	72.8	73.3	73.9
Fuel and lighting materials	78.6	78.6	79.0	78.9	78.9	79.1	79.2	79.5	79.4
Metals and metal products	96.1	96.6	94.6	95.1	95.3	95.6	95.9	95.6	95.8
Building materials	93.7	93.8	94.0	94.4	95.0	95.4	95.9	95.9	96.2
Chemicals and drugs	79.6	79.8	80.0	80.1	80.6	80.6	80.9	81.2	81.0
Housefurnishing goods	92.1	92.1	92.1	92.2	92.6	92.7	92.7	92.7	92.7
Miscellaneous	75.0	75.4	75.0	75.5	75.7	76.0	76.3	76.6	76.8
Raw materials	75.4	77.0	78.2	78.6	78.7	80.5	80.5	82.1	83.9
Semimanufactured articles	78.9	79.7	80.0	81.1	81.5	81.9	82.5	83.4	83.9
Finished products	86.1	86.6	86.5	87.0	87.3	87.9	88.2	88.7	89.1
All commodities other than farm products	84.0	84.5	84.5	85.1	85.4	85.9	86.2	86.8	87.2
All commodities other than farm products and foods	83.9	84.2	84.0	84.3	84.7	85.0	85.2	85.3	85.6

TABLE 7.—*Weekly Changes (Percent) During November 1937, by Groups of Commodities*

Commodity group	Percentage change from—				
	Oct. 30 to Nov. 27	Nov. 20 to Nov. 27	Nov. 13 to Nov. 20	Nov. 6 to Nov. 13	Oct. 30 to Nov. 6
All commodities	−2.4	−1.1	−0.4	−0.7	−0.2
Farm products	−5.7	−3.3	−2.4	+.1	−.1
Foods	−2.7	−2.0	−.5	−.8	+.6
Hides and leather products	−5.8	−1.6	−1.2	−1.2	−2.1
Textile products	−3.6	−.7	−.7	−.8	−1.4
Fuel and lighting materials	−.4	0	−.5	+.1	0
Metals and metal products	+.8	−.5	+2.1	−.5	−.2
Building materials	−1.4	−.1	−.2	−.4	−.6
Chemicals and drugs	−1.2	−.3	−.3	−.1	−.6
Housefurnishing goods	−.5	0	0	−.1	−.4
Miscellaneous	−.9	−.5	+.5	−.7	−.3
Raw materials	−4.2	−2.1	−1.5	−.5	−.1
Semimanufactured articles	−3.2	−1.0	−.4	−1.4	−.5
Finished products	−1.4	−.6	+.1	−.6	−.3
All commodities other than farm products	−1.6	−.6	0	−.7	−.4
All commodities other than farm products and foods	−.9	−.4	+.2	−.4	−.5

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 Prices pamphlet is now published semiannually in the June and December issues. The June 1937 issue showed the data for the year 1936 and for the first 6 months of 1937. The monthly figures will be furnished currently upon request.

Revised Method of Calculation of the Wholesale Price Index

As a part of the program looking toward an expansion and betterment of its wholesale price data, the Bureau has simplified and improved the method of calculation of its wholesale price index. This change consisted in a shift from a chain index to a fixed-base index and has had no immediate effect on the level or movement of the index.

A discussion of the differences between the methods used prior to and after January 1937 and a description of the recently adopted method are contained in a reprint (Serial No. R. 666) entitled, "Revised Method of Calculation of the Wholesale Price Index of the United States Bureau of Labor Statistics," which is available upon request.

Recent Publications of Labor Interest

DECEMBER 1937

Agriculture

American farm tenancy problems. By Robert F. Martin. (In Conference Board Bulletin, National Industrial Conference Board, Inc., New York, November 30, 1937, pp. 121–126; charts.)

Shows the percent of tenancy, by geographic divisions, by age groups, and by color of operator, at varying periods from 1880 to 1935.

Farm tenancy. (In Law and Contemporary Problems, Duke University School of Law, Durham, N. C., October 1937, pp. 423–575.)

A collection of papers covering various phases of the land tenancy problem, with special emphasis upon the legal and administrative aspects of some of the experiments which are being tried or have been projected.

Research memorandum on rural life in the depression. By Dwight Sanderson. Prepared under the direction of the Committee on Studies in Social Aspects of the Depression. New York, Social Science Research Council, 230 Park Ave., 1937. 169 pp. (Studies in Social Aspects of the Depression; Bulletin 34.)

Discusses changes in the rural population, its composition and movement; social corollaries of agricultural readjustment problems; status and stratification of farmers; rural youth; rural institutions; rural services; the future of agriculture; and effects of the depression on distinctive rural attitudes and rural culture. The author also outlines studies that he considers would be worth while.

The income and living conditions of the agrarian population in Japan. By Shiro Kawada. (In Journal of Osaka University of Commerce, Osaka, Japan, December 1936, pp. 1–27.)

Apprenticeship

Apprentissage et chômage: Compte rendu des travaux de la troisième conférence patronale, de l'apprentissage, Paris 6 et 7 Mai 1936. Paris, Librairie du Recueil Sirey, 1936. 190 pp.

Proceedings of the third conference on apprenticeship held by the Confédération Générale de la Production Française, the principal employers' federation in France.

Child Labor

"Children preferred": A study of child labor in Pennsylvania. Harrisburg, Department of Labor and Industry, Bureau of Women and Children, 1937. 27 pp., illus.

Contains a general review of child-labor regulations and conditions in Pennsylvania, case records of accidents to minors illegally employed, and a brief chronological digest of the principal legislative acts regulating child labor in the United States, beginning with colonial laws. This digest includes the text of the pending child-labor amendment to the Constitution and a chronological record of its ratifications.

Child labor and the Nation's health. By S. Adolphus Knopf, M. D. Boston, Christopher Publishing House, 1937. 32 pp., illus.

In a foreword to this essay, Dr. Knopf refers to the facts it develops to support his plea for the creation of a Federal Department of Health, under a secretary with Cabinet status.

Selected bibliography on child labor and related problems. Washington, U. S. Children's Bureau, May 1937. 3 pp.; mimeographed.

Consumer Problems

Consumer problems and consumer cooperation in United States—a selected list of references. Detroit, Detroit Public Library, Department of Social Sciences, August 1937. 25 pp., mimeographed.

Financing the consumer: Report of a conference on consumer financing held at University of Chicago, May 20, 21, 1937. Chicago, University of Chicago, School of Business, 1937. 114 pp.

Includes papers on consumer credit and family budgeting, installment ("budget") buying, budgeting of medical services, and cooperative medical service.

Cooperative Movement

Consumers' cooperation in Cleveland. By Ernestine Wilke. Washington, U. S. Bureau of Labor Statistics, 1937. 20 pp. (Serial No. R. 624, reprint from September 1937 Monthly Labor Review.)

