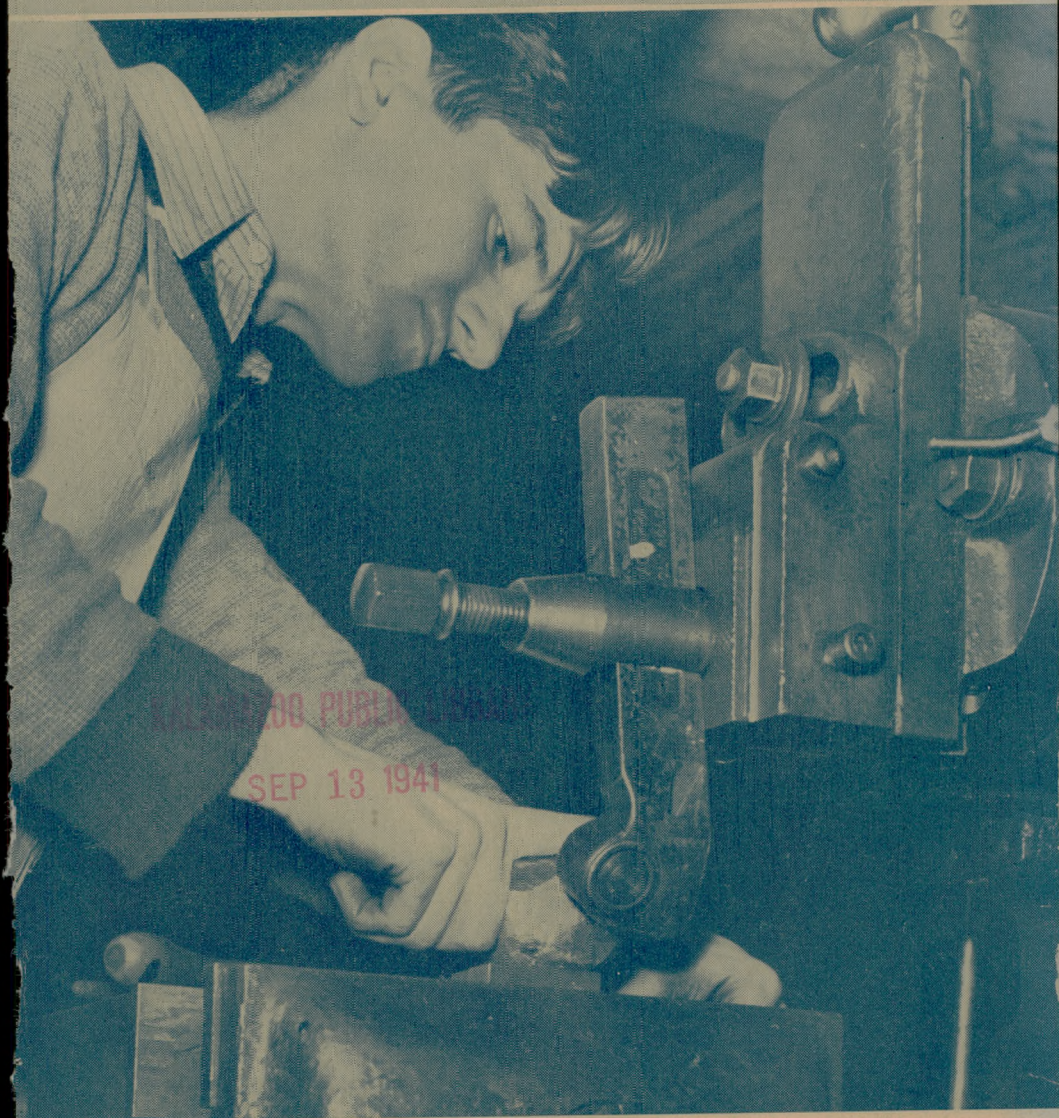


# MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS



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*In this issue . . .* German Food Situation • Wage and Price Structure in Bituminous Coal • Employment Opportunities in Retail Stores • Industrial Injuries, 1940

AUGUST 1941

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UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

♦♦♦♦♦♦♦♦ ♦ HUGH S. HANNA, EDITOR ♦ ♦♦♦♦♦♦♦

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## *This Issue in Brief*

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### *The German Food Situation.*

German families are consuming very much smaller quantities of almost all the more important foods than the families of American wage earners and clerical workers of similar size and composition. German civilians are rationed according to age and occupation. A German who works long hours would be allowed 3.6 pounds of meat a week for the whole family, and 2.1 pounds of fats, as compared with the average consumption of American workers' families of 6.7 pounds of meat and 3.6 pounds of fats. The Germans are relying heavily on potatoes to make up for the drastic reduction in other foods. A recent cable report indicates a shortage of potatoes in some parts of Germany and rations of 3½ pounds per week for adults. Page 283.

### *Wage and Price Structure of the Bituminous-Coal Industry.*

The 1941 wage negotiations in the bituminous-coal industry, the various governmental efforts to facilitate an agreement, and the Bituminous Coal Division's hearings on costs and prices reflect the basic importance of the coal industry in the national economy and its vital bearing on the national defense program. The Appalachian wage agreements of June 19 and July 5 embodied one of the major wage changes in American industry. When collateral changes such as paid vacations and elimination of the "reject clause" are taken into account, the increase in wages averages not far from 20 percent. The increase in cost per ton is materially smaller. The minimum-price structure, put into

effect on October 1, 1940, under the Bituminous Coal Act of 1937, was based on cost per ton in 1936-37, which is accepted as the price-base period. There was an extensive reduction of cost per ton after 1936-37 and it is estimated that the 1941 wage agreements raised the average cost not more than 2 percent above the cost in the price-base period. Page 293.

### *Employment Opportunities in Retailing.*

Personality, ordinary good health, and at least high-school training were some of the factors considered as important by employment managers in 20 Boston retail stores, in hiring new help. Of these, personality was given the greatest weight. The study was made in order to ascertain the employment requirements and possibilities in this line of work for young people under 21 years of age. Of 12,290 full-time employees in these stores, 1,187 were under 21. Employment opportunities for the second half of 1941 and shortly thereafter appeared, on the basis of the survey, to be the best in more than a decade. Page 314.

### *Industrial Injuries in 1940.*

Industrial injuries for workers in United States industries during 1940 resulted in an estimated 18,100 deaths, nearly 90,000 permanent impairments, and 1,782,000 temporary disabilities. Time lost from work, disregarding the effects of deaths and permanent impairments, was estimated at nearly 42 million days—equal to year-round employment for about 140,000 workers. Evaluating the eventual economic losses due to deaths and permanent impairments at standard time charges,

the total rises to about 234 million days lost—equivalent to 780,000 man-years. The number of disabling injuries per million hours worked for more than 20,000 identical manufacturing establishments increased by less than 3 percent over 1939. But in each of three vital defense industries—aircraft, shipbuilding, and machine tools—the increase was approximately 22 percent. For every 5 injuries in these industries during 1939, there were 6 in 1940. Page 327.

#### *Shift Operations in Defense Industries.*

The great majority of plants in key defense industries were operating more than one shift a day during March 1941, according to a survey of 587 plants employing 618,000 wage earners. Nearly three-fourths of the force was working on one main shift. Almost two-thirds of the wage earners worked an average of nearly 10 hours of overtime each. In March, when the survey was made, 5 percent of the wage earners were in plants running on a single-shift basis. But comparatively few plants had built up their second or third shifts fully to utilize facilities. Added shifts were used to balance production and to repair equipment. Second-shift employment was 20 percent of the total and for the third shift it was 8 percent. Page 355.

#### *Earnings in the Rayon and Silk Industry.*

Hourly earnings of employees in the rayon and silk industry averaged 43.6 cents in September 1940—45.6 cents in northern mills and 40.2 cents in southern mills. Earnings in the in-

dustry as a whole changed comparatively little from 1934 when the average was 44.8 cents hourly. But in the South the wage order under the Fair Labor Standards Act reduced the proportion of low-wage workers in the industry—35.1 percent of the workers averaged less than 32½ cents an hour in 1934 as compared with 1.6 percent in September 1940. Page 482.

#### *Paid Vacations in Textile Industry.*

Approximately 100,000 textile workers employed by 171 companies receive vacations with pay under the terms of 154 agreements negotiated by the Textile Workers Union of America and employers. Additional companies, notably in the carpet and rug branch of the industry, grant paid vacations to employees although there is no contractual obligation to do so. The practice of granting paid vacations and in some cases paid holidays began in 1937. One week's vacation is usual after 1 year's service with the company. Page 414.

#### *Credit Unions in 1940.*

Credit unions are one of the fastest-growing phases of cooperation in the United States. During the 5-year period ending in 1940 their combined membership more than doubled and the business done (i. e., loans made) increased 168 percent. At the end of 1940, the 9,500 credit unions in existence had over 2,800,000 members and their business in that year exceeded \$302,000,000. Their combined assets totaled over a quarter of a billion dollars. Page 429.

# MONTHLY LABOR REVIEW

FOR AUGUST 1941

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## THE GERMAN FOOD SITUATION<sup>1</sup>

### *Rationing in the First World War*

IN THE summer of 1941, after two years of war, the German people find their food situation very different from that in 1916, two years after the outbreak of the first World War. Rationing of wheat flour and bread began early in 1915, and it was increasingly difficult to secure fats throughout that year, but it was not until the end of the first year of war that a general shortage of food began to be felt. In January 1915, the milling ratio for wheat flour was raised to 80 percent, and for rye flour to 82 percent, and it was required that bread be made with 10 percent of potato flour.<sup>2</sup> The potato supply at that time was ample, and potatoes were being used for animal feed as usual in Germany.

By the fall of 1915, however, the situation began to be more serious, and an ordinance of October of that year required meatless and fatless days on Thursdays and Fridays. The drop in the number of meat animals available for slaughter resulted in greatly reduced fat as well as meat supplies. A War Food Board was created in May 1916, and all important foods except fish, fresh fruits, and vegetables (other than potatoes) were rationed. In the summer of that year there was a greatly reduced potato crop, and by the fall of 1916 the food shortage was acute in all classes of the population.<sup>2</sup> The winter of 1916-17 will always be remembered in Germany as the "turnip winter" of the first World War.

The rationing system used in the first World War was locally administered, and the coordination initiated under the War Food Control Bureau was never carried out extensively enough to be effective. Although prices were regulated for the rationed food-stuffs (butter prices were regulated as early as October 1915), policing of prices actually charged was ineffectively carried out. Community feeding stations were developed in most large cities, with the idea that food was saved by this method, that graft was eliminated,

<sup>1</sup> Prepared by Olive T. Kephart, assisted by Emil D. Schell, of the Bureau's Cost of Living Division.

<sup>2</sup> Carnegie Endowment for International Peace. *Economic and Social History of the World War, German Series 1927*, 'Die Deutsche Kriegsernährung-Wirtschaft, by August Skalweit.

and that the diet provided by the feeding stations had a higher nutritional content than food which could be bought and cooked at home at the same expense.<sup>2</sup>

The energy value of the food consumed by the average German adult was later estimated at 2,320 calories per day in April 1916, and 2,120 calories in April 1917, as compared with the 3,000 calories per day usually consumed per adult in Germany before the war.<sup>3</sup>

### *Food Rationing, 1939-41*

It is generally believed that food supplies in Germany at the present time are being more effectively administered than in 1916. In 1933, shortly after the establishment of the National Socialist régime in Germany, a number of Government agencies concerned with food production, food prices, and other phases of the food situation were replaced by the Reich Food Estate which assumed complete responsibility for the administration of food in Germany, including all phases of production and distribution. Such policies as the assignment of production quotas, strict supervision of marketing, price fixing, and control of imports have resulted in an effective, strongly regimented system.<sup>4</sup>

One of the most important of National Socialist policies has been the effort to increase national self-sufficiency in foodstuffs, as well as to accumulate surplus stocks. As a consequence, a measure of regulation of the consumption of eggs, butter and other fats was in effect as early as 1935-36. Food rationing was introduced in August 1939, just before the invasion of Poland. The original regulations were amended in September of the same year further to restrict consumption by the average adult and to favor heavy manual workers. Quantities of almost all of the rationed products were proportioned by the age and occupation of the recipient.

Products included under the rationing regulations were bread, meat, fats, marmalade, sugar, and eggs; *nährmittel* (i. e., cereal and such products as oatmeal, rice, tapioca, sage, potato-starch meal, pudding powder, and coffee substitutes); and whole milk. In the case of certain unrationed foods, such as fish, poultry, and game, "customers' lists" are maintained by food dealers. When the customer's name is reached on the list, he is permitted to purchase a limited amount of the food product in question when the dealer has any on hand. Some dealers are reported to be drawing their customers' names by lot from the list when a supply of such food comes into the store. Potatoes, other fresh vegetables, skim

<sup>2</sup> See footnote 2, p. 283.

<sup>3</sup> Tyszka, Carl von. *Ernährung und Lebenshaltung des Deutschen Volkes*, p. 50. In the calculation of the "adult unit" males and females over 11 years were valued as 1.0 and children under 11 as 0.5.

<sup>4</sup> For a description of the organization and functioning of the Reich Food Estate, see *Foreign Agriculture* (Washington, D. C.), April 1, 1940: *Wartime Agricultural and Food Control in Germany*, by Harry L. Franklin.



milk, and fruits are not generally rationed. Reports of visitors to Germany indicate, however, that the supply of fruit is very limited. Recent cable reports indicate a shortage of potatoes in some parts of the country and rations of 3½ pounds per week for adults.

Table 1 gives the German weekly food ration as of July 1941. Minor changes have occurred from time to time in the original ration, but it was virtually the same in the spring of this year as when established. Since June 2, 1941, there has been a reduction in the meat ration amounting to as much as 20 percent for some groups. Data are not available at this time as to the number of eggs included in the weekly ration during July 1941. During 11 months of 1940 the average distribution was 78 eggs per capita or a weekly average of 1.6 eggs per person.<sup>5</sup>

TABLE 1.—German Weekly Food Ration, as of July 1941

[From data furnished by the Office of Foreign Agricultural Relations, U. S. Department of Agriculture, from official sources]

Commodity	Adults					Children			
	Long and night workers	Heavy workers	Extra-heavy workers	Self-suppliers	Normal consumers	Under 3 years	3-6 years	6-10 years	10-14 years
Bread and flour (in terms of bread)-----	Lb. 6.283	Lb. 8.047	Lb. 10.251	Lb. 7.055	Lb. 4.960	Lb. 2.425	Lb. 2.425	Lb. 3.748	Lb. 5.732
Farinaceous foods <sup>2</sup> -----	.331	.331	.331	.331	.331	.606	.606	.331	.331
Meat and meat products <sup>3</sup> -----	1.323	1.764	2.205	1.896	.882	.551	.551	.882	.882
Fats-----	.637	.868	1.626	( <sup>4</sup> )	.592	.276	.413	.572	.572
Sugar-----	.496	.496	.496	.496	.496	.496	.496	.496	.496
Marmalade-----	.331	.331	.331	.331	.331	.331	.331	<sup>5</sup> .331	<sup>5</sup> .331
or sugar-----	.248	.248	.248	.248	.248	.248	.248	.248	.248
Artificial honey-----	6.021	6.021	6.021	6.021	6.021	7.069	7.069	7.069	7.069
Whole milk (quarts)-----	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	3.589	( <sup>6</sup> )	5.383	3.589	1.794	1.794
Cheese-----	.138	.138	.138	.138	.138	.138	.138	.138	.138
Curds-----	.069	.069	.069	.069	.069	.069	.069	.069	.069
Eggs-----	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )

<sup>1</sup> Young people from 14 to 20 years of age are allowed 5.731 pounds (2,600 gr.) of bread or 4.298 pounds (1,950 gr.) of flour.

<sup>2</sup> Includes alimentary pastes, rice, legumes, etc.

<sup>3</sup> The rations as given represent reductions of as much as 20 percent for some groups effective June 2, 1941. Long and night workers and children under 6 years of age were the only groups for which the meat ration was not reduced.

<sup>4</sup> Slaughter fat.

<sup>5</sup> Plus an allotment of 0.110 pound not convertible into sugar.

<sup>6</sup> 125 grams every 3 months.

<sup>7</sup> Plus 125 grams every 3 months (0.021 pound per week).

<sup>8</sup> Wartime rations of whole milk, as a rule, are reserved for children. However, expectant mothers, invalids, sick people, and workers in certain occupations detrimental to health (chemical industries) upon application may receive about 3.698 quarts of whole milk per week.

<sup>9</sup> Rationed on the basis of customer lists. During 11 months of 1940 the average distribution per capita was 78 eggs or a weekly average of 1.6 eggs per person, as reported by the Institute of Business Research, Weekly Report, November 1940. Self-suppliers were not included in this estimate.

## SPECIAL RATIONS

Germany learned through bitter experience in the last war that it is necessary to provide a more generous diet for heavy manual workers than for normal consumers if efficiency and morale are to be maintained. Accordingly special rations have been provided for such workers as well as for those working long hours, or at night. Although

<sup>5</sup> German Institute for Business Research, Weekly Report, November 30, 1940.

the special rations for adult workers include much larger quantities of bread, fats, and meats than the "normal" ration, they represent substantial reductions in fats and meats from the estimates of actual consumption for workers in 1936.<sup>6</sup> Exact figures are not available on the war-time ration of the German soldier. According to Army regulations the war ration supplies 4,258 calories per man per day. It may be assumed that for this group of the German population, at least, basic nutritional needs are being met satisfactorily.

When the rations were first established there seemed to be some difficulty in maintaining them. The shortage of meats and fats received a good deal of publicity and the German press reported shortages in other items included in the ration.<sup>7</sup> In addition shortages due to distribution difficulties or shortages in supply have occurred for unrationed foods, including such domestic items as potatoes, fish, and apples.

These difficulties appear to have been overcome for a time as additional sources of supply became available from occupied and politically dominated territories. It has been possible to increase the rations for children and to issue supplementary rations of various foodstuffs to all age groups from time to time. It is not known to what extent lower-income groups are able to buy nonrationed items.

### *Relative Food Consumption of German and American Workers*

The official German figures on consumption do not provide a complete picture of changes in German food consumption since the World War. There have been no comprehensive studies of family consumption covering large samples of the population which would yield data comparable to those obtained for American families in the Study of Consumer Purchases and the Study of Money Disbursements of Wage Earners and Clerical Workers. Results of two studies covering small samples of German city families, for 1927 and 1937, respectively, are available, however. In considering the evidence supplied by these studies it is important to bear in mind the size of the samples on which they are based, as well as the fact that the figures were obtained from household accounts kept for a period of a year. There is considerable evidence that families who are willing to keep household accounts for an entire year are not, as a rule, representative of the entire population.<sup>8</sup> Unpublished data from the Bureau of Labor Statistics' studies of the Money Disbursements of

<sup>6</sup> Ziegelmayr, W. Die Kost der Schwerarbeiter, in Zeitschrift für Volksernährung, July 20, 1937.

<sup>7</sup> Soap has been rationed in order to conserve vegetable fats. The extent to which this rationing has been put in effect is illustrated by an ordinance of the Reichs Board for the Industrial Procurement of Fats of October 26, 1940 (Arbeitsblatt, Heft Nummer 35/36, p. 637), providing for an additional bar of toilet soap each month for blind people (especially war-blinded) and those who read Braille in their trade.

<sup>8</sup> U. S. Department of Agriculture Technical Bulletin No. 386: Comparison of Schedule and Account Methods of Collecting Data on Family Living, by C. G. Woodhouse and F. M. Williams. Washington, 1933.

Wage Earners and Clerical Workers show that families at the lower economic levels, families in which the women work outside the home, and families in which there are more than the average number of children less than 6 years old are underrepresented in data gathered by the account-book method. The situation may be somewhat different in Germany, particularly as families were paid for completed account books in both studies and prizes were offered for the best records in 1937.

The two German sample studies referred to above were conducted by the Reich Statistical Office. The first survey, conducted in 1927-28, covered approximately 2,000 families (896 wage-earner families, 546 families of clerical workers, and 498 families of office holders). The average family size of the wage-earner families was 4.2 persons. The second study, carried on in cooperation with the Labor Research Institute of the German Labor Front and covering 1937 utilized the same methods as the 1927 survey, but was restricted to wage-earner families.<sup>9</sup> The families in this study averaged 4.1 persons. Completed household-account books were received from 2,600 wage-earner families, but the summarized data available relate only to 350 which are described by the Reich Statistical Board as a representative cross section of the entire group of 2,600 families.

Table 2 presents a comparison of per capita consumption per year for wage-earner families covered in the two surveys. It should be noted that the 1937 study shows a level of consumption considerably below that indicated by the official Reich figures of "apparent consumption" of food. The 1927 family diet furnished 2,866 calories per consumption unit per day, or approximately the amount generally considered necessary for persons engaged in moderately active work, and while somewhat lower, did not differ greatly in calorie value from the diets of families of English and American workers. The 1937 family diet was analyzed by the Bureau of Home Economics of the United States Department of Agriculture which found it about 15 percent below that of 1927 in food energy value. The most important differences in the average food consumption of the groups covered in the two surveys are the lower consumption by the group covered in 1937, a difference of 44 percent in eggs, 23 percent in whole milk and cream, 17 percent in meat and meat products, 7 percent in fats, 5 percent in vegetables (other than potatoes), and 37 percent in fruits. Consumption of bread and potatoes had apparently increased—that of potatoes by 7 percent. According to the United States Bureau of Home Economics, the 1937 diet probably furnished average minimum requirements of the various minerals but allowed little margin for safety.

<sup>9</sup> Einzelschriften zur Statistik des Deutschen Reichs, No. 22, Berlin, 1932 (1927-28 study); *Wirtschaft und Statistik* (periodical of the Reich Central Statistical Office, Berlin), Nos. 4 and 8, February and April 1939 (1937 study).

The incomes of the wage earners studied in 1927-28 averaged Rm3,325 and those of the groups studied in 1937, Rm2,186, or Rm2,631 in terms of the value of the mark in 1927-28 according to the official cost-of-living index. It is impossible to say from the material available whether the difference between these figures (21 percent) is a true measure of the difference between the real income available to German wage earners for consumer purchases in the two years; that is, whether the sample of 1937 represents the same group in the wage-earning population as that covered in 1927-28.

It was originally planned that the account books collected in 1937 should come from "wage-earning families with lower purchasing power"; that is, from families in which the chief wage earner earned not more than Rm150 per month. However, "in the selection of the families by occupation the district authorities were allowed as free a hand as possible, since the selection was not schematic but followed mostly the personal aptitude of the family to complete the year-long study."<sup>10</sup> It was apparently difficult to find families in this wage level who would complete the account books. The earnings of the chief earners in the families for which data have been published actually averaged Rm1,820. Apparently, therefore, about half of the chief earners in these families had incomes of over Rm150 a month.

When the food consumption of families with the same real income in the two years is compared, there appear important declines in food consumption. The average income of the families at the highest economic level studied in 1937 was Rm2,837 (or Rm3,415 in 1927-28 purchasing power). When the food consumption of these families is compared with that of wage-earner families with incomes of Rm3,285 in 1927-28, the figures show the per capita consumption of eggs to be 25 percent lower in the latter period, of whole milk and cream 15 percent lower, of meat and meat products 5 percent lower, and of fats 6 percent lower.

Table 2 also presents figures on the per capita consumption of employed wage earners and clerical workers as shown by the Bureau of Labor Statistics' study of the consumption of this group.<sup>11</sup> The difference between the quantities of foods consumed by these families and by the German families covered in the 1927-28 survey is striking. With the exception of bread and baked goods, potatoes, whole milk, cream, cheese, and coffee substitutes, the American families consumed much larger quantities of each food group than the German families. The differences ranged from 27 percent more fats consumed by the American group to over 900 percent more tea. The consumption of flour and cereals, vegetables other than potatoes, fruits, sugar and

<sup>10</sup> Vierteljahrshesfte zur Statistik des Deutschen Reichs, 46 Jahrgang, 1937, Erstes Heft, p. 62.

<sup>11</sup> Bureau of Labor Statistics Bulletin 638: Money Disbursements of Wage Earners and Clerical Workers, 1934-36 (summary volume), by Faith M. Williams and Alice C. Hanson. Washington, 1941. (In press.)

other sweets, eggs, and coffee, by the American families was more than double that of the German families. Meat consumption by the American families was more than 40 percent greater.

TABLE 2.—Annual Per Capita Consumption of German Families at Two Dates Before Present War as Compared With That of American Families

Item	Annual per capita consumption of families of German wage earners: Group studied in—			Annual per capita consumption of families of American wage earners and clerical workers, 1934-36 <sup>3</sup>	
	1927-28 <sup>1</sup>	1937 <sup>2</sup>		Amount	Percent above (+) or below (-) German consumption 1927-28
		Amount	Percent above (+) or below (-) the 1927-28 group		
	<i>Pounds</i>	<i>Pounds</i>		<i>Pounds</i>	
Bread and baked goods .....	197.8	204.1	+3	142.2	-28
Flour, cereals, dried legumes, and nuts .....	43.6	43.0	-1	91.3	+109
Fats, excluding cream .....	38.5	35.7	-7	48.8	+27
Meats and meat products, including poultry .....	76.9	63.7	-17	110.2	+43
Fish and other seafood .....	11.1	11.8	+6	14.9	+34
Potatoes .....	266.5	285.1	+7	137.3	-48
Other vegetables .....	66.8	63.3	-5	166.4	+149
Fruits .....	46.4	29.2	-37	163.1	+252
Sugar and other sweets .....	32.1	33.7	+5	65.4	+104
Cheese .....	8.0	8.1	+1	7.0	-12
Coffee .....	2.1	1.8	-14	13.4	+538
Coffee substitutes .....	5.6	5.3	-5	( <sup>4</sup> )	-99
Tea .....	.2	.1	-50	2.0	+900
Eggs .....	<sup>5</sup> 112.4	<sup>5</sup> 62.9	-44	<sup>6</sup> 243.2	+116
Whole milk and cream .....	<sup>6</sup> 119.7	<sup>6</sup> 92.4	-23	<sup>6</sup> 110.1	-8
Skim milk, buttermilk, and other milk .....	<sup>6</sup> 1.4	<sup>6</sup> 4.1	+193	<sup>6</sup> 2.1	+50

<sup>1</sup> German consumption data for 1927-28 are from Einzelschriften zur Statistik des Deutschen Reichs, No. 22, Berlin, 1932.

<sup>2</sup> German consumption data for 1937 are from Wirtschaft und Statistik, No. 8, 2d issue, April 1939.

<sup>3</sup> Bureau of Labor Statistics Bulletin 638; Money Disbursements of Wage Earners and Clerical Workers, 1934-35 (summary volume), by Faith M. Williams and Alice C. Hanson, Washington, 1941. (In press.)

<sup>4</sup> Less than 0.05 pound.

<sup>5</sup> Number.

<sup>6</sup> Quarts.

In order to obtain some measure of the diet of the average German family under the current rationing system, in comparison with the diet of American workers, an effort was made to estimate weekly consumption by a family of size and composition similar to the average family represented in the Bureau of Labor Statistics' study of Money Disbursements of Wage Earners and Clerical Workers. The quantities of various rationed foods were combined according to the relative importance of the different age groups in the sample of American families covered in that survey, and then totaled. In view of the absence of any exact description of the types of workers allowed to have each ration, it was assumed that the German workers receiving the ration for "long and night workers" most nearly approximated the adult males and that the "normal consumers" approximated the adult females in the American sample. Such an estimate is obviously very crude, but it does yield an interesting comparison which may be useful if its limitations are kept in mind. There are, undoubtedly,

minor inaccuracies resulting from a lack of exact knowledge of the classification of German foods. Also, the supplemental rations differ from time to time. The figures for the American families are based on estimates of yearly consumption during the period 1934–36, obtained from records of 1 week's consumption during different seasons of the year.

Table 3 presents the estimates of weekly food consumption of the hypothetical German family described above, both for rationed foods and the major nonrationed ones. In the case of unrationed foods the estimate is based on consumption per "consumption unit" as shown in the investigation made in 1927–28, weighted to take account of differences in the size and composition of the German and American families furnishing the basic data.<sup>12</sup> This undoubtedly results in an overestimate for foods for which the supply is limited at the present time, and probably an underestimate for potatoes which have been available in large quantities.

With the exception of bread and potatoes, the quantities of all the more important foods consumed by the American family are very much larger than the estimated consumption by the German family. The smallest difference occurs in the case of sugar and sweets of which the American consumption is 58 percent greater and the largest in the case of eggs where it is nearly three times as large.

Comparisons of estimated quantities of unrationed foods are less significant, since figures for the German family are based on average consumption as shown in the two pre-war surveys. Quantities of potatoes consumed may, on the average, be greater than indicated, as potatoes have been relatively easy to obtain and have been depended on to furnish a large share of calorie requirements.

The hypothetical family used in the foregoing comparison was based on the assumption that an adult male member would be engaged in long or night work. Had the family been restricted to persons classified as normal consumers by the present German régime, the weekly consumption of bread, meat, and fats would have been considerably less. It would appear, on the basis of accepted nutritional standards and the available data on German food consumption in the past, that a large proportion of the German people is receiving a diet which, even when providing an adequate number of calories, is deficient with regard to mineral and vitamin needs. As for those groups of workers receiving the special rations, demands for increased efficiency and lengthened working hours have probably overbalanced whatever advantage was provided by the increased food allowance.

It is not known what proportion of the German population is receiving extra rations at the present time as heavy manual workers or

<sup>12</sup> For the 1927 estimate, family size only has been taken into account.

soldiers, or to what extent these classes will increase or decrease, since the course of the war cannot be predicted. It seems likely, however, that more and more average adult consumers will be drawn into those occupations where they will be entitled to increased rations, while at the same time the food supplies available to normal consumers will become less.

TABLE 3.—Estimated Quantities of Selected Foods Consumed in One Week by a German Family and an American Family of Comparable Size and Composition

RATIONED FOODS <sup>1</sup>

Commodity	German family	American family	
		Amount	Percent above (+) or below (-) German consumption
Bread and flour in terms of bread.....pounds..	18.55	<sup>2</sup> 14.28	-24.2
Farinaceous foods (other cereal products and dried legumes).....do.....	1.30	3.03	+133.1
Meat and meat products.....do.....	<sup>3</sup> 3.61	<sup>4</sup> 6.68	+85.0
Fats.....do.....	2.09	3.57	+70.8
Sugar and other sweets.....do.....	2.87	4.54	+58.2
Cheese.....do.....	.50	.32	-36.0
Curds.....do.....	.25	<sup>5</sup> .10	-60.0
Whole milk.....quarts..	2.61	7.51	+187.7
Eggs.....number..	<sup>6</sup> 5.78	16.88	+192.0

UNRATIONED FOODS

Commodity	German family: Estimated on basis of consumption of—		American family		
			Amount	Percent above (+) or below (-) German consumption	
	Wage earners and clerical workers studied in 1927-28 <sup>7</sup>	Wage earners studied in 1937 <sup>8</sup>			On 1927-28 basis
Potatoes.....pounds..	19.75	19.80	9.53	-51.7	-51.9
Other vegetables.....do.....	5.37	4.39	11.55	+115.1	+163.1
Fruits.....do.....	4.40	2.03	<sup>9</sup> 11.25	+155.7	+454.2
Fish and other seafood.....do.....	.90	.82	1.03	+14.4	+25.6
Skim milk.....quarts..	<sup>10</sup> .09	<sup>10</sup> .25	.04	-55.6	-84.0

<sup>1</sup> Estimate for German family based on rations for July 1, 1941.

<sup>2</sup> Includes all baked goods.

<sup>3</sup> Represents a reduction in the meat ration as reported effective June 2, 1941.

<sup>4</sup> In addition an average of 0.972 pound of poultry was consumed weekly by the American family. No data are available on which to make an estimate of current German consumption of poultry.

<sup>5</sup> Cottage cheese.

<sup>6</sup> The number of eggs consumed was estimated on the basis of data on per capita distribution of eggs in 1940 (see Weekly Report of the German Institute for Business Research, November 30, 1940, p. 84).

<sup>7</sup> The 1927-28 estimates are based on data presented in Einzelschriften zur Statistik des Deutschen Reichs, No. 22, Parts I and II, Berlin, 1932. The figures given in the table for 1927-28 present the average food consumption of families of German wage earners and clerical workers of the same size and composition as those covered in the American study of 1934-36.

<sup>8</sup> The 1937 data are based on data presented in Wirtschaft und Statistik, No. 8, 2d issue, April 1939. The figures given in the table for 1937 present the average food consumption of families of German wage earners of the same size as those covered in the American study of 1934-36.

<sup>9</sup> In addition the American family consumed 0.07 pound of fruit juice.

<sup>10</sup> Skim milk and buttermilk. However, according to German reports, the consumption of skim milk is probably greater than the former consumption of whole milk (see Weekly Report of the German Institute for Business Research, November 30, 1940, p. 83).

*Outlook for the German Food Supply*

Germany entered the present war after a period of preparation aimed at preventing the deficiencies in food supply which characterized the later World War period. Much effort was devoted to making the Reich independent of imports wherever possible. A German estimate places the percentage of self-sufficiency in foods in 1939 at 83 percent.<sup>13</sup> It seems likely, however, that this estimate is based on a lower level of living than had been previously obtained. The food reserves accumulated under the food-control organization cannot be estimated but it is safe to assume that for some products, in particular cereals and fats, they were substantial.

Not much is known about the supplies of meat and fats. The acquisition of food supplies from occupied or dominated countries has undoubtedly compensated somewhat for the domestic shortage. In the autumn of 1940, in part due to the shift in the use of milk from whole milk to skim milk,<sup>13</sup> the supply of butter had so increased that this commodity could be purchased instead of margarine. Nevertheless the deficit in edible fats appears to be the greatest problem in the German food-distribution program. There are limits beyond which the substitution of such carbohydrate foods as potatoes, bread, and sugar cannot go without serious effect on the nation's health.

The supply of milk and eggs has been curtailed by the shortage of feedstuffs, but the farm-production program may remedy this to some extent. Vegetable and fruit supplies will probably continue low. Fruit supplies are below normal this year partly because of the small production in the 1940-41 season.<sup>14</sup> Supplies of both these commodities are also likely to be increased through the farm program.