Comparison of provisions in State consumers' cooperative statutes, as of January 1, 1937. Washington, U. S. Consumers' Project, 1937.

Summarization, in tabular form, of material contained in a bulletin issued by the Consumers' Project, which gave the texts of the various laws.

Cooperative education for Utah. Salt Lake City, State Department of Public Instruction, 1937. 22 pp.; mimeographed.

Material on consumers' cooperatives—theory and case studies—intended for use in the W. P. A. adult-education program in Utah.

Cooperative ideals and problems. By Anders Örne; translated from the Swedish by J. Downie. Manchester, England, Cooperative Union, Ltd., Holyoake House, 1937. 157 pp.

Features of especial interest in this book are the discussions concerning classification of cooperative associations, questions of practical application of the cooperative principles, cooperation and the state, and cooperation and labor.

Fourteenth annual report on condition of credit unions, as at close of business on December 31, 1936. Madison, Wis., State Banking Commission, 1936. 267 pp.

Cost and Standards of Living

Factors to be considered in preparing minimum-wage budgets for women. Prepared by U. S. Bureau of Home Economics and U. S. Women's Bureau. *The practical pricing of budgets to be used in establishing minimum wages.* Prepared by U. S. Bureau of Labor Statistics. Washington, 1937. Various paging; mimeographed.

The standards of living on which minimum-wage budgets should be based, as presented in the first part of this publication, are summarized in an article in this issue of the Monthly Labor Review. The second part of the volume deals with procedures for pricing living costs on these recommended levels, and contains suggestions and guides for administering agencies and advisory bodies in determining the standards to be adopted in any given community. An appendix extends the discussion of standards to cover women living in housekeeping groups. The section on practical pricing methods outlines definite procedures for collecting prices of specified goods, and contains a suggested schedule form for price collections by minimum-wage boards.

Levels of living of the Nation's families. By Day Monroe. (In Journal of Home Economics, Washington, December 1937, pp. 665–670.)

After discussing recent Governmental studies of the cost of living, the author emphasizes an outstanding fact which she considers a challenge to all home economists—that wiser spending could raise levels of living.

Report on an enquiry into working class family budgets in Ahmedabad. Bombay, [Labor Office?], 1937. 85 pp.

The results of an investigation begun in October 1933 and completed in January 1935.

Economic and Social Problems

An economic history of Europe since 1750. By Witt Bowden, Michael Karpovich, and Abbott Payson Usher. New York, American Book Co., 1937. 948 pp., maps, charts; bibliography.

The first part of the volume describes the transition to contemporary economic institutions and techniques. The second half emphasizes the developments immediately preceding and following the World War, with accounts of the comparative status of labor under the various forms of government. Three chapters deal specifically with the history of labor. In an appendix, there is a discussion of statistical methods in application to the presentation of historical data.

An economic history of the western world. By Harry Elmer Barnes. New York, Harcourt, Brace & Co., 1937. 790 pp., maps, charts, illus.

Includes primitive economic society and the history of ancient peoples. The period since the Industrial Revolution of the eighteenth century is described in Part V under the general heading of "the crisis in the capitalistic system", a comparatively large amount of space being devoted to American history. In a chapter on social and economic reform, there are sections on labor unions, socialism, fascism, and other topics directly affecting labor.

New British industries in the twentieth century—a survey of development and structure. By Alfred Plummer. London, Sir Isaac Pitman & Sons, Ltd., 1937. 396 pp., charts; bibliography.

The author emphasizes the electrical industries, road-motor transport, air transport, canning, the aluminum and rayon industries as instances of the effects of new materials, and such industries as beet sugar and oil from coal as examples of industries that have been fostered by the State. It is recognized that the rise of a new industry often means the decline of an old one; but the author thinks that in the case of recent British developments there has usually been some net gain. Much importance is attached to the recent development of socialization through the agency of public corporations such as the Central Electricity Board, the British Broadcasting Corporation, and the London Passenger Transport Board.

Survey of industrial development [Great Britain], 1936. London, Board of Trade, 1937. 38 pp.

Report of a survey made annually by the Board of Trade of Great Britain to determine industrial changes and developments as indicated by the number of factories established, reopened, expanded, and closed during the year in each industrial area. In 1936, 551 new or reopened factories, employing 53,000 workers, began operations, 201 existing factories were enlarged, and 386 were closed. Except in the textile industry, the number of factories in each industrial group that were opened or enlarged during the year exceeded the number that were closed. Transfers of manufacturing operations from one district to another are also traced in the report.

Technology, corporations, and the general welfare. By Henry A. Wallace. Chapel Hill, University of North Carolina Press, 1937. 83 pp.

Three lectures given at the University of North Carolina. The author holds that the growth of technology is the outstanding fact in modern economics and government, and that second in importance is the rise of corporations. Technology and corporate organization are shown to have made of the world today a functional society composed of many highly organized and special parts. The third lecture deals with the conditions required for an uninterrupted and coordinated functioning of present-day society.

The abolition of poverty. By James Ford and Katherine Morrow Ford. New York, Macmillan Co., 1937. 300 pp.

Democracy in transition. By a group of social scientists in Ohio State University. New York, D. Appleton-Century Co., 1937. xv, 361 pp.

This volume is the result of the work of a committee which attempted the preparation of a coordinated statement analyzing contemporary society from varied points of view and for the purpose of making explicit suggestions regarding policies deemed desirable. Although there is little in the volume that deals specifically with labor, the point of view is favorable to collective bargaining and to State and Federal labor policies commonly described as progressive.

Labor's road to plenty: The return to the American system of productivity. By Allen W. Rucker. Boston, L. C. Page & Co., 1937. xxii, 221 pp., charts.

Advocates "the principle of pay proportionate to productivity", under control of management, as a substitute for what he terms "radical-directed collective bargaining."

Methodism and the working-class movements of England, 1800–1850. By Robert F. Wearmouth. London, Epworth Press, 1937. 289 pp.

A study of Methodism in England in the first half of the 19th century as a democratic and collective movement, and its influence on the industrial and political life of its adherents. Tracing its rise as a religious movement, the author holds that Methodism "can be regarded as the child of the Industrial Revolution", growing and expanding with industry, and receding "after industry had reached its highest development." Conversely, the effect of Methodist doctrines and organizational policies on such economic and political movements as the Luddite uprisings, the Chartist movement, and trade-union organization, is discussed. The bibliography includes references dealing with the development of the church and its outstanding leaders, as well as source material covering the industrial and political activities of the period.

The etiquette of race relations in the South—a study in social control. By Bertram Wilbur Doyle. Chicago, University of Chicago Press, 1937. 249 pp.; bibliography.

Analysis of the past and present code of conduct between the white and Negro people in the United States which suggests the possibilities of solving the race problem to some extent by appealing to, or at least by taking into account, moral as contrasted with political processes.

Our racial and national minorities—their history, contributions and present problems. Edited by Francis James Brown and Joseph Slabey Roucek. New York, Prentice-Hall, Inc., 1937. 877 pp., charts; bibliography.

Naturalization and immigration data and, for certain races, information as to occupations, are presented.

Research memorandum on minority peoples in the depression. By Donald Young. New York, Social Science Research Council, 230 Park Avenue, 1937. 252 pp. (Studies in Social Aspects of the Depression; Bulletin 31.)

The following subjects are among those proposed for further research concerning minority groups in relation to the depression: Economic status of minority peoples, problems of minority land tenure and farm operation, seasonal agricultural workers, immigration, situations of minority workers in industry, marginal minority laborers, workers' competition and cooperation, relations between majority and minority workers, race riots and labor disturbances, the Negro and organized labor, minority business and banking, minority professional classes, and minority economic separatism.

The future of our population? By C. P. Blacker and D. V. Glass. London, Population Investigation Committee, 69 Eccleston Square, S. W. 1, [1937?]. 30 pp., charts.

Income, standards of living, and other economic subjects are discussed in connection with causes for the decline of the birth rate.

Research memorandum on the family in the depression. By Samuel A. Stouffer and Paul F. Lazarsfeld. New York, Social Science Research Council, 230 Park Avenue, 1937. 221 pp. (Studies in Social Aspects of the Depression; Bulletin 29.)

Suggests various lines of study dealing with the economic aspects of the family, among them the social effects of the depression, differential work opportunities of men and women, differential work opportunities by age, marital status and employment, work histories in family research, factors affecting employment of married women, and other family employment problems.

Education and Training

Bibliography of research studies in education, 1935–1936. Prepared by Ruth A. Gray. Washington, U. S. Office of Education, 1937. 338 pp. (Bulletin, 1937, No. 6.)

Many of the publications listed in this bulletin have a direct bearing on labor problems.

Research memorandum on education in the depression. By Educational Policies Commission, appointed by National Education Association of the United States and American Association of School Administration. New York, Social Science Research Council, 230 Park Avenue, 1937. 173 pp. (Studies in Social Aspects of the Depression; Bulletin 28.)

Reviews some of the influences of the depression on education and proposes plans for the study of various educational problems growing out of the great industrial slump. Among these problems are a number having special interest for labor.

Organized training in business. By James H. Greene. New York, Harper & Brothers, 1937. 350 pp.; bibliography. (Rev. ed.)

Considers the principles and methods which should be followed in the organization and administration of training in business enterprises, account being taken of developments in industry, commerce, and the fields of applied psychology and education, that have taken place since the publication of the first edition of this work in 1929.

Sources of visual aids and equipment for instructional use in schools. Compiled by Cline M. Koon. Washington, U. S. Office of Education, 1937. 44 pp. (Pamphlet No. 80.)

The sources listed include the following Federal offices: Civilian Conservation Corps, Federal Emergency Administration of Public Works, Federal Housing Administration, Social Security Board, Tennessee Valley Authority, Bureau of Home Economics, Bureau of Mines, Employment Service, Office of Education, Women's Bureau, and Works Progress Administration.

Die vorschule der berufslosen: Das "werkjahr fur schulentlassene" der aktion "jugend in not". Wien, Verlag der Zeitschrift "Lehrlings-, Jugend- und Berufsfürsorge," 1937. 94 pp., illus.

Deals with the preparation for industrial pursuits, in what is termed an industrial work year (*werkjahr*), of young, unskilled workers (boys and girls 14 years of age), after their graduation from the grade schools. The training given is for industrial life in general, not for specific trades or occupations.

Efficiency

The skill of brick and stone masons, carpenters, and painters employed on Works Progress Administration projects in seven cities in January 1937. By William R. Curtis, Walter G. Keim, and Edward Berman. Washington, U. S. Works Progress Administration, 1937. 76 pp.

The relative efficiency of skilled workers on W. P. A. projects, as brought out in this survey, was discussed in an article in the July 1937 Monthly Labor Review (p. 101), based on the Report on Progress of the Works Program, March 1937.

Employment and Unemployment

Labor requirements in production of clay products. By Bernard H. Topkis. Washington, U. S. Bureau of Labor Statistics, 1937. 20 pp. (Serial No. R. 646, reprint from December 1937 Monthly Labor Review.)

P. W. A. provides modern hospitals. Washington, Federal Emergency Administration of Public Works, 1937. 48 pp., maps, charts, illus.

The report gives construction costs and the number of man-hours of direct labor employed in the building of hospitals, together with man-hours of employment in the manufacture and preparation of materials used in these structures and in manufacturing and preparing goods for the personal consumption of the workmen employed. There were 188,100,000 man-hours of labor resulting from expenditure of approximately $110,000,000 for hospitals financed in whole or in part by P. W. A. funds., up to December 1, 1936.

Unemployment in 1937. (In Fortune, New York, October 1937; also reprinted.) 16 pp., illus.

Presents the results of a study of 100 or more marginal families in each of eleven selected communities in the United States, including big cities, small cities, towns, and rural counties. Among the findings of the investigation concerning those on relief in 1935 were the following: Eighty percent were males and 20 percent were females; 50 percent were 35–54 years of age and 30 percent were 55 years of age

and over; 20 percent were Negroes, although this race constituted only 10 percent of the 1930 population of the United States; the proportion of aliens was 3.5 percent, of naturalized 10 percent; only 20 percent were skilled workers; 70 percent had not attended high school and 10 percent had no education; the approximate family income of 64 percent ranged from nothing at all to $15 per week.

Unemployment among wage earners for cities of 10,000 population and over [Prairie Provinces, Canada]. Ottawa, Dominion Bureau of Statistics, 1937. 67 pp. In English and French. (Census of Prairie Provinces, 1936; Bulletin No. XXIV.)

Shows, by sex, occupation, and industry, the total number of gainful workers 14 years of age and over and the number not at work on June 1, 1936, in the 10 cities covered by the Census, and for five of these cities, having a population of 30,000 and over, the numbers of gainful workers on relief and not on relief.

Employment Agencies

Proceedings of 25th annual convention of International Association of Public Employment Services, United States and Canada, Washington, D. C., May 5–7, 1937. Washington, U. S. Division of Labor Standards, 1937. 124 pp. (Bulletin No. 14.)

Private employment agencies [in Connecticut]. Hartford, Department of Labor and Factory Inspection, 1937. 13 pp.; mimeographed.

Report on the organization and operation of fee-charging employment agencies, with recommendations for controlling and eliminating abuses discovered in certain of these enterprises.

A view of the British employment exchanges. By Cornelia M. Anderson. (In Harvard Business Review, Boston, Vol. XVI, No. 1, 1937, pp. 93–104.)

Descriptive and statistical data on the operation of the British system of employment exchanges, with particular reference to the extent to which employers use them.