Events in Europe move so rapidly that it is difficult to foresee what changes are likely to take place in levels of German food consumption. The large portion of the German population in the Army is probably receiving and will continue to receive a satisfactory diet. For the others the outlook is not so promising.

<sup>13</sup> German Institute for Business Research, Weekly Report, November 1940.

<sup>14</sup> U. S. Department of Agriculture. Office of Foreign Agricultural Relations. Continental European Food Situation and Outlook. Supplement to May 27, 1941, issue of Foreign Crops and Markets (p. 787).



## WAGE AND PRICE STRUCTURE OF THE BITUMINOUS-COAL INDUSTRY

By WITT BOWDEN, *Bureau of Labor Statistics*

THE bituminous-coal wage negotiations of 1941 were exceptionally important for several reasons. The industry has a vital bearing on the basic industries of manufacturing, transportation, and power production, and a prolonged shut-down would have resulted in the progressive suspension of emergency defense measures. The industry in 1939 produced about 42 percent of the country's total energy derived from mineral fuels and water power. It employed in 1940 an average of 403,900 wage earners, not counting salaried persons.

The exceptional importance of the industry and the peculiar nature of its problems are indicated by the role of Government. The general agencies of Government, such as the Conciliation Service and the Wage and Hour Division of the Department of Labor and the National Defense Mediation Board, have functioned in this field, and in addition, the special problems of the industry have been recognized in the Bituminous Coal Act and its administration by the National Bituminous Coal Commission, later the Bituminous Coal Division of the Department of the Interior.

The bituminous-coal industry is characterized by conditions described by the President as conflicts "between capital and capital." There are two outstanding circumstances connected with the industry that have given rise to these conflicts. One of these is the fact that a considerable proportion of the product of the industry is from "captive" mines as distinguished from commercial mines. The product of the captive mines is not ordinarily placed on the open market but is transferred directly to the owners as industrial consumers, such as iron and steel manufacturers and coke and byproduct firms. Furthermore, operators have found it impossible to avoid an overexpansion of the industry. Another circumstance giving rise to conflicts between different groups of coal operators is the traditional difference in labor policy between northern and southern Appalachian operators, particularly in respect to wages.

These North-South differences in wage policy ultimately gave rise, contrary to original expectations, to the major problem of the 1941 wage negotiations. These negotiations were particularly significant because of circumstances that caused the union and the northern Appalachian operators to combine forces in making a breach in the differentials.

The agreements of 1941 brought about a major increase in wages, an increase of such exceptional magnitude as to have a significant bearing on the current discussions of wages as related to costs, prices, and the

problem of inflation. Labor costs per ton were immediately increased by the wage changes, but the price schedules worked out by authority of the Bituminous Coal Act go back to the cost structure of 1936-37. Average costs by minimum-price area after the 1941 wage changes are not greatly in excess of average costs in the price-base period.

### *1941 Wage Negotiations*

#### WAGE PROPOSALS

The regular 2-year agreement between the operators and the union extended to March 31, 1941. The renewal of this agreement was the subject of the Appalachian Joint Wage Conference, which convened in New York on March 11. The United Mine Workers of America proposed as the main changes affecting wages an increase of \$1 per day in the wages of all regular classifications of inside and outside daymen; comparable changes in cutting and loading rates and other piece rates; a 2-week vacation with pay; a guaranty of pay for not less than 200 days each year; and the elimination of North-South differentials and of "existing inequitable differentials within and between districts."

The Appalachian Joint Wage Conference represented about 70 percent of the country's bituminous-coal tonnage. It was understood that operators in most of the other areas would conform in substance to the agreements reached by the Appalachian Conference. No new agreement was reached by the date of expiration of the 1939-41 agreement and the operation of the mines in the Appalachian area was therefore suspended. These mines remained inactive throughout April. The southern Appalachian operators withdrew from the Joint Conference on April 11. The northern Appalachian operators and the union reached a new agreement on April 16 but the agreement was conditioned upon its acceptance in substance by the southern Appalachian operators.

Efforts by the Department of Labor, the President, and the National Defense Mediation Board (the latter agency undertaking to mediate on April 24) resulted in a tentative settlement by the end of April and work thereafter was generally resumed. Agreement on details, however, was not immediately possible and the conferences again broke up on May 21, although the operation of the mines was not suspended. The southern Appalachian operators sought a further reference of the points in dispute, especially the differentials, to the National Defense Mediation Board. After the Board on June 5 made a recommendation against the day-rate differentials, these operators entered into a tentative agreement, subject to later detailed negotiations.

## THE NEW WAGE TERMS

Preliminary agreements were signed by the union and the northern Appalachian operators on April 29, and by the union and the southern Appalachian operators on April 30. The final agreements of June 19 (northern) and July 5 (southern) provided for the following basic increases in wages: Day workers, \$1 per day; tonnage workers, 12 cents per ton; and yardage and dead work, 15 percent. These broad general terms were modified in application to specific types of workers in the various regions. The demand of the union for a paid-vacation period of 2 weeks was met only to the extent of a 10-day holiday period with a payment of \$20 per worker for those in the industry who had a continuous employment record of more than 1 year. The southern Appalachian operators agreed on June 9 (confirmed, after further threat of strikes, on July 5) to the elimination of the basic day-rate differentials but not to the elimination of differential tonnage rates.

*Producing Districts and Price Areas*

The problem of wage differentials as it entered into the 1941 wage negotiations concerned mainly the differences in wages between the northern and southern Appalachian districts. Differentials exist, however, and have long existed, in other areas. Both the wage differentials of the collective agreements and the price policies embodied in the Bituminous Coal Act of 1937 recognize basic regional variations.

The bituminous-coal industry is divided into districts by the United Mine Workers of America, for the purposes of collective bargaining and the administration of union affairs. Some of the union's districts are naturally in mining areas other than those of the bituminous-coal industry. The major bituminous-coal areas of the Appalachian region are divided by the union into 12 districts (Nos. 2 to 6, 16, 17, 19, 24, 28, 30, and 31). With insignificant exceptions, the aggregate mining area included in these districts is the same as that of Districts 1 to 8 of the Bituminous Coal Act of 1937. This region in 1940 produced 71.2 percent of all bituminous coal mined in the country, and the collective agreements entered into by the union and the operators in the region are recognized as determining the nature of the agreements in the rest of the country.

The miners' union, in districting the mining areas of the country, takes account of local conditions and traditions and of its own administrative needs that naturally have no bearing on the districting of the industry for the purpose of administering the Bituminous Coal Act. Under that act, the Appalachian region, for example, is divided into

8 districts in contrast to the union's 12 districts. An important consideration in the division of the industry into districts by the United Mine Workers is the more or less complementary organization of the industry by employers, in the form of producers' or operators' associations. Thus, the collective agreement of 1939 for the Appalachian region mentions 15 employers' associations as being parties to the agreement.

The division of the industry into producing districts and minimum-price areas under the Bituminous Coal Act is shown in table 1, which also indicates the comparative importance of the several districts as measured by percentages of the country's total output of bituminous coal.

TABLE 1.—Minimum-Price Areas and Producing Districts Under Bituminous Coal Act of 1937, and Production in 1940<sup>2</sup>

Price area and district	Location of district <sup>1</sup>	Production in 1940 <sup>2</sup>	
		Amount (thousands of tons)	Percent of total
All areas.....	United States.....	453,245	100.00
Price area 1.....		322,875	71.23
District 1.....	Eastern Pennsylvania, Maryland, and northeastern West Virginia.....	42,048	9.28
District 2.....	Western Pennsylvania.....	73,073	16.12
District 3.....	Northern West Virginia.....	25,986	5.73
District 4.....	Ohio.....	22,092	4.87
District 5.....	Michigan.....	440	.10
District 6.....	Panhandle of West Virginia.....	4,398	.97
District 7.....	Southeastern West Virginia and part of Virginia <sup>3</sup> .....	58,918	13.00
District 8.....	Southwestern West Virginia, eastern Kentucky, northeastern Tennessee, North Carolina, and part of Virginia. <sup>4</sup>	95,920	21.16
Price area 2.....		79,636	17.57
District 9.....	Western Kentucky.....	8,668	1.91
District 10.....	Illinois.....	49,495	10.92
District 11.....	Indiana.....	18,565	4.10
District 12.....	Iowa.....	2,908	.64
Price area 3: District 13.....	Alabama, Georgia, and southeastern Tennessee.....	16,215	3.58
Price area 4: District 14.....	Arkansas and part of Oklahoma.....	2,064	.45
Price area 5: District 15.....	Kansas, Texas, Missouri, and part of Oklahoma.....	8,496	1.87
Price area 6.....		7,611	1.68
District 16.....	Northern Colorado.....	2,245	.49
District 17.....	Southern Colorado, including Colfax County, New Mexico.....	4,830	1.07
District 18.....	New Mexico (except Colfax County), Arizona, and California.....	536	.12
Price area 7.....		9,272	2.05
District 19.....	Wyoming and Idaho.....	5,748	1.27
District 20.....	Utah.....	3,524	.78
Price area 8: District 21.....	North Dakota and South Dakota.....	2,256	.50
Price area 9: District 22.....	Montana.....	2,974	.66
Price area 10: District 23.....	Washington, Oregon, and Alaska.....	1,846	.41

<sup>1</sup> The Bituminous Coal Act of 1937 and amendments define the districts by State and county.

<sup>2</sup> Preliminary. U. S. Department of the Interior. Bituminous Coal Division. Production by Districts.

<sup>3</sup> Designated by the Bituminous Coal Act of 1937 as Southern numbered 1.

<sup>4</sup> Designated by the Bituminous Coal Act of 1937 as Southern numbered 2.

The main controversies of the 1941 negotiations were over differences between the operators of the northern and the southern Appalachian districts. The northern Appalachian districts of the Bituminous Coal Act are 1 to 6, and the districts corresponding to these in the United Mine Workers' classification are Nos. 2 to 6, 16, 24, and 31.

The southern Appalachian districts of the Bituminous Coal Act are 7 and 8 and the corresponding United Mine Workers' districts are Nos. 17, 19, 28, and 30.

Outside of the Appalachian region (Price area 1 of the Bituminous Coal Act), Districts 9 to 12 (Price area 2) are paralleled approximately by the union's districts Nos. 11 (Indiana), 12 (Illinois), 13 (Iowa), and 23 (western Kentucky). Price area 3, with a single district (13), consists of Alabama and parts of Georgia and Tennessee and follows broadly the union's district No. 20 (Alabama) and part of No. 19 (Tennessee). To the westward of Price areas 1 to 3, the bituminous-coal regions are widely scattered and comparatively unimportant in volume of production.

### *Economic Background of the Bituminous Coal Act of 1937*

The Bituminous Coal Act of 1937 was a significant departure from traditional conceptions and policies. The union has sought a much larger area of joint control under collective agreements than has been desired by the operators, but both formerly agreed that a minimum of public regulation was desirable. Recently, however, the increasingly acute competition of other power-producing industries, combined with conflicts and weaknesses within the industry, led to recognition by both the union and the employers of problems beyond their own power to solve and beyond the scope of collective bargaining. One of the problems widely recognized as calling for public action, either State or Federal, was the enforcement of standards of safety. The union, in its prolonged efforts to remove wage differentials, came to hold the view that public action was necessary for the solution of this problem. At the thirty-fourth convention of the union in 1936, the problem of differentials was discussed at some length and it was stated:

The fundamental objective of the United Mine Workers' organization for the solution of these very distressing problems lies directly in a system of proper Federal regulation, which will encompass a synchronized system of price fixing and allocation of tonnages on a basis equitably fair to mine workers and operators alike.

#### GROWTH OF COMPETING INDUSTRIES

The bituminous-coal industry remains the country's chief source of energy, but other industries in the same field have expanded partly at the expense of the coal industry. Bituminous coal increased in relative importance between 1889, when it contributed 58.1 percent of the country's total energy, and 1909, when the proportion was 70.2 percent (table 2). Thereafter, there was a decline to 52.8 percent in 1929 and a further reduction to 45.0 percent in 1932. The proportion ranged somewhat above 45 percent during the next 4 years, but fell by 1938 to 40.1 percent, rising in 1939 to 41.8 percent.

TABLE 2.—Comparative Importance of Bituminous Coal and Other Sources of Energy, 1889 to 1939<sup>1</sup>

Year	Percent of total energy contributed by the mineral fuels and water power <sup>2</sup>						Bituminous coal equivalent of total energy (millions of net tons) <sup>3</sup>	Total production of bituminous coal (millions of net tons)
	Pennsylvania anthracite	Bituminous coal	Crude petroleum		Natural gas (total production)	Water power (fuel equivalent)		
			Domestic production	Imports				
1889	28.7	58.1	4.9		6.2	2.1	165	96
1899	22.1	68.2	4.6		3.3	1.8	283	193
1909	15.5	70.2	7.7	( <sup>4</sup> )	3.7	2.9	541	380
1918	12.3	69.5	9.8	1.0	3.6	3.8	834	579
1920	10.9	66.3	11.8	2.9	3.8	4.3	867	569
1929	7.6	52.8	22.8	1.8	7.7	7.3	1,013	535
1930	7.9	51.4	22.5	1.6	8.8	7.8	910	468
1931	7.9	48.7	24.8	1.4	8.8	8.4	785	382
1932	7.5	45.0	26.1	1.5	9.3	10.6	688	310
1933	7.0	45.2	28.1	1.0	8.7	10.0	737	334
1934	7.6	46.1	26.7	1.0	9.3	9.3	780	359
1935	6.6	45.1	27.7	.9	9.5	10.2	825	372
1936	6.1	47.2	27.1	.8	9.5	9.3	930	439
1937	5.4	45.0	29.6	.6	10.0	9.4	991	446
1938	5.5	40.1	32.0	.7	10.8	10.9	869	349
1939 <sup>5</sup>	5.7	41.8	31.1	.8	10.7	9.9	932	393

<sup>1</sup> U. S. Department of the Interior, Geological Survey, Mineral Resources, 1918, part II, and 1929, part II; Bituminous Coal Division, Bituminous Coal Tables, 1938-39. For details of methods used and limitations of the results, see Bituminous Coal Tables, 1936-37, pp. 45-48.

<sup>2</sup> Based on the equivalent British thermal units.

<sup>3</sup> Calculated at 26,200,000 B. t. u. per ton.

<sup>4</sup> Less than a tenth of 1 percent.

<sup>5</sup> Preliminary.

The competitive status of the bituminous-coal industry is affected by the more economical use of coal. The number of pounds of coal used per thousand gross-ton miles of freight service fell 34.1 percent between 1919-20 and 1939. The number of pounds of coal used per kilowatt-hour in electric public-utility power plants fell 56.2 percent between 1919 and 1939. The number of pounds of coking coal per gross ton of pig iron fell 20.2 percent between 1918 and 1939. The increased efficiency in the use of coal reduced the amount of coal consumed for a given amount of energy produced. This, however, may have strengthened the competitive position of bituminous coal by making its use more attractive to consumers.

The comparative decline of the bituminous-coal industry as a source of energy was one of the considerations leading to the passage of the Bituminous Coal Act of 1937. More important, however, in bringing about the enactment of the law was the internal condition of the industry.

#### CAPTIVE MINES AND SUBSIDIARY ENTERPRISES

One of the distinctive characteristics of the industry is the "captive" mine. The mines that are thus designated are operated by industrial consumers, such as the steel industry and coke, gas, and byproducts industries. The owners of captive mines, however, frequently depend

in part on coal produced for the open markets and are therefore interested in obtaining coal at minimum prices. The normal cost-price relationship prevailing among producers for open markets does not exist among captive mines, which operate primarily to supply a pre-determined demand, both costs and prices being integrated in a larger industrial enterprise. The percentages of bituminous coal produced in captive mines in the various districts in 1938 and 1940 are shown in table 3.

TABLE 3.—*Bituminous Coal Produced in Captive Mines, as Percentage of Total Production, by Minimum-Price Area and Producing District, 1938 and 1940*<sup>1</sup>

Minimum-price area and producing district	Production in captive mines as percentage of total production		Minimum-price area and producing district	Production in captive mines as percentage of total production	
	1938	1940		1938	1940
United States.....	19.6	23.0			
Price area 1.....	20.2	24.4	Price area 3: District 13.....	49.2	48.3
District 1.....	17.9	13.4	Price area 4: District 14.....	2.5	1.1
District 2.....	41.8	56.3	Price area 5: District 15.....	7.7	7.8
District 3.....	11.7	16.2	Price area 6.....	10.6	18.3
District 4.....	10.8	4.6	District 16.....	14.1	5.4
District 5.....			District 17.....	10.0	26.5
District 6.....	23.3	24.4	District 18.....		
District 7.....	10.5	13.8	Price area 7.....	43.6	45.8
District 8.....	17.6	16.8	District 19.....	62.7	65.9
Price area 2.....	8.8	9.3	District 20.....	9.2	11.7
District 9.....			Price area 9: District 22.....	74.6	75.0
District 10.....	12.3	12.6	Price area 10: District 23.....	34.8	44.7
District 11.....	1.9	2.9			
District 12.....	16.9	8.2			

<sup>1</sup> U. S. Department of the Interior. Bituminous Coal Division. Preliminary Summary of Producing, Administrative, and Selling Costs for the Calendar Year 1938; similar summary for 1940. The percentages are computed from incomplete production figures reported to the Bituminous Coal Division for its cost tabulations. The proportion thus reported in 1938 was 98 percent, and in 1940, 93 percent. Mines are classified as captive if 40 percent or more of their total output is noncommercial.

To the owners of captive mines, mining is secondary, but mining companies may also have subsidiary enterprises. Profits may be made from undertakings such as housing, community utilities, stores, and transportation, and these activities may be carried on by separate but only nominally independent companies. Even though no profit is made from the sale of coal, the owner of a mining property may obtain profitable results in the aggregate through subsidiary enterprises not considered in computing costs and determining prices under the Bituminous Coal Act.<sup>1</sup>

#### LOSSES BY HIGH-COST MINES

The ordinary commercial operators of coal mines have been adversely affected by the greater bargaining power of industrial consumers of coal, by the fact that some of these consumers in certain areas have coal properties or other power resources of their own, and by the fact that many of the operators of commercial coal mines have

<sup>1</sup> See a discussion of this subject by Prof. Walton H. Hamilton in *Yale Law Journal*, February 1941, p. 606.

not been wholly dependent for aggregate profits on the marketing of coal. The relatively small, scattered, and intensely competitive commercial operators have made price concessions that have created a chronic condition of an excess of average costs over average prices. The competitive pressures have intensified the natural temptation in such an industry as coal mining to pay primary attention to immediate returns without taking adequate account of depletion and the need for the ultimate replacement of the invested capital.

Some mines continue to operate even though the owners have had to give up further returns from their equities. Owners, however, may already have obtained from their properties income exceeding the investment in addition to reasonable returns on the investment. The apparent present losses may in reality mean a failure in the past to make a formal allocation of income to such items as depletion and replacement. The amount of net income reported by a company depends vitally on its accounting assumptions and methods of handling such items as capitalization, valuation, and allocation to depletion and depreciation.

It is nevertheless true that many mines have operated over extensive periods with persistent excesses of average costs over average returns. In mining, the problem of the high-cost producer has been particularly acute. In this respect mining somewhat resembles farming. Large numbers of farmers run their farms year after year in a manner that impoverishes their soil and destroys their capital, simply for the sake of having a place to live and a subsistence. Similarly, many mine operators, in need of the ready money obtainable from coal, or perhaps in a gambling spirit, sell their coal below cost, use up their capital, and force burdens of depletion, debt, and stranded populations on the future.

In mining, as in farming, not merely the marginal producers but the submarginal producers selling below cost account for much of the persistent loss and using up of capital attributed to the industry in the various estimates of national income. There is, of course, another side to the industry's income picture, for the low-cost mines operate profitably. Furthermore, the profits in the industry, as already stated, are intricately tied up with profits in subsidiary and related industries, as represented by the finances of companies not nominally a part of the industry, such as coke and byproduct companies, iron and steel companies, and railroads, or of companies that engage in leasing of lands or in handling housing, stores, and community facilities.

#### SHIFTING OF COSTS TO WORKERS IN THE MINES

Even these circumstances, however, have aggravated the problems of operators of ordinary commercial mines. One major result has



been a tendency to shift to the workers the burden of maintaining profits, through inadequate wages, part time, high living costs in many company towns, or inadequate protection from the exceptional hazards of the industry.

One of the serious burdens borne by wage earners in the industry is an exceptional amount of part-time employment. In the entire industry, the working time averaged only 28.1 hours per week even in 1940, a comparatively good year. The excessive amount of part time was one of the grounds for the insistence by the union on a limitation of working time to 7 hours per day and 35 hours per week. Weekly earnings in 1940 averaged only \$24.71, a figure below the average for all manufacturing industries combined, in spite of the fact that the bituminous-coal industry requires a comparatively large proportion of skilled labor and in addition entails exceptional hazards and responsibilities.

Back of these averages are extreme variations in the amount of work available and in the weekly compensation of miners. In 1937, a relatively active year, the bituminous-coal mines of the country averaged only 193 days of actual operation. The averages by States and especially by counties indicate an extremely limited amount of work even in 1937 in many of the major mining regions of the country. Thus, in Ohio, the mines in 1937 averaged 185 days of operation, and in that State 18 counties had averages below 185, the average in one of the major coal counties in the State being only 153 days, and in another, only 142 days. In 1940, the average number of days the mines operated was 205. The average by producing district ranged as low as 124 in District 12 (Iowa) and was only 273 in the highest district (6, the Panhandle of West Virginia).

The inadequate and variable amount of work available is a major cause of a wide range in annual earnings. A study by the Bureau of Labor Statistics for 1935 indicated that 4.7 percent of the workers received less than \$200; 11.2 percent less than \$400; 21.6 percent less than \$600; 39.1 percent less than \$800; and 60.9 percent less than \$1,000.<sup>2</sup> As a result of increases in hourly earnings and in weekly hours, annual earnings in 1940 were perhaps one-fourth higher than in 1935.

These evidences of part time, comparatively low weekly earnings, and wide range of annual earnings indicate the inadequacy of rates of pay as a measure of the earnings of miners. Other factors affecting the comparability of rates of pay of miners and other workers are degree of skill, extent of hazards, isolation, dependence on monopolistic sources of supply of goods and utilities, and the expenses incurred by tonnage workers for materials used in mining.

<sup>2</sup> The Bureau of Old Age and Survivors' Insurance has published frequency distributions of annual earnings of bituminous-coal workers with taxable wages in the fourth quarter of 1938, and these figures indicate that approximately the same proportion of workers then earned less than \$1,000. Hourly earnings were higher in 1938 than in 1935, but weekly hours were somewhat lower.

*Bituminous Coal Act of 1937, and Its Administration*

## GENERAL PURPOSE OF THE ACT

The peculiar problems of the bituminous-coal industry explain the departure made by Congress from prevailing public policies of industrial regulation and price control. The Bituminous Coal Act of 1937 is admittedly a significant modification of policy, especially as embodied in the antitrust laws.

The intent of the act to stabilize the industry found expression in provisions for establishing minimum-price schedules for coal produced in each of the 10 minimum-price areas (table 1) recognized by the act. The establishment of maximum prices, if required for the protection of consumers, was also authorized by the law. The act provided for a bituminous-coal code and for the levying of a special excise tax of 19.5 percent of the value of coal produced, a tax from which code members were exempted. The members, however, were required to conform to standards of fair competition and to rules and regulations governing the marketing of their coal. In each of the 23 producing districts under the law, a board was to be established, composed of the code members of the district.<sup>3</sup> The administrative agency, the National Bituminous Coal Commission, was also to establish a district statistical bureau in each district.

The Commission attempted as rapidly as possible to carry out the provisions of the law for the purpose of meeting the critical situation in the industry. To this end, minimum prices were established in December 1937. A court held, however, that the Commission had not given adequate opportunity for hearings before the prices were made final. The Commission therefore revoked the price schedules and arranged for detailed hearings on all phases of the price-fixing process.

## DETERMINATION OF AVERAGE COSTS

The first step in the establishment of minimum prices and marketing rules and regulations was the ascertaining of the cost of production per ton in each of the 10 minimum-price areas named in the act. The Commission obtained information for this purpose directly from coal producers. The cost reports were sent to statistical bureaus established by the Commission in the several producing districts. The reports covered more than 95 percent of coal produced, and more than 90,000 reports, including the 1937 monthly reports, were used in computing weighted average costs. The price-base period chosen for computing costs included the year 1936 and the last 9 months of

<sup>3</sup> Only 22 districts were actually organized because the coal produced in the district consisting of the Dakotas is classified in the trade as lignite.

1937, these months being chosen because of the increased wages under the collective agreements effective on April 1, 1937. The extensive cost hearings were delayed by litigation, which was finally decided by the Supreme Court of the United States on January 30, 1939, in favor of the Commission. Final cost determinations were made by the Commission for the various minimum-price areas in May and June 1939.

#### PROPOSAL OF DISTRICT PRICES AND MARKETING RULES

The second step in establishing minimum prices was the formulation of preliminary minimum prices and marketing rules and regulations in the several districts for use in the coordinating process, described later. These proposals, submitted by the district boards, included minimum prices at the mines for the various kinds, qualities, and sizes of coal produced by the code members in each district. Additional information was obtained by the Commission from 12,000 code members regarding kinds, qualities, and sizes produced at each mine, the nature of the seams operated, and available chemical analyses of the coal. On the basis of this supplementary information and of extensive public hearings, the Commission at length approved or modified the proposed prices and the rules and regulations as submitted by the district boards. The law assumed that the prices of similar coals from different producing districts sold in a common market would be the same, although the costs of producing similar coals in the different producing districts may vary widely. The law recognized existing differences in cost and merely sought to stabilize prices on a basis fair to all competitors. This end was to be achieved by a process described in the law as coordination.

#### COORDINATION OF PRICES AND MARKETING RULES

The third step was the coordination of the proposed district prices and rules and regulations in the various minimum-price areas for conformity to competitive conditions and to other standards prescribed by law. It was provided by law that the coordinated prices (the prices finally approved and administered) must reflect as nearly as possible the relative market values, at points of delivery in each common consuming market area, of the various kinds, qualities, and sizes of coal produced in the several districts of a given price area. To this end, it was necessary to take account of values of coals as to uses, seasonal demand, transportation charges and their effect upon a reasonable opportunity to compete on a fair basis, and the competitive relationships between coal and other forms of fuel and energy. A particularly important provision of the law relating to coordination required the preservation as nearly as possible of existing fair competitive opportunities.

In carrying out the work of coordination, the Commission collected reports relating to the marketing of coal. These reports showed for 1937 the total tonnage moving from each producing district into each consuming market area, the tonnage being further analyzed as to use, size, and transportation methods. The 1937 market distribution was used for computing weighted average prices under the minimum-price schedules.

The extremely detailed nature of the process of price determination is indicated by the fact that every code member was given a schedule containing a proposed minimum price for each kind, quality, and size of coal produced by him for shipment into each market area in which he sells his coal. When the detailed price schedules were completed, final hearings were arranged on the coordinated minimum prices.<sup>4</sup> The schedules as thus proposed and finally approved by the Secretary of the Interior became effective on October 1, 1940.

### *Price-Base Costs and the Minimum-Price Schedules*

The average costs during the price-base period (1936-37) and the average prices under the minimum-price schedules of the various districts and minimum-price areas are given in table 4. Costs were defined as including the production, preparation, sale ("reasonable costs of selling"), and distribution of coal, with suitable allowances for such items as depletion of coal seams and depreciation of plant and equipment. The average prices were based on the 1937 market distribution.

For the country as a whole, the average price per ton was 1.64 cents below the average cost. In the various districts, there were significant differences in the relationship between the cost per ton in the price-base period and the average price as fixed in the minimum-price schedules. Thus, in District 16, the average price was 19.57 cents per ton above the average cost, and in District 1, 20.15 cents lower than the average cost. These variations were incidental to the working out of the general principle of a coordinated minimum-price structure as defined by the Bituminous Coal Act, which required a recognition of the existing market structure and competitive relationships of the producing districts of a given minimum-price area.

<sup>4</sup> The final hearings on the coordinated prices before the examiners of the Bituminous Coal Division (which, on July 1, 1939, took over the work of the National Bituminous Coal Commission) began on July 24, 1939. The remarkable scope of the proceedings is indicated by the following account from the Annual Report of the Secretary of the Interior, 1940 (pp. 462-463):

The record of these proceedings contains over 26,000 pages of testimony and oral argument, about 2,000 exhibits, about 700 written protests and 112 briefs. More than 300 producers, consumers, and other interested persons were represented at the hearing. The examiners heard oral argument on February 14, 15, and 16, 1940. They filed part of their report on March 21, 1940, and the remainder on April 13, 1940. Five hundred and eighty-one parties filed exceptions and briefs to the examiner's report. Forty-eight parties requested a review by the Director of the findings and conclusions of the Commission on various phases of the proceedings. Nearly 300 parties were afforded oral argument before the Director during the period from May 27 to June 6, 1940. Several miscellaneous motions and other moving papers were filed by parties subsequent to the filing of the examiner's report.

TABLE 4.—Average Cost of Bituminous Coal Used as Price Base and Average Price per Ton as Computed for Minimum-Price Schedules <sup>1</sup>

Price area and district	Weighted average cost per ton <sup>2</sup>	Average price per ton as computed for minimum-price schedules <sup>3</sup>	Price per ton minus cost per ton
Total, United States	\$2.0884	\$2.0720	—\$.0164
Price area 1	2.1284	2.0885	— .0399
District 1	2.3887	2.1872	— .2015
District 2	2.2140	2.0488	— .1652
District 3	1.8366	1.8519	+ .0153
District 4	1.9356	2.0010	+ .0654
District 5	3.6543	3.7790	+ .1247
District 6	1.9775	1.9684	— .0091
District 7	2.1940	2.1931	— .0009
District 8	2.0301	2.0888	+ .0587
Price area 2	1.7622	1.8125	+ .0503
District 9	1.5805	1.5889	+ .0084
District 10	1.7561	1.8120	+ .0559
District 11	1.6525	1.7546	+ .1021
District 12	2.7636	2.7504	— .0132
Price area 3: District 13	3.4382	2.4635	+ .0253
Price area 4: District 14	3.6080	3.6495	+ .0415
Price area 5: District 15	2.0392	2.0363	— .0029
Price area 6	2.7389	2.7174	— .0215
District 16	2.5559	2.7516	+ .1957
District 17	2.7664	2.6757	— .0907
District 18	3.1519	2.9078	— .2441
Price area 7	2.1691	2.1791	+ .0100
District 19	1.9917	1.9717	— .0200
District 20	2.4691	2.4646	— .0045
Price area 9: District 22	1.4851	1.4957	+ .0106
Price area 10: District 23	3.2247	3.2573	+ .0326

<sup>1</sup> U. S. Department of the Interior. Bituminous Coal Division. Prices and costs are per ton of 2,000 pounds.

<sup>2</sup> Cost data obtained for the years 1936-37 by the National Bituminous Coal Commission for use in formulating minimum-price schedules.

<sup>3</sup> Minimum-price schedules effective Oct. 1, 1940.

### Costs in 1940, and the Minimum-Price Schedules

Between the price-base period (1936-37) and 1940, average costs per ton were significantly reduced in most of the producing districts. The 1941 wage negotiations concerned directly the Appalachian coal regions (Minimum-price area 1, consisting of Districts 1 to 8) and involved particularly the comparative costs in the major competing areas of the northern and southern Appalachian territories. The competitive relationships are particularly important between the two main low-volatile districts of this area (1 and 7) and between the two main high-volatile districts (2 and 8).<sup>5</sup> The 1940 cost-price relationships in these districts therefore have special importance in their bearings on the wage changes of 1941. (See table 5.)

In District 1, average cost per ton was 24.67 cents lower in 1940 than in 1936-37, a reduction of 10.3 percent. In this district, the average minimum price per ton as computed for the minimum-price schedules was 20.15 cents lower than the 1936-37 average cost, but was 4.52 cents above the 1940 average cost. In District 7, in the southern Appalachian territory, average cost fell only 15.63 cents, or 7.1 percent. Nevertheless, the average minimum price was 15.54 cents above 1940

<sup>5</sup> See National Defense Mediation Board's press release on findings and recommendations, June 5, 1941 p. 10.

average cost, and thus District 7 in respect to the margin between cost and price retained in 1940 a significant advantage over District 1, the main competing area.

TABLE 5.—Average Cost per Ton of Bituminous Coal, 1936-37 and 1940, and Average Price per Ton as Computed for Minimum-Price Schedules <sup>1</sup>

District	Average cost per ton				Average price as computed for minimum-price schedules <sup>3</sup>	Minimum price minus cost per ton <sup>4</sup>	
	1936-37 <sup>2</sup>	1940	Reduction, 1936-37 to 1940			1936-37	1940
			Amount	Percent			
			Cents			Cents	Cents
All districts.....	\$2.0884	\$1.9002	18.82	9.0	\$2.0720	-1.64	+17.18
District 1.....	2.3887	2.1420	24.67	10.3	2.1872	-20.15	+4.52
District 2.....	2.2140	1.9790	23.50	10.6	2.0488	-16.52	+6.98
District 7.....	2.1940	2.0377	15.63	7.1	2.1931	-.09	+15.54
District 8.....	2.0301	1.9047	12.54	6.2	2.0888	+5.87	+18.41
Districts 1 and 2.....	2.2770	2.0362	24.08	10.6	2.0990	-17.80	+6.28
Districts 7 and 8.....	2.0911	1.9552	13.59	6.5	2.1275	+3.64	+17.23
Districts 1 to 8.....	2.1284	1.9408	18.76	8.8	2.0885	-3.99	+14.77

<sup>1</sup> U. S. Department of the Interior. Bituminous Coal Division. Revised data used for Districts 1 to 8.

<sup>2</sup> The price-base period.

<sup>3</sup> Not effective until Oct. 1, 1940.

<sup>4</sup> The computations are designed to show the comparative cost-price relationships of the different districts under the minimum-price schedules, originally established in 1937 but withdrawn and deferred until Oct. 1, 1940. Negative figures represent approximate average loss and positive figures approximate average profit, assuming prices at levels of the minimum-price schedules.

The cost-price relationships in the other main competing districts, namely, District 2 in the northern Appalachian region and District 8 in the southern, indicate a similar position of advantage for District 8 in respect to the margin between cost and price. The excess of the minimum price over cost in 1940 in District 2 was 6.98 cents, and in District 8, 18.41 cents.

In the industry as a whole, as indicated by the figure for all districts combined, average cost fell 18.82 cents, or 9.0 percent, between 1936-37 and 1940. The average minimum price in all districts combined was 1.64 cents below average cost in 1936-37 and 17.18 cents above average cost in 1940.

It is necessary to emphasize the fact that the price figures used in the preceding cost-price comparisons are from the minimum-price schedules which were authorized by the Bituminous Coal Act of 1937 but which did not become effective, because of litigation and other delays, until October 1, 1940. The cost-price relationships are therefore not measures of actual profits or losses per ton from 1936-37 to 1940, but they are significant as approximate indications of the difference between cost per ton and price per ton after the minimum-price schedules were put into effect. It was on this basis, so far as costs and prices were involved, that the wage negotiations of 1941 were carried on, although it was recognized that actual realizations were affected by possible changes in costs and by possible advances in prices above the minimum-price levels.

*Costs as Affected by the 1941 Wage Changes*

The wage agreements of 1941 included basic increases of \$1 per day for day workers, 12 cents per ton for tonnage workers, and 15 percent for yardage and dead work. The agreements also eliminated day-rate differentials amounting in basic occupations in the southern Appalachian territory to 40 cents per day. Still another provision called for a 10-day vacation, including the Fourth of July and weekend holidays, with a "token" payment of \$20 for all regular workers employed for at least 1 year.<sup>6</sup>

Estimates of the effects of the changes were made by the union and by the operators in the two main divisions of the Appalachian area and were submitted by them to the National Defense Mediation Board. The figures, however, are not wholly comparable because the estimates by the United Mine Workers included all mines, whereas those by the operators excluded captive mines.<sup>7</sup>

The United Mine Workers at the Appalachian Joint Wage Conference presented an estimate for the Appalachian territories (virtually the same as Minimum-price area 1), indicating a maximum increase of 17 cents in wages paid per ton. This estimate did not include any increase from equalization of rates in the northern and southern Appalachian areas, nor did it include any allowance for the cost of paid vacations. The estimate for the Appalachian territories made by representatives of the operators was an increase in wage costs of 24 cents per ton.<sup>8</sup>

In the reconsideration of the minimum-price structure by the Bituminous Coal Division, a questionnaire was sent on May 12 to producers for the purpose of obtaining information regarding the effects of the 1941 wage changes. The questionnaire required producers to state their actual labor costs in the aggregate and per ton for the calendar year 1940, and to recompute these costs by the use of additional items of labor paid at the wage rates in effect after March 31, 1941. The results obtained are summarized for Minimum-price area 1 in table 6.

The Bituminous Coal Division's questionnaire of May 12 covered all employee compensation. The employees who were affected directly by the 1941 wage agreements comprised three groups as classified by the Division for its analysis of costs. These were daymen, miners (including a few workers on a time basis rather than a tonnage basis), and those engaged in yardage and dead work (whether paid on a piece-work basis or on a time basis). The estimated increases in the

<sup>6</sup> Another provision affecting costs in some mines was the elimination of the reject clause from district agreements. This clause made possible the rejection by employers of imperfect coal and led, in the view of the union, to an unjustifiable lowering of the earnings of some tonnage workers. The effect of the elimination of the clause on costs cannot be computed, but the addition to average costs is small.

<sup>7</sup> National Defense Mediation Board. Press release on findings and recommendations, June 5, 1941, p. 12.

<sup>8</sup> From transcripts of addresses before the Conference, issued by the National Coal Association.

compensation of these three groups averaged 18.83 cents per ton without equalization of day rates. Although the other groups of workers were not covered by the union agreements, the replies to the Bituminous Coal Division's questionnaire indicate for Minimum-price area 1 an average increase of 1.14 cents per ton. On a percentage basis, their increases averaged 11.4 percent as compared to 16.6 percent for workers affected directly by the agreements, and 16.2 percent for all employees.

TABLE 6.—Estimated Increases, in Districts 1 to 3 (Minimum-Price Area 1), in Labor Cost per Ton of Bituminous Coal after 1941 Wage Changes <sup>1</sup>

District	Cost per ton <sup>2</sup> under old union agreements in compensation of—			Increase in cost per ton <sup>3</sup> from general changes in compensation of—			Increase in cost per ton from—		Estimated aggregate increase in cost per ton from 1941 wage changes	
	All employees	Employees covered by union agreements	All other employees	All employees	Employees covered by union agreements	All other employees	Equalization of day rates <sup>4</sup>	Paid vacations <sup>5</sup>	Amount	Percent
	\$1.2343	\$1.1339	\$0.1004	Cents 19.97	Cents 18.83	Cents 1.14	Cents 1.55	Cents 1.71	Cents 23.23	18.8
Districts 1 to 8.....	\$1.2343	\$1.1339	\$0.1004	Cents 19.97	Cents 18.83	Cents 1.14	Cents 1.55	Cents 1.71	Cents 23.23	18.8
District 1.....	1.4563	1.3340	.1223	20.66	19.41	1.25	-----	2.20	22.86	15.7
District 2.....	1.2700	1.1749	.0951	20.20	19.14	1.06	-----	1.68	21.88	17.2
District 3.....	1.0340	.9342	.0998	16.93	15.75	1.18	-----	1.03	17.96	17.4
District 4.....	1.0221	.9436	.0785	14.89	13.97	.92	-----	1.68	16.57	16.2
District 5.....	2.3853	2.1467	.2386	31.77	30.59	1.19	-----	3.75	35.52	14.9
District 6.....	1.0385	.9559	.0826	15.36	14.59	.77	-----	1.42	16.78	16.2
District 7.....	1.2759	1.1807	.0952	22.33	21.34	1.00	3.57	1.69	27.59	21.6
District 8.....	1.1853	1.0814	.1039	20.36	19.05	1.30	3.55	1.74	25.65	21.6

<sup>1</sup> Based on data from operators obtained by questionnaire by the Bituminous Coal Division and published by the Division under the title, "Comparison of Wages and Salaries During the Calendar Year 1940 with Wages and Salaries After March 31, 1941, Districts 1 to 8, Inclusive." Operators reported on the basis of the temporary agreements, the terms of which were later modified in several minor particulars.

<sup>2</sup> The labor-cost figures here given differ slightly from those of the general cost tabulations used in table 5 because of slight differences in coverage.

<sup>3</sup> Employees covered directly by the union agreements are substantially the same as the Bituminous Coal Division's 3 groups described as daymen, miners, and employees engaged on yardage and dead work. Other employees, although not covered by the agreements, were granted increases.

<sup>4</sup> Basic day rates in districts 7 and 8 were raised, by the elimination of differentials, from \$6.60 to \$7, or about 6.06 percent. It is assumed that in these districts the wages paid per ton to daymen and to miners paid on a time basis (the Bituminous Coal Division's classifications) were raised about 6.06 percent by the equalization of day rates.

<sup>5</sup> The union agreements called for a "token" payment of \$20 to each worker employed at least 1 year.

The approximate effects of the elimination of day-rate differentials and of the provision for paid vacations are also indicated in table 6. These added costs are combined with the increase from general wage changes for an estimate of the approximate aggregate increase in wage cost per ton. The estimated cost of the equalization of day rates, averaged for all of Minimum-price area 1, is 1.55 cents per ton; and the estimated average cost of paid vacations is 1.71 cents per ton. These items, when added to the estimated increase, from general wage changes, of 19.97 cents per ton in the compensation of all employees, give an aggregate increase of 23.23 cents per ton, or an increase of 18.8 percent, over the 1940 wage cost per ton.



These estimates relate to the effects of the 1941 changes on wages paid per ton in 1940. The Bituminous Coal Act bases the minimum-price structure on total costs, not in 1940, but in 1936-37. The estimated increase in Minimum-price area 1 of 23.23 cents in the amount of wages paid per ton over the amount paid in 1940, when related to the price-base costs, taking into account reductions in costs between 1936-37 and 1940, indicates an increase of only about 2 percent in the average of all costs per ton in the price-base period.

Minimum-price area 1, which is virtually identical with the Appalachian territories covered by the union agreements of June 19 and July 5, produced in 1940 more than seven-tenths of the country's total output of bituminous coal. It was understood that operators in other regions would follow substantially the agreements reached in the Appalachian region. The effects of the 1941 wage changes on costs per ton in the other minimum-price areas vary with local conditions and costs, but the increases in average costs in the other areas will presumably approximate closely the increases in Minimum-price area 1. An estimate of the increase in all price areas combined, without taking into account the equalization of day rates, is virtually identical with the estimated increase in Minimum-price area 1. The equalization of day rates has no effect on costs outside of Minimum-price area 1.

### *Factors Affecting Unit Costs*

The figures of increased cost given in table 6 are probably overestimates. They are based on the 1940 costs per ton, which, it is assumed, are affected only by the new wage agreements. There is no practicable method of taking into account in advance many of the factors affecting unit labor costs. It is known, however, that technological improvement continued during and after 1940. An increase in volume of production, with a longer period of operation of mines, reduces the unit cost of overhead labor. Any major change affecting costs, such as the 1941 wage agreement, tends to accelerate mechanization and the more intensive use of available methods for reducing costs. The improved wages and working conditions accompanying the new agreements may be expected to have a stimulating effect on the productivity of workers.<sup>9</sup> A factor somewhat more doubtful in its effects is the variation in the proportion of coal produced in low-cost mines. Changes in the costs of materials, machinery, and supplies and changes

<sup>9</sup> An indication that the figures of increased labor cost per ton (table 6) are overestimates is the fact that the Bureau of Labor Statistics figures of average hourly earnings for the entire industry show a rise of only 16.0 percent in June 1941 over the 1940 average. The increase in labor cost per ton for similar groups of employees (the employees in table 6 covered by union agreements) is 18.0 percent, this figure excluding the cost of vacations with pay, which is not included in the Bureau of Labor Statistics data. The percentage of change in average hourly earnings during the period of transition from the old to the new union agreements in 1937 is about the same as the percentage of change of the figures of labor cost per ton derived from Bituminous Coal Division data on costs, collected not as operators' advance estimates but from the operating records of the industry.

in the demand for labor may also affect unit costs. On the assumption of a continued expansion under the defense program, it is recognized that some factors operate in the direction of increasing unit costs.

### *Equalization of Day Rates*

A fact of major significance in the union agreements of 1941 was the elimination of day-rate differentials in the southern Appalachian area. When the Bituminous Coal Division called upon operators for information relating to the effects of the wage changes, the equalization of day rates had not been embodied in a contract with operators in the southern area. It is possible, nevertheless, on the basis of information collected by the Division to make estimates of the effects of equalization on costs per ton in the various districts of Minimum-price area 1.

The estimated increase in the compensation of all employees per ton of coal in District 1 (table 6) is 20.66 cents, and in District 7 (the main southern Appalachian area producing low-volatile coal in competition with District 1), the estimated increase is 22.33 cents. The estimated further increase in cost per ton in District 7 resulting from elimination of day-rate differentials is 3.57 cents.<sup>10</sup> The estimated total labor cost per ton after the 1941 wage changes, however, even when equalization of day rates is taken into account, is only \$1.5518 in District 7, in contrast to \$1.6849 in District 1.

The estimated increase in District 2 in the wages of all employees per ton of coal is 20.20 cents, and in District 8 (the main southern Appalachian area producing high-volatile coal in competition with District 2) the estimated increase is 20.36 cents, with a further addition in District 8 of 3.55 cents as a result of equalization of day rates. The estimated total wage cost in District 2 after the 1941 wage changes is \$1.4888 per ton, and in District 8, \$1.4418 per ton.

The average cost of the equalization of day rates in Districts 7 and 8 combined is estimated as 3.56 cents per ton.<sup>11</sup> This amount was recognized as a comparatively small addition to cost. The differentials problem nevertheless became the outstanding obstacle in the way of a general agreement.

<sup>10</sup> The effects of the equalization of day rates are estimated by the following method: The day rates affected by the elimination of differentials are mainly covered by the Bituminous Coal Division's classification of day workers, but the compensation of the comparatively small number of day workers included in the Division's group described as miners is combined with the compensation of the main group of daymen. The wage agreements provided for a general increase of \$1 in the day rates of basic occupations. The further agreement relating to differentials provided for an increase of 40 cents per day in the basic occupations in the southern Appalachian region. This additional increase raised the basic rates from \$6.60 to \$7 per day, thus equalizing them with the basic rates in the northern Appalachian region. Thus, the equalization of day rates called for an increase of about 6.06 percent in the basic occupations. It is assumed that this percentage of increase represents approximately the increase in wages paid per ton to daymen as a result of the elimination of differentials.

<sup>11</sup> Both the union and the northern operators, in testimony on April 28 before the Senate Special Committee Investigating the National Defense Program (the Truman Committee), estimated that the elimination of the day-rate differentials would add about 3½ cents to the cost per ton in Districts 7 and 8. (Committee's Hearings, pt. 2, pp. 413, 430.)

The proceedings of the thirty-fourth convention of the miners' union in 1936 stated that inequalities in rates had been a subject of major consideration in almost every joint conference of mine workers and operators for 50 years. Many differentials are a result of basic differences in mining conditions, such as thickness of seams, the amount of refuse in the seams, the introduction of mechanical devices, servicing arrangements, freight-rate structures, proximity to markets, the earning power of the miner, and the total cost of production to the operator.<sup>12</sup> These differences have often necessitated acceptance by the union of differences in wages for the same types of workers in different areas. The primary demand of the union, however, in the 1941 negotiations was elimination of differences in wages for the same types of workers employed in similar types of mines under similar conditions of productivity and of costs other than wages. The effort to retain the differentials arose in part from the traditional conception of the South as having lower wages. It was claimed, however, by officials of the union<sup>13</sup> that insistence on retention of the differentials came mainly from northern owners of mines in the southern Appalachian territory.

The northern and southern operators had agreed to a continuance of the differentials, and the demand of the union for the elimination of tonnage differentials was abandoned early in the wage negotiations. During the wage conference the proceedings before the House Ways and Means Committee raised questions regarding a possible change in the Bituminous Coal Act, the renewal of which was under consideration by the committee. The northern Appalachian operators attributed to the southern Appalachian operators a proposal before the committee to divide Price area 1 into two price areas in a manner that would change the minimum-price structure to the competitive advantage of the southern operators. As a result, the operators of the northern Appalachian region abandoned their agreement not to raise the question of differentials in the wage negotiations and threw their support to the union in its demand for the elimination of the day-rate differentials. It was under these circumstances that the southern operators withdrew from the wage conference and organized the Southern Coal Operators Wage Conference.<sup>14</sup>

The question finally came before the National Defense Mediation Board. This agency in its findings pointed out that the North-South differentials are not based on differences in the productivity of miners in the two regions: "It is conceded that the mine worker in southern West Virginia and eastern Kentucky lays just as much track,

<sup>12</sup> United Mine Workers of America. Proceedings, 1936, vol. I, pp. 20-23.

<sup>13</sup> Notably by the president of the union before the Senate Special Committee Investigating the National Defense Program. (Hearings, pt. 2, pp. 429, 435-437.)

<sup>14</sup> National Defense Mediation Board. Press release on findings and recommendations, June 5, 1941, pp. 6-7.

sets just as much timber, and mines just as much coal per day as the mine worker in northern West Virginia and western Pennsylvania.” The controversy was therefore placed by the Board on the basis of the competitive position of bituminous-coal operators in the two main divisions of the Appalachian area, and primarily on the position of those in the two low-volatile districts (1 and 7) and in the two high-volatile districts (2 and 8).

The Mediation Board's recommendations in favor of equalization of day rates were based on the cost-price relationships and the estimates of the effects of wage changes on costs already considered herein. In addition, the Board pointed out that figures of production indicate an improvement in the competitive position of operators in the southern Appalachian territory.

The production figures of the Bituminous Coal Division show that the proportion of coal produced by District 1 fell from 10.64 percent in 1934 to 9.18 percent in 1936 and thereafter remained close to this figure, the proportion in 1940 being 9.28 percent. The proportion of coal produced by District 7 remained almost constant but was somewhat higher in 1940 (13.00 percent) than in any year from 1934 to 1939.<sup>15</sup>

The proportion produced by District 2 rose from 15.05 percent in 1934 to 16.43 percent in 1936, declined sharply in 1938, and regained by 1940, in a rise to 16.12 percent, only a part of the earlier loss. The proportion of coal produced by District 8 from 1934 to 1937 ranged between 20.09 percent (1934) and 20.70 percent (1936), and thereafter ranged above 21 percent, the proportion in 1940 being 21.16 percent.

The Mediation Board's consideration of the evidence led it to recommend that the day-rate differentials be eliminated, on the ground that their retention was not necessary to preserve existing fair competitive opportunities. The acceptance of this recommendation by the operators of Districts 7 and 8 was significant primarily not because of an increase of 3 or 4 cents per ton in the wages paid in these districts but rather because of the recognition of a method of wage determination that ignored the traditional regional basis of differentials.

### *Wage Changes and Price Policy*

The minimum-price structure worked out under the Bituminous Coal Act of 1937 is based, as to costs, on tonnage costs in 1936-37, the price-base period. If there is a nonseasonal change in excess of 2 cents per ton in the weighted average cost in any minimum-price area, as shown by satisfactory evidence presented by any district

<sup>15</sup> U. S. Department of the Interior. Bituminous Coal Division. Production by Districts.

board of operators, the minimum prices are to be increased or decreased accordingly.

In the Appalachian fields (Minimum-price area 1), producing more than 70 percent of the country's bituminous coal, the average cost in 1940, was 18.76 cents lower than in the price-base period (table 5). In all districts combined, the reduction was 18.82 cents. On the basis of the estimated increases in wages paid per ton after the 1941 wage changes, and assuming no other changes in costs from the 1940 averages, the cost per ton in Minimum-price area 1, after the 1941 wage changes, is 4.47 cents greater than in the price-base period.

These estimated divergences of average costs from the averages of the price-base period are so slight as to afford no definite information regarding the applicability of the provision of law that requires price changes when there is proof of a change in excess of 2 cents in average costs. The nature of the data available for making the estimates and the operation of certain additional factors, such as mechanization and lower unit overhead costs, indicate, as already stated, that the calculations of average costs after the 1941 wage changes may be overestimates.

The 1941 bituminous-coal agreements embody one of the major wage changes in American industry. Outstanding in importance is the fact that this major increase in wages entailed only a slight change in the costs accepted under the Bituminous Coal Act as the basis of minimum prices. An estimated increase in wage rates averaging 18.8 percent, when related to the costs per ton accepted as the basis of prices, increases the price-base cost per ton as affected by wage changes only about 2 percent. No less significant is the manner of making the change—the utilization of public and private agencies for discussing differences, getting at the relevant facts, adjusting exceptionally serious conflicts of interests, and absorbing the additions to the cost of production with fairness alike to employers and to consumers.

## EMPLOYMENT OPPORTUNITIES FOR YOUTH IN BOSTON RETAIL STORES

By JOSEPH M. O'LEARY, *Department of Business Organization and Management, High School of Commerce, Boston, Mass.*

WHAT are the full-time job opportunities in Boston retail stores for young persons under 21 years of age? What qualifications must these persons possess? A desire to answer these and related questions accurately prompted visits early in 1941 to the personnel managers of 20 leading stores<sup>1</sup> practically all of which were situated in the central shopping area of the city. All were members of the Boston Retail Trade Board. This board, with a membership of about 100 firms engaged in a wide variety of businesses, is the trade association of retailers in the Metropolitan Boston area. The results obtained in the survey of the 20 stores may therefore be considered as representative of the entire trade-board membership, with the possible exception of several chain-grocery and variety firms.

In the 20 stores visited, there were 12,290 full-time regular employees of both sexes and all ages at work. Women outnumbered men in the ratio of slightly more than 2 to 1. Included in the grand total were 1,187 persons under 21 years of age, the ratio of women to men in this group being almost 3 to 1. With the exception of the four stores whose employees ranged in number from 56 to 100, no significant differences appeared in the proportion of young men and women to the total number of all employees in the four remaining size groups.

### *Full-Time Regular Employees in 20 Leading Boston Retail Stores, February 1941*

Number of full-time persons regularly employed	Number of stores	Full-time regular employees (all ages)			Full-time regular employees under 21 years of age		
		Both sexes	Males	Females	Males	Females	Number hired in 1940 <sup>1</sup>
All stores.....	20	12,290	4,052	8,238	298	889	290
56 to 100.....	4	276	142	134	5	1	3
120 to 180.....	4	572	195	377	6	45	21
238 to 300.....	5	1,303	491	812	16	105	19
500 to 750.....	3	1,795	465	1,330	41	111	71
1,000 to 3,100.....	4	8,344	2,759	5,585	230	627	176

<sup>1</sup> Statistics were not available to indicate the number of persons under 21 who were hired in 1940 as "extras" or temporary workers in order to meet increased business demands arising from special sales, Easter and Christmas seasons, etc. Hundreds were so employed. Their presence must be kept in mind because such employees are given preference whenever new permanent jobs open. With the exception of a group of girls who were studying salesmanship in the Boston public high schools, the stores made little use of people under 21 to work on a daily part-time basis.

<sup>1</sup> Bond Clothing Co. (men's apparel); Chandler & Co. (department store); Coleman's Fashion Shop (women's apparel); Conrad & Co. (women's apparel); Wm. Filene's & Sons Co. (apparel); Peter L. Flynn Co. (women's apparel); I. J. Fox Inc. (furs); Gilchrist Co. (department store); C. F. Hovey Co. (department store); Jays, Inc. (women's apparel); Jordan Marsh Co. (department store); Kennedy's Inc. (apparel); Lamson & Hubbard (women's apparel); Leopold Morse Co. (men's apparel); Scott & Co., Ltd. (men's apparel); Scott Furriers, Inc. (women's apparel); Sears Roebuck & Co. (department store); E. T. Slattery (women's apparel); R. H. Stearns Co. (department store); and R. H. White Co. (department store).

*Jobs Held by Young People*

A wide variety of jobs was held by the 1,187 young men and women,<sup>2</sup> including those of stock clerks, cashiers, packers, elevator operators, truck helpers, restaurant employees, messengers, wrappers and inspectors, receiving clerks, markers, errand boys, and various types of clerical work. Where particular jobs called primarily for physical strength, young men were hired. Tasks that involved considerable manual dexterity were given to young women. Stock clerks in men's suit departments were boys, whereas those in the women's dress departments were girls. Several personnel managers frankly stated that they hired young women in preference to young men, whenever possible, because of lower wage rates.

Very few persons under 21 were working as sales persons. Of the 20 firms, 12 employed no one under 21 in a selling capacity; 6 had no young men, but did have a few young women in selling positions; and the remaining 2 stores hired only a few young men and women as salespersons. Several reasons were advanced by the personnel managers to explain this situation. Young people in general, it was felt, lack the mature poise and the merchandising knowledge that are essential to inspire confidence among prospects or customers, and usually lack selling experience. Practically all of the young women engaged in sales jobs were employed in behind-the-counter selling or in "bargain aisles"—the less important type of selling, in which little merchandising knowledge is required, as the customers present themselves and generally know what they want. Few young salespersons were found in departments requiring an advanced type of salesmanship, such as those handling furniture and women's coats, where unit prices are relatively high and where salespersons approach the customer and must be able to give advice.

One personnel executive remarked that his policy of not hiring young men was dictated in part by a desire to be fair to the youths themselves. He felt that a boy's business future might be imperiled by assignments in a sales position where the qualifications were manifestly beyond those he possessed. Another personnel manager attributed the paucity of young women in the selling division of her store to the fact that "regulars" or full-time permanent saleswomen were recruited mainly from the "extras" or temporary list of workers engaged in "bargain-aisle" selling. The transition from one classification to the other took time; hence, few "regulars" were under 21 years of age. Finally, in several men's apparel stores, new salesmen were hired only if they had an established customer following, and this also takes time to acquire.

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<sup>2</sup> The term "young men and women" in this article is to be considered as synonymous with "persons under 21 years of age."

### *Characteristics and Methods of Employment Managers*

There were 22 employment managers in the 20 stores studied. In 10 of these firms, a man hired all workers regardless of sex; in 8 a woman was given this assignment. Only in 2 large stores did a male executive hire men exclusively; and a female supervisor, women. Such arrangement was based mainly on the belief that one understands one's own sex better, and hence can make a more intelligent choice of prospects. Twelve stores showed their leaning toward this idea by having an employment supervisor of the same sex as the majority of the employees.

On the basis of incomplete information, it appeared that 10 employment managers were college graduates or graduates of a local school of store-service education. The remainder had varying degrees of other types of formal schooling. Educational background doubtless exerted some influence on their attitudes in the hiring process. Executives with college training seemed to have a better understanding of the problems of the college graduates who applied for retailing jobs. The educational qualifications of candidates seemed to matter less to personnel managers who lacked college or high-school training.

About one-third of the hiring supervisors, mostly in the larger stores, devoted their time exclusively to matters related to employment. The remaining two-thirds, all men, concerned themselves primarily with what in general may be termed "store management"; personnel work was incidental. Yet no essential differences existed in the hiring techniques or training methods of either the specialist or the nonspecialist groups of personnel managers insofar as young people were concerned. Workers were recruited mostly on a trial-and-error basis, and were trained while on the job by older experienced employees. Brief courses in essential store system were given to new salespersons only in the larger establishments. No employment manager made use of objective tests in such matters as aptitudes, finger dexterity, placing, and general intelligence, to serve as guides in the original selection of employees.

The effects of the seasonal "ups and downs" in the retail field upon the employment of young men and women could not be ascertained with exactness. All of the stores, however, hired hundreds of "extra" employees to handle the increased business demands of Christmas and Easter or to handle the additional business entailed by special promotions or sales. In order to soften the harmful effects of such temporary work upon young people, the stores recruited their "extras" as far as possible from the student bodies of nearby colleges and high schools. When business dropped, the students returned to their classrooms. "Extras" hired by the day were also drawn from the ranks of married women who welcomed irregular employment in order to supplement their income. Many of these women had worked for the



particular firm before marriage and so were familiar with the store policy and system. One supervisor preferred married women under 21 for part-time work because they seemed more stable than single girls.

The use of "extras" regularized employment for the permanent or full-time employees. A few "regulars" were furloughed when business became particularly dull, notably in the summer months, but in general, personnel executives felt a special responsibility to keep their "regulars" steadily employed. To do this, workers were transferred from slack sections to busy departments whenever feasible, and persons were not classified as "regulars" until there was every indication that fairly stable employment could be provided. Of course, this policy had the effect of causing many persons to remain in the ranks of "extras" even though they had worked continuously for several months, or longer. Such a hiring program enabled personnel managers to state that in their firms the rate of labor turn-over was very low, but, obviously, statements of this kind were applicable only to "regulars."

### *Qualifications Required*

No simple answer can be given to the question of the qualifications required of the young men and women who applied for jobs. The qualifications varied from store to store. An applicant's chances of obtaining a job depended primarily on how his personality affected the personnel executive. In some cases, even this subjective factor was ignored when speed in filling a store vacancy was essential. In such cases the first presentable person who appeared on the scene was given the job, regardless of other elements. Only in the case of a few office positions, for example, stenographic work, was any simple test of an objective nature used as a guide in the hiring process. Favoritism, or even political factors, sometimes played an important part.

#### MINIMUM HIRING AGE

No person between 14 and 16 years of age was employed in any of the 20 stores, although such employment is legal in Massachusetts under certain conditions. Seven personnel managers asserted that their minimum hiring age was the same as that prescribed by the general Massachusetts law, namely, 16 years; 2 others required prospective workers to be 17 years old; and 7 set the minimum at 18 years. Aside from the legal minimum, 3 firms had no particular age requirements; applicants were judged on the maturity of their appearance. One store would hire no person under 21. This was done, it was stated, simply to forestall all possibility of charges of legal violation, although this policy involved the payment of higher wage rates.

**MARITAL STATUS**

Approximately half of the hiring supervisors did not concern themselves with the marital status of applicants. On the other hand, nine supervisors preferred single persons. Insofar as young women were concerned, this preference seemed to be motivated by the feeling that the employment of married women is socially undesirable. As regards young men, the preference seems to have been largely a matter of wage rates. One personnel executive stated that, as a company rule required that all married male employees receive a weekly minimum wage of \$20 (plus \$1 increase after 6 months), preference would be given to young single men, who could be obtained for \$17 per week.

**CITIZENSHIP, RELIGION, AND RACE**

Until several years ago, personnel executives paid little or no attention to the citizenship background of the young men and women who applied for work. As a result of changed world conditions, however, only American citizens are now hired. Such a policy creates few problems for younger workers, since practically all applicants under 21 are citizens.

Most of the firms expressed a desire that their entire personnel represent a fair cross section of the surrounding community in such matters as religion and race. In the larger stores, where centralized hiring offices prevailed, the achievement of the goal seemed to result from the ordinary ebb and flow of applicants. However, the smaller stores had to seek this goal very deliberately in their selection of candidates.

**PHYSICAL CONDITION**

The physical requirements for retail-store work were not particularly burdensome. In order to make a favorable impression upon the buying public, only young men and women of ordinary good health and appearance were hired. Applicants with physical abnormalities—stammering, poor hearing, poor complexion, bad teeth, etc.—were rejected. All of the hiring supervisors expressed a preference for tall employees, particularly for sales positions. For obvious reasons, tall girls were required for selling ready-to-wear clothes. The question of height is of less importance in the matter of behind-the-counter selling, but length of arm is desirable, and slenderness is of importance because of space limitations.

**EDUCATIONAL BACKGROUND**

Graduation from at least high school seemed to be demanded from all applicants. Those who lacked such training usually were given slight consideration. Failure to graduate from high school indicated, in the opinion of one hiring supervisor, that the youngster was lazy or lacking in ambition and initiative.

Boys and girls with merely a high-school training had to meet job competition from college graduates. Where positions involved good promotional possibilities, or where firms especially wanted to train young people for executive jobs in the near future, college graduates were preferred. Also, college-trained girls were favored for selling positions. Such jobs as wrappers and inspectors, packers, truck helpers, and messengers were doubtless filled by high-school graduates in numerous instances only because college-trained men and women refused to accept them or left them after very short service.

#### PREVIOUS EXPERIENCE AND TRAINING

The nature of practically all nonselling store jobs held by young men and women was such that they could be filled easily by youths who lacked previous experience or training. In fact, several supervisors preferred inexperienced candidates for these positions in order to exclude from the training process any possible carry-over from other store systems or procedures.

For the nonselling positions, the personnel managers, as a group, seemed to pay little or no attention to any previous specialized public- or private-school retail training that applicants might have had. The application blanks of several large firms made no reference to any type of specialized training. Such training, in most instances, was not mentioned in the employment interview unless the applicant himself referred to his possession of it.

A few stores indicated that in hiring for Christmas and part-time work, their preference was for young women who had had salesmanship courses in the Boston public schools. One personnel executive asserted that she hired salesgirls under 21 only when they had had the benefit of such training. On the other hand, other executives stated that they preferred to do their own training.

#### FAMILY CONNECTIONS

All of the 22 employment managers stated that they disliked to hire young men and women who already had relatives working in the store. Ten of the managers carried this attitude into practice by deliberately keeping to a minimum the employment of members of the same family group. The other 12 executives followed no particular store-wide policy in the matter, but 6 (all in the four largest firms) would not knowingly employ relatives in the same department. The reasons cited against the employment of relatives follow:

(1) Present store employees, notably in recent depression years, have asked personnel executives to put certain relatives to work. Refusal often resulted in employee ill-will. The establishment of a definite policy against hiring of relatives tended to minimize this problem.

(2) The discharge of one relative, should this become necessary, would have a detrimental effect upon the work of the remaining relatives.

(3) A plethora of kinsmen in an individual establishment caused excessive intimate contacts and discussions, with consequent waste of time and unfavorable reaction upon customers.

(4) There were ugly possibilities of nepotism.

#### PLACE OF RESIDENCE

The place of residence of applicants did not especially concern the retail hiring supervisors. Employees were merely required to arrive punctually and not to ask for early dismissal. In a few firms where the possibility of overtime work existed for such persons as window decorators and packers, the personnel managers disliked to hire for these positions applicants who lived in relatively distant sections. So candidates who hailed from easy commuting distance were favored. No preference was given to Boston residents. Workers were chosen from all parts of the Metropolitan or Greater Boston area.<sup>3</sup> There seemed to be no discrimination as regards rich or poor residential sections.

Only two large men's clothing establishments paid particular heed to the place of residence of applicants, perhaps because sales in these stores are made mainly on a "see you" basis; that is, the customers seek a particular salesman. It is essential, therefore, that the sales force be representative of the various local communities in order to attract business. A young man who is hired by either of these two firms must first meet the residence requirement, and in addition, must have been popular in high school, preferably a senior-class president or a football captain. He is then assigned to work of some junior grade, such as delivery-desk supervision. He is encouraged to bring his friends into the store, and is allowed to sell them clothes. This represents his sole selling activity. Meanwhile, he builds up contacts in his home town. If, after a period possibly of several years, he has developed a strong following, he is promoted from his junior selling status to that of a full-fledged salesman.

This "see you" method of sales in men's clothing firms contrasts strongly with the nature of selling in the other stores. The latter mainly depend upon newspaper or radio advertising to draw the business. The residence of the sales staff is thus of minor importance. This doubtless explains why the personnel managers placed little emphasis on residence requirements for applicants.

#### EMPLOYEES' CLOTHING

New employees under 21 years of age were not required to equip themselves with special uniforms or tools. In the case of jobs involving the wearing of certain attire (porters, elevator operators, cashiers, truck drivers' helpers, waitresses), the individual stores supplied the

<sup>3</sup> Consisting of 14 cities and 29 towns, all within 15 miles of the Massachusetts State House, and all politically independent.

uniforms free of charge, and in most instances, paid for laundering. All employees who come in contact with customers were obliged to conform with dress regulations specified by the personnel managers. Only clothes suitable for business wear were allowed. Proper dress was important from the customer viewpoint, according to one manager, because customers of a store expected employees to reflect a first-hand knowledge of fashion and good taste.