Glass Industry

The Latin American glass industry and trade. By Edward J. Detgen. Washington, U. S. Bureau of Foreign and Domestic Commerce, 1937. 81 pp. (Trade Promotion Series, No. 173.)

Figures on employment in the glass industry are given for Brazil, Chile, Mexico, Peru, Uruguay, and Venezuela, and on wages for Brazil and Chile.

Housing

Financial survey of urban housing. Washington, U. S. Bureau of Foreign and Domestic Commerce, 1937. xxvi, 1245 pp.

Statistics of financial aspects of urban housing, including value of property, mortgage indebtedness, interest rates, and tenant income in relation to rents. The information is broken down for owner occupants and renters. The survey covered 61 cities, summary data are shown for 52, and detailed reports for 22.

Housing conditions in the United States. By N. H. Engle. Washington, U. S. Bureau of Foreign and Domestic Commerce, 1937. 78 pp., charts.

A compilation of addresses on governmental studies of existing needs in housing, and suggestions as to methods of securing more adequate facilities. The four addresses reprinted were delivered by N. H. Engle, Assistant Director of the Bureau of Foreign and Domestic Commerce. Subject matter is taken in large part from data collected in that bureau's Real Property Inventory and its Financial Survey of Urban Housing.

Annual report of Massachusetts State Board of Housing, for year ending November 30, 1936. Boston, 1937. 28 pp., map. (Public Document No. 154.)

Covers not only the activities of the State Board of Housing but also the work of the various city housing authorities established under the special housing legislation.

Housing in Philadelphia, 1936. By Bernard J. Newman. Philadelphia, Philadelphia Housing Association, 1600 Walnut Street, 1937. 23 pp., maps, charts.

Collection of short articles on the status of housing in Philadelphia, including construction, demolitions, sheriff sales and sanitation, with a survey of rents.

Practices and experiences of the Lavanburg Homes. New York, Fred L. Lavanburg Foundation, 132 Goerck Street, 1937. 16 pp., illus.
Reviewed in this issue.

British housing activity. By Charles Morgan-Webb. (In Harvard Business Review, Boston, Vol. XVI, No. 1, 1937, pp. 9–16.)
Traces housing developments in Great Britain since the war, and shows the relation of the Government to the program.

London housing. London, County Council, 1937. 273 pp., maps, plans, illus.
Detailed information on public housing in London, giving the history of legislative measures adopted, data as to number and kinds of dwellings furnished, and financial statistics.

Housing & town planning lectures, 1936–37. By Sir Raymond Unwin. Washington, U. S. Central Housing Committee, Sub-Committee on Research and Statistics, 1937. 86 pp.; mimeographed.
Lectures delivered at Columbia University and released through the courtesy of that institution.

Some recent references on prefabricated housing. Compiled by Virginia Turrell. Washington, U. S. Central Housing Committee, Sub-Committee on Research and Statistics, 1937. 9 pp.; mimeographed.

Income

National income, 1919–1935. By Simon Kuznets. New York, National Bureau of Economic Research, 1937. 15 pp., charts. (Bulletin 66.)
Advance summary of a detailed study of national income. Earlier studies have been completely revised and an attempt has been made to place income statistics on a comparable basis throughout the period. The summary does not give detailed estimates of wages and salaries. The general item called "employees' compensation" shows an increased percentage of the national income in recent years, but includes not only wages and salaries but also withdrawals by entrepreneurs in service and miscellaneous industries, payments by government for direct relief as well as work relief, and compensation for injuries to persons other than employees in railroad transportation.

National income of Sweden, 1861–1930. By Erik Lindahl, Finar Dahlgren, and Karin Kock. Volume III of "Wages, cost of living, and national income in Sweden, 1860–1930," by the staff of the Institute for Social Sciences, University of Stockholm. London, P. S. King & Son, Ltd., 1937. Part 1, 319 pp. Part 2, 631 pp.; charts; bibliography.
Part I contains a discussion of the concept of national income and of the methods used in arriving at estimates, a general estimate of gross and net income by industrial divisions, and comparisons of investment and consumption. A supplementary section gives estimates for the years 1930 to 1934. The comparative stability of Swedish national economy is indicated by the close correspondence between national income and national consumption, and by the fact that the maximum variation in national income between 1927 and 1934 was only 16 percent. The national income of 1934 adjusted to price changes was 4 percent higher than in 1929. Part II is mainly a detailed analysis of the various industrial divisions.

Industrial Accidents and Workmen's Compensation

Twenty-fourth annual report of Massachusetts Department of Industrial Accidents, for year ending June 30, 1936. Boston, 1937. 93 pp., charts. (Public Document No. 105.)
Reports were received during the year of 118,648 industrial injuries, 11,606 more than for the year ending June 30, 1935. In 224 cases the injuries resulted in death, in 11 cases in permanent total disability, in 925 cases in permanent partial disability, and in 33,163 cases in temporary total disability for one day or more, a total of 34,323 disabling injuries. Occupational disease is listed as the cause in 12 fatal and permanent-total-disability cases and in 743 cases resulting in permanent partial or temporary total disability.
Compensation-insurance payments made and outstanding during the year totaled $7,115,547.44, an increase of $717,794.72 over the previous year. The average cost per case, for all cases handled, was $62.40; for fatal cases (dependency

compensation) $3,892.55; for nonfatal cases (disability compensation) $174.35; and for medical cases $23.62.

Biennial report of Industrial Commission of Utah, July 1, 1934, to June 30, 1936. [Salt Lake City, 1936?] Bulletins 1–4; various paging.

Issued in four separate bulletins: No. 1, Synopsis of decisions rendered by the Commission and digest of supreme court rulings; No. 2, Financial statements of the State Insurance Fund, the Industrial Commission of Utah, the Firemen's Pension Fund, the Employees' Combined Injury Benefit Fund, and the Disabled Miners' Fund; No. 3, Industrial-accident statistical report; No. 4, Coal and metal mines reports.

The analysis of accident statistics shows that during the year ending July 30, 1935, reports were received of 61 accidents resulting in death, 9 in permanent total disability, 253 in permanent partial disability, and 11,866 in temporary total or partial disability; and that during the year ended July 30, 1936, reports were received of 39 accidents resulting in death, 1 in permanent total disability, 256 in permanent partial disability, and 13,146 in temporary total or partial disability.

Report on working of Workmen's Compensation Act, 1923, in Burma, for year 1936. Rangoon, [Office of Labor Commissioner?], 1937. 22 pp.

Normas y practicas en la aplicación de la ley de accidentes del trabajo en Costa Rica. By Heaton M. Waring. San José, Trejos Hermanos, 1937. 96 pp.

A discussion of the problems attending the application of the workmen's accident-compensation law of 1925 and its amendments, in Costa Rica, and the guiding principles followed in administering this legislation.