### *Sources of Labor Supply*

Upon what sources did hiring supervisors draw to obtain young men and women for permanent store jobs? An exact answer to this question cannot be given as records in this regard were not kept. It can be said, however, that the major source consisted of the list of "extras" or temporary employees already working in the various firms. This was particularly so in the larger stores, where from 85 to 98 percent of the new permanent employees were recruited from the ranks of the part-time or temporary people. The supervisors felt that such workers had already shown their fitness by actual success on the job, and were familiar with store system and policy. Originally, the temporary workers had been hired largely as the result of personal calls made upon the personnel executives.

The next most popular source of labor supply was the employment agency. The private fee-charging commercial agencies were called upon by approximately half of the personnel executives, to supply about 15 percent of their young employees. Most of these executives, and several others in the larger stores, made varying degrees of use of the employment bureaus that existed in different Boston public and private schools. Little or no recourse was had to the free public employment offices maintained by the City of Boston and by the Commonwealth of Massachusetts.

Newspaper advertising was ignored completely as a recruiting source by the personnel executives. All of them asserted that ordinarily it was unnecessary to insert "help wanted" advertisements in the classified advertising section of local daily newspapers. Furthermore, the executives declared that they paid no attention to advertisements run by applicants in the "situations wanted" columns of the newspapers. (These statements, of course, must be considered in relation to the general conditions that prevailed in the labor market at the time of this survey.) If, on the other hand, a store required the services of a person with a particular skill, say, a teacher of knitting, and was unable to obtain such an individual from other sources, newspaper advertising would be utilized.

No full-time employees under 21 years of age were hired directly as the result of sending in unsolicited letters of application to the hiring

supervisors. Indeed, candidates made little use of this method. Where the letters were of high character, a few supervisors acknowledged them by inviting the writers in for personal interviews.

### *Training of Young Employees*

In all of the stores the prevailing method of training was to place a new employee immediately in regular productive work under the care of an experienced worker whose duty was to guide and instruct the new person and to check up on his work to see that it was being done properly. This decentralized method of training on the job was most feasible because of the kinds of jobs given to youths—such as truck drivers' helpers, packers, markers, and receiving clerks—and because of the infrequent hiring and the relatively small size of certain stores. A few large stores gave centralized training prior to productive employment to young people hired as wrappers and inspectors and salespersons. This instruction generally consisted of a single day's course in store system (sales checks and other records), store rules and policies, and other types of information about the job. Upon the completion of instruction, trainees were assigned to actual work. Subsequently, brief courses in special phases of salesmanship were given sporadically.

A special training class for salespeople is conducted regularly by the Prince School of Store Service Education, in cooperation with 10 leading Boston stores. The store executives annually choose from their permanent sales force about 60 girls (mostly over 21) to attend the school in 2 groups from 9 to 11 in the morning each day, Tuesday through Friday, for a period of 6 weeks. Sometimes a few girls who have shown possibilities of development are chosen from nonselling departments. No tuition fee is charged the students. The course includes salesmanship, study of textiles, color, and line, and individual work in arithmetic, business English, development of personality, and other subjects. The twofold purpose of the course is to instruct the store employees and to provide an opportunity for practice teaching by the Prince School students.

Another cooperative training program in retail selling is operated jointly by the Boston public-school system and 11 large Boston stores. Under this program 60 girls, all high-school seniors, work for wages in various capacities in participating stores throughout the entire academic year. Thirty of the girls are employed under the "week-in, week-out plan," that is, they are paired to alternate at work and in school. The other 30 girls, known as "short-hour people" attend their public-school classes for part of the day and then spend several hours in gainful employment in the stores. The school subjects studied are similar to those offered at the Prince School. At the end of the academic year, or graduation, practically all of the 60 girls are

given permanent selling and nonselling positions in the stores where their training was received.

No personnel manager interviewed was able to give any estimate of the money costs incurred in the training of young men and women.

### *Wages and Hours*

All of the store personnel managers carefully observed the State law forbidding the employment of boys under 18 or girls under 21 for more than 9 hours a day or 48 hours a week. Indeed, in practically all stores, with the exception of a few men's clothing firms that did not close on Saturdays during the summer season, daily working hours for the year 1940 averaged slightly less than 7; and the average weekly hours for the year amounted to a trifle under 40. Little overtime work was done. When such work was required the rate paid was time and a half, although several companies gave compensatory time off instead of money.

Another State labor law that was particularly emphasized by the personnel executives concerned minimum wage standards for minors in retail-store occupations. A mandatory order issued by the Massachusetts Minimum Wage Commission requires that no young men or women employed in Boston retail establishments shall be paid less than the following rates for a full working week (36 hours or over):

	<i>Rate</i>
(a) Employees of ordinary ability 19 years or over (defined as persons who have had 1 year's experience, not necessarily continuous nor for the same employer, in the occupation).....	\$14. 50
(b) Inexperienced workers (defined as employees 18 years of age or over, who have had less than 1 year's experience; and employees, 18 years of age, irrespective of the amount of experience).....	13. 50
(c) Persons under 18 years of age.....	12. 50

Violations of the order are punishable by fine or imprisonment.

Only a few stores followed these minimum wage rates exactly. All but one of the others paid young men and women, regardless of experience, from \$14 to \$15 weekly, for the general run of junior positions; the exception paid \$16 to young men.

Except in the case of a few regular salespeople, the remuneration was on a straight salary basis. The regular salespersons in several stores received a combination of straight salary and a small commission. One company allowed no commission on sales by salespeople under 21, but two men's clothing companies earlier referred to, in an effort to stimulate their young men in nonselling positions to bring in new accounts, gave them a commission in addition to a regular salary. No firm paid youths at straight piece rates, even in the case of wrappers and packers where it was possible to measure output.

*Pay increases.*—Automatic increases in salary prevailed in approximately one-fourth of the stores studied. Here, increases of 50

cents or \$1 per week were granted semiannually or annually over a period of about 2½ years until a maximum of \$18 weekly was reached. Above this point, increased wages were obtainable only by promotion to higher-ranking jobs. In the other stores, which lacked automatic-increase systems, pay raises were dependent upon the individual job holder's worth as evaluated by the personnel manager.

### *Avenues of Promotion to Better Jobs*

Avenues of promotion generally depended upon the nature of the jobs held. Thus, the opportunities for advancement for a youth who held an office job differed markedly from those for a merchandise stock boy. Obviously, only limited promotional possibilities existed for persons employed as elevator operators, packers, truck helpers, and restaurant workers.

In general, promotions for boys or girls proceeded along the following lines:

1. From care of merchandise or stock
2. To sales work
3. To assistant buyer
4. To department buyer
5. To a variety of major executive jobs, as, for example, divisional or merchandise manager or general store manager.

Naturally, the various rungs in the promotional ladder differed in individual stores, but the above listed steps are illustrative. In one medium-sized women's specialty shop where the entire sales force and the buyers were women, the major advancement opportunity for young men was to go from the care of stock to an office job, and then to a position as merchandise floor supervisor. Another store, a unit in a national chain, promoted members of the sales force directly to positions as divisional managers, thereby skipping the rank of department buyer since purchasing was centralized in the home office.

Four stores rigidly followed a policy of "promotion from within." The personnel executives believed that such a policy developed a more loyal and efficient type of employee than would be the case if outsiders were brought in and promoted over the heads of persons already on the pay roll. The maintenance of this system, however, required that the firms possess among the labor force the necessary kind of executive material from which to choose when responsible positions opened. To this end, therefore, the stores maintained special instruction programs or "schools" where well-rounded retail training courses were given to carefully selected groups of persons who had already demonstrated their fitness.

In response to the query, "What factors determined the promotion of young men and women?" practically all of the employment man-



agers said, "Success on present jobs." Such success generally included the important qualities of honesty, health, manner, appearance, initiative, diligence, ambition, accuracy, loyalty, cooperation, good judgment, responsibility, and knowledge. Specific rating scales for determining the possession of these qualities on the part of employees were used in several of the larger stores. On the other hand, a few men's clothing firms judged a young man's fitness for promotion almost entirely on the amount of new business or sales that he brought in.

### *Labor Turn-Over*

All of the stores reported that the amount of labor turn-over among young men and women for the past several years had been very small. This statement of course was applicable only to "regulars" or full-time employees.

Specific turn-over figures were not obtainable because no separate records were kept for people under 21. Because of the absence of labor turn-over statistics it is difficult to determine the relationship between employees and employer, the effectiveness of a firm's employment policies, and the efficiency of a personnel department.

The employment managers advanced two factors as major causes of labor turn-over, namely, getting better jobs elsewhere (especially by young men), and marriage (for young women). The almost-unanimous mention of "getting better jobs elsewhere" leads to the conclusion that the young people in large measure considered the retail field as one of limited promotional opportunity, and hence shifted to more promising lines of work.

The marriage of girls in most of the stores did not act as an automatic cause of discharge. Their retention was attributed to the personnel executives' dislike of losing the services of experienced and trained employees, and of incurring the expense of hiring and training new workers, and their fear of the loss of sales and customers which might result from the employment of new people.

The discharge of employees for such causes as incompetency and dishonesty was rarely mentioned. The probable reason for this was that most of the permanent workers had been thoroughly tested while serving as "extras" or temporary employees. Those who failed to measure up to the desired standards never reached the status of "regular."

Labor turn-over resulting from the national defense program was practically negligible early in 1941. Several personnel managers, however, stated that they expected a larger turn-over in the immediate future. They reasoned that male workers would leave for military service; that more female employees would resign to get married or to resume domestic duties because of their husbands' increased income; and that both sexes would resign to take industrial jobs because of the

proportionately higher wages. Nonselling jobs doubtless would be affected much more than selling positions.

Few worth-while suggestions were obtained from the personnel executives in answer to the question, "What can the local public high schools do to train efficient retail workers?" Almost half of the managers had nothing to say in the matter and most of the remainder replied only in very general terms. Several managers expressed the wish that the schools would give instruction in the use of marking machines and cash registers, and the tying of bundles.

In general, personnel supervisors realized that the relatively few positions available in their field for young men and women required in the main little or no previous experience or instruction, and that the training necessary for proper performance of most jobs could be given better on the actual job than in the public-school classroom.

### *Employment Possibilities*

The employment prospects in retail-store work for young men and women, during the second half of 1941 and shortly thereafter, seem to be the best in more than a decade. All appearances indicate that the total number of 290 full-time regular employees under 21 years hired during 1940 in the 20 Boston stores covered in this survey will be surpassed markedly in 1941. The primary cause of this will be the greatly augmented store sales resulting from increased employment and wages among the general public, flowing from the national defense program. In addition, the operation of the present Selective Service Act will inspire many personnel managers to refrain as much as possible from hiring men within the draft-age limits, and instead to employ young women, and men who are well below the minimum draft age. Finally, a constantly tightening general labor market in the metropolitan area may force the employment of younger workers.

# INDUSTRIAL INJURIES IN THE UNITED STATES DURING 1940

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## *Summary*

NEARLY 1,890,000 workers were killed or injured at their jobs in United States industries during 1940, according to estimates of the Bureau of Labor Statistics. Of the 18,100 fatalities, about 16,600 involved employees, and 1,500 involved self-employed workers or proprietors. Nearly 90,000 persons suffered some permanent impairment, and 1,782,000 had temporary disabilities lasting a day or more.

If the economic time loss caused by deaths and permanent disabilities is excluded, the employee-days lost in actual absence from work is estimated at 41,912,000—enough to have provided 140,000 workers with full-time employment during the entire year. If standard time charges are applied for deaths and permanent impairments, the total time loss is increased to the tremendous total of 233,840,000 days, equivalent to full-time annual employment for about 780,000 workers—about 95 percent of the increase in employment during 1940.

Most of the major industry groups had more disabling injuries in 1940 than in 1939. In only two groups—mining and quarrying, and railroads—are the 1940 totals below those of 1939. One group—public utilities—showed no change. For the entire economy, deaths increased from 16,400 to 18,100, and temporary total disabilities from 1,447,700 to 1,782,000. The increases are chargeable to increased employment, longer working hours, and a relaxing of safety precautions in industries which experienced sharp increases in employment.

The entire number of identical establishments which reported for both 1939 and 1940 was 29,442, with nearly 5 million employees in 1940, and a total exposure of 9,744 million hours. Nearly 20,500 of these establishments were in manufacturing industries, which accounted in 1940 for 4,162,000 workers and 8,135 million hours worked. For this group as a whole the frequency rate (e. g. the number of injuries per million man hours) increased but slightly in 1940 over 1939, from 14.9 to 15.3. But for vital defense industries which had expanded sharply during 1940, the increases were much larger. In each of three vital defense industries—machine tools, aircraft production, and shipbuilding—the number of disabling injuries per million hours worked increased by about 22 percent over 1939. For the same length of exposure there were 6 disabling injuries in 1940 as against 5 in 1939.

As in past years, logging was outstanding for its very high frequency rate, 104.9. Other manufacturing industries with high frequency rates were sawmills, 45.6; canning and preserving, 30.0; fertilizers, 28.3; sugar refining, 29.0; fabricated structural steel, 30.8; forgings, 34.4; foundries, 36.1; planing mills, 34.1; pulp, 33.0; brick, tile, and terra cotta, 34.5; concrete, gypsum, and plaster products, 35.0; and cut stone and cut-stone products, 52.7.

For the first time in the accident reports of the Bureau of Labor Statistics, the entire reporting group in each industry was utilized as a basis for estimating the general experience of each industry for which the reporting sample was sufficiently large to justify this procedure.

The chemical industries had about 11,000 disabling injuries and a total economic time loss of 2,600,000 days. Food industries were estimated to have had nearly 39,000 disabilities and a time loss of 3,690,000 days. The manufacture of iron and steel and their products accounted for another 9,400 injuries, with a time loss of more than 1,800,000 days. In the group of lumber industries, planing mills were charged with 6,200 injuries and a time loss of more than a half million days.

The stone, clay, and glass group of industries had a total of nearly 15,000 injuries and a time loss as high as 1,700,000 man-days. The brick, tile, and terra cotta industry alone accounted for 4,000 injuries and more than a quarter million days of lost time.

A considerable share of the injuries in manufacturing occurred in textile industries. About 32,000 injuries, totaling 2,150,000 days of lost time, were charged to this group. The manufacture of cotton goods by itself accounted for one-third of all injuries as well as one-third of the total time loss.

The manufacture of transportation equipment, including automobiles and trucks, had about 20,000 injuries and a time loss in excess of  $2\frac{1}{4}$  million days. The automobile industry alone accounted for 8,500 of these injuries and about 940,000 days of lost time. The production of aircraft, one of our fastest-growing industries, had about 4,200 injuries, totaling 382,000 days. Shipbuilding, another important defense industry, had 4,800 injuries and a time loss of 653,000 days.

### *Estimates of Disabling Injuries During 1940*

The national experience during 1940, already summarized, is stated in greater detail in table 1. Because the degree of comprehensiveness of the data on which these estimates were based varied widely, foot-

notes indicate the probable degree of accuracy. It is hoped that in time better data will permit a more accurate evaluation of the annual accident toll in industry.

TABLE 1.—Estimated Number of Disabling Injuries During 1940, by Industry Groups

Industry group	Number of injuries					
	Total	To em- ployees	To self- employed	Total	To em- ployees	To self- employed
	All disabilities			Death and permanent total disabilities		
All industries.....	1, 889, 700	1, 696, 900	192, 800	18, 100	16, 600	1, 500
Agriculture <sup>1</sup> .....	270, 400	<sup>2</sup> 270, 400	-----	4, 500	<sup>2</sup> 4, 500	-----
Mining and quarrying <sup>3</sup> .....	86, 500	<sup>2</sup> 86, 500	-----	1, 800	<sup>2</sup> 1, 800	-----
Construction <sup>4</sup> .....	453, 800	422, 000	31, 800	4, 100	3, 800	300
Manufacturing <sup>5</sup> .....	316, 000	303, 100	12, 900	1, 900	1, 800	100
Public utilities <sup>6</sup> .....	21, 000	21, 000	-----	500	500	-----
Trade—wholesale and retail <sup>6</sup> .....	244, 600	190, 200	54, 400	1, 900	1, 500	400
Railroads <sup>7</sup> .....	33, 700	33, 700	-----	700	700	-----
Miscellaneous transportation <sup>6</sup> .....	129, 300	113, 500	15, 800	900	700	200
Services and miscellaneous industries <sup>6</sup> .....	334, 400	256, 500	77, 900	1, 800	1, 300	500
	Permanent partial disabilities			Temporary total disabilities		
All industries.....	89, 600	80, 600	9, 000	1, 782, 000	1, 599, 700	182, 300
Agriculture <sup>1</sup> .....	13, 900	<sup>2</sup> 13, 900	-----	252, 000	<sup>2</sup> 252, 000	-----
Mining and quarrying <sup>3</sup> .....	2, 900	<sup>2</sup> 2, 900	-----	81, 800	<sup>2</sup> 81, 800	-----
Construction <sup>4</sup> .....	20, 900	19, 400	1, 500	428, 800	398, 800	30, 000
Manufacturing <sup>5</sup> .....	18, 600	17, 800	800	295, 500	283, 500	12, 000
Public utilities <sup>6</sup> .....	500	500	-----	20, 000	20, 000	-----
Trade—wholesale and retail <sup>6</sup> .....	8, 700	6, 700	2, 000	234, 000	182, 000	52, 000
Railroads <sup>7</sup> .....	1, 700	1, 700	-----	31, 300	31, 300	-----
Miscellaneous transportation <sup>6</sup> .....	3, 400	3, 200	200	125, 000	109, 600	15, 400
Services and miscellaneous industries <sup>6</sup> .....	19, 000	14, 500	4, 500	313, 600	240, 700	72, 900

<sup>1</sup> Based on fragmentary data.

<sup>2</sup> Includes self-employed.

<sup>3</sup> Based largely on Bureau of Mines data.

<sup>4</sup> Included are injuries to workers on CCC and WPA construction projects amounting to 400 fatalities, 2,400 permanent partial, and 58,800 temporary total disabilities.

<sup>5</sup> Based on comprehensive survey.

<sup>6</sup> Based on small sample studies.

<sup>7</sup> Based on Interstate Commerce Commission data.

As in past years, the total disability experience of any of the major industry groups consists of injuries to employed and self-employed workers. Figures are shown separately for each of these two groups.<sup>1</sup>

On the basis of these estimates, fatal injuries increased from 16,400 in 1939 to 18,100 in 1940. As in the past, these fatality figures include a small number of permanent total disabilities. The total number of permanent partial injuries was estimated as 89,600. The 1939 estimate of 109,400 appears to have been too high by about 25,000. On the basis of available data, however, temporary total disabilities appear to have increased sharply, from 1,477,700 in 1939 to 1,782,000 in 1940.

<sup>1</sup> For a statement of the composition of the various major industry groups, see Monthly Labor Review, July 1940 (pp. 87 and 88): Industrial Injuries in the United States During 1939.

The largest number of disabling injuries was estimated to have occurred in the construction industry. Of the total of 453,800 injuries, 4,100 were fatalities and 20,900 were permanent impairments. The large group of services and miscellaneous industries was estimated to have had about 334,400 injuries, of which 1,800 were fatal and 19,000 of a permanent character. The meager data available for agriculture point to an increase in fatalities over 1939, with a total of 4,500 and a combined injury toll of 270,400. For manufacturing, the injury total was placed at 316,000, an increase of 10 percent over 1939. The fatality total was estimated to have gone up to 1,900, or about 19 percent. Explosions in the manufacture of explosives accounted for part of this increase.

Another large disability group was trade, with an estimated injury total of 244,600. Nineteen hundred of these were fatalities and 8,700 were permanent impairments. The figure of 39,000 permanent impairments shown for this group in the 1939 estimates now appears to have been about 30,000 too high.

### *Survey Data*

#### THE ENTIRE GROUP

The total number of cooperating establishments which reported data for both 1940 and 1939 was 29,442. The entire group had in 1940 a total of nearly 5 million employees who worked about 9,744 million hours. This 9-percent increase in employment and 11-percent increase in hours worked was accompanied by a 14-percent increase in disabling injuries. No weighted frequency rate was computed for the entire group because of the smallness of the reporting sample in a considerable number of nonmanufacturing industries.

#### MANUFACTURING INDUSTRIES

The 20,480 manufacturing establishments had an increase in the general frequency rate from 14.9 in 1939 to 15.3 in 1940. The severity rate also increased from 1.4 to 1.6. The frequency rate, giving the average number of disabling injuries per million hours worked, was computed by weighting the rate of each industry according to employment. The severity rate, measuring the days of time charge or loss per 1,000 employee-hours, was similarly computed.

For the group as a whole, the 2.7-percent increase in the frequency rate was accompanied by an increase of 10 percent in employment, and 12 percent in hours worked. Injuries increased from 104,071 to 120,532, or by nearly 16 percent.

As in earlier years, the logging industry had the highest frequency rate. The respective frequency and severity rates of 104.9 and 15.9,

nevertheless, are somewhat below the 1939 rates of 107.0 and 17.8. One of the nearest rivals from the point of view of frequency is another industry in the lumber group, sawmills. The rate of 45.6, however, is slightly below that of 46.8 for the preceding year, and is exceeded by that of 52.7 for the cut-stone industry.

Among industries with high frequency rates is fertilizer manufacturing, with a rate of 28.3, a slight increase from the 1939 rate of 27.3. Canning and preserving, with a rate of 30.0, showed a considerable increase over the 1939 rate of 26.5. Slaughtering and meat packing also experienced an increase in its rate, from 25.0 to 26.8, and sugar refining rose from 27.0 to 29.0. In the iron and steel group, the frequency rate for the fabricated structural steel industry moved up slightly, from 29.5 to 30.8, and for foundries, from 35.9 to 36.1. A sharper increase was found for forgings, with the rate rising from 30.2 to 34.4.

In the lumber group, for which logging and sawmills have already been mentioned, planing mills showed a small decrease, from 35.2 to 34.1.

Construction and mining machinery experienced the largest number of injuries per million hours in the machinery group. Its rate for 1940, 25.9, was above the 1939 rate of 23.4. But the vital defense industry of metalworking-machinery production had an increase of 23 percent over 1939 in its frequency rate, which rose from 13.7 to 16.9. The increase for the entire machinery group amounted to nearly 15 percent, the rate moving from 12.2 to 14.0.

Although for the paper group as a whole the frequency rate of industrial injuries was no greater in 1940 than it had been in 1939, it is worth noting that most of the rates are fairly high. Pulp production, for instance, had a rate of 33.0; paper production, 24.8; fiber boxes, 23.6; and corrugated boxes, 21.6.

The frequency rates for the printing and rubber groups are relatively small. In the stone, clay, and glass group, however, the brick, tile, and terra cotta industry had a high rate of 34.5, somewhat lower than that of 37.4 for 1939. The concrete, gypsum, and plaster products industry had an equally high frequency rate, 35.0, which also was below its 1939 rate, 39.2. The highest frequency rate in this group, however, was experienced by the cut-stone and cut-stone-products industry, with a rate of 52.7 for each of the 2 years.

In the textiles group, the dyeing and finishing industry had the most adverse injury experience in 1940, with a frequency rate of 15.5, practically unchanged from the 1939 rate of 15.4. The rate for carpets and rugs increased from 12.4 to 13.4, and that for cotton goods from

12.5 to 12.8. The rate for woolen goods increased from 10.8 to 11.9, while that for knit goods decreased from 6.4 to 5.7.

The 156 establishments manufacturing motor vehicles and employing nearly 400,000 workers in 1940, reported 5,481 disabling injuries. The frequency rate of 7.7 for this industry during 1940 is slightly below that of 8.5 for the preceding year. This industry, it is of interest to note, had the lowest frequency rate in the transportation-equipment group of industries. In shipbuilding the frequency rate increased by 22 percent (from 16.9 to 20.6), for railroad equipment, by 24 percent (from 15.1 to 18.7), and for aircraft production, 22 percent (from 12.9 to 15.8). All of these industries had sharp increases in employment, the most marked increase occurring in the aircraft industry in which employment more than doubled. Available information indicates that the increases in the number of disabling injuries per million hours worked are related to the influx of new workers which was not matched by increased safety precautions.

#### NONMANUFACTURING INDUSTRIES

In spite of the fact that the frequency rate of 37.0 for the construction group is believed to reflect the effect of an unusually large number of safety-minded companies, the rate is the highest for all nonmanufacturing industries. At the same time, it is about 23 percent below the 1939 rate of 47.8. Past surveys indicate that a more representative sample would have yielded a rate about twice as high as the one given here. For the reporting group, the fact nevertheless remains that the 1,176 companies, with an average employment of 74,000 in 1940, had a considerably better record than in 1939. Although heavy engineering had the highest rate, 73.1, it was 22 percent below the 1939 rate of 93.4. Building construction had a 31-percent reduction from 1939, from 49.5 to 33.9. Highway construction had the lowest rate (26.7) of the three types of construction activities, about 10 percent below the 1939 rate of 29.6.

In the public-utilities group, the telephone industry's experience remained the same for both years, with the low frequency rate of 2.5. Streetcar transportation was the most hazardous occupation for public-utility transportation employees, with a frequency rate of 16.4. A close second was bus transportation, with a rate of 15.0. Both of these rates are fractionally below those of 1939.

The highest frequency rate in the utility group was experienced by employees in waterworks. The rate of 18.2 is nearly 14 percent above that of 16.0 for 1939. The 1940 experiences of the electric light and power and gas industries remained essentially unchanged in comparison with the preceding year,



In the personal-services group, hotels had the highest frequency rate, 10.3. In comparison with the 1939 survey, a number of new industries are included this year. Similarly, the groups of business services and educational services are new. In the former, real-estate activities show a surprisingly high frequency rate, 10.1. The rate for educational services, i. e. schools, is even higher, 11.4, an increase of 46 percent above 1939. The reason for this sharp increase was not clear from the reports.

In the trade group, establishments doing both a wholesale and retail trade had a higher frequency rate, 20.3, than those doing a wholesale or retail business alone. Filling stations also had a relatively high frequency rate, 15.7, although this was substantially below the 1939 rate of 20.1.

The rate of 26.3 for transportation and warehousing, although high, is somewhat below the 1939 rate of 27.5. Trucking and hauling had the highest rate, 30.1, for the 3 industries shown.

TABLE 2.—Injury Frequency and Severity Rates for 29,442

Industry	Number of establishments	Number of employees (thousands)		Number of employe-hours worked (millions)		Number of disabling injuries	
		1940	1939	1940	1939	1940	1939
All industries.....	29,442	4,981	4,567	9,744	8,791	136,919	120,353
<i>Manufacturing</i>							
Total, manufacturing.....	20,480	4,162	3,782	8,135	7,245	120,532	104,071
Chemical products.....	1,588	277	260	545	511	6,211	5,186
Druggist preparations.....	231	26	26	52	52	367	406
Explosives.....	55	11	8	22	17	353	89
Fertilizers.....	357	15	15	28	28	784	758
Paints and varnishes.....	372	26	25	52	50	547	491
Petroleum refining.....	104	61	59	115	115	948	966
Rayon and allied products.....	26	44	41	88	79	992	738
Soap.....	86	21	20	41	41	380	374
Not elsewhere classified.....	357	74	65	148	131	1,840	1,364
Food products.....	2,567	313	296	622	597	13,669	12,686
Baking.....	705	50	49	108	106	1,251	1,231
Canning and preserving.....	447	50	49	78	78	2,352	2,052
Confectionery.....	224	31	28	60	54	669	777
Flour, feed, and other grain-mill products.....	523	29	28	60	62	1,132	1,269
Slaughtering and meat packing.....	206	115	105	237	221	6,355	5,530
Sugar refining.....	83	18	18	37	37	1,074	1,011
Not elsewhere classified.....	379	20	19	41	40	836	816
Iron and steel and their products.....	2,614	776	689	1,572	1,328	24,881	20,652
Iron and steel.....	290	433	387	884	742	7,941	6,644
Cutlery and edge tools.....	86	9	9	19	18	348	325
Enameling and galvanizing.....	60	11	10	21	19	393	331
Fabricated structural steel.....	274	26	23	54	47	1,673	1,385
Forgings.....	98	16	13	33	25	1,147	764
Foundries.....	553	82	71	162	134	5,836	4,794
Hardware.....	151	27	24	54	49	782	710
Ornamental metalwork.....	97	6	6	13	12	206	199
Plumbers' supplies.....	76	29	25	57	48	805	708
Stamped and pressed metal products.....	236	24	22	49	43	1,237	1,083
Steam fittings and apparatus.....	180	26	22	52	42	1,207	950
Stoves and furnaces, not electric.....	161	27	25	55	48	1,291	1,125
Tinware.....	62	13	13	27	26	441	363
Tools, except edge tools.....	97	11	10	22	19	412	347
Wire and wire products.....	68	12	11	25	21	440	350
Not elsewhere classified.....	125	22	18	46	36	722	574
Leather and its products.....	556	130	133	242	258	2,249	2,535
Leather.....	137	29	30	57	59	1,179	1,377
Boots and shoes.....	304	97	100	179	193	1,002	1,107
Not elsewhere classified.....	55	3	3	7	6	68	51
Lumber, lumber products, and furniture.....	2,617	195	187	373	354	13,965	13,617
Logging.....	302	23	22	39	36	4,128	3,871
Planing mills.....	749	40	37	80	73	2,739	2,581
Sawmills.....	666	45	44	83	78	3,784	3,691
Furniture, except metal.....	500	52	53	102	104	1,821	2,100
Furniture, metal.....	49	11	9	23	19	422	358
Partitions, shelving, and store fixtures.....	84	4	5	9	9	142	139
Morticians' supplies.....	25	2	2	4	4	47	56
Not elsewhere classified.....	242	16	15	32	30	882	821
Machinery (not transportation).....	2,241	544	455	1,123	891	16,071	11,181
Agricultural machinery and tractors.....	129	52	46	105	91	2,411	1,781
Construction and mining machinery.....	227	37	33	75	64	1,951	1,492
Electrical equipment and supplies.....	253	189	157	384	303	2,586	1,750
Food-products machinery.....	116	16	13	33	26	624	452
Metalworking machinery.....	229	54	39	125	81	2,104	1,106
Textile machinery.....	131	15	14	31	28	428	364
Special industry machinery, not elsewhere classified.....	320	40	35	84	67	1,632	1,108
General industrial machinery.....	616	106	87	217	172	3,673	2,570
Machinery, not elsewhere classified.....	79	32	29	64	55	551	464
Repair shops.....	141	2	2	5	4	111	94

See footnotes at end of table.

Identical Establishments, by Industry, 1940 Compared with 1939\*

Total days lost (thousands)		Injury rates <sup>1</sup>				Industry
		Frequency		Severity		
1940	1939	1940	1939	1940	1939	
14,997	12,913					All industries.
13,028	11,105	<sup>2</sup> 15.3	<sup>2</sup> 14.9	<sup>2</sup> 1.6	<sup>2</sup> 1.4	<i>Manufacturing</i> Total, manufacturing.
1,498	882	<sup>2</sup> 11.5	<sup>2</sup> 10.2	<sup>2</sup> 2.8	<sup>2</sup> 1.7	Chemical products.
41	28	7.1	7.8	.8	.5	Druggist preparations.
682	61	16.2	5.4	31.4	3.7	Explosives.
112	120	28.3	27.3	4.0	4.3	Fertilizers.
64	53	10.6	9.8	1.2	1.1	Paints and varnishes.
202	206	8.2	8.4	1.8	1.8	Petroleum refining.
76	83	11.3	9.4	.9	1.1	Rayon and allied products.
62	89	9.3	9.2	1.5	2.2	Soap.
200	243	12.4	10.4	1.8	1.9	Not elsewhere classified.
1,225	949	<sup>2</sup> 20.2	<sup>2</sup> 19.7	<sup>2</sup> 2.0	<sup>2</sup> 1.3	Food products.
151	105	11.6	11.6	1.4	1.0	Baking.
114	87	30.0	26.5	1.5	1.1	Canning and preserving.
34	40	11.1	14.3	.6	.7	Confectionery.
117	99	18.8	20.6	2.0	1.6	Flour, feed, and other grain-mill products.
597	477	26.8	25.0	2.5	2.2	Slaughtering and meat packing.
96	105	29.0	27.0	2.6	2.8	Sugar refining.
116	36	20.2	20.6	2.8	.9	Not elsewhere classified.
3,014	2,665	<sup>2</sup> 17.9	<sup>2</sup> 17.6	<sup>2</sup> 2.0	<sup>2</sup> 2.0	Iron and steel and their products.
1,535	1,376	9.0	9.0	1.7	1.9	Iron and steel.
36	24	18.5	18.5	1.9	1.4	Cutlery and edge tools.
58	32	18.8	17.8	2.7	1.7	Enameling and galvanizing.
163	178	30.8	29.5	3.0	3.8	Fabricated structural steel.
47	51	34.4	30.2	1.4	2.0	Forgings.
359	369	36.1	35.9	2.2	2.8	Foundries.
94	65	14.6	14.6	1.8	1.3	Hardware.
35	22	15.9	15.9	2.7	1.7	Ornamental metalwork.
77	84	14.1	14.7	1.4	1.7	Plumbers' supplies.
160	117	25.0	25.3	3.2	2.7	Stamped and pressed metal products.
140	89	23.0	22.4	2.7	2.1	Steam fittings and apparatus.
102	74	23.6	23.4	1.9	1.5	Stoves and furnaces, not electric.
51	45	16.6	14.2	1.9	1.8	Tinware.
47	47	18.5	17.9	2.1	2.4	Tools, except edge tools.
31	28	17.7	17.1	1.2	1.4	Wire and wire products.
82	63	15.6	15.8	1.8	1.7	Not elsewhere classified.
151	159	<sup>2</sup> 8.6	<sup>2</sup> 8.7	<sup>2</sup> .6	<sup>2</sup> .5	Leather and its products.
85	97	20.8	23.4	1.5	1.6	Leather.
59	59	5.6	5.7	.3	.3	Boots and shoes.
7	8	10.3	8.1	1.1	.6	Not elsewhere classified.
1,648	1,541	<sup>2</sup> 34.9	<sup>2</sup> 36.2	<sup>2</sup> 3.9	<sup>2</sup> 3.7	Lumber, lumber products and furniture.
626	645	104.9	107.0	15.9	17.8	Logging.
214	220	34.1	35.2	2.7	3.0	Planing mills.
401	362	45.6	46.8	4.8	4.6	Sawmills.
251	179	17.9	20.2	2.5	1.7	Furniture, except metal.
34	27	18.0	18.7	1.4	1.4	Furniture, metal.
9	23	16.0	14.7	1.0	2.4	Partitions, shelving, and store fixtures.
13	2	12.9	15.4	3.7	.4	Morticians' supplies.
100	83	27.2	27.7	3.1	2.8	Not elsewhere classified.
1,341	1,097	<sup>2</sup> 14.0	<sup>2</sup> 12.2	<sup>2</sup> 1.1	<sup>2</sup> 1.2	Machinery (not transportation).
204	189	22.9	19.6	1.9	2.1	Agricultural machinery and tractors.
150	85	25.9	23.4	2.0	1.3	Construction and mining machinery.
329	262	6.7	5.8	.9	.9	Electrical equipment and supplies.
46	47	19.2	17.4	1.4	1.8	Food-products machinery.
87	76	16.9	13.7	.7	.9	Metalworking machinery.
39	20	14.0	13.1	1.3	.7	Textile machinery.
176	136	19.3	16.5	2.1	2.0	Special industry machinery, not elsewhere classified.
260	229	17.0	14.9	1.2	1.3	General industrial machinery.
44	51	8.6	8.4	.7	.9	Machinery, not elsewhere classified.
5	4	24.0	23.1	1.1	.9	Repair shops.

See footnotes at end of table.

TABLE 2.—Injury Frequency and Severity Rates for 29,442 Identical

Industry	Number of establishments	Number of employees (thousands)		Number of employee-hours worked (millions)		Number of disabling injuries	
		1940	1939	1940	1939	1940	1939
<i>Manufacturing—Continued</i>							
Paper and allied products.....	739	124	118	253	240	5,390	5,092
Pulp.....	21	6	5	12	10	395	321
Paper.....	147	43	41	88	85	2,191	2,157
Both paper and pulp.....	53	31	30	65	60	1,352	1,092
Folding boxes.....	93	7	6	13	13	267	313
Set-up boxes.....	232	11	11	22	21	270	238
Corrugated boxes.....	61	8	8	16	16	349	435
Fiber boxes.....	14	1	1	2	2	57	56
Not elsewhere classified.....	118	17	17	34	33	509	480
Printing and publishing.....	2,415	134	133	269	266	1,886	1,963
Book and job.....	1,655	70	69	142	139	997	1,061
News and periodical.....	735	64	64	126	126	884	895
Bookbinding.....	25	1	1	1	1	5	7
Rubber and its products.....	62	50	47	94	89	1,020	895
Rubber tires.....	29	36	32	66	61	665	594
Rubber boots and shoes.....	5	2	2	4	4	31	28
Not elsewhere classified.....	28	12	13	24	25	324	273
Stone, clay, and glass products.....	970	136	130	262	248	5,191	5,215
Brick, tile, and terra cotta.....	470	33	32	62	60	2,139	2,254
Cement.....	118	17	18	38	36	156	131
Glass.....	127	56	52	105	97	1,688	1,691
Pottery.....	59	18	17	34	34	507	500
Concrete, gypsum, and plaster products.....	93	3	3	7	6	232	222
Cut stone and cut-stone products.....	44	1	2	3	3	143	154
Not elsewhere classified.....	59	7	7	14	13	326	263
Textiles and their products.....	2,958	684	684	1,248	1,265	12,817	12,598
Carpets and rugs.....	40	27	27	51	51	661	626
Clothing—men's.....	525	80	80	132	137	833	884
Clothing—women's.....	508	44	43	79	77	295	319
Cotton goods.....	442	223	214	420	405	5,388	5,047
Dyeing and finishing.....	171	34	34	65	66	1,007	1,025
Knit goods.....	540	108	113	191	210	1,082	1,345
Silk and rayon products, not elsewhere classified.....	154	34	37	63	69	619	713
Woolen goods.....	301	101	100	185	184	2,202	1,995
Not elsewhere classified.....	268	34	34	64	67	730	644
Transportation equipment.....	416	617	485	1,173	877	13,625	9,345
Motor vehicles.....	156	393	336	713	582	5,481	4,976
Shipbuilding.....	54	62	43	131	87	2,706	1,477
Railroad equipment.....	38	26	18	51	32	947	485
Aircraft.....	40	78	38	157	79	2,481	1,018
Motor-vehicle parts.....	70	48	40	100	78	1,687	1,045
Not elsewhere classified.....	58	10	9	22	19	323	344
Miscellaneous manufacturing.....	737	181	165	358	318	3,557	3,106
Tobacco products.....	197	45	45	84	80	497	393
Radios and phonographs.....	48	32	28	63	54	354	356
Smelting and refining (nonferrous).....	122	43	37	90	77	1,290	1,097
Nonferrous metal products.....	135	24	21	47	42	846	728
Coke ovens.....	34	12	10	26	21	94	71
Not elsewhere classified.....	201	24	23	49	44	476	461
<i>Nonmanufacturing</i>							
Construction.....	4 1,176	74	59	114	99	4,208	4,728
Building.....	4 952	40	25	55	40	1,857	1,974
Heavy engineering.....	4 105	10	10	17	16	1,226	1,476
Highway.....	4 119	24	24	42	43	1,125	1,278
Public utilities.....	4 700	519	508	1,017	992	7,322	7,071
Communication: Telephone.....	4 71	263	256	487	467	1,223	1,175
Transportation.....	4 168	58	58	134	133	1,864	1,943
Streetcar.....	4 23	15	15	36	35	584	592
Bus.....	4 81	8	8	20	21	308	315
Both streetcar and bus.....	4 88	33	34	76	75	945	1,010
Not elsewhere classified.....	4 26	1	1	2	1	27	26

See footnotes at end of table.

## Establishments, by Industry, 1940 Compared with 1939—Continued

Total days lost (thousands)		Injury rates <sup>1</sup>				Industry
		Frequency		Severity		
1940	1939	1940	1939	1940	1939	
<i>Manufacturing—Continued</i>						
532	488	<sup>2</sup> 21.1	<sup>2</sup> 21.3	<sup>2</sup> 2.1	<sup>2</sup> 2.0	Paper and allied products.
38	36	33.0	33.5	3.2	3.8	Pulp.
175	188	24.8	25.5	2.0	2.2	Paper.
182	151	20.8	18.3	2.8	2.5	Both paper and pulp.
26	29	20.0	23.7	1.9	2.2	Folding boxes.
42	7	12.3	11.2	1.9	.3	Set-up boxes.
24	24	21.6	26.4	1.5	1.4	Corrugated boxes.
2	4	23.6	24.8	.8	1.8	Fiber boxes.
42	49	14.9	14.5	1.2	1.5	Not elsewhere classified.
158	192	<sup>2</sup> 6.8	<sup>2</sup> 7.3	<sup>2</sup> .6	<sup>2</sup> .9	Printing and publishing.
76	117	7.0	7.7	.5	.8	Book and job.
82	71	7.0	7.1	.6	.6	News and periodical.
( <sup>3</sup> )	4	3.6	5.3	.1	3.3	Bookbinding.
84	75	<sup>2</sup> 11.6	<sup>2</sup> 10.1	<sup>2</sup> .9	<sup>2</sup> .9	Rubber and its products.
62	41	10.0	9.8	.9	.7	Rubber tires.
1	9	8.2	8.0	.2	2.6	Rubber boots and shoes.
22	25	13.5	10.7	.9	1.0	Not elsewhere classified.
504	565	<sup>2</sup> 24.1	<sup>2</sup> 25.7	<sup>2</sup> 2.3	<sup>2</sup> 2.8	Stone, clay, and glass products.
150	187	34.5	37.4	2.4	3.1	Brick, tile, and terra cotta.
77	68	4.1	3.6	2.0	1.9	Cement.
147	131	16.1	17.5	1.4	1.4	Glass.
67	93	14.7	14.9	2.0	2.8	Pottery.
35	27	35.0	39.2	5.3	4.7	Concrete, gypsum, and plaster products.
3	4	52.7	52.7	1.1	1.5	Cut stone and cut-stone products.
23	56	22.8	20.2	1.6	4.3	Not elsewhere classified.
877	910	<sup>2</sup> 9.0	<sup>2</sup> 8.8	<sup>2</sup> .6	<sup>2</sup> .6	Textiles and their products.
91	86	13.4	12.4	1.8	1.7	Carpets and rugs.
39	34	6.3	6.5	.3	.2	Clothing—men's.
16	18	3.7	4.1	.2	.2	Clothing—women's.
360	342	12.8	12.5	.9	.8	Cotton goods.
79	110	15.5	15.4	1.2	1.7	Dyeing and finishing.
51	69	5.7	6.4	.3	.3	Knit goods.
34	37	9.8	10.4	.5	.5	Silk and rayon products, not elsewhere classified.
158	176	11.9	10.8	.9	1.0	Woolen goods.
49	37	11.5	9.7	.8	.6	Not elsewhere classified.
1,543	1,203	<sup>2</sup> 12.3	<sup>2</sup> 10.9	<sup>2</sup> 1.4	<sup>2</sup> 1.4	Transportation equipment.
688	646	7.7	8.5	1.0	1.1	Motor vehicles.
376	215	20.6	16.9	2.9	2.5	Shipbuilding.
124	88	18.7	15.1	2.4	2.7	Railroad equipment.
211	147	15.8	12.9	1.3	1.9	Aircraft.
120	83	16.9	13.4	1.2	1.1	Motor-vehicle parts.
24	23	14.9	18.2	1.1	1.2	Not elsewhere classified.
452	380	<sup>2</sup> 11.5	<sup>2</sup> 11.4	<sup>2</sup> 1.2	<sup>2</sup> 1.1	Miscellaneous manufacturing.
24	36	5.9	4.9	.3	.4	Tobacco products.
42	38	5.7	6.6	.7	.7	Radios and phonographs.
217	161	14.3	14.2	2.4	2.1	Smelting and refining (nonferrous).
77	82	17.9	17.4	1.6	2.0	Nonferrous metal products.
49	39	3.7	3.4	1.9	1.9	Coke ovens.
43	25	9.8	10.4	.9	.6	Not elsewhere classified.
<i>Nonmanufacturing</i>						
599	526	37.0	47.8	5.3	5.3	Construction.
227	223	33.9	49.5	4.1	5.6	Building.
205	196	73.1	93.4	12.2	12.4	Heavy engineering.
167	107	26.7	29.6	4.0	2.5	Highway.
1,002	980	<sup>2</sup> 10.5	<sup>2</sup> 10.7	<sup>2</sup> 1.0	<sup>2</sup> 1.2	Public utilities.
90	91	2.5	2.5	.2	.2	Communication: Telephone.
160	190	13.9	14.6	1.2	1.4	Transportation.
37	47	16.4	16.7	1.0	1.3	Streetcar.
34	34	15.0	15.3	1.7	1.6	Bus.
89	109	12.4	13.4	1.2	1.5	Both streetcar and bus.
1	( <sup>3</sup> )	17.5	18.0	.4	.3	Not elsewhere classified.

See footnotes at end of table.

TABLE 2.—Injury Frequency and Severity Rates for 29,442 Identical

Industry	Number of establishments	Number of employees (thousands)		Number of employee-hours worked (millions)		Number of disabling injuries	
		1940	1939	1940	1939	1940	1939
<i>Nonmanufacturing—Continued</i>							
<i>Public utilities—Continued</i>							
Electric power and gas.....	4 326	192	188	384	379	4,001	3,745
Electric light and power.....	4 198	93	90	192	185	2,105	1,993
Gas.....	4 70	15	14	30	28	318	304
Both electric and gas.....	4 58	84	84	162	166	1,578	1,448
Waterworks.....	4 89	2	2	4	4	65	56
Utilities, not elsewhere classified.....	4 46	4	4	9	9	169	152
<i>Personal services</i>							
Dry cleaning.....	2,883	98	94	211	198	1,706	1,451
Laundries.....	572	13	12	28	26	145	164
Both laundry and dry cleaning.....	841	38	37	81	78	699	554
Amusements.....	420	27	25	60	25	508	428
Hotels, and eating and drinking places.....	273	5	5	8	8	41	35
Medical and professional services.....	616	13	13	28	27	290	242
Miscellaneous personal services.....	63	1	1	3	2	9	14
Miscellaneous personal services.....	98	1	1	3	3	14	14
<i>Business services</i>							
Banks and other financial agencies.....	890	21	20	42	42	205	193
Insurance.....	339	7	7	14	14	15	18
Real estate.....	118	4	4	9	8	14	9
Miscellaneous business services.....	172	4	4	8	8	84	74
Miscellaneous business services.....	261	5	5	11	11	92	92
<i>Educational services</i>							
Educational services.....	54	3	3	7	6	74	49
<i>Trade</i>							
Wholesale distributors.....	3,003	98	95	207	198	2,549	2,480
Retail, general merchandise.....	801	19	18	39	38	638	590
Retail, food.....	214	30	29	58	55	393	391
Retail, automobiles.....	198	13	13	30	30	356	360
Filling stations.....	351	7	6	16	15	219	223
Retail, apparel and accessories.....	80	3	3	7	6	105	129
Miscellaneous retail stores.....	246	5	5	10	10	24	15
Wholesale and retail trade, combined.....	840	14	13	30	27	464	391
Wholesale and retail trade, combined.....	273	7	7	17	16	350	381
<i>Transportation and warehousing—commodities</i>							
Trucking and hauling.....	256	6	5	12	11	323	310
Warehousing and storage.....	218	4	4	9	8	278	273
Pipe lines (except natural gas).....	33	1	1	1	1	18	16
Pipe lines (except natural gas).....	5	1	1	2	2	27	21

<sup>1</sup> The frequency rate is the average number of disabling injuries for each million employee-hours worked. The severity rate is the average number of days lost for each thousand employee-hours worked. The standard time-loss ratings for fatalities and permanent disabilities are given in Method of Compiling Industrial Injury Rates, approved by the American Standards Association, 1937.

## Establishments, by Industry, 1940 Compared with 1939—Continued

Total days lost (thousands)		Injury rates <sup>1</sup>				Industry
		Frequency		Severity		
1940	1939	1940	1939	1940	1939	
<i>Nonmanufacturing—Continued</i>						
<i>Public utilities—Continued.</i>						
698	651	10.4	9.9	1.8	1.7	Electric power and gas.
416	444	11.0	10.8	2.2	2.4	Electric light and power.
38	27	10.8	10.7	1.3	1.0	Gas.
245	179	9.7	8.7	1.5	1.1	Both electric and gas.
18	7	18.2	16.0	4.9	2.0	Waterworks.
36	40	18.9	17.0	4.0	4.5	Utilities, not elsewhere classified.
<i>Personal services.</i>						
125	112	<sup>2</sup> 6.4	<sup>2</sup> 6.2	2.3	2.3	Dry cleaning.
13	13	5.3	6.4	.5	.5	Laundries.
67	54	8.6	7.1	.8	.7	Both laundry and dry cleaning.
35	32	8.4	7.8	.6	.6	Amusements.
2	1	5.0	4.5	.2	.1	Hotels, and eating and drinking places.
7	11	10.3	9.0	.2	.4	Medical and professional services.
( <sup>3</sup> )	1	3.5	5.6	.1	.4	Miscellaneous personal services.
( <sup>3</sup> )	( <sup>3</sup> )	5.0	4.9	.1	.1	
<i>Business services.</i>						
20	22	<sup>2</sup> 4.1	<sup>2</sup> 3.6	<sup>2</sup> .4	<sup>2</sup> .5	Banks and other financial agencies.
1	6	1.1	1.3	.1	.4	Insurance.
6	( <sup>3</sup> )	1.6	1.1	.7	( <sup>5</sup> ) 1.0	Real estate.
2	8	10.1	8.8	.3	.7	Miscellaneous business services.
10	7	8.4	8.8	.9	.7	
<i>Educational services.</i>						
2	7	11.4	7.8	.2	1.0	
<i>Trade.</i>						
199	137	<sup>2</sup> 12.9	<sup>2</sup> 12.8	<sup>2</sup> 1.0	2.8	Wholesale distributors.
62	33	16.2	15.6	1.6	.9	Retail, general merchandise.
29	25	6.8	7.1	.5	.5	Retail, food.
31	7	11.7	11.9	1.0	.2	Retail, automobiles.
3	12	13.6	15.3	.2	.8	Filling stations.
1	4	15.7	20.1	.2	.6	Retail, apparel and accessories.
( <sup>3</sup> )	( <sup>3</sup> )	2.5	1.6	( <sup>5</sup> )	( <sup>5</sup> ) 1.6	Miscellaneous retail stores.
36	44	15.6	14.3	1.2	.8	Wholesale and retail trade, combined.
36	12	20.3	23.3	2.1	.8	
<i>Transportation and warehousing—commodities.</i>						
24	24	<sup>2</sup> 26.3	<sup>2</sup> 27.5	<sup>2</sup> 1.9	<sup>2</sup> 2.2	Trucking and hauling.
8	18	30.1	33.3	.8	2.2	Warehousing and storage.
( <sup>3</sup> )	( <sup>3</sup> )	13.2	11.8	.3	.2	Pipe lines (except natural gas).
16	7	15.9	12.3	9.2	3.9	

<sup>2</sup> Weighted by employment for manufacturing industries as shown in the Census of Manufactures, 1939, and computed for 1940 by means of Bureau of Labor Statistics indexes of employment, and for nonmanufacturing industries by Bureau of Labor Statistics employment data.

<sup>3</sup> Less than 500 days.

<sup>4</sup> Tabulated by company instead of establishment.

<sup>5</sup> Less than a tenth.

*Changes in Exposure and Disabling Injuries*

That increases in employment and employee-hours worked often resulted in much larger increases in disabling injuries is shown in table 3. Easily outstanding is the experience in 1940 of the explosives industry, in which a 29-percent increase of employment over 1939 resulted in increases of 32 percent in total hours worked and of 297 percent in the number of disabling injuries. The increase in injuries was about 9 times the increase in exposure. A few explosions accounted for this extreme disproportion.

A considerable number of other industries had similar experiences, although with smaller proportionate injury increases. In the three important defense industries of metalworking machinery, shipbuilding, and aircraft production, increases in injuries far outweighed increases in exposure. In the manufacture of metalworking machinery, employment and total hours of exposure increased by 39 and 54 percent respectively—but injuries rose 90 percent. In shipbuilding, employment increased by 42 percent, hours worked by 51 percent, and injuries by 83 percent. In the aircraft industry, employment and hours doubled, 106 and 99 percent, while injuries rose 144 percent.

In the rayon industry, the increase in injuries was more than four times the increase in employment, with an increase in hours worked of 12 percent. In canning and preserving, a 3-percent increase in employment was accompanied by a 15-percent increase in injuries. In the iron and steel industry, the increase in injuries (20 percent) was in direct proportion to the increase in hours worked (19 percent), while employment increased by 12 percent. In forgings, another industry vital to defense, the changes in employment, hours worked, and injuries were 24, 32, and 50 percent, respectively.

The increase of injuries in the electrical equipment and supplies industry was nearly twice as large as the increase in exposure hours. The same was true for production of special industry machinery and for the manufacture of railroad equipment. Although in the motor-vehicles industry increases of 17 percent in employment and of 22 percent in hours resulted in a much smaller increase in injuries (10 percent), in the motor-vehicle parts industry injuries increased three times as much as employment and more than twice as much as hours worked. The respective increases in workers, hours, and injuries were 20, 28, and 61 percent.

In the nonmanufacturing industries, reporting establishments in both building and heavy-engineering construction reported decreases in injuries coupled with increases in employment and hours worked. In highway construction, decreases were shown throughout, although the injury decrease was sharper than the exposure decrease.

There were no disproportionate changes of any considerable degree in the public-utilities group. The only exception was waterworks,



for which increases of 6 percent in employment and 2 percent in hours worked were accompanied by a 16-percent increase in injuries.

In the personal-services group, however, most industries experienced larger increases in injuries than in exposure. Laundries had only slight increases in employment and hours, but a 26-percent increase in injuries. Amusements, with 6- and 7-percent increases in employment and hours, had a 17-percent increase in injuries. Hotels and restaurants had a 20-percent increase in injuries with only 3- and 5-percent increases in employment and hours. On the other hand, a 2-percent increase in total exposure hours in medical and other professional services was accompanied by a 36-percent decrease in injuries.

Employment in the insurance business increased by 3 percent, total hours worked by 2 percent, but injuries by 56 percent. Filling stations, with employment and hour increases of 7 and 4 percent, respectively, had 19 percent fewer injuries. But retail stores selling apparel and accessories had a 60-percent increase in injuries, with a 9-percent decrease in employment and practically no change in hours worked.

TABLE 3.—Changes in Employment, Employee-Hours Worked, and Disabling Injuries, 1939 to 1940

Industry	Percent of change in—			Industry	Percent of change in—		
	Em- ploe- ees	Em- ploe- ee- hours	In- juries		Em- ploe- ees	Em- ploe- ee- hours	In- juries
<i>Manufacturing</i>				<i>Manufacturing—Continued</i>			
Chemical products:				Iron and steel and their prod- ucts—Continued.			
Druggist preparations.....	-(0)	-1	-10	Ornamental metalwork....	+4	+3	+4
Explosives.....	+29	+32	+297	Plumbers' supplies.....	+15	+19	+14
Fertilizers.....	-(0)	-(0)	+3	Stamped and pressed metal products.....	+10	+15	+14
Paints and varnishes.....	+3	+4	+11	Steam fittings and appa- ratus.....	+19	+23	+27
Petroleum refining.....	+3	+(0)	-2	Stoves and furnaces, not electric.....	+10	+14	+15
Rayon and allied products.	+8	+12	+34	Tinware.....	+4	+4	+21
Soap.....	+2	+(0)	+2	Tools, except edge tools....	+14	+15	+19
Not elsewhere classified....	+14	+13	+35	Wire and wire products....	+15	+21	+26
Food products:				Not elsewhere classified....	+22	+27	+26
Baking.....	+1	+2	+2	Leather and its products:			
Canning and preserving....	+3	+1	+15	Leather.....	-4	-4	-14
Confectionery.....	+11	+11	-14	Boots and shoes.....	-3	-7	-9
Flour, feed, and other grain-mill products.....	+1	-3	-11	Not elsewhere classified....	+4	+5	+33
Slaughtering and meat packing.....	+10	+7	+15	Lumber, lumber products, and furniture:			
Sugar refining.....	-2	-1	+6	Logging.....	+5	+9	+7
Not elsewhere classified....	+4	+5	+2	Planing mills.....	+8	+9	+6
Iron and steel and their prod- ucts:				Sawmills.....	+4	+5	+3
Iron and steel.....	+12	+19	+20	Furniture, except metal....	-2	-2	-13
Cutlery and edge tools....	+7	+7	+7	Furniture, metal.....	+19	+23	+18
Enameling and galvaniz- ing.....	+9	+13	+19	Partitions, shelving, and fixtures.....	-6	-6	+2
Fabricated structural steel.	+14	+16	+21	Morticians' supplies.....	-1	+(0)	-16
Forgings.....	+24	+32	+50	Not elsewhere classified....	+9	+9	+7
Foundries.....	+16	+21	+22				
Hardware.....	+11	+10	+10				

<sup>1</sup> Less than 0.5.

TABLE 3.—Changes in Employment, Employee-Hours Worked, and Disabling Injuries, 1939 to 1940—Continued

Industry	Percent of change in—			Industry	Percent of change in—		
	Em- ploy- ees	Em- ploy- ee- hours	In- juries		Em- ploy- ees	Em- ploy- ee- hours	In- juries
<i>Manufacturing—Continued</i>				<i>Manufacturing—Continued</i>			
Machinery (not transportation):				Miscellaneous manufacturing—Continued.			
Agricultural machinery and tractors	+13	+16	+35	Nonferrous metal products	+13	+13	+16
Construction and mining machinery	+13	+18	+31	Coke ovens	+22	+22	+32
Electrical equipment and supplies	+20	+27	+48	Miscellaneous manufacturing	+4	+10	+3
Food-products machinery	+22	+25	+38	<i>Nonmanufacturing</i>			
Metalworking machinery	+39	+54	+90	Construction	+25	+15	-11
Textile machinery	+9	+11	+18	Building	+57	+37	-6
Special industry machinery, not elsewhere classified	+16	+25	+47	Heavy engineering	+3	+6	-17
General industrial machinery	+22	+26	+43	Highway	-1	-2	-12
Machinery, not elsewhere classified	+9	+16	+19	Public utilities:			
Repair shops	+11	+14	+18	Communication—Telephone	+3	+4	+4
Paper and allied products:				Transportation	-1	+1	-4
Pulp	+10	+25	+23	Streetcar	-1	+ <sup>(1)</sup>	-1
Paper	+5	+4	+2	Bus	- <sup>(1)</sup>	- <sup>(1)</sup>	-2
Both paper and pulp	+6	+9	+24	Both streetcar and bus	-1	+1	-6
Folding boxes	+5	+2	-15	Not elsewhere classified	+5	+6	+4
Set-up boxes	+4	+3	+13	Electric power and gas	+2	+1	+7
Corrugated boxes	+2	-2	-20	Electric light and power	+4	+4	+6
Fiber boxes	+7	+7	+2	Gas	+6	+4	+5
Not elsewhere classified	+2	+3	+6	Both electric and gas	- <sup>(1)</sup>	-2	+9
Printing and publishing:				Waterworks	+6	+2	+16
Book and job	+1	+2	-6	Utilities, not elsewhere classified	-3	+ <sup>(1)</sup>	+11
News and periodical	+ <sup>(1)</sup>	+ <sup>(1)</sup>	-1	Personal services:			
Bookbinding	+10	+6	-29	Laundry and dry cleaning:			
Rubber and its products:				Dry cleaning	+2	+7	-12
Rubber tires	+11	+9	+12	Laundry	+3	+4	+25
Rubber boots and shoes	-1	+8	+11	Both laundry and dry cleaning	+9	+10	+19
Not elsewhere classified	-4	-6	+19	Amusements	+6	+7	+17
Stone, clay, and glass products:				Hotels, and eating and drinking places	+3	+5	+20
Brick, tile, and terra cotta	+5	+3	-5	Medical and other professional services	+4	+2	-36
Cement	-4	+4	+19	Not elsewhere classified	-1	-2	0
Glass	+7	+8	- <sup>(1)</sup>	Business services:			
Pottery	+5	+2	+1	Banks and other financial agencies	-1	-2	-17
Concrete, gypsum, and plaster products	+12	+17	+5	Insurance	+3	+2	+56
Cut stone and cut-stone products	-3	-7	-7	Real estate	-1	- <sup>(1)</sup>	+14
Not elsewhere classified	+8	+10	+24	Not elsewhere classified	+4	+4	0
Textiles and their products:				Educational services	+3	+3	+51
Carpets and rugs	+1	+ <sup>(1)</sup>	+6	Trade:			
Clothing—men's	- <sup>(1)</sup>	-4	-6	Wholesale distributors	+5	+4	+8
Clothing—women's	+1	+2	-8	Retail, general merchandise	+3	+6	+1
Cotton goods	+4	+4	+7	Retail, food	+1	+1	-1
Dyeing and finishing	-1	-2	-2	Retail, automobiles	+8	+10	-2
Knit goods	-5	-9	-20	Filling stations	+7	+4	-19
Silk and rayon products, not elsewhere classified	-7	-8	-13	Retail, apparel and accessories	-9	+ <sup>(1)</sup>	+60
Woolen goods	+ <sup>(1)</sup>	+ <sup>(1)</sup>	+10	Miscellaneous retail stores	+8	+9	+19
Not elsewhere classified	- <sup>(1)</sup>	-4	+13	Both wholesale and retail trade	+2	+5	-8
Transportation equipment:				Transportation and warehousing—commodities:			
Motor vehicles	+17	+22	+10	Trucking and hauling	+10	+12	+2
Shipbuilding	+42	+51	+83	Warehousing and storage	+4	+1	+13
Railroad equipment	+45	+58	+95	Pipe lines (except natural gas)	-1	- <sup>(1)</sup>	+29
Aircraft	+106	+99	+144				
Motor-vehicle parts	+20	+28	+61				
Not elsewhere classified	+8	+15	-6				
Miscellaneous manufacturing:							
Tobacco products	+1	+5	+26				
Radio and phonograph	+12	+16	-1				
Smelting and refining (nonferrous)	+17	+17	+18				

<sup>1</sup> Less than 0.5.

*Disability Estimates for Manufacturing Industries*

Utilizing the reports of the 24,998 manufacturing establishments reporting for 1940, estimates were made for the various types of disability for individual manufacturing industries. Where the sample was sufficiently large to warrant the assumption that the reported data were fairly representative of the industry's injury experience, the reported disabilities were extended to the industry as a whole on the basis of the number of workers employed. Although the degree of accuracy imputed by the figures given is not warranted, it was necessary to forego rounding the figures because in many instances they were too small.

The manufacturing group with the largest number of estimated disabling injuries was that of lumber, lumber products, and furniture. Of the 50,735 injuries, 295 were fatal, 2,823 permanent, and 47,617 temporary in nature. The total economic time loss, using standard time charges for deaths and permanent impairments, was 5,700,000 days.

The group with the next highest number of disabling injuries is iron and steel and their products, with a total of nearly 45,000. The economic time loss for the group was computed at nearly 5 million man-days. One-third of this loss was accounted for by the iron and steel industry, which, however, had less than one-fourth of the total injuries in the group. The reason for this discrepancy lies in the large percentage of fatal and permanent impairments. Foundries were estimated to have had 11,000 injuries resulting in a total time loss of 691,000 days.

The food-products group, accounted for nearly 39,000 injuries, of which 225 were fatal. The time loss was computed as 3,691,000 days. Slaughtering and meat packing, the largest industry in the group, had nearly 10,100 injuries and a time loss of 928,000 days. The number of fatalities, however, was relatively small.

Almost on a par with the iron and steel group in the number of fatalities, the chemical industries group had only 11,000 injuries. Largely because of the heavy proportion of fatalities and permanent impairments in the explosives industry, the economic time loss was 2,617,000 days. The small explosives industry in itself accounted for 1,167,000 days.

The manufacture of machinery (not transportation) was estimated to have had nearly 32,600 injuries, of which 94 percent were temporary in character. General industrial-machinery production had the largest number of injuries in this group, 9,439, and a time loss of 654,000 days.

Another large number of injuries occurred in the textiles group. About 32,000 injuries resulted in a time loss of 2,154,000 days. The manufacture of cotton goods, with nearly 11,000 disabilities and a

TABLE 4.—Estimates of Disabilities, by Extent, for Manufacturing Industries, 1940

Industry	All reporting establishments					Estimates for entire industry				
	Number of establishments	Number of employes (thousands)	Employee-hours worked (millions)	Number of disabling injuries	Total days lost (thousands)	All disabling injuries	Death and permanent total disability	Permanent partial disability	Temporary total disability	Total days lost (thousands)
Chemical products <sup>1</sup> .....	1,792	305	600	6,934	1,621	11,007	267	648	10,092	2,617
Fertilizers.....	374	16	28	795	112	1,105	14	40	1,051	156
Petroleum refining.....	185	79	149	1,438	307	1,625	34	115	1,476	347
Rayon and allied products.....	26	44	88	992	76	1,250	5	49	1,196	95
Food products <sup>1</sup> .....	3,094	338	713	14,716	1,306	38,683	225	1,613	36,845	3,691
Canning and preserving.....	474	53	81	2,459	131	6,516	16	156	6,344	347
Slaughtering and meat packing.....	240	119	245	6,557	603	10,098	18	601	9,479	928
Sugar refining.....	85	19	38	1,092	98	1,879	7	64	1,808	169
Iron and steel and their products <sup>1</sup> .....	3,089	834	1,691	27,469	3,258	44,888	269	3,140	41,479	4,928
Iron and steel.....	322	445	908	8,349	1,600	9,435	137	904	8,394	1,808
Forgings.....	103	16	34	1,194	52	1,576	-----	61	1,515	69
Foundries.....	610	90	177	6,286	395	11,001	32	371	10,598	691
Leather and its products <sup>1</sup> .....	628	142	265	2,551	171	5,544	7	274	5,263	384
Lumber, lumber products, and furniture <sup>1</sup> .....	4,095	282	537	19,725	2,305	50,735	295	2,823	47,617	5,669
Logging.....	420	28	48	4,825	776	4,825	63	192	4,570	776
Planing mills.....	1,101	56	111	3,943	329	6,190	14	378	5,798	517
Furniture.....	1,009	94	184	3,459	386	7,056	24	681	6,351	787
Machinery (not transportation) <sup>1</sup> .....	2,687	618	1,277	19,161	1,544	32,590	81	2,001	30,508	2,489
Agricultural machinery and tractors.....	159	65	131	3,146	239	3,870	5	314	3,551	294
Construction and mining machinery.....	256	43	88	2,210	178	2,475	10	120	2,345	200
Electrical equipment and supplies.....	351	207	421	3,427	344	5,209	20	410	4,779	523
Metalworking machinery.....	294	61	142	2,278	104	5,399	5	235	5,159	247
Special industry machinery, not elsewhere classified.....	358	46	96	1,857	215	1,857	10	118	1,729	215
General industrial machinery.....	706	119	245	4,252	294	9,439	24	484	8,931	654
Paper and allied products <sup>1</sup> .....	842	140	286	6,110	591	13,346	57	654	12,635	1,277
Paper, or paper and pulp.....	241	85	174	4,092	405	6,752	38	264	6,450	668
Printing and publishing <sup>1</sup> .....	2,620	147	294	2,114	176	6,722	18	333	6,371	550
Rubber and its products <sup>1</sup> .....	150	71	135	1,738	131	3,724	12	162	3,550	275
Stone, clay, and glass products <sup>1</sup> .....	1,342	167	323	6,422	681	14,942	150	475	14,317	1,714
Brick, tile, and terracotta.....	533	36	68	2,288	162	4,004	26	72	3,906	284
Glass.....	181	66	124	1,986	175	2,879	17	87	2,775	253
Textiles and their products <sup>1</sup> .....	3,320	748	1,360	14,154	995	32,026	67	1,202	30,757	2,154
Cotton goods.....	481	240	450	5,911	410	10,876	24	397	10,455	755
Woolen goods.....	330	106	194	2,314	162	3,333	12	137	3,184	233
Transportation equipment <sup>1</sup> .....	502	660	1,263	14,872	1,659	20,017	109	1,443	18,465	2,274
Motor vehicles and parts.....	270	460	848	7,748	855	8,523	40	648	7,835	941
Shipbuilding.....	65	63	134	2,795	379	4,807	41	342	4,424	653
Aircraft.....	49	102	207	3,040	275	4,225	18	236	3,971	382

<sup>1</sup> Includes data for industries not shown separately because of insufficient coverage upon which to base industry estimates.

time loss of 755,000 man-days, was far above any other industry in the group.