Ongevallenstatistiek, betreffende het kalenderjaar 1935. Amsterdam, Rijksverzekeringsbank, 1937. 204 pp., charts.

Statistics of accidents and accident insurance in the Netherlands in 1935, covering manual and non-manual workers in practically all industries, and agricultural workers.

Compensation of occupational diseases from a legal viewpoint. By William W. Rabinovitz. (In Wisconsin Law Review, University of Wisconsin Law School, Madison, February 1937, pp. 198–218.)

Explosions in coal mines—a comparison between Great Britain and France. By H. M. Hudspeth. London, Mines Department, 1937. 29 pp., charts (Cmd. 5566.)

Industrial Health and Hygiene

First annual report of occupational disease department, Northwestern University Medical School, 1936–1937. Chicago, 1937. 19 pp.; mimeographed.

In its study of industrial diseases the occupational-disease department of Northwestern University Medical School has the cooperation of the medical departments of a number of leading industries. The report contains case reports made by the hospital department, and an address on prevention of occupational disease delivered by B. C. Heacock at the occupational-disease symposium sponsored by the medical school in September 1937.

Occupational and environmental analysis of cement, clay, and pottery industries. By R. R. Sayers, J. N. DallaValle, and S. G. Bloomfield. Washington, U. S. Public Health Service, 1937. 50 pp. (Public Health Bulletin No. 238.)

Describes the occupations in the cement, clay, and pottery industries, reviews briefly the health hazards of each industry, and lists the important exposures in the different occupations.

Review of carbon monoxide poisoning: 1936. By Dr. R. R. Sayers and Sara J. Davenport. Washington, U. S. Public Health Service, 1937. 128 pp.; bibliography. (Public Health Bulletin No. 195—1936 revision.)

Covers the symptoms of carbon-monoxide poisoning, methods of diagnosis, the percentages of the gas which are dangerous to breathe, pathology, prevention, and treatment.

Toxicity of industrial organic solvents—summaries of published work. Compiled by Ethel Browning under direction of Committee on Toxicity of Industrial Solvents. London, Industrial Health Research Board, 1937. 388 pp. (Report No. 80.)

The introduction to the volume states that it "comprises extracts from all the existing information that could be obtained as to the effects on animals and man of the various solvents used in industry", up to December 1935.

Lighting in factories and workshops. London, Home Office, 1937. 28 pp., illus. (Welfare Pamphlet No. 7.)

Summarizes conclusions reached in several studies regarding natural and artificial lighting and the illumination required for various types of work.

Révélations sur la santé des jeunes travailleuses. By Céline Lhotte and Élisabeth Dupeyrat. Paris, Éditions Spes, 1936. 191 pp.

Study of health conditions among young workers resulting from poor working and housing conditions. The last chapter deals with remedial measures.

"Wir wollen eine gesunde jugend": Gesundheitsschutz im betrieb. München, Amt für Volksgesundheit, 1937. 15 pp.

Deals with care for the health of young people in Germany, including the first year of industrial employment. Occupational guidance, rest periods, leave with pay, and other working conditions are discussed.

Industrial Relations

Five years of collective bargaining. By Joseph J. Senturia. (In Labor Information Bulletin, U. S. Bureau of Labor Statistics, Washington, November 1937, pp. 5–7.)

Collective bargaining in the steel industry, 1937—a factual summary of recent developments. By Frederick H. Harbison. Princeton, Princeton University, Industrial Relations Section, 1937. 43 pp.

The union agreement between the Steel Workers' Organizing Committee and the Carnegie-Illinois Steel Corporation is reproduced in an appendix to the report.

Collective agreements in upholstery and floor-covering trades. Washington, U. S. Bureau of Labor Statistics, 1937. 8 pp. (Serial No. R. 654, reprint from November 1937 Monthly Labor Review.)

Labor relations in the petroleum industry. By Daniel Horowitz. New York, U. S. Works Progress Administration, 65 W. 42d Street, 1937. 82 pp.; mimeographed.

Presents data on employment, wages, and working hours in various branches of the petroleum industry, and discusses welfare plans and organization in both company unions and trade unions.

List of references on National Labor Relations Board. Compiled by Bernard W. Stern. Washington, U. S. National Labor Relations Board, Division of Economic Research, October 1937. 11 pp.; mimeographed.

Report of Board of Conciliation and Arbitration, Massachusetts, together with decisions rendered by the Board, for year ending November 30, 1936. Boston, 1937. 36 pp.

Fordism: 1, Ford and the worker; 2, Ford and the community. By Carl Raushenbush. (In Industrial Democracy, League for Industrial Democracy, 112 East 19th Street, New York, October 1937, pp. 1–38; November 1937, pp. 39–60.)

Labor Legislation

Recent labor legislation in New York. By Elmer F. Andrews. (In Labor Information Bulletin, U. S. Bureau of Labor Statistics, Washington, November 1937, pp. 1–4.)

Chilean labor laws. Santiago de Chile, Leo Shaw, Moneda 1486, Apartment No. 17, 1937. 96 pp.

A translation into English of the Chilean labor code of 1931, embodying amendments made to it through February 5, 1934, and of certain other legislation through March 22, 1937, concerning employees of private firms.

[*Leyes y reglamentos de trabajo, Ecuador.*] (In Registro Oficial, No. 205, Quito, June 3, 1936, pp. 273–306.)

Compilation of 22 labor laws and regulations enacted in Ecuador through May 21, 1936.

Teacher-tenure legislation in 1937 to date. Washington, National Education Association, Committee on Tenure, October 1, 1937. 39 pp.

Labor Organizations

Trade-union organization in Austria. Vienna, Confederation of Austrian Trade Unions of Workers and Salaried Employees, 1937. 42 pp.

An account of the development, nature, and work of the Confederation of Austrian Trade Unions of Workers and Salaried Employees. In a foreword to the pamphlet the Confederation states that the new trade-union system of Austria "has been built consciously upon the principle of excluding political activity, of concentrating upon the protection of the economic, social, and labor-legal rights of the workers, and of securing their just demands."

La C. G. T., ce qu'elle est, ce qu'elle veut. By Léon Jouhaux in collaboration with M. Harmel and J. Duret. Paris, Gallimard, 1937. 187 pp. (7th ed.).

Historical summary of development of syndical movement in France, with a discussion of the theories and objectives of the General Confederation of Labor.

Jouhaux et la C. G. T. By Raymond Millet. Paris, Denoël et Steele, 1937. 136 pp.

Study of the evolution of French syndicalism with special relation to Léon Jouhaux and his leadership of the French Confederation of Labor. The writer deals with recent events, including the social laws enacted under the Blum government, and discusses the present tendencies in the labor movement.

Report of Chief Registrar of Friendly Societies [Great Britain] for year 1936: Part 4, Trade unions. London, 1937. 27 pp.