In the transportation-equipment group, the automobile industry dominated the picture. It accounted for about 8,500 injuries and a time loss of 941,000 days. In 1940 the very much smaller industries of shipbuilding and aircraft manufacture, however, accounted for about 4,800 and 4,200 injuries, respectively, and a time loss of 653,000 and 382,000 days.

### *Parts of Body Permanently Impaired*

The parts of body impaired in 8,509 permanent partial disability cases are shown as percentage distributions in table 5. The data are given by industry, and are based on the returns from 36,612 establishments which reported for 1940, 24,998 in manufacturing, and 11,614 in nonmanufacturing industries.

For the group as a whole—and this holds as well for each individual industry shown—by far the largest proportion of permanent impairments involved fingers or the hand. For the entire group such impairments amounted to 77 percent. In tinware production, fully 95 percent of all permanent partial injuries were to fingers or the hand. In stamped and pressed metal products, the percentage was 94; in confectionery, 91; in enameling and galvanizing, 91; in wooden furniture, 92; woolen goods, 93; motor-vehicle parts, 93; and in tobacco products, 92.

Finger and hand injuries were far less numerous, proportionately, in explosives manufacturing, but in this industry arm and leg impairments ranked high. The reason for this difference seems to lie in the nature of explosions.

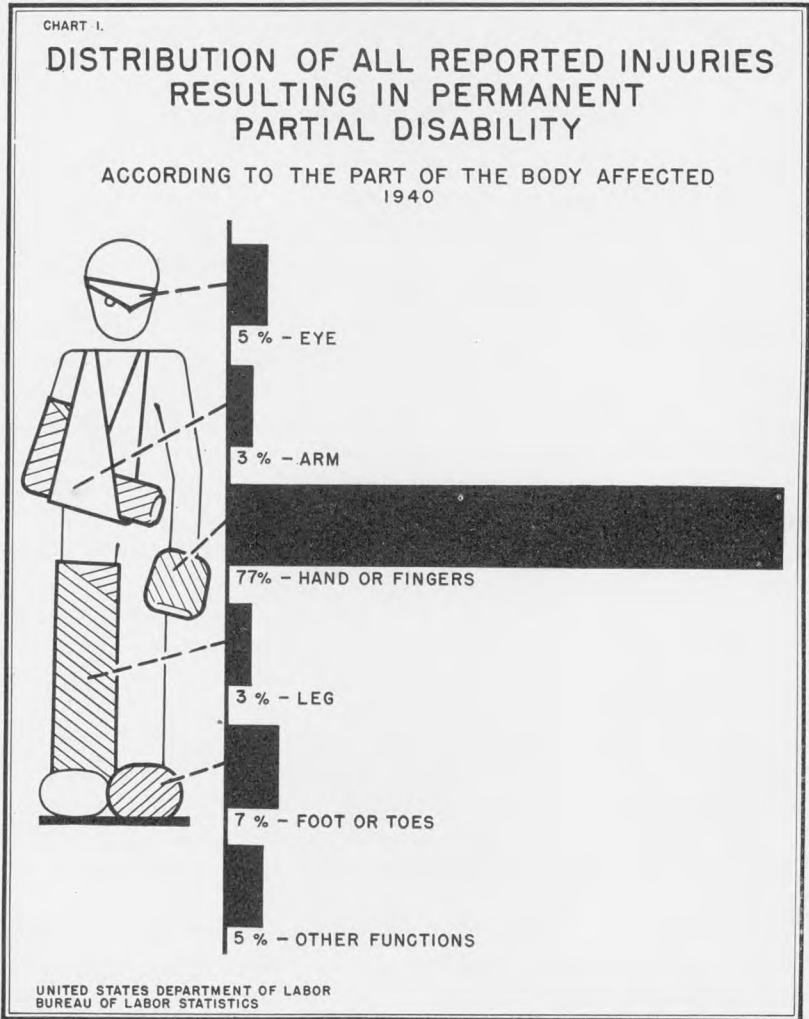
Logging also had a relatively low percentage of finger and hand injuries. It is indicative of the hazard of this industry, however, that leg injuries formed 14 percent of all permanent total disabilities. The same holds true for concrete, gypsum, and plaster products, for which hand and finger impairments accounted for 48 percent and leg and foot and toe injuries for 13 percent each.

In smelting and refining, hand and finger injuries barely exceeded half the total permanent impairments, but the proportion of foot or toe impairments was as high as 27 percent, exceeding that of every other manufacturing industry.

In the flour, feed, and other grain-mill products industry, 14 percent of all permanent impairments involved an arm. In addition to the explosives and concrete industries already noted, electric power and gas utilities had 11 percent of permanent impairments to arms, 14 percent to legs, 8 percent to the foot or toes, and 11 percent to eyes.

Other industries with high proportions of leg impairments are sugar refining, and brick, tile, and terra cotta, with 11 and 10 percent, respectively.

In the category of impairments to the eye, the cement industry led with 15 percent, followed by sugar refining with 14 percent, and



rayon and allied products with 13 percent. Other industries with high proportions of eye impairments were engaged in the production of fertilizers, soap, cutlery and edge tools, logging, construction and mining machinery, metalworking machinery, special-industry machinery, clothing, knit goods, and petroleum refining. In each

of these, eye impairments were at least 10 percent of all permanent partial disabilities.

Impairment of hearing occurred infrequently. Understandably, explosives led the list, with 20 percent of all impairments in this category. The cement industry followed with 4 percent, and steam fittings and apparatus, and shipbuilding, each with 2 percent.

TABLE 5.—Distribution of All Reported Injuries Resulting in Permanent Partial Disability, According to Part of Body Affected, by Industry, 1940

Industry	Total percent	Percent of permanent-partial disability cases involving the loss, or loss of use, of—						Other
		An arm	A hand or fingers	A leg	A foot or toes	An eye	One or both ears (hearing)	
<i>Manufacturing</i>								
Total, manufacturing.....	100	3	77	3	7	5	(1)	5
Chemical products.....	100	6	55	6	9	8	4	12
Explosives.....	100	14	25	17	8	3	20	13
Fertilizers.....	100	3	56	10	7	10	0	14
Paints and varnishes.....	100	10	50	3	17	7	0	13
Petroleum refining.....	100	3	56	2	12	10	0	17
Rayon and allied products.....	100	3	68	0	8	13	0	8
Soap.....	100	5	62	5	8	10	0	10
Not elsewhere classified.....	100	3	70	4	7	7	2	7
Food products.....	100	5	73	5	7	4	(1)	6
Baking.....	100	3	77	3	9	3	0	5
Canning and preserving.....	100	3	75	5	7	5	0	5
Confectionery.....	100	6	91	0	0	3	0	0
Flour, feed, and other grain-mill products.....	100	14	72	0	2	6	0	6
Slaughtering and meat packing.....	100	5	74	7	5	3	(1)	6
Sugar refining.....	100	0	48	11	22	14	0	5
Not elsewhere classified.....	100	0	72	6	11	8	0	3
Iron and steel and their products.....	100	2	79	2	8	5	(1)	4
Iron and steel.....	100	2	75	2	9	6	(1)	6
Cutlery and edge tools.....	100	0	80	4	0	12	0	4
Enameling and galvanizing.....	100	3	91	3	3	0	0	0
Fabricated structural steel.....	100	6	75	2	11	4	0	2
Forgings.....	100	2	82	0	7	9	0	0
Foundries.....	100	1	66	3	13	9	(1)	8
Hardware.....	100	3	82	0	5	6	0	4
Ornamental metalwork.....	100	0	68	8	12	4	0	8
Plumbers' supplies.....	100	2	81	2	4	4	0	7
Stamped and pressed metal products.....	100	1	94	1	2	1	0	1
Steam fittings and apparatus.....	100	5	60	9	17	5	2	2
Stoves and furnaces, not electric.....	100	0	87	0	5	7	0	1
Tinware.....	100	0	95	0	0	2	0	3
Tools, except edge tools.....	100	3	84	7	3	3	0	0
Wire and wire products.....	100	2	86	0	5	7	0	0
Not elsewhere classified.....	100	0	77	0	10	3	0	10
Leather and its products.....	100	5	76	2	5	2	0	10
Leather.....	100	8	70	2	8	4	0	8
Boots and shoes.....	100	2	81	2	3	0	0	12
Lumber, lumber products, and furniture.....	100	4	74	5	4	6	(1)	7
Logging.....	100	5	42	14	7	12	0	20
Planing mills.....	100	4	85	2	2	5	0	2
Sawmills.....	100	8	61	7	11	4	0	9
Furniture, except metal.....	100	1	92	1	1	4	(1)	1
Furniture, metal.....	100	0	86	2	2	5	0	5
Not elsewhere classified.....	100	2	83	4	2	5	0	4
Machinery (not transportation).....	100	2	80	2	6	6	0	4
Agricultural machinery and tractors.....	100	1	89	2	4	3	0	1
Construction and mining machinery.....	100	1	63	5	13	12	0	6

<sup>1</sup> Less than half of 1 percent.

TABLE 5.—Distribution of All Reported Injuries Resulting in Permanent Partial Disability, According to Part of Body Affected, by Industry, 1940—Continued

Industry	Total percent	Percent of permanent-partial disability cases involving the loss, or loss of use, of—						Other
		An arm	A hand or fingers	A leg	A foot or toes	An eye	One or both ears (hearing)	
<i>Manufacturing—Continued</i>								
<i>Machinery—Continued.</i>								
Electrical equipment and supplies .....	100	3	83	3	3	4	0	4
Food-products machinery .....	100	2	69	2	9	2	0	16
Metalworking machinery .....	100	1	79	0	9	10	0	1
Textile machinery .....	100	0	84	3	3	3	0	7
Special industry machinery, not elsewhere classified .....	100	6	63	2	11	12	0	6
General industrial machinery .....	100	2	84	1	6	3	0	4
Machinery, not elsewhere classified .....	100	1	74	3	4	7	0	11
<i>Paper and allied products .....</i>								
Paper .....	100	5	79	3	4	5	1	3
Paper .....	100	7	72	2	4	7	1	7
Pulp, or paper and pulp .....	100	7	76	5	4	5	0	3
Paper boxes .....	100	2	89	2	2	5	0	0
Not elsewhere classified .....	100	2	85	2	7	2	2	0
<i>Printing and publishing .....</i>								
Book and job .....	100	5	77	4	9	0	0	5
Book and job .....	100	9	74	4	9	0	0	4
News and periodical .....	100	0	78	5	10	0	0	7
<i>Rubber and its products .....</i>								
Rubber tires .....	100	7	86	1	3	0	0	3
Rubber tires .....	100	7	83	3	7	0	0	0
Rubber goods (other than tires) .....	100	7	89	0	0	0	0	4
<i>Stone, clay, and glass products .....</i>								
Brick, tile, and terra cotta .....	100	5	67	6	5	6	1	10
Brick, tile, and terra cotta .....	100	0	76	10	2	7	0	5
Cement .....	100	4	59	7	7	15	4	4
Glass .....	100	7	68	3	2	8	0	12
Concrete, gypsum, and plaster products .....	100	13	48	13	13	0	0	13
Not elsewhere classified .....	100	2	74	2	5	0	0	17
<i>Textiles and their products .....</i>								
Carpets and rugs .....	100	6	77	3	5	5	0	4
Carpets and rugs .....	100	6	63	3	11	3	0	14
Clothing .....	100	5	64	5	8	10	0	8
Cotton goods .....	100	6	80	3	5	5	0	1
Dyeing and finishing .....	100	8	68	2	12	2	0	8
Knit goods .....	100	6	71	6	6	11	0	0
Silk and rayon products, not elsewhere classified .....	100	8	76	4	0	8	0	4
Woolen goods .....	100	5	93	1	0	1	0	0
Not elsewhere classified .....	100	3	91	0	0	3	0	3
<i>Transportation equipment .....</i>								
Motor vehicles .....	100	3	79	2	7	6	1	2
Motor vehicles .....	100	3	82	1	6	7	(1)	1
Shipbuilding .....	100	4	75	4	7	6	2	2
Railroad equipment .....	100	4	67	1	13	7	0	8
Aircraft .....	100	3	79	4	9	4	0	1
Motor-vehicle parts .....	100	1	93	0	2	4	0	0
<i>Miscellaneous manufacturing .....</i>								
Miscellaneous manufacturing .....	100	4	73	2	11	4	0	6
Tobacco products .....	100	0	92	0	0	4	0	4
Radio and phonograph .....	100	0	87	2	4	7	0	0
Smelting and refining (nonferrous) .....	100	8	51	4	27	5	0	5
Nonferrous metal products .....	100	2	79	1	2	4	0	12
Miscellaneous manufacturing .....	100	4	92	0	2	0	0	2
<i>Nonmanufacturing</i>								
<i>Construction .....</i>								
Construction .....	100	8	61	4	10	12	0	5
<i>Public utilities:</i>								
Transportation—Streetcar and bus .....	100	7	63	7	13	10	0	0
Electric power and gas .....	100	11	53	14	8	11	0	3
<i>Personal services:</i>								
Laundry and dry cleaning .....	100	4	68	4	8	6	0	10
<i>Wholesale and retail trade .....</i>								
Wholesale and retail trade .....	100	5	73	5	5	6	0	6

<sup>1</sup> Less than half of 1 percent.



*Disability Distribution*

As was true of the comparison of identical manufacturing establishments for the years 1938 and 1939, the disability distribution for the manufacturing group as a whole showed no change from 1939 to 1940. Out of every 1,000 injuries, 6 were fatal in each year. Permanent partial impairments were slightly more numerous in 1940, with 57 out of every 1,000 injuries as against 55 in 1939. The average time charge per impairment was 982 days in 1940, and 981 in 1939. Similarly, the average time lost per temporary total disability was 17 days in each year.

Individual industries showed wider variations. As already pointed out, the explosives industry had the most adverse experience. Against 79 deaths per 1,000 injuries in 1939, there were 238 in 1940. The relative number of permanent impairments increased from 191 to 218, with the average time charge more than doubled, from 1,041 to 2,268 days. The duration per temporary disability, however, declined from 23 to 16 days.

The fertilizer industry had a slight decrease in the proportionate number of fatalities, 15 to 13, but a considerable increase in permanent impairments, 26 to 37. The average time charge per impairment, however, decreased from 2,050 to 1,376 days, pointing to a preponderance of less severe injuries. In petroleum refining, the proportion of fatalities rose 50 percent, or from 12 to 18 out of every 1,000 injuries. However, the proportion of permanent impairments declined from 94 to 81, with a decrease in the average time charge from 1,252 to 1,046 days.

The iron and steel industry, although showing a slight decrease (from 16 to 15) in the proportionate number of deaths, nevertheless had the highest number of fatalities per 1,000 injuries in the iron and steel products group. The proportion and average time charge for permanent impairments remained essentially the same for both 1940 and 1939. Although the average duration per temporary total disability decreased from 30 to 27 days, this figure is nevertheless above that of every other industry in this group. In fact, it exceeds every other manufacturing industry except cement, which averaged 48 days per case in 1940 as against 34 in 1939.

The cement industry also had a high proportion of fatalities—51 out of every 1,000 injuries as compared with 31 in the preceding year.

In the group of construction industries, there were 16 fatalities out of every 1,000 injuries in 1940 as against 10 in 1939. The proportionate number of permanent impairments, however, decreased from 29 to 19, but with an increase in the time charge per case from 1,123 to 1,354 days. The average duration per temporary disability decreased slightly, from 22 to 21 days.

An increase in the fatality proportion was found in each of the three types of construction. In building construction, deaths in-

creased from 9 to 13; in heavy engineering, from 14 to 20; and in highway construction, from 6 to 16. Only highway construction, however, had an increase in the proportion of permanent impairments, from 14 to 21. Both of the other types of construction experienced decreases. The average duration per temporary total disability decreased in building and highway construction—from 19 to 16 and 25 to 20, respectively—but in heavy engineering it increased from 25 to 31.

TABLE 6.—Disability Distribution per 1,000 Injuries, and Average Days Lost Per Disability for Identical Establishments, 1939 and 1940

Industry	Number per 1,000 injuries						Average days lost per disability			
	Death and permanent total disability <sup>1</sup>		Permanent partial disability		Temporary total disability		Permanent partial disability		Temporary total disability	
	1940	1939	1940	1939	1940	1939	1940	1939	1940	1939
<i>Manufacturing</i>										
Total, manufacturing <sup>2</sup> .....	6	6	57	55	937	939	982	981	17	17
Chemical products <sup>2</sup> .....	21	14	61	59	918	927	1,061	1,226	19	19
Druggist preparations.....	11	7	44	20	945	973	750	563	14	14
Explosives.....	238	79	218	191	544	730	2,268	1,041	16	23
Fertilizers.....	13	15	37	26	950	959	1,376	2,050	17	17
Paints and varnishes.....	5	8	55	31	940	961	1,225	1,477	18	15
Petroleum refining.....	18	12	81	94	901	894	1,046	1,252	23	23
Rayon and allied products.....	4	5	39	41	957	954	999	1,528	13	18
Soap.....	5	13	103	120	892	867	1,135	1,174	17	18
Not elsewhere classified.....	13	17	45	51	942	932	963	1,172	21	19
Food products <sup>2</sup> .....	7	3	43	40	950	957	1,039	892	17	16
Baking.....	7	5	53	57	940	938	1,125	683	19	18
Canning and preserving.....	3	( <sup>3</sup> )	22	27	975	973	861	916	15	15
Confectionery.....	0	3	46	37	954	960	792	603	15	14
Flour, feed, and other grain-mill products.....	5	4	42	30	953	966	1,277	1,291	20	16
Slaughtering and meat packing.....	2	3	60	56	938	941	1,154	983	14	14
Sugar refining.....	4	5	34	39	962	956	1,576	1,504	14	17
Not elsewhere classified.....	16	1	30	22	954	977	888	925	20	17
Iron and steel and their products <sup>2</sup> .....	9	10	80	75	911	915	837	837	21	22
Iron and steel.....	15	16	97	99	888	885	836	860	27	30
Cutlery and edge tools.....	3	6	60	34	937	960	1,179	718	15	15
Enameling and galvanizing.....	8	3	99	76	893	921	879	866	15	15
Fabricated structural steel.....	5	10	51	64	944	926	996	804	19	18
Forgings.....	0	3	36	65	964	932	691	524	17	18
Foundries.....	3	6	32	28	965	966	839	895	18	17
Hardware.....	8	4	87	83	905	913	696	653	15	13
Ornamental metalwork.....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1,147	860	15	15
Plumbers' supplies.....	6	10	62	55	932	935	723	801	15	16
Stamped and pressed metal products.....	2	3	178	104	820	893	578	762	15	14
Steam fittings and apparatus.....	7	4	43	37	950	959	1,361	1,371	19	19
Stoves and furnaces, not electric.....	4	4	53	50	943	946	773	629	16	14
Tinware.....	5	0	120	154	875	846	613	703	17	20
Tools, except edge tools.....	5	14	63	55	932	931	1,079	592	18	17
Wire and wire products.....	2	6	61	46	937	948	683	691	15	16
Not elsewhere classified.....	6	5	98	75	896	920	670	879	15	13
Leather and its products <sup>2</sup> .....	1	3	51	37	948	960	899	752	16	15
Leather.....	2	4	39	35	959	961	1,151	974	18	15
Boots and shoes.....	1	3	52	33	947	964	726	661	16	15
Not elsewhere classified.....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1,563	1,000	14	17
Lumber, lumber products, and furniture <sup>2</sup> .....	6	4	65	63	929	933	1,082	932	17	17
Logging.....	13	15	35	31	952	954	1,527	1,713	22	22
Planing mills.....	3	2	56	64	941	934	872	879	15	16
Sawmills.....	6	4	41	48	953	948	1,326	1,162	20	19
Furniture, except metal.....	5	3	114	82	881	915	818	664	13	15
Furniture, metal.....	0	0	81	95	919	905	829	665	14	14
Partitions, shelving, and fixtures.....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	570	688	23	19
Morticians' supplies.....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1,613	360	23	18
Not elsewhere classified.....	6	5	69	72	925	923	972	786	14	17

See footnotes at end of table.

TABLE 6.—Disability Distribution per 1,000 Injuries, and Average Days Lost per Disability for Identical Establishments, 1939 and 1940—Continued

Industry	Number per 1,000 injuries						Average days lost per disability			
	Death and permanent total disability <sup>1</sup>		Permanent partial disability		Temporary total disability		Permanent partial disability		Temporary total disability	
	1940	1939	1940	1939	1940	1939	1940	1939	1940	1939
<i>Manufacturing—Continued</i>										
Machinery (not transportation) <sup>2</sup> .....	3	5	70	80	927	915	771	787	16	17
Agricultural machinery and tractors.....	2	2	90	103	908	895	686	816	14	13
Construction and mining machinery.....	4	3	45	43	951	954	848	623	15	15
Electrical equipment and supplies.....	5	9	96	100	899	891	832	795	19	21
Food-products machinery.....	2	2	61	122	937	876	875	630	12	15
Metalworking machinery.....	1	0	37	62	962	938	616	867	14	15
Textile machinery.....	7	3	63	52	930	945	531	537	17	11
Special industry machinery, not elsewhere classified.....	6	5	60	85	924	910	992	927	16	18
General industrial machinery.....	3	4	50	68	947	928	790	793	15	15
Machinery, not elsewhere classified.....	0	6	93	73	907	921	742	799	12	14
Repair shops.....	(4)	(4)	(4)	(4)	(4)	(4)	750	488	19	18
Paper and allied products <sup>2</sup> .....	4	5	51	45	945	950	1,062	1,063	18	17
Pulp.....	(4)	(4)	(4)	(4)	(4)	(4)	1,408	904	18	21
Paper.....	5	5	30	36	965	959	1,151	1,180	19	18
Both paper and pulp.....	9	6	51	56	940	938	1,145	1,443	24	21
Paper boxes.....	4	2	66	37	930	961	898	955	17	14
Not elsewhere classified.....	2	6	65	67	933	927	898	755	14	16
Printing and publishing <sup>2</sup> .....	3	4	43	56	954	940	1,080	1,281	16	18
Book and job.....	1	4	51	68	948	928	1,078	1,093	16	15
News and periodical.....	6	4	41	32	953	964	1,082	1,100	15	17
Bookbinding.....	(4)	(4)	(4)	(4)	(4)	(4)	0	4,000	26	51
Rubber and its products <sup>2</sup> .....	4	4	39	53	957	943	869	999	18	19
Rubber tires.....	6	0	41	42	953	958	907	1,084	21	24
Rubber goods (other than tires).....	3	7	37	63	960	930	838	929	16	15
Stone, clay, and glass products <sup>2</sup> .....	12	14	36	34	952	952	1,074	1,145	20	17
Brick, tile, and terra cotta.....	7	8	19	18	974	974	858	1,154	15	14
Cement.....	51	31	147	168	802	801	1,015	1,820	48	34
Glass.....	5	6	32	23	963	971	1,170	1,085	19	17
Pottery.....	18	28	24	10	958	962	375	400	18	15
Concrete, gypsum, and plaster products.....	(4)	(4)	(4)	(4)	(4)	(4)	2,200	1,300	21	17
Cut stone and cut-stone products.....	(4)	(4)	(4)	(4)	(4)	(4)	467	725	12	10
Not elsewhere classified.....	(4)	(4)	(4)	(4)	(4)	(4)	875	1,520	16	18
Textiles and their products <sup>2</sup> .....	1	3	33	27	966	970	1,158	1,218	15	14
Carpets and rugs.....	6	3	79	109	915	888	1,086	951	18	17
Clothing—men's.....	0	1	29	19	971	980	1,146	994	14	12
Clothing—women's.....	(4)	(4)	(4)	(4)	(4)	(4)	1,686	2,150	13	12
Cotton goods.....	2	4	37	36	961	960	1,023	870	17	16
Dyeing and finishing.....	2	5	43	53	955	942	1,130	1,156	19	18
Knit goods.....	0	4	28	16	972	980	1,268	1,124	13	11
Silk and rayon products, not elsewhere classified.....	0	3	36	18	964	979	1,059	1,242	18	13
Woolen goods.....	4	3	39	47	957	950	844	1,174	18	19
Not elsewhere classified.....	4	3	34	23	962	974	834	1,013	15	16
Transportation equipment <sup>2</sup> .....	5	6	74	83	921	911	887	837	20	25
Motor vehicles.....	5	6	82	88	913	906	894	801	23	27
Shipbuilding.....	9	10	72	68	919	922	947	841	19	30
Railroad equipment.....	4	12	95	78	901	910	863	1,061	26	27
Aircraft.....	2	7	56	74	942	919	1,012	1,212	15	15
Motor-vehicle parts.....	4	2	60	89	936	909	613	582	14	18
Not elsewhere classified.....	3	3	50	32	947	965	859	1,009	15	17
Miscellaneous manufacturing <sup>2</sup> .....	5	5	77	78	918	917	891	730	15	15
Tobacco products.....	2	3	54	71	944	926	435	859	13	16
Radio and phonograph.....	0	3	121	124	879	873	885	632	13	15
Smelting and refining (nonferrous).....	6	6	88	71	906	923	1,276	1,244	22	21
Nonferrous metal products.....	1	4	89	111	910	885	809	694	13	12
Coke ovens.....	74	70	64	85	862	845	700	983	41	51
Miscellaneous manufacturing.....	2	2	65	52	933	946	985	556	14	12

See footnotes at end of table.

TABLE 6.—Disability Distribution per 1,000 Injuries, and Average Days Lost per Disability for Identical Establishments, 1939 and 1940—Continued

Industry	Number per 1,000 injuries						Average days lost per disability			
	Death and permanent total disability <sup>1</sup>		Permanent partial disability		Temporary total disability		Permanent partial disability		Temporary total disability	
	1940	1939	1940	1939	1940	1939	1940	1939	1940	1939
<i>Nonmanufacturing</i>										
Construction.....	16	10	19	29	965	961	1,354	1,123	21	22
Building.....	13	9	20	35	967	956	1,459	1,221	16	19
Heavy engineering.....	20	14	16	33	964	953	893	830	31	25
Highway.....	16	6	21	14	963	980	1,577	1,539	20	25
Public utilities <sup>2</sup> .....	11	14	8	8	981	978	1,710	1,123	21	20
Communication—Telephone.....	8	9	3	3	989	988	1,600	300	19	21
Transportation.....	7	8	15	17	978	975	1,402	1,399	24	25
Streetcar.....	5	7	7	8	988	985	1,225	1,430	25	28
Bus.....	(4)	(4)	(4)	(4)	(4)	(4)	2,004	1,418	20	20
Both streetcar and bus.....	11	10	11	18	978	972	630	1,378	24	25
Not elsewhere classified.....	(4)	(4)	(4)	(4)	(4)	(4)	0	0	21	16
Electric power and gas.....	21	22	17	14	962	964	1,721	1,734	22	20
Electric light and power.....	24	30	16	15	960	955	1,960	1,728	21	21
Gas.....	(4)	(4)	(4)	(4)	(4)	(4)	450	2,525	16	18
Both electric and gas.....	17	14	18	14	965	972	1,702	1,585	23	20
Waterworks.....	(4)	(4)	(4)	(4)	(4)	(4)	4,000	0	26	20
Utilities, not elsewhere classified.....	(4)	(4)	(4)	(4)	(4)	(4)	1,900	1,800	26	18
Personal services <sup>2</sup> .....	1	2	15	26	984	972	948	634	21	25
Laundry and dry cleaning:										
Dry cleaning.....	(4)	(4)	(4)	(4)	(4)	(4)	850	980	17	15
Laundry.....	6	4	40	47	954	949	1,125	1,269	18	17
Both laundry and dry cleaning.....	4	7	20	26	976	967	1,485	682	15	16
Amusements.....	(4)	(4)	(4)	(4)	(4)	(4)	750	0	29	24
Hotels and eating and drinking places.....	(4)	(4)	(4)	(4)	(4)	(4)	1,050	450	17	16
Medical and other professional services.....	(4)	(4)	(4)	(4)	(4)	(4)	0	300	21	50
Not elsewhere classified.....	(4)	(4)	(4)	(4)	(4)	(4)	0	0	17	13
Business services <sup>2</sup> .....	24	24	27	0	949	976	515	0	34	18
Banks and other financial agencies.....	(4)	(4)	(4)	(4)	(4)	(4)	300	0	55	15
Insurance.....	(4)	(4)	(4)	(4)	(4)	(4)	0	0	28	13
Real estate.....	(4)	(4)	(4)	(4)	(4)	(4)	750	0	18	28
Not elsewhere classified.....	(4)	(4)	(4)	(4)	(4)	(4)	867	0	18	15
Educational services.....	(4)	(4)	(4)	(4)	(4)	(4)	0	0	22	12
Trade <sup>2</sup> .....	6	5	21	12	973	983	1,127	893	16	17
Wholesale distributors.....	8	7	27	2	965	991	1,338	300	15	15
Retail, general merchandise.....	8	5	5	5	987	990	2,150	2,150	16	21
Retail, food.....	8	0	31	6	961	994	568	300	20	18
Retail, automobiles.....	(4)	(4)	(4)	(4)	(4)	(4)	300	1,517	12	12
Filling stations.....	(4)	(4)	(4)	(4)	(4)	(4)	0	1,800	12	18
Retail, apparel and accessories.....	(4)	(4)	(4)	(4)	(4)	(4)	0	0	10	18
Retail, not elsewhere classified.....	6	10	34	38	960	952	634	863	18	19
Both wholesale and retail trade.....	11	0	11	21	978	979	1,300	713	21	18
Transportation and warehousing—commodities.....	6	10	12	10	982	980	1,425	450	19	17
Trucking and hauling.....	(4)	(4)	(4)	(4)	(4)	(4)	900	450	18	16
Warehousing and storage.....	(4)	(4)	(4)	(4)	(4)	(4)	0	0	22	14
Pipe lines (except natural gas).....	(4)	(4)	(4)	(4)	(4)	(4)	3,000	0	28	28

<sup>1</sup> Each death or permanent total disability is charged with a time loss of 6,000 days.

<sup>2</sup> Data weighted by employment for manufacturing industries as shown by Census of Manufactures, 1939, and computed for 1940 by means of Bureau of Labor Statistics indexes of employment, and for non-manufacturing industries by Bureau of Labor Statistics employment data.

<sup>3</sup> Less than 0.5.

<sup>4</sup> Computations not given because of small number of injuries.

### Trend of Disabling Injuries in Manufacturing Industries

In the accident survey by the Bureau of Labor Statistics for 1939<sup>2</sup> index numbers were presented for the trend in the frequency rates of disabling injuries in manufacturing, beginning with 1926. Some

<sup>2</sup> See footnote 1, p. 329.

difficulty was experienced in the development of that index because of the constantly changing composition of the reporting sample, as well as the considerable expansion in the number of reporting establishments and industries covered.

To meet this problem more adequately, the index numbers for the last few years—during which most of the expansion occurred—were reworked on a different basis. Because of the adequate size of the sample, it was assumed that it was representative for each year surveyed. For each year two sets of data were available for comparison—with the preceding year, and with the following year for identical establishments in each set of 2 years. In the 1939 report the larger of the two samples for each year was taken as the more representative, and the frequency rates were related back to those of 1926 as a fixed base.

A somewhat different course was followed in 1940. Beginning with the data for 1937, the percent of change was computed for each year from the identical sample for the preceding year. The percentage change was then applied to the index number of the preceding year to yield the index number for the later year.

On the basis of this procedure, the index number for 1940 stood at 75.3 as against 73.4 for 1939. The index number for deaths (including a small number of permanent total disabilities), remained unchanged at 71.4. For permanent partial impairments, however, the index advanced from 80.7 to 84.8, and for temporary totals, from 73.9 to 75.6. All of these index figures are based on frequency rates, which measure the average number of disabilities per million employee-hours worked.

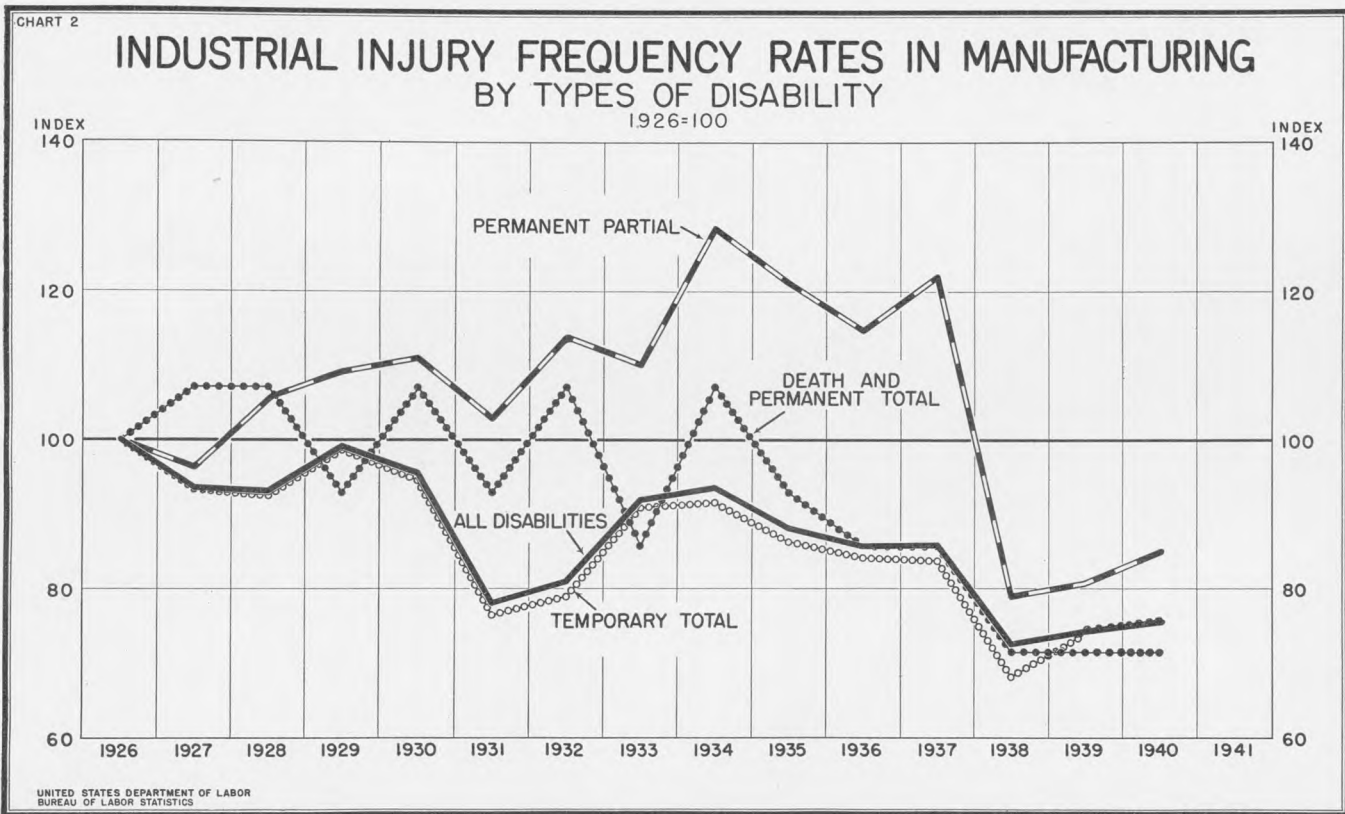
The trend of the various types of disabilities is shown in table 7, and graphically in chart 2.

TABLE 7.—*Indexes of Injury Frequency Rates in Manufacturing, 1926–40, by Extent of Disability*<sup>1</sup>

[1926=100]

Year	All injuries	Death and permanent total	Permanent partial	Temporary total
1926	100.0	100.0	100.0	100.0
1927	93.6	107.1	96.3	93.3
1928	93.2	107.1	104.6	92.5
1929	99.2	92.9	109.2	98.7
1930	95.5	107.1	111.0	94.6
1931	78.0	92.9	102.8	76.5
1932	80.9	107.1	113.8	78.9
1933	91.8	85.7	110.1	90.8
1934	93.6	107.1	128.4	91.6
1935	88.1	92.9	121.1	86.2
1936	85.7	85.7	114.7	84.1
1937	85.8	85.7	122.0	83.7
1938	71.7	71.4	78.9	68.1
1939	73.4	71.4	80.7	73.9
1940	75.3	71.4	84.8	75.6

<sup>1</sup> Beginning with 1937, the indexes are based on the percent of change of the frequency rates for identical establishments in each pair of successive years.



# *Defense Activities and Conditions*

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## SHIFT OPERATIONS IN SELECTED DEFENSE INDUSTRIES, MARCH 1941<sup>1</sup>

### *Summary*

THE great majority of plants in key defense industries were operating more than one shift per day during March 1941, according to a survey of 587 plants employing 618,232 wage earners. The bulk of the operations in these plants, however, was being carried out on one main shift, where nearly three-fourths of the total wage earners were employed. Nearly two-thirds of the reported wage earners worked overtime during the week surveyed, with an average of nearly 10 hours per overtime worker.

The survey, conducted by the Bureau of Labor Statistics at the request of the Office of Production Management, covered shift operations and extent of overtime during the midweek of March 1941. The industries included in the survey were aluminum manufactures; ammunition; brass, bronze, and copper products; chemicals; electrical machinery, apparatus, and supplies; engines (other than aircraft); explosives; firearms; machine tools; machine-tool accessories; shipbuilding; and smelting and refining.

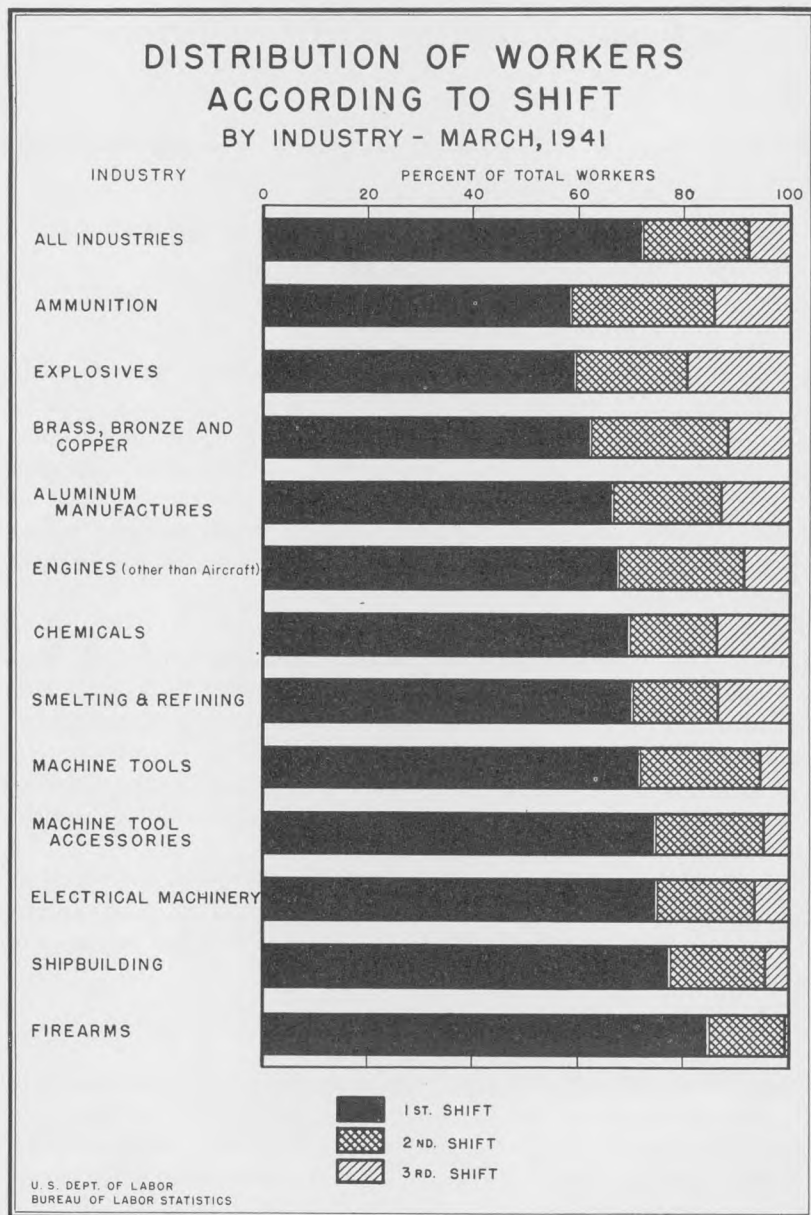
The plants included in the survey account for well over half the employment in the industries they represent. Mail questionnaires were sent to approximately 700 plants, from which 587 replies were received in time for inclusion in this summary.

### *Shift Operations*

More than half of the reporting establishments were operating with some workers on each of three shifts per day and an additional 177 plants were on a 2-shift schedule. The 72 plants running a single shift employed less than 5 percent of the total number of wage earners in all the surveyed plants.

Comparatively few of the multishift plants have built up their second or third shifts to the point where maximum utilization of their facilities is being achieved. In many plants the added shifts were being used to balance production and to make necessary repairs to equipment. The distribution of workers in all the plants showed 72

<sup>1</sup> Prepared by Morris Levine of the Bureau's Employment Statistics Division, under the direction of Lewis E. Talbert, Chief.



percent employed on the first shift, 20 percent on the second shift, and 8 percent on the third shift.

In the industries where continuous processes are employed, practically all of the plants were operating 3 shifts per day. In smelting and refining, for instance, all 39 of the reporting plants were on a 3-shift schedule. In chemicals, 87 of the 89 plants reported 3-shift



operations, and in brass, bronze, and copper, 41 of the 48 plants were operating 3 shifts per day.

In the machine-tool and machine-tool-accessories industries, the difficulties in obtaining sufficient numbers of skilled workers have resulted in the widespread use of 2-shift schedules with overtime, rather than the adoption of a third shift. In these two industries, many of the 2-shift plants reported their wage earners working as much as 20 to 25 hours of overtime per week.

The highest ratio of workers employed on other than the main shift was reported by plants in the ammunition, explosives, and brass, bronze, and copper products industries. In each of these industries, over 35 percent of the wage earners were employed on the added shifts. In private shipyards and in firearms plants, less than 25 percent of the total force was employed outside the main shift.

The following table shows the distribution of workers, by industry, according to shift.

TABLE 1.—Distribution of Employment According to Shifts, by Industry, March 1941

Industry and shift schedule	Number of plants	First shift		Second shift		Third shift	
		Number of wage earners	Per cent of total	Number of wage earners	Per cent of total	Number of wage earners	Per cent of total
All industries.....	587	445,838	72.1	123,424	20.0	48,964	7.9
Plants working 1 shift.....	72	19,559	100.0				
Plants working 2 shifts.....	177	99,598	81.5	22,538	18.5		
Plants working 3 shifts.....	338	326,681	68.5	100,886	21.2	48,964	10.3
Aluminum manufactures.....	22	9,648	66.5	2,986	20.6	1,876	12.9
Plants working 1 shift.....	3	652	100.0				
Plants working 2 shifts.....	6	1,183	84.4	218	15.6		
Plants working 3 shifts.....	13	7,813	62.7	2,768	22.2	1,876	15.1
Ammunition.....	10	(1)	58.4	(1)	27.4	(1)	14.2
Plants working 1 shift.....	3	(1)	100.0				
Plants working 2 shifts.....	3	(1)	75.0	(1)	25.0		
Plants working 3 shifts.....	4	(1)	54.8	(1)	28.7	(1)	16.5
Brass, bronze, and copper products.....	48	40,418	62.2	16,906	26.0	7,672	11.8
Plants working 1 shift.....	2	790	100.0				
Plants working 2 shifts.....	5	3,075	84.4	570	15.6		
Plants working 3 shifts.....	41	36,533	60.3	16,336	27.0	7,672	12.7
Chemicals.....	89	36,645	69.9	8,674	16.5	7,121	13.6
Plants working 1 shift.....	1	825	100.0				
Plants working 2 shifts.....	1	232	97.1	7	2.9		
Plants working 3 shifts.....	87	35,588	69.3	8,667	16.9	7,121	13.8
Electrical machinery, apparatus, and supplies.....	124	155,327	74.9	38,411	18.5	13,674	6.6
Plants working 1 shift.....	17	8,626	100.0				
Plants working 2 shifts.....	32	17,092	84.2	3,202	15.8		
Plants working 3 shifts.....	75	129,615	72.6	35,209	19.7	13,674	7.7
Engines (other than aircraft).....	14	12,332	67.7	4,257	23.4	1,615	8.9
Plants working 1 shift.....	1	824	100.0				
Plants working 2 shifts.....	3	1,528	79.7	389	20.3		
Plants working 3 shifts.....	10	9,980	64.5	3,868	25.0	1,615	10.5
Explosives.....	32	(1)	59.3	(1)	21.0	(1)	19.7
Plants working 1 shift.....	18	(1)	100.0				
Plants working 2 shifts.....	3	(1)	87.4	(1)	12.6		
Plants working 3 shifts.....	11	(1)	49.1	(1)	25.6	(1)	25.3
Firearms.....	8	(1)	84.7	(1)	15.2	(1)	.1
Plants working 1 shift.....	1	(1)	100.0				
Plants working 2 shifts.....	6	(1)	83.7	(1)	16.3		
Plants working 3 shifts.....	1	(1)	86.7	(1)	11.8	(1)	1.5
Machine tools.....	109	51,806	71.8	16,509	22.8	3,928	5.4
Plants working 1 shift.....	9	1,856	100.0				
Plants working 2 shifts.....	70	30,452	79.3	7,961	20.7		
Plants working 3 shifts.....	30	19,588	61.1	8,548	26.7	3,928	12.2

<sup>1</sup> Employment figures in these industries are not published. Data are available under pledge of confidence to Federal Government agencies and to presidents of the reporting companies.

TABLE 1.—Distribution of Employment According to Shifts, by Industry, March 1941—Continued

Industry and shift schedule	Number of plants	First shift		Second shift		Third shift	
		Number of wage earners	Per cent of total	Number of wage earners	Per cent of total	Number of wage earners	Per cent of total
Machine-tool accessories.....	33	7,799	74.8	2,116	20.3	508	4.9
Plants working 1 shift.....	4	564	100.0				
Plants working 2 shifts.....	19	5,511	81.1	1,281	18.9		
Plants working 3 shifts.....	10	1,724	56.2	835	27.2	508	16.6
Shipbuilding.....	59	86,738	77.5	20,352	18.2	4,772	4.3
Plants working 1 shift.....	13	2,961	100.0				
Plants working 2 shifts.....	29	28,684	81.7	6,428	18.3		
Plants working 3 shifts.....	17	55,093	74.7	13,924	18.9	4,772	6.4
Smelting and refining.....	39	17,041	70.3	3,959	16.3	3,239	13.4
Plants working 1 shift.....	0						
Plants working 2 shifts.....	0						
Plants working 3 shifts.....	39	17,041	70.3	3,959	16.3	3,239	13.4

A wide variance in the distribution of wage earners between shifts was evident among the 338 plants operating 3 shifts per day. In 28 of these plants, employing 31,376 workers, over half of the workers were employed on other than the first shift and in 62 additional plants, with 79,295 workers, between 40 and 50 percent of the plant force were occupied on the added shifts. In contrast, 64 plants employing 88,860 workers on 3-shift schedules had 80 percent or more of their workers on the main shift.

In the group of plants reporting the heaviest second- and third-shift schedules, which is made up of producers of chemicals, explosives, brass, bronze, and copper products, and machine tools, shift employment was distributed in about a 5:3:2 ratio. Approximately half the workers were employed outside the main shift.

The distribution of all 3-shift plants according to the percentage of workers on the added shifts is shown in the following table.

TABLE 2.—Distribution of 3-Shift Plants According to Percentage of Workers on Added Shifts

3-shift plants	Number of plants	First shift		Second shift		Third shift	
		Number of wage earners	Percent of total	Number of wage earners	Percent of total	Number of wage earners	Percent of total
Total.....	338	326,681	68.5	100,886	21.2	48,964	10.3
Plants with less than 20 percent of wage earners on added shifts.....	64	75,560	85.1	10,159	11.4	3,141	3.5
Plants with from 20 to 30 percent of wage earners on added shifts.....	92	114,346	73.6	28,237	18.2	12,852	8.2
Plants with from 30 to 40 percent of wage earners on added shifts.....	92	80,033	65.8	29,278	24.1	12,254	10.1
Plants with from 40 to 50 percent of wage earners on added shifts.....	62	42,622	53.8	22,918	28.9	13,755	17.3
Plants with 50 percent of wage earners or over on added shifts.....	28	14,120	45.0	10,294	32.8	6,962	22.2

Among the 177 plants operating on a 2-shift basis, only 29 were employing as many as 30 percent of their total plant force on the second shift. The majority of the 2-shift plants were running a second shift with less than 20 percent of their total workers.

The maximum shift ratio being practiced to any extent by 2-shift plants was 65:35; that is, 35 workers on the second shift to every 65 on the main shift. Most of the plants operating on this ratio were found in the machine-tool, shipbuilding, and electrical-machinery industries. In general, 2-shift machine-tool plants were operating their second shifts at the highest level of any of the surveyed industries. These 2-shift machine-tool plants were also running the heaviest overtime schedules.

The distribution of 2-shift plants according to the percentage of workers employed on the second shift is shown in the following table.

TABLE 3.—Distribution of 2-Shift Plants According to Percentage of Workers on Second Shift

2-shift plants	Number of plants	First shift		Second shift	
		Number of wage earners	Percent of total	Number of wage earners	Percent of total
Total.....	177	99,598	81.5	22,538	18.5
Plants with less than 10 percent of wage earners on second shift.....	34	17,778	93.5	1,231	6.5
Plants with from 10 to 20 percent of wage earners on second shift.....	71	49,178	84.5	9,007	15.5
Plants with from 20 to 30 percent of wage earners on second shift.....	43	22,821	76.3	7,101	23.7
Plants with from 30 to 40 percent of wage earners on second shift.....	29	9,821	65.4	5,199	34.6

### Extent of Week-End Shut-Down

Operations in the 587 reporting plants dropped to about three-fifths of the weekday level on the Saturday of the week surveyed and to about one-tenth on Sunday as measured by the number of persons at work on those days. (See table 4.) Although only 89 of the 587 plants shut down completely over the week end, many other plants operated with skeleton forces, using the week end to make necessary repairs and to operate "bottleneck" departments.

The highest ratio of operations over the week end occurred in smelting and refining plants, where approximately three-fourths of the wage earners were at work on Saturday and slightly more than half on Sunday. In chemical-manufacturing plants, almost half the workers were employed on Saturday and one-third on Sunday. In these two industries, staggered shifts are widely used, in order to attain continuous operation without lengthening the workweek of the individual worker. Machine-tool and machine-tool-accessories plants came closest to achieving full 6-day operation. In machine tools, 88

percent of the wage earners were at work on Saturday and in accessories plants 79 percent were at work on Saturday.

Sunday operations were negligible in machine-tools, machine-tool-accessories, electrical-machinery, firearms, and ammunition plants, where only 5 percent or less of the total number of wage earners were at work on that day.

TABLE 4.—Number of Plants Operating and Number of Wage Earners at Work, by Days and by Industry, March 1941

Industry and work schedule	Number of plants operating	Number of wage earners at work	Percent of total wage earners	Industry and work schedule	Number of plants operating	Number of wage earners at work	Percent of total wage earners
All industries:				Engines—Continued.			
Monday through Friday	587	618, 226	100.0	Saturday	13	13, 683	75.2
Saturday	499	372, 831	60.3	Sunday	10	2, 359	13.0
Sunday	308	63, 891	10.3	Explosives:			
Aluminum manufactures:				Monday through Friday	32	( <sup>1</sup> )	100.0
Monday through Friday	22	14, 510	100.0	Saturday	19	( <sup>1</sup> )	57.6
Saturday	18	6, 646	45.8	Sunday	17	( <sup>1</sup> )	51.0
Sunday	10	2, 314	19.4	Firearms:			
Ammunition:				Monday through Friday	8	( <sup>1</sup> )	100.0
Monday through Friday	10	( <sup>1</sup> )	100.0	Saturday	7	( <sup>1</sup> )	74.3
Saturday	8	( <sup>1</sup> )	74.9	Sunday	2	( <sup>1</sup> )	.3
Sunday	4	( <sup>1</sup> )	4.2	Machine tools:			
Brass, bronze, and copper products:				Monday through Friday	109	72, 333	100.0
Monday through Friday	48	64, 996	100.0	Saturday	109	63, 645	88.0
Saturday	40	37, 934	58.4	Sunday	29	3, 168	4.4
Sunday	25	4, 416	6.8	Machine-tool accessories:			
Chemicals:				Monday through Friday	33	10, 423	100.0
Monday through Friday	89	52, 440	100.0	Saturday	30	8, 229	79.0
Saturday	85	24, 960	47.6	Sunday	13	534	5.1
Sunday	83	16, 393	31.3	Shipbuilding:			
Electrical machinery:				Monday through Friday	59	111, 862	100.0
Monday through Friday	124	207, 412	100.0	Saturday	47	68, 437	61.2
Saturday	84	101, 806	49.1	Sunday	32	9, 558	8.5
Sunday	45	6, 271	3.0	Smelting and refining:			
Engines:				Monday through Friday	39	24, 239	100.0
Monday through Friday	14	18, 204	100.0	Saturday	39	17, 780	73.4
				Sunday	38	12, 989	53.6

<sup>1</sup> Employment figures in these industries are not published. Data are available under pledge of confidence to Federal Government agencies and to presidents of the reporting companies.

Saturday operations were reported by 499 of the 587 reporting establishments. Of these 499 plants, 108 had a full force at work on Saturday and 112 others were operating with at least 80 percent as many wage earners on Saturday as on other days of the week. Almost half of these plants reporting maximum Saturday operations were in the machine-tool and machine-tool-accessories industries.

Many other plants, however, had only a small part of their workers at work on Saturday of the week surveyed. In 66 of the surveyed plants, less than 20 percent of the wage earners were at work on Saturday, and in 56 additional plants, less than 40 percent of the workers were at work on that day. Of these plants reporting low levels of operation on Saturday, a larger number were manufacturing electrical machinery, apparatus, and supplies, and were not engaged in primary defense production.

The distribution of the plants operating on Saturday according to percentage of plant force at work on that day is shown the table 5.

TABLE 5.—Distribution of Plants Operating on Saturday According to Percentage of Workers at Work

Plants operating on Saturday	Number of plants	Wage earners		
		Number at work Monday to Friday	Number at work on Saturday	Percent of total at work on Saturday
Total.....	499	570, 285	372, 831	65. 4
Plants with less than 20 percent of wage earners at work on Saturday.....	66	47, 227	4, 350	9. 2
Plants with from 20 to 40 percent of wage earners at work on Saturday.....	56	86, 767	26, 683	30. 8
Plants with from 40 to 60 percent of wage earners at work on Saturday.....	73	85, 408	42, 708	50. 0
Plants with from 60 to 80 percent of wage earners at work on Saturday.....	84	126, 782	91, 104	71. 9
Plants with from 80 to 99.99 percent of wage earners at work on Saturday.....	112	141, 528	125, 413	88. 6
Plants with 100 percent of wage earners at work on Saturday.....	108	82, 573	82, 573	100. 0

Although 308 of the 587 plants were in operation on Sunday of the surveyed week, only a small number had an appreciable percentage of their force at work on that day. In many of the plants, production is confined to 6 days per week and Sunday is used to make necessary repairs and to relieve bottlenecks. Thus, in 124 of the 308 plants, the force working on Sunday was less than 10 percent as large as the regular force. Only 22 plants were employing 70 percent as many workers on Sunday as on weekdays and these, in most cases, were continuous-process plants.

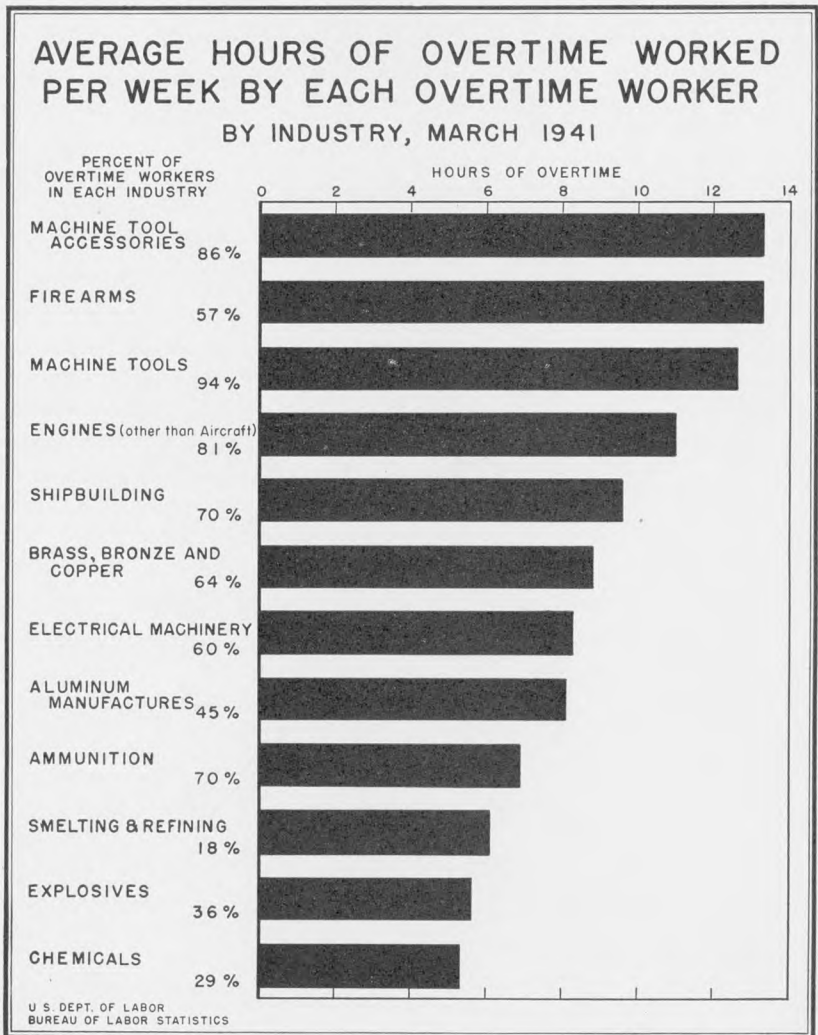
The following table shows the distribution of all plants operating on Sunday according to the percentage of their workers employed on that day.

TABLE 6.—Distribution of Plants Operating on Sunday According to Percentage of Workers at Work

Plants operating on Sunday	Number of plants	Wage earners		
		Number at work Monday to Friday	Number at work on Sunday	Percent of total
Total.....	308	363, 771	63, 891	17. 6
Plants with less than 10 percent of wage earners at work on Sunday.....	124	195, 079	8, 840	4. 5
Plants with from 10 to 20 percent of wage earners at work on Sunday.....	46	56, 502	8, 500	15. 0
Plants with from 20 to 30 percent of wage earners at work on Sunday.....	31	42, 411	10, 705	25. 2
Plants with from 30 to 40 percent of wage earners at work on Sunday.....	29	25, 508	8, 619	33. 8
Plants with from 40 to 50 percent of wage earners at work on Sunday.....	25	15, 422	6, 883	44. 6
Plants with from 50 to 60 percent of wage earners at work on Sunday.....	16	10, 417	5, 640	54. 1
Plants with from 60 to 70 percent of wage earners at work on Sunday.....	15	7, 030	4, 476	63. 7
Plants with from 70 to 80 percent of wage earners at work on Sunday.....	5	2, 214	1, 647	74. 4
Plants with from 80 to 90 percent of wage earners at work on Sunday.....	5	2, 370	2, 037	85. 9
Plants with from 90 to 99.99 percent of wage earners at work on Sunday.....	6	4, 960	4, 686	94. 5
Plants with 100 percent of wage earners at work on Sunday.....	6	1, 858	1, 858	100. 0

## Overtime

More than 60 percent of the workers, or 372,500 employees, in the reporting establishments worked overtime during the midweek of March 1941. These overtime workers accumulated an aggregate of



approximately 3,650,000 hours of overtime during the week, an average of 9.8 hours per worker. These overtime hours represent the equivalent working time of more than 91,000 additional employees at 40 hours per week.

The greatest amount of overtime was worked in machine-tool and machine-tool-accessories plants, where practically all of the wage earners averaged more than 12 hours of overtime during the week. In firearms plants, 57 percent of the workers averaged over 13 hours of overtime. In engine (other than aircraft) plants, private shipyards, electrical machinery, brass-bronze-copper, and aluminum establishments, overtime averaged between 8 and 11 hours per overtime worker.

The smallest amount of overtime was reported by plants manufacturing explosives and chemicals and in smelting and refining plants. In these industries, many of the plants were operating continuously, 3 shifts per day, 7 days per week, with the use of staggered shifts and the consequent minimizing of overtime.

Only 36 of the 587 plants surveyed reported no overtime worked during the week. The accompanying chart shows the extent of overtime in March 1941, by industry.

### *Comparison with Operations in December 1940*<sup>2</sup>

A measurement of the progress which has been made in defense production between December 1940 and March 1941 is afforded through a comparison of the operations of 363 plants for which data are available for both periods.

During this interval, employment in these plants increased by 62,350, or 13.9 percent. Approximately half of this increase was accomplished by the addition of workers on the second and third shifts, thereby raising the percentage of all the wage earners working on the second and third shifts by about 2 percent.

Changes in shift schedules between December and March resulted in a net addition of 10 plants running 3 shifts and a consequent reduction in the number operating either 1 or 2 shifts.

The most marked increases in the percentage of total employees working on the second and third shifts occurred in explosives, machine-tools, and machine-tool-accessories plants, where the ratio of workers on other than the main shift was raised by 4 percent or more.

A comparison of the distribution of employment by shift in December 1940 and March 1941 in the surveyed industries is shown in the following table.

<sup>2</sup> A similar survey was made in December 1940, covering 394 plants in 11 industries. The chemicals industry was not surveyed in December. A summary of the December survey appeared in the March 1941 issue of the Monthly Labor Review.

TABLE 7.—Comparison of Employment by Shift in December 1940 and March 1941, by Industry

Industry and shift schedule	Number of plants		First shift				Second shift				Third shift			
			December 1940		March 1941		December 1940		March 1941		December 1940		March 1941	
	Decem-ber 1940	March 1941	Number of wage earners	Per cent of total	Number of wage earners	Per cent of total	Number of wage earners	Per cent of total	Number of wage earners	Per cent of total	Number of wage earners	Per cent of total	Number of wage earners	Per cent of total
All industries...	363	363	333,403	74.5	370,266	72.6	84,261	18.8	102,211	20.0	30,180	6.7	37,724	7.4
1-shift plants.	55	47	19,215	100.0	14,860	100.0	---	---	---	---	---	---	---	---
2-shift plants.	104	102	70,754	83.1	76,112	81.1	14,393	16.9	17,705	18.9	---	---	---	---
3-shift plants.	204	214	243,434	70.9	279,294	69.6	69,868	20.3	84,506	21.0	30,180	8.8	37,724	9.4
Aluminum manufactures.	14	14	9,022	64.6	8,619	65.8	3,069	22.0	2,732	20.8	1,865	13.4	1,759	13.4
1-shift plants.	1	2	307	100.0	594	100.0	---	---	---	---	---	---	---	---
2-shift plants.	5	2	1,824	85.2	613	89.6	318	14.8	71	10.4	---	---	---	---
3-shift plants.	8	10	6,891	59.9	7,412	62.6	2,751	23.9	2,661	22.5	1,865	16.2	1,759	14.9
Ammunitions.	10	10	(1)	64.2	(1)	58.4	(1)	22.3	(1)	27.4	(1)	13.5	(1)	14.2
1-shift plants.	3	3	(1)	100.0	(1)	100.0	---	---	---	---	---	---	---	---
2-shift plants.	3	3	(1)	73.4	(1)	75.0	(1)	26.6	(1)	25.0	---	---	---	---
3-shift plants.	4	4	(1)	61.0	(1)	54.8	(1)	22.8	(1)	28.7	(1)	16.2	(1)	16.5
Brass, bronze, and copper products.	45	45	35,647	64.8	37,240	62.8	13,448	24.5	15,136	25.5	5,893	10.7	6,899	11.7
1-shift plants.	5	3	1,655	100.0	1,060	100.0	---	---	---	---	---	---	---	---
2-shift plants.	5	5	3,138	90.6	3,075	84.4	324	9.4	570	15.6	---	---	---	---
3-shift plants.	35	37	30,854	61.9	33,105	60.7	13,124	26.3	14,566	26.7	5,893	11.8	6,899	12.6
Electrical machinery.	117	117	138,105	77.7	152,075	75.1	29,750	16.7	37,022	18.3	9,883	5.6	13,296	6.6
1-shift plants.	19	13	10,736	100.0	7,539	100.0	---	---	---	---	---	---	---	---
2-shift plants.	25	32	12,408	84.2	17,092	84.2	2,330	15.8	3,202	15.8	---	---	---	---
3-shift plants.	73	72	114,961	75.5	127,444	73.0	27,420	18.0	33,820	19.4	9,883	6.5	13,296	7.6
Engines (other than aircraft).	14	14	9,480	64.4	12,332	67.6	3,781	25.6	4,257	23.4	1,469	10.0	1,640	9.0
1-shift plants.	1	1	773	100.0	824	100.0	---	---	---	---	---	---	---	---
2-shift plants.	3	2	1,763	83.5	971	75.6	348	16.5	314	24.4	---	---	---	---
3-shift plants.	10	11	6,953	58.6	10,537	65.4	3,433	29.0	3,943	24.4	1,469	12.4	1,640	10.2
Explosives.	23	23	(1)	80.2	(1)	72.2	(1)	11.5	(1)	14.7	(1)	8.3	(1)	13.1
1-shift plants.	14	15	(1)	100.0	(1)	100.0	---	---	---	---	---	---	---	---
2-shift plants.	2	1	(1)	83.2	(1)	80.7	(1)	16.8	(1)	19.3	---	---	---	---
3-shift plants.	7	7	(1)	66.7	(1)	64.3	(1)	19.1	(1)	18.3	(1)	14.2	(1)	17.4
Firearms.	6	6	(1)	87.0	(1)	84.2	(1)	13.0	(1)	15.7	---	---	---	---
1-shift plants.	1	0	(1)	100.0	---	---	---	---	---	---	---	---	---	---
2-shift plants.	5	5	(1)	86.7	(1)	86.7	(1)	13.3	(1)	16.1	---	---	---	---
3-shift plants.	0	1	---	---	---	---	---	---	(1)	11.8	---	---	(1)	1.5
Machine tools.	39	39	29,884	74.8	31,729	71.4	8,204	20.5	10,328	23.2	1,855	4.7	2,395	5.4
1-shift plants.	2	1	970	100.0	757	100.0	---	---	---	---	---	---	---	---
2-shift plants.	26	25	19,252	81.7	20,721	78.8	4,299	18.3	5,566	21.2	---	---	---	---
3-shift plants.	11	13	9,662	62.7	10,251	58.9	3,905	25.3	4,762	27.3	1,855	12.0	2,395	13.8
Machine-tool accessories.	18	18	4,077	78.2	5,160	73.6	914	17.5	1,476	21.0	222	4.3	376	5.4
1-shift plants.	3	3	467	100.0	528	100.0	---	---	---	---	---	---	---	---
2-shift plants.	8	9	2,521	84.2	3,557	81.4	473	15.8	813	18.6	---	---	---	---
3-shift plants.	7	6	1,089	62.1	1,075	50.8	441	25.2	663	31.4	222	12.7	376	17.8
Shipbuilding.	41	41	69,599	78.7	81,313	77.2	15,735	17.8	19,398	18.4	3,148	3.5	4,665	4.4
1-shift plants.	5	6	1,109	100.0	1,827	100.0	---	---	---	---	---	---	---	---
2-shift plants.	22	18	19,997	81.7	19,605	79.9	4,494	18.3	4,936	20.1	---	---	---	---
3-shift plants.	14	17	48,493	77.1	59,881	75.8	11,241	17.9	14,462	18.3	3,148	5.0	4,665	5.9
Smelting and refining.	36	36	14,831	66.7	16,700	70.3	4,066	18.3	3,884	16.3	3,346	15.0	3,178	13.4
1-shift plants.	1	0	135	100.0	---	---	---	---	---	---	---	---	---	---
2-shift plants.	0	0	---	---	---	---	---	---	---	---	---	---	---	---
3-shift plants.	35	36	14,696	66.5	16,700	70.3	4,066	18.4	3,884	16.3	3,346	15.1	3,178	13.4

<sup>1</sup> Employment figures in these industries are not published. Data are available under pledge of confidence to Federal Government agencies and to presidents of reporting companies.