Presents statistical data on registered trade-unions in Great Britain, covering membership, incomes, and expenditures, including various classes of benefit payments.

Trade unionism in the civil service [Great Britain]. By J. W. Bowen. (In Public Administration, journal of Institute of Public Administration, London, October 1937, pp. 419–432.)

Gives a brief outline of the historical development of trade-unionism in the British civil service, and discusses the present extent of organization in that field and the success achieved through the unions and the Whitley Councils. According to this article, nearly 80 percent of the civil-service employees of Great Britain are organized.

The C. I. O., what it is and how it came to be. Washington, Committee for Industrial Organization, 1106 Connecticut Avenue, NW., 1937. 46 pp. (Publication No. 12.)

C. I. O.—industrial unionism in action. By J. Raymond Walsh. New York, W. W. Norton & Co., 1937. 293 pp.

Deals with the historical development of industrial unionism in the United States, and the founding of the Committee for Industrial Organization, its organizing record, policies, tactics, political activity, and probable future.

How to deal with organized labor. By Alexander Feller and Jacob E. Hurwitz. New York, Alexander Publishing Co., Inc., 1937. 664 pp.

In presenting advice and suggestions on methods and procedures in establishing labor relations, and a new approach to collective negotiations, to "the business executive who has to face labor problems and the attorney who must advise him," the authors discuss the historical background, structure, and functions of the organized labor movement, and analyze the National Labor Relations Act and procedures, policies, and administration under that act.

When labor organizes. By Robert R. R. Brooks. New Haven, Yale University Press, 1937. 361 pp., illus.

Realistic treatment of procedures and policies used in organizing and conducting local and national unions, and in initiating and carrying out strike movements; and of the attitudes, policies, and methods of anti-union employers in breaking strikes and preventing organization. The present status of unionism in broad industrial classifications, and existing conditions in the labor movement are reviewed.

An appendix presents figures and estimates of membership in 1936–37 in unions affiliated with the American Federation of Labor and with the Committee for Industrial Organization, respectively, and in those with no federated affiliations. The bibliography includes general references as well as the sources used in the book.

34189—38——19

Men who lead labor. By Bruce Minton and John Stuart. New York, Modern Age Books, Inc., 1937. 270 pp.; bibliography.

The Rt. Hon. J. R. Clynes: Memoirs, 1869–1924. London, Hutchinson & Co., Ltd., 1937. 351 pp., illus.

This volume of memoirs of a British labor leader and labor member of Parliament is presented by the author as the record "of labor marching from obscurity to Parliamentary power." It deals with labor conditions in England in the 19th century, the birth and rise of the British Labor Party in the early years of the 20th century, and the men and events that contributed to the development of the labor movement of Great Britain, economically and politically. This volume ends with the first Labor Government, in 1924.

Minimum Wage

Minimum-wage laws and orders, 1936–37. Washington, U. S. Women's Bureau, September 1937. 5 pp.; mimeographed.

Minimum wages and maximum hours—selected recent references. Detroit, Mich., Public Library, Department of Social Sciences, March 1937. 14 pp.; mimeographed.

[*Minimum-wage scales for crews of vessels receiving operating-differential subsidies.*] Washington, U. S. Maritime Commission, 1937. 16 pp.; mimeographed.

Reviewed in this issue.

Mining Industry

Bibliography of United States Bureau of Mines investigations of coal and its products, 1910–35. By A. C. Fieldner, Alden H. Emery, and M. W. von Bernewitz. Washington, U. S. Bureau of Mines, 1937. 145 pp. (Technical Paper 576.)

The reports listed include those on mine hazards, safety work, and accidents.

Statistique de l'industrie minérale et des appareils à vapeur en France, en Algérie, dans les colonies, pays de protectorat et territoires sous mandat français pour l'année 1935. Deuxième fascicule. Paris, Ministère des Travaux Publics, Bureau de Documentation Minière, 1937. 217 pp.

Contains data on production and consumption of coal, and production of various other minerals; the number of employees, number of days worked, wages, and cost of manual labor per ton in coal mines; social insurance for workers in mines and quarries; and accidents. The report also covers the mineral situation in Algeria, the colonies, and territories under French mandate.

Sixteenth annual report of Secretary for Mines, and 29th annual report of Chief Inspector of Mines [*Great Britain*], *for year ended December 31, 1936.* London, Mines Department, 1937. 246 pp.

The statistics cover number of workers employed, days worked, and average earnings per shift; and number and rate per 1,000 workers employed of fatal and serious accidents, classified by cause and by age groups.

Occupations and Occupational Adjustment

Electrical occupations, covering entire field of electrical occupations available to boys when they grow up. By Lee M. Klinefelter. New York, E. P. Dutton & Co., Inc., 1937. 227 pp., illus.

Written in the form of a story, for a boy's reading, of visits by a father and his son to various electrical plants where they discuss with the workers the qualifications required for the jobs, the salary scales, and the opportunities for promotion.

Father-son occupations among Negroes in Atlanta, Georgia: A supplementary study of occupational characteristics of white-collar and skilled Negro workers in five cities of Georgia. Atlanta, Works Progress Administration of Georgia, 1937. 103 pp.

How people compensate or adjust themselves for lack of ability. By Alec Rodger. (In The Human Factor, National Institute of Industrial Psychology, London, November 1937, pp. 385–393.)

The author, who is head of the vocational guidance department of the institute which publishes The Human Factor, believes that to choose work for which one

seems to be unfitted, with an expectation that the lacking qualities will develop as a result of experience or will be compensated for by other characteristics, is in general unwise. He holds that the most significant practical conclusion to be drawn from available pertinent data is that risks should not be taken in this vital matter.

Preparing youth for useful occupations. Discussion at industrial session, 48th quarterly meeting, New England Council. (Supplement to New England News Letter, New England Council, Boston, November 1937; 15 pp.)

Subjects discussed at the meeting included job morale, the importance of social training for workers, the job try-out, the loss of jobs because of ethical deficiencies and social inadequacies, substitutes for job satisfaction, and the need for more cooperation between school and shop.

Prices

International raw commodity price control. By Robert F. Martin. New York, National Industrial Conference Board, Inc., 1937. 166 pp., charts. (Study No. 238.)

Cotton, wheat, sugar, coffee, rubber, silk, tea, copper, and tin are the commodities covered in the study. Extensive statistical information is given in the tables and charts.

Prison Labor

The prison labor problem in Georgia. Washington, U. S. Prison Industries Reorganization Administration, 1937. 80 pp.; mimeographed.

Reviewed in this issue.

Recreation and Leisure-Time Activities

Recreation and physical fitness for girls and women. London, Board of Education, 1937. 285 pp., illus. (Physical Training Series No. 16.)

A program of recreational gymnastics for girls and women, with detailed directions for performing the various exercises.

Recreation and physical fitness for youths and men. London, Board of Education, 1937. 285 pp., illus. (Physical Training Series No. 15.)