A greater amount of overtime was being worked during March 1941 than in December 1940 in the 363 plants. An additional 73,000 workers in these plants worked overtime in March and the average overtime per worker increased by one-half hour. The largest increase in weekly overtime took place in the machine-tool and machine-tool-accessories industries where the average amount of overtime increased by over 2 hours.

A comparison of overtime worked by industry is shown in the following table.

TABLE 8.—Comparison of Overtime in December 1940 and March 1941 in Identical Plants, by Industry

Industry	Percent of total wage earners working overtime		Average weekly hours of overtime per overtime worker	
	December 1940	March 1941	December 1940	March 1941
All industries.....	57.1	64.5	9.1	9.6
Aluminum manufactures.....	42.0	44.0	8.1	8.3
Ammunition.....	47.2	69.6	6.5	6.9
Brass, bronze, and copper products.....	60.6	65.5	9.1	8.8
Engines (other than aircraft).....	61.9	80.5	10.0	11.0
Electrical machinery.....	51.3	59.5	7.6	8.3
Explosives.....	34.2	38.7	10.8	7.2
Firearms.....	86.0	87.5	12.8	13.4
Machine tools.....	92.6	94.6	10.6	13.0
Machine-tool accessories.....	84.2	82.9	11.7	13.8
Shipbuilding.....	61.2	68.5	10.4	9.9
Smelting and refining.....	18.4	18.2	4.7	6.1



## SUSPENSION OF SATURDAY HALF HOLIDAYS IN CERTAIN FEDERAL SERVICES <sup>1</sup>

THE provisions of the Saturday Half-Holiday Act of March 3, 1931, were suspended by Executive order of July 5, 1941, in respect of (1) all civil employees of the War Department and its field services engaged in the performance of labor or duties in the Canal Zone, Puerto Rico, and the Territory of Alaska and (2) all civil employees of the Coast Guard and its field services engaged in the performance of labor or duties in Puerto Rico and the Territory of Alaska.

Authority for this action was granted by law of June 28, 1940, giving the President emergency power to suspend, in whole or in part, for the War and Navy Departments and for the Coast Guard and their field services, the provisions of the Saturday half-holiday legislation, "if in his judgment such course is necessary in the interest of national defense." Saturday half holidays were suspended for the duration of the national emergency declared by the President to exist on September 8, 1939.

<sup>1</sup> Federal Register for July 8, 1941.

## *Foreign Wartime Policies*

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### INCREASE IN MINIMUM WAGES ON CERTAIN CANADIAN GOVERNMENT CONTRACTS

UNDER an order in council dated May 30, 1941, minimum wage rates for employees on Canadian Government contracts for the manufacture of supplies have been increased from 30 to 35 cents per hour for men and from 20 to 25 cents per hour for women.<sup>1</sup>

Since December 1934 the cost of living has risen 14 percent, while the average rates of common labor in factories have risen approximately 20 percent. The minimum wage rates for workers on Government contracts, which were established under an amending order in council dated December 31, 1934 (P. C. 3271), can therefore no longer be regarded as fair and reasonable minimum rates; and a number of serious industrial controversies have developed over wage rates at or near the minima set forth in that order. Holding "that much industrial unrest would be allayed and many industrial disputes averted if these minimum rates were increased to more reasonable levels," the Governor General in Council ordered on May 30, 1941, an increase of 5 cents per hour in the minimum for both men and women working on contracts for the manufacture of supplies and equipment for the Federal Government.

The new rates are immediately effective for all new contracts. All existing contracts for the manufacture of supplies must be revised to conform with the new rates, such revision to become effective 10 days after written notice has been sent to concerns having Government contracts.

Heavy penalties are provided for failure to comply with the new wage schedule.

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### LOWERED LIVING STANDARDS IN DENMARK UNDER GERMAN OCCUPATION

THE official statistical bulletin of Denmark<sup>2</sup> has published statistical information in regard to economic conditions in Denmark for the years 1939-41,<sup>3</sup> showing some of the effects of the "new economic order" established in Denmark under German occupation.

<sup>1</sup> Canada Gazette Extra, No. 129, Ottawa, June 5, 1941.

<sup>2</sup> Statistiske Efterretninger, Copenhagen, Statistiske Departement, April 23 and May 6, 1941.

<sup>3</sup> Denmark was invaded in April 1940.

Indexes of industrial production, based on the year 1935 as 100, are shown below for the year 1939 and for March 1941.

	Indexes of production in—	
	1939	March 1941
Food.....	111	88
Textiles.....	117	96
Clothing.....	117	105
Leather.....	113	102
Woodworking.....	109	94
Stone, clay, and glass.....	99	48
Iron and metal.....	134	98
Printing trades and chemical industry.....	111	82
Total.....	117	89
Total, consumers' goods.....	112	89
Total, capital goods.....	125	88

Thus, the total production of consumers' goods fell off about one-fourth and that of capital goods more than one-third, during the first year of the new German order in Denmark. At the same time, production of animal products showed marked decreases. Table 1 shows indexes (based on 1935 as 100) for the first 3 months of 1941 as compared with the same period in 1939.

TABLE 1.—*Indexes of Production of Certain Animal Products in Denmark, 1939 and 1941*  
[1935=100]

Commodity	1939			1941		
	January	February	March	January	February	March
Milk.....	88	92	98	60	59	63
Beef and veal.....	107	143	118	92	86	60
Pork.....	97	98	101	65	61	60
Eggs.....	126	152	170	48	39	65

Family expenditures for specified items of living cost increased from April 1940 to April 1941, without corresponding increase in wages. The following figures show the increase in the cost of living:

TABLE 2.—*Amount and Indexes of Family Expenditures for Specified Groups of Commodities in Denmark, 1935 and April 1940 and 1941*

Expenditure group	Amount			Indexes (1935=100)	
	1935	April 1940	April 1941	April 1940	April 1941
All groups.....	Kroner 3, 428	Kroner 4, 434	Kroner 5, 262	129	154
Food.....	1, 121	1, 383	1, 806	123	161
Clothing, footwear, and washing.....	458	720	859	157	188
Housing (rent).....	450	500	507	111	113
Heat and light.....	164	346	359	211	219
Taxes and contingencies.....	479	564	701	118	146
Other expenditures.....	756	921	1, 030	122	136

Wholesale prices in Denmark almost doubled from 1939 to 1941, as is indicated by the following statement showing indexes based on the year 1935:

	August 1939	April 1941
Vegetables.....	105	171
Animal products.....	120	189
Fodder.....	107	206
Fertilizer.....	100	172
Fuel and mineral oil.....	115	323
Clay and metal products.....	117	192
Wood and paper.....	112	180
Textile and confectionery goods.....	107	208
Hides, leather, and footwear.....	107	181
Chemical products.....	105	188
Raw materials and half-finished goods.....	112	238
Finished goods.....	111	183
Import goods.....	113	234
Export goods.....	110	196
Goods for domestic consumption.....	110	181

Unemployment of the members of the unemployment insurance funds amounted to 16.9 percent in April 1939 and to 18.4 percent in April 1941.



## ESSENTIAL-WORK ORDERS OF GREAT BRITAIN, 1941

### *Merchant Navy*<sup>1</sup>

BY A recent order of the Minister of Labor and National Service, the terms of the Essential Work (General Provisions) Order issued by the British Government in 1939 (Defense Regulation 58A) have been applied with modifications to the Merchant Navy.<sup>2</sup> The Essential Work (Merchant Navy) Order of 1941 came into force on May 26. It provides for the establishment of a Merchant Navy Reserve Pool, consisting of persons unemployed on May 26, who were employed as officers or ratings of the Merchant Navy in the previous 4 weeks; officers or ratings of the Merchant Navy terminating their employment without being immediately reengaged by the same employer as officers or ratings; and other qualified persons who become members either voluntarily or by virtue of a direction by a National Service Officer.

Control of the pool is under the Shipping Federation, Ltd., working in conjunction with the appropriate society representing the officer or rating concerned. Grievances are to be submitted to the local

<sup>1</sup> Great Britain. Ministry of Labor Gazette, London, May 1941 (pp. 95, 111).

<sup>2</sup> For earlier action under this order see the Monthly Labor Review for September 1940 (p. 575).

appeal boards in accordance with the provisions of the Essential Work (General Provisions) Order of 1941.<sup>3</sup>

"Officer or rating" of the Merchant Navy is defined as a person who is for the time being employed as, or for service as, the master or a member of the crew of any seagoing British ship of 200 gross tons and upwards, who has been engaged in the United Kingdom on an agreement with the crew entered into in accordance with the provisions of the Merchant Shipping Act of 1894. Fishing boat, salvage vessels, tug- and harbor-boat officers or ratings are excluded.

The object of creating the pool is to secure a sufficient supply of workers to meet the manning requirements of enterprises engaged in shipping services, to provide relief for officers and ratings on leave, to make provision for training and refresher courses, and to make necessary arrangements for the protection and maintenance of ships in port.

A member of the pool must continue in the service of the Shipping Federation for the duration of the order; he must perform work he is directed to do; he may leave the pool only by permission under a procedure specified in the order; and he is subject to the direction of the National Service Officer if he absents himself from work, without good cause. Employers are obliged to obtain officers or ratings through the pool or, if there is no suitable person available, through the shipping federation.

### *Coal-Mining Industry*<sup>4</sup>

To maintain and make the most effective use of labor in the coal-mining industry of Great Britain, the Essential Work (Coal-Mining Industry) Order of May 15, 1941, was adopted. Issued by the Minister of Labor and National Service, the order, in general, follows the terms of the Essential Work (General Provisions) Order of 1941. Individual coal-mining establishments or branches are to be scheduled after the Minister of Labor and National Service satisfies himself as to the terms and conditions of employment and the welfare and training arrangements in the enterprise.

In a scheduled undertaking, restrictions are placed on the right of the employer to discharge the workers and of employees to leave their jobs. In both cases permission must be obtained from the National Service Officer. A worker will always be allowed to take employment in another mine, but only under exceptional circumstances will he be given permission to leave the industry for another kind of work.

<sup>3</sup> This order was summarized in the *Monthly Labor Review* for May 1941 (p. 1085).

<sup>4</sup> Great Britain, Ministry of Labor Gazette, London, May 1941 (pp. 95, 112) and June 1941 (p. 117); report from James Somerville, acting United States commercial attaché, London.

Guaranteed wages must be paid to workers who are capable of and available for work throughout each pay week, and who are willing to perform any services which they may reasonably be required to do. The wage fixed for time workers is the appropriate time rate for the normal working hours. For piece workers the guaranteed wage is the actual piece-work earnings for work done, plus the appropriate time rate for all shifts or parts of shifts normally worked but for which work was not available. Periods of time of less than an hour in any shift are to be disregarded. A wage increase of 1s. a shift for adult miners and 6d. for other mine workers became effective on June 1. On the same date the price of coal was advanced by 10d. a ton.<sup>5</sup>

Absenteeism, tardiness, failure to comply with lawful orders, and behavior calculated to impede effective production are dealt with in the order. The National Service Officer is authorized to act in these cases after securing advice from the bodies representing employers and employees. These organizations must also be consulted when questions arise as to the services a worker may reasonably be expected to perform outside his usual occupation.

A levy of 6d. on each ton of coal sold became effective on June 1 to cover the costs incidental to establishment of guaranteed weekly wages. This action was authorized by the Central (Coal Mines) Scheme (Amendment) Order of 1941 (No. 780) made by the Board of Trade under the Coal Mines Act of 1930.

Beginning June 9, 1941, all engagements of labor under the order were to be made through an employment exchange or with the permission of a National Service Officer. The terms of the Undertakings (Restriction on Engagement) Order of 1940, prohibiting engagement of men and boys who normally perform any work in the coal industry in any manner except through an employment exchange,<sup>6</sup> are incorporated in the present order.

A progressive loss of men engaged in coal mining had reached such proportions in March that it was the topic of comment by the Secretary for Mines in the House of Commons. Consideration was then being given to safeguarding the supply of coal. A speed-up in production was later urged by the Government to increase output by 10 to 15 percent in order to store 25 to 30 million tons during the summer for use in the coming winter season. Coal owners and miners met and pledged to increase their efforts. A labor representative, however, stated that men who returned to the industry from other occupations must be given a guaranteed wage similar to that provided for dockers. Employers reported a considerable amount of absenteeism among mine workers and that the anticipated increase in output was only realized in part. The Secretary for Mines denied that absenteeism was abnormally high.

<sup>5</sup> Manchester Guardian, of May 23, 1941 (p. 5).

<sup>6</sup> See Monthly Labor Review, September 1940 (p. 575).

When an essential-work order for the industry was under consideration early in April, the Mineworkers' Federation declared itself opposed to compulsion unless some effective control of the industry was agreed upon and satisfactory wage standards were negotiated. These objections were later withdrawn. In negotiations, labor sought to obtain a national minimum wage. Although this effort failed, the general wage increase mentioned above was agreed upon.



## INSURANCE AGAINST WAR DAMAGE IN GREAT BRITAIN<sup>1</sup>

AN INSURANCE scheme has been established under the British War Damage Act of 1941 to compensate owners of buildings and furnishings for losses caused by air raids or other enemy action. The purpose of the legislation, which was given Royal assent on March 26, is to secure an equitable distribution of losses; to help maintain the value of property; and to give each owner a greater sense of security, knowing that at the end of the war he is likely to possess his property or a title to compensation equivalent to the value of any loss he has sustained. According to British Government estimates, contributions payable for business properties alone will amount to £200,000,000 in 5 years under the schedule so far adopted. No estimates can be made on the size of the payment for private chattels.

Part 1 of the law deals with buildings and other immovable property, including fixed plant and machinery for which insurance is compulsory. Under part 2, for movable business assets such as plant, machinery, and equipment (other than fixed plant and machinery), insurance is compulsory if a person's business assets are worth more than £1,000 and optional if the assets are less. An owner who fails to insure is not entitled to compensation.

A separate insurance scheme is provided relating to private chattels, such as furniture, clothing and other personal effects, and automobiles. Under it free insurance is issued for loss up to specified amounts, with the option of taking paid insurance for goods in excess of the appropriate free limit. Goods insured under either the business or personal systems do not include money or securities.

### *Buildings and Business Scheme*

Contributions for insurance of buildings and other immovable property under part 1 of the law are based on the net annual value for income-tax purposes, the so-called "contributory value." Under part 2 the basis on which contributions are calculated is the capital selling or replacement value. The cost of insurance under part 1 is

<sup>1</sup> The Local Government Chronicle (London), May 24, 1941.

10s. per pound of contributory value; that is, 50 percent of annual value, equal to 2.5 percent on capital value on the basis of 20 years' purchase. Payment of the premium is required in five annual installments beginning July 1, 1941, at the rate of 2s. in the pound of annual value. This premium covers damage during the risk period from September 3, 1939, to August 31, 1941. Provision was made for a review after August 31, 1941, with any new arrangements to be made under new legislation.

Compensation for damaged property will usually be equal to the cost of the work to make good the war damage. Where there is total loss involving a potential outlay costing more than the value that would be added to the value of the site by rebuilding, the compensation will be a payment equal to the depreciation in value caused by the war damage. No claims for an aggregate of less than £5 are to be paid. For charitable or ecclesiastical buildings the premiums will be waived or reduced. Special plans are to be adopted for insuring highways and public utilities.

The first risk period for the business scheme, that is, movable business assets as already described, is from the outbreak of war to September 30, 1941. Premium payments are fixed at 30s. per hundred pounds. Payment is to be made in three equal installments to cover periods ending June 15, August 15, and September 30, 1941, respectively. Professional people are subject to this system in respect of their professional equipment. Goods belonging to a public utility enterprise may be insured at the option of the ownership.

### *Private Chattels*

Under the private-chattels scheme a householder who incurs loss is granted free compensation to a sum of £200. For a man and wife living together the payment is £300, with an extra £25 for every child under 16 years of age. For example, a man and wife having two children under 16 receive a total of £350, without payment of any premium. Free compensation is payable up to £50 to every adult person who is not a householder; that is, a person who does not own or rent a house or part of a house, or a room or rooms in which most of the staple furniture is his own.

Free compensation for any single article will not exceed £25. Anything worth more, whether furniture or an automobile, must therefore be insured. Thus, a car worth £150 must be covered by a £125 policy. Such a policy is called a "first loss policy," under which an owner who sustains loss, even though he is not fully insured, will receive the free compensation to which he is entitled plus the amount for which the chattels are insured. Financial recovery is limited by the amount of the loss sustained and not by the face value of the insurance policy.



For coverage over and above the limits of free compensation the premium rate is 1 percent up to £2,000; 1.5 percent for the next £1,000; and 2 percent for the next £7,000. The maximum insurable is £10,000. The amount claimable for certain valuable articles is limited to £100, or 20 percent of the total sum covered by the policy, whichever is the greater. Not more than £50, or 5 percent of the total insurance, whichever is greater, is recoverable on any one article, exclusive of automobiles.

Chattels anywhere in the United Kingdom are insurable, but a person may have only one policy. Insurance taken out in the month of May 1941 covers the period May 1, 1941, to April 30, 1942. A policy taken out after May 31 becomes effective when the premium is paid and runs for 12 months. Compensation for damage prior to May 1, 1941, is to be paid as though a policy had been taken out, and a sum will be deducted to cover any premium which would have been paid had the scheme been in force.

### *General Provisions*

In general, payment of compensation will be deferred until after the war. Interest at 2.5 percent accrues on the amount of compensation from the date of the damage. In some cases earlier payment is to be made; that is, a cost-of-work payment is made for repairs and no interest is payable on such sums. For rebuilding, as distinct from repairs, operations are expected to be deferred until the end of the war. Early payment will also be made where business goods should be repaired or replaced in the public interest; in the case of real hardship in connection with a loss of private chattels; and where the total claim does not exceed £25.

Premiums for immovable property are to be collected by the Commissioners of Inland Revenue. Otherwise this part of the insurance scheme is to be administered by the War Damage Commission, recently established with offices in London and selected provincial towns. For business and private chattels insurance premiums are to be collected by fire-insurance companies and Lloyds, acting as agents for the Board of Trade, which is the governmental administrative agency for both schemes.

Goods are insurable at full value; that is, the cost of replacement less a reasonable allowance for depreciation. In estimating the value of goods, account may be taken of any increase in value since purchase but the Government will not give "new goods for old."

Claim forms for war damage to buildings are obtainable from the War Damage Commission. For goods, forms should be obtained from the insurance agent within 30 days of the date of damage. If an insurance policy has not been taken out, a form of claim may be procured from the local information center and sent to the district valuer.

# Collective Agreements

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## APPALACHIAN COAL AGREEMENT

THE agreement negotiated by the United Mine Workers of America with the northern bituminous-coal operators was signed in Washington, D. C. on June 19, 1941. On July 5, 1941, the union and the southern operators <sup>1</sup> signed an agreement identical with the northern agreement except that two interpretative memoranda of understanding which are explained below were included.

### *Union Status*

As a condition of employment, all employees shall be members of the United Mine Workers of America except mine foremen, assistant mine foremen, fire bosses, or bosses in charge of any classes of labor inside or outside of the mine, coal inspectors or weigh bosses, watchmen, clerks, or members of the executive, supervisory, sales, and technical forces of the operators.

The recognition of the United Mine Workers of America does not change the rules or practices of the industry pertaining to management. The union intends "no intrusion upon the rights of management as heretofore practiced and understood."

### *Hours of Work*

Seven hours of labor shall constitute a day's work, and a 7-hour day, 5-day, 35-hour week shall prevail. The 7-hour day means 7 hours' work in the mines at the usual working places for all classes of labor exclusive of the lunch period except in case of accident, and except those whose daily work includes the handling of man-trips and those who are required to remain on duty while men are entering and leaving the mines.

### *Overtime Work and Pay*

Work by mine workers paid by hour or day in excess of 7 hours in 1 day or 35 hours in any 1 week shall be paid at the rate of time and one-half with the following exceptions: Employees engaged at powerhouses, substations, and pumps operating continuously for 24 hours daily are exempt from the 7-hour day and the overtime pro-

<sup>1</sup> See footnote 3, p. 457, for identification of areas included in northern and southern Appalachian areas.

visions. Special exemptions from the overtime provisions for individual employees other than those named above when 24 hours' continuous operation daily are required, are subject to arrangement between the mine management and district officers. Employees so exempt are limited to 8 hours per day and 40 hours per week and time and a half for time worked in excess thereof.

Mine workers engaged in the transportation of men and coal shall work the additional time necessary to handle man-trips and all coal in transit and shall be paid the regular rate for the first 7 hours and time and a half for all overtime.

Outside employees engaged in the dumping, handling, and preparation of coal and the manufacture of coke shall work the additional time necessary, not to exceed 30 minutes, to dump and prepare the coal delivery to the tippie each shift, and complete the usual duties incidental to the operation of coke ovens and shall be paid the regular rates for the first 7 hours and time and one-half for overtime not to exceed the 30 minutes mentioned. Drivers shall take their mules to and from the stables and the time required in so doing shall not include any part of the day's labor, their work beginning when they reach the change at which they receive empty cars, but in no case shall the driver's time be docked while he is waiting for such cars.

Motormen and trip riders shall be at the passway where they receive the cars at starting time. The time required to take motors to the passway at starting time and departing at quitting time shall not be regarded as part of the day's labor, their time beginning when they reach the change or parting at which they receive cars, but in no case shall their time be docked while waiting for cars.

### *Shift Provisions*

The operator may work extra shifts with different crews at any or all of the mines. When there is only one shift, it shall be in the daytime but this shall not prevent cutting and loading at night in addition to the day-shift cutting and loading.

*Coke and cleaning plants.*—Proper rules may be negotiated in district conferences to provide for continuous operation of coking and cleaning plants.

### *Check Weighmen*

The mine workers shall have the right to a check weighman of their own choosing to inspect the weighing of coal and in any case where on account of physical conditions and mutual agreement, wages are based on measure or other method than the actual weights, the mine workers shall have the right to check the accuracy and correctness of such method by a representative of their own choosing.

At mines not employing a sufficient number of men to maintain a check weighman, the weight credited to the mine workers shall be checked against the billing weights furnished by railroads, and on coal trucked from such mines a practicable method to check and weigh shall be agreed upon. Such weights shall be checked once a month.

The wages of check weighmen are to be collected through the pay office semimonthly upon a statement of time made by the check weighman and approved by the mine committee. The amount so collected shall be deducted on a percentage basis from the earnings of the mine workers engaged in mining coal. It shall be sufficient only to pay the wages and legitimate expenses incidental to the office.

If a suitable person to act as check weighman is not available among the mine workers at the mine, a man not employed at the mine may be selected upon mutual agreement. The check weighman shall be permitted at all times to be present at the weighing or measuring of coal and shall have power to check weigh or check measure the coal, and during the regular working hours shall have the privilege of balancing and examining the scales or measuring the cars. The check weighman shall credit each mine worker with all merchantable coal mined by him, on a proper sheet or book kept by him for that purpose. It is provided that check weighmen shall in no way interfere with the operation of the mine.

### *Employment of Minors*

It is expressly provided that no person under 17 years of age shall be employed inside any mine or in hazardous occupations outside any mine. Where a State law provides a higher minimum wage, the State law shall govern.

### *Management of Mines*

The management of the mine, the direction of the working force and the right to hire and discharge are vested exclusively in the operator and the union agrees not to abridge these rights. "It is not the intention of this provision to encourage the discharge of mine workers or the refusal of employment to applicants because of personal prejudice or activity in matters affecting the United Mine Workers of America."

### *Mine Committee*

A committee of three employees of the mine, who shall be able to speak and understand the English language, shall be elected at each mine by the mine workers employed at such mine. The members of the mine committee shall be eligible to serve only as long as they continue to be employees of the mine. The duties of the committee shall be confined to the adjustment of such disputes arising out of this

agreement as the mine management and the employees have failed to adjust. The committee is to have no other authority nor exercise any other control nor in any way interfere with the operation of the mine; for violation of this clause any or all members of the committee may be removed from the committee.

### *Settlement of Disputes*

“Should differences arise between the mine workers and the operators as to the meaning and application of the provisions of this agreement, or should differences arise about matters not specifically mentioned in this agreement, or should any local trouble of any kind arise at any mine, there shall be no suspension of work on account of such differences, but an earnest effort shall be made to settle such differences immediately,”—first, between the aggrieved worker and the mine management; second, through the mine management and the mine committee; third, by a board of four members, two of whom shall be designated by each party. Should the board fail to agree, the matter shall be referred to an umpire selected by the board. Should the board be unable to agree on the selection of an umpire, he shall be designated by the international president of the United Mine Workers of America and the president of the operators’ association affected. The decision of the umpire in any event shall be final. District conferences may establish an intermediate board of two members, one representing the operators and one representing the union, with such powers as the conference may delegate.

Pending the hearing of disputes, the mine workers shall not cease work, and the decision reached at any stage of the proceeding shall be binding on both parties and shall not be subject to reopening by any other party or branch of either association except by mutual agreement.

Expenses incidental to the services of an umpire shall be paid jointly.

*Discharge cases.*—The case of a discharged mine worker who believes he has been unjustly dealt with shall be subject to the grievance procedure and shall be taken up and disposed of within 5 days from the date of the discharge. Should it be decided that the discharge was unjust, the worker is to be reinstated and given compensation at the rate based on the earnings of the worker prior to the discharge.

### *Illegal Suspension of Work*

“A strike or stoppage of work on the part of the mine workers shall be a violation of this agreement. Under no circumstances shall the operator discuss the matter under dispute with the mine committee or any representative of the United Mine Workers of America during suspension of work in violation of this agreement.”

### *Preparation of Coal, and Mining Practice*

Each district agreement shall provide for the preparation and proper cleaning of coal and proper disciplinary rules and penalties shall also be incorporated.

Reject clauses shall be eliminated from all district agreements.

(The agreement with the southern operators contains a memorandum of understanding which provides that any individual coal company which may suffer financial hardship because of the elimination of the reject practice may refer its problem to the joint machinery provided for the settlement of disputes, if such request is made within 90 days of the signing of the agreement. The reject system, however, must first be eliminated.)

### *Holidays and Vacations With Pay*

Holidays now recognized in various district agreements shall be effective during the period of this agreement.

An annual vacation period shall be the rule of the industry. The vacation period in 1941 shall be from June 28 to July 7, inclusive, during which time coal production shall cease. Men on necessary continuous operation or on emergency or repair work shall have vacations at other agreed periods. Employees with a record of more than 1 year's standing shall receive as vacation pay the sum of \$20. In 1942 the vacation period shall be from June 27 through July 6, inclusive. Proper rules and regulations to give effect to this stipulation are referred to the district conferences. (Under a memorandum of understanding, the 1941 vacation period was curtailed to run from July 3 through July 7, inclusive.)

### *Safety and Health*

*Safety.*—Reasonable rules and regulations of the operator for the protection of the persons of the employees and the preservation of property shall be complied with.

At each mine there shall be a safety committee. The committee shall be designated by the district president of the United Mine Workers, who shall also have the authority to change its personnel. The committee shall consist of a maximum of 6 mine workers not less than 40 years of age and with not less than 15 years of experience. No member of the mine committee shall be a member of the safety committee. The safety committee shall serve without compensation and shall have the right to inspect any mine development or equipment used in producing coal, for the purpose of observing its safe or unsafe condition, when such questions are brought to its attention. If the committee believes conditions found are dangerous to life it shall report its findings to management.

The union, with proper notice to each district, may designate memorial periods.

When required by the management, engineers, pumpers, firemen, power plant and substation attendants shall under no conditions suspend work but shall at all times protect the company's property and operate fans and pumps and lower and hoist men or supplies as may be required to protect the coal plant.

*Medical and hospitalization services.*—All medical and hospitalization questions where employees make contributions are referred to district conferences to make satisfactory mutual arrangements.

*Physical examination.*—Physical examinations shall not be used for the purpose of discrimination.

### *Seniority*

Seniority in principle and practice such as has been recognized in the industry is not changed. Men displaced by new mining methods or installation of new mechanical equipment so long as they remain unemployed will make up a panel from which new employees will be selected, and seniority based on length of service and qualifications will be applied.

### *Pay Days*

The men are to be paid at least twice each month. Payment must be made in cash or by check, with recognition for legitimate deductions. This provision is designed to prohibit the discounting of earnings through the use of scrip or tokens.

### *Wage Provisions*

Pick mining is the removal by the miner of coal that has not been undercut, centercut, or overcut by a machine. The basic rate for pick mining and hand loading of coal shall include the work required to drill, shoot, and clean and load the coal properly, timber the working place, and all other work and customs incidental thereto.

A maximum shortwall-machine differential of 11 cents per net ton between pick- and machine-mining rates shall be maintained. The minimum rate for pick mining shall not be less than the aggregate of shortwall-machine cutting and loading rates.

Any change in mining methods or installation of equipment that relieves the mine worker of any of the above duties and increases his production capacity shall be recognized, and a piece-work rate agreed to therefor properly related to the basic rate.

The standard for basic tonnage rate shall be 2,000 pounds per ton; where a gross ton of 2,240 pounds is the measure, the equivalent rate shall be paid.

Yardage and dead-work rates in all districts shall be increased 15 percent.

When day men go into the mines in the morning, they shall be entitled to 2 hours' pay, whether or not the mine works the full 2 hours, and after the first 2 hours the men shall be paid for each hour's work or fractional part thereof. If the regular routine work cannot be furnished to inside daymen, the employer may furnish other than the regular work.

#### BASIC WAGE RATES

Attached to both the northern and southern agreements are lists of the basic tonnage rates established in the various districts. The basic hourly and day rates under both agreements are identical and are listed under schedule B as follows:

##### (1) General day-labor classifications

Inside:	Hourly rate	Day rate
Motormen, rock driller, rubber-tired shuttle-car operator..	\$1. 023	\$7. 16
Drivers, brakemen, spraggers, snappers, coal drillers, trackmen, wiremen, bonders, timbermen, bottom cagers.....	1. 00	7. 00
Pumpers, trackmen helpers, wiremen helpers, timbermen helpers, and other inside labor not classified.....	. 966	6. 76
Greasers, trappers, flaggers, switch throwers.....	. 736	5. 15
Outside:		
Bit sharpener, car dropper, trimmer, car repairmen, dumpers.....	. 891	6. 24
Sand dryers, car cleaners, other able-bodied labor.....	. 857	6. 00
Slate pickers.....	. 736	5. 15

Skilled labor not classified to be paid in accordance with the custom at the mine.

##### (2) Classification of mobile loading-machine rates

Loading machine operators.....	1. 286	9. 00
Loading machine operator's helpers.....	1. 137	7. 96
Cutting and shearing machine operators.....	1. 286	9. 00
Cutting and shearing machine operator's helpers.....	1. 286	9. 00

All other mine workers employed on a day or hourly rate in mobile loading-machine operations shall be paid according to the rates set forth in the general day-labor classifications.

##### (3) Day rates of pay on conveyors

Leader or cutting machine operator and all other face men....	\$1. 114	\$7. 80
Unloading operator or boom man.....	1. 00	7. 00
The rates of pay for moving conveyor from one place to a new set-up shall be at the rate of.....	1. 00	7. 00

##### (4) Day rates for rock-loading equipment

Rates of pay for mine workers on rock-loading equipment shall be the same as those prescribed for men employed on conveyors loading coal by the day.

All other mine workers employed on a day or hourly rate on coal conveyors or rock-loading equipment as set forth in subsections (3) and (4) shall be paid according to the rates set forth in the general day-labor classifications.



*(5) Strip mine wages*

Mine workers employed in strip mines or pits shall receive the increases on day, hourly, and monthly rates in conformity with the application of the \$1.40 per day or \$1 per day as it was applied to mine workers in deep mines. The adjustment of these rates is referred to the respective district conferences.

## PROTECTIVE WAGE CLAUSE

If the union makes a wage agreement more favorable than this one with any person, association, or district within the Appalachian area, then this agreement is to be modified so that all parties to it shall receive the benefits of the more favorable agreement. The union reserves the right to call and maintain strikes throughout the entire area covered by this agreement when necessary to "preserve and maintain the integrity and competitive parity of this agreement." Such strikes shall not be deemed a violation of the agreement. The union will give reasonable notice to all parties of any such action.

(A memorandum of understanding with the southern operators provides that this clause has "no relation to and will not be utilized to inaugurate or institute the general practice of allocation of production within the Appalachian area.")

## JOINT WAGE CONFERENCES

Both the northern and southern agreements provide that a joint conference of representatives of the operators' associations shall be held on March 14, 1943, "to consider what revisions, if any, shall be made in this agreement as to hours, wages, and conditions of employment." Both agreements are effective from April 1, 1941, to