The report presents a recreation and physical-training program with directions for various games and exercises.

Increased social opportunity through community planning. Harrisburg, Pennsylvania Department of Public Instruction, 1936. 36 pp.

An outline of methods of organizing community planning of education and recreation with suggestions as to the civic bodies and other agencies that might be helpful.

References on leisure education. Compiled by Elaine Exton. Washington, American Association of School Administrators, 1201 Sixteenth Street, NW., 1937, 64 pp.; mimeographed.

Relief Measures and Statistics

Beet workers on relief in Weld County, Colorado. By Olaf F. Larson. Fort Collins, Colo., Agricultural Experiment Station, 1937. 31 pp.; mimeographed. (Research Bulletin No. 4.)

According to this sample survey of 431 cases, the average income per family case (exclusive of the value of certain items supplied) was $436 for the 12 months March 1935 to February 1936, half of this amount being derived from work in the beet fields and 40 percent from a public agency. The employment of these workers during 1935–36 outside of labor on beets, and their other occupational experience in the 5 years preceding the investigation, were practically all agricultural.

Rural families on relief in Connecticut. Storrs, Connecticut State College, Agricultural Experiment Station, 1937. 76 pp., map, charts. (Bulletin No. 215.)

Sections of this study of interest to labor are those on usual occupations, number of dependents, and employability of heads of families on relief, and utilization

of skills under the Federal Emergency Relief Administration and the Works Progress Administration. The report is based on data obtained from 1,683 families.

La réduction du chômage en Allemagne par les travaux publics. By Philippe-Raymond Koenig. Paris, Éditions A. Pedone, Librairie de la Cour d'Appel et de l'Ordre des Avocats, 1937. 120 pp.

A discussion of the situation leading to the adoption in Germany of a public-works policy as a means of reducing unemployment, the kind of works undertaken, financing methods, and the results of the program.

Der staat und die weltwirtschaftskrise. By F. A. Hermens. Berlin, Österreichischer Wirtschaftsverlag, 1936. 310 pp.

Deals with the world economic depression and the measures taken in various countries to cope with it, including unemployment relief, wage policies, and public works.

Sickness Insurance

The working of sickness insurance in Norway. (In International Labor Review, International Labor Office, Geneva, Switzerland, October 1937, pp. 517–535.)

Social Security and Welfare

Current developments in field of social security in State of Washington. Papers presented at Annual Institute of Government, University of Washington, July 1937. Olympia, Washington Department of Social Security, 1937. 17 pp.; mimeographed. (Monograph No. 25.)

The effect of the Social Security Act on the life insurance needs of labor. By R. J. Myers. (In Journal of Political Economy, Chicago, October 1937, pp. 681–686.

The author concludes that group insurance and the Social Security Act will adequately take care of the life-insurance needs of labor in the future and that industrial and fraternal insurance will play minor and subsidiary roles.

Economic insecurity in old age: Social and economic factors contributing to old-age dependency. By Marjorie Shearon. Washington, U. S. Social Security Board, Bureau of Research and Statistics, 1937. 221 pp., charts.

Compilation of material from a wide variety of sources.

Eighteenth annual report of board of trustees of Teachers' Pension and Annuity Fund, State of New Jersey. Trenton, 1937. 50 pp.

Thirty-ninth annual report of Pensions Department, New Zealand, for year ended March 31, 1937. Wellington, 1937. 8 pp.

Summary statistics showing number of persons benefiting and expenditures under different pension systems, including old-age, miners', and invalidity pensions, and family allowances. Some of the data on family allowances are given in this issue of the Monthly Labor Review.

Research memorandum on social work in the depression. By F. Stuart Chapin and Stuart A. Queen. New York, Social Science Research Council, 230 Park Avenue, 1937. 134 pp. (Studies in Social Aspects of the Depression; Bulletin No. 39.)

Presents a general program for research in social case work, social group work, institutional care, social planning and program promotion, and professional status of social workers. Brief bibliographies are furnished under the following heads: Collection of social-work statistics; the study of attitudes; list of experimental studies.

Proceedings of National Conference of Jewish Social Welfare, Indianapolis, May 19–23, 1937. (In Jewish Social Service Quarterly, New York, September 1937; 224 pp.)

Contains papers on care of the aged, family welfare, child care, etc.

Proceedings of the National Conference of Social Work at sixty-fourth annual session, held in Indianapolis, Ind., May 23–29, 1937. Chicago, University of Chicago Press, 1937. 699 pp.

The addresses printed in these proceedings include the following: Public assistance—whither bound; Requirements for permanent security; Public welfare and efficiency in government; The Negro and his relationships; The

problem of industrial relations; A community program for reducing unemployment and relief; The relation of the public employment service to the administration of unemployment compensation; The social program of the labor movement; Social significance to minority groups of recent labor developments; The Labor Relations Board and labor disputes; Invalidity assistance and insurance in the United States; Necessary supplements to unemployment insurance; Health insurance in a national health program; Old-age-assistance administration; Social and economic factors conditioning food expenditures; The housing movement today; and Outlook for social security.

Technological Changes

Changes in farm power and equipment—mechanical cotton picker. By Roman L. Horne and Eugene G. McKibben. Washington, U. S. Works Progress Administration, 1937. 24 pp., illus. (National Research Project, Studies of Changing Techniques and Employment in Agriculture, Report No. A–2.)

A detailed study of the various types of pickers and of factors affecting the probable rate of introduction and the probable effects of mechanization. Hand picking now costs materially less per hundred pounds than the estimated costs of picking by the best machine so far devised. The authors think it is likely, however, that practicable improvements in mechanical picking, during the next 5 to 10 years, may be expected to result in displacing perhaps half a million pickers and possibly a much larger number. It is expected that the mechanical picker will stimulate the use of tractors and improved machinery in other phases of cotton culture, displace many tenants and share croppers as well as migratory cotton pickers, and tend to increase the size of cotton farms and to concentrate cotton growing in areas best suited for mechanized tillage and harvest.

The research program of the National Research Project [on Reemployment Opportunities and Recent Changes in Industrial Techniques]. By Irving Kaplan. Washington, U. S. Works Progress Administration, 1937. 19 pp.

Tennessee Valley Authority

An indexed bibliography of the Tennessee Valley Authority. Compiled by Harry C. Bauer. Knoxville, Tennessee Valley Authority, Information Division, 1936 and 1937. Various paging; mimeographed.

References on labor policies, cooperatives, etc., are included.

Unemployment Insurance

Message of the Governor of New York transmitting report of State Advisory Council on Unemployment Insurance, and urging consideration and prompt action. Albany, 1937. 11 pp. (Legislative Document, 1937, No. 75.)

The report contains proposals for simplifying administration of the State unemployment-insurance law.

Municipal unemployment insurance in Japan. By Takao Hirata. (In Journal of Osaka University of Commerce, Osaka, December 1936, pp. 48–81.)

An account of the voluntary unemployment-insurance systems in four of the largest cities in Japan with discussion of the attitudes of various groups towards the question.

Wages and Hours of Labor

Union scales of wages and hours in the building trades, 1937. By Joseph J. Senturia and Frank S. McElroy. Washington, U. S. Bureau of Labor Statistics, 1937. 16 pp. (Serial No. R. 658, reprint from November 1937 Monthly Labor Review.)

Monthly earnings of professional engineers, 1929 to 1934. By Andrew Fraser, Jr. Washington, U. S. Bureau of Labor Statistics, 1937. 20 pp., charts. (Serial No. R. 659, reprint from November 1937 Monthly Labor Review.)

Wages and labor conditions in British engineering. By M. L. Yates. London, Macdonald & Evans, 1937. 172 pp.

Defining the engineering industry as the remanufacture of metal into finished products, the most important of which are machinery, prime movers, mechanically

propelled vehicles, implements, and tools, this study of engineering in Great Britain deals with the historical development of working conditions in that industry. Subjects covered are the extent of organization of employers and workers; collective-bargaining machinery and the terms of collective agreements; wage rates and earnings before, during, and since the World War; various wage-payment systems in operation throughout the industry; occupations; principal machines used in manufacturing processes; composition of the labor force; and employment and unemployment. The concluding chapter deals with the employment status and wages of women in engineering occupations in pre-war, war, and post-war periods.

Report of Committee on Regulation of Wages and Conditions of Service in Road-Motor Transport Industry (Goods) [*Great Britain*]. London, 1937. 56 pp. (Cmd. 5440.)

This committee, appointed jointly by the Minister of Transport and the Minister of Labor, after an inquiry into existing collective-bargaining machinery and other methods for determining wages and working conditions in the trucking industry in Great Britain, makes several suggestions for better organization of the industry. It is recommended that a representative central board and local district boards be created to determine minimum wage rates and working conditions for truck drivers and other employees. The committee proposes that, upon their acceptance by the appropriate minister, recommendations of these boards be made enforceable as law.

Women in Industry

Rural women and the Works Progress program: A partial analysis of levels of living. By E. L. Morgan, J. D. Ensminger, and M. W. Sneed. Columbia, Mo., University of Missouri, Agricultural Experiment Station, 1937. 29 pp., charts. (Research Bulletin No. 253.)

Report of a survey made jointly by the Agricultural Experiment Station of the University of Missouri and the Rural Research Section, Division of Social Research, of the U. S. Works Progress Administration. Data are presented as to age, marital status, education, extent and duration of family responsibility, and occupational training and preferences of 553 women employed in W. P. A. sewing projects in 12 selected counties of Missouri.

Women's work in the fascist countries—Austria, Germany, Italy. Paris, International Federation of Trade Unions, 1937. 56 pp. (International Trade Union Movement, Vol. XVIII, Nos. 8–10.)

Youth Problems

Youth—a world problem: A study in world perspective of youth conditions, movements and programs. By W. Thacher Winslow. Washington, U. S. National Youth Administration, 1937. 138 pp.

Data from 58 countries on employment, unemployment, vocational guidance, vocational training, apprentice training, student aid, recreation, and other subjects.

General Reports

Annual report of Federal Trade Commission, fiscal year ended June 30, 1937. Washington, 1937. 174 pp.

Summaries are given of the Commission's recent investigations of wages and profits in the textile industries and of agricultural income. The appendixes contain texts of laws relating to the Commission's work, a summary of its rules of practice, and brief descriptions of its investigations from 1915 to 1937, with references to published reports.

Report of Connecticut Department of Labor and Factory Inspection, 1934–1936. Hartford, 1937. 118, xvii pp. (Legislative Document No. 23.)

Résumé of the activities of the various branches of the department for the biennial period from July 1, 1934, to June 30, 1936, including the Bureau of Labor Statistics, the Board of Mediation and Arbitration, and the State Employment Service. A report on cooperation with the Federal Government, a directory of Connecticut labor organizations, and the recommendations of the Commissioner of Labor, regarding labor legislation, to the 1937 General Assembly, are also presented.

Report on economic and commercial conditions in Algeria, 1936. By G. P. Churchill. London, Department of Overseas Trade, 1937. 38 pp.

A brief section on social conditions contains data on cost of living (index numbers), landholding, and population.

Report on economic and commercial conditions in Belgium, together with an annex on the Grand Duchy of Luxemburg. By N. S. Reyntiens. London, Department of Overseas Trade, 1937. 116 pp.

The report has a chapter on social questions in Belgium covering labor disturbances and legislation, unemployment, family allowances, housing, cooperative societies, trade-unions, cost of living, and wages. The section devoted to Luxemburg has some information on cost of living and labor matters.

Annual factory report, Bombay Presidency, 1936 (including note on administration of Bombay Maternity Benefit Act). Bombay, Office of the Commissioner of Labor, Factory Department, 1937. 51 pp.

Gives number of factories and operatives, and data on accidents, safety, sanitation, welfare work, and prosecutions.

Report of Department of Labor of Canada for fiscal year ending March 31, 1937. Ottawa, 1937. 98 pp.

Reviews the work of the Department and its branches for the year covered, presenting data on activities of the conciliation service and operations under the Industrial Disputes Investigation Act; wages and hours of labor; fair wages policy; prices and cost of living; fatal industrial accidents; labor organization; employment offices; technical education; relief legislation; relief activities; and recommendations of the National Employment Commission.

Annual general report for 1936 on the economic, social, and general conditions of the Island of Ceylon. Colombo, Department of Registrar-General and Director of Commercial Intelligence, 1937. 163 pp., map, charts, illus.

Population, housing, wages, labor conditions, cost of living, production, labor legislation, and public works are among the matters with which this publication deals.

Jaarverslag der inspectie van den havenarbeid over 1936 [*Netherlands*]. The Hague, Departement van Soziale Zaken, 1937. 46 pp.

Report for 1936 of the harbor labor inspectors in the Netherlands, including pertinent legislative provisions and data on accidents.

Annuaire statistique de Varsovie, 1935. Warsaw, Poland, Service de Statistique Municipale, 1937. 112 pp. (In Polish and French.)

Contains statistical information, for the city of Warsaw, Poland, on housing, cost of living, employment, unemployment, employment service, wages, social insurance, industrial disputes, public health, and welfare work.

Intercollegiate debates. Edited by Egbert Ray Nichols. New York, Noble & Noble, 1937. 385 pp. (Vol. XVIII.)

Among the subjects of the debates reproduced in this volume are the President's plan for reorganizing the Supreme Court, the extension of consumers' cooperatives, minimum wages and maximum hours, and the policies of the Committee for Industrial Organization.

U. S. GOVERNMENT PRINTING OFFICE: 1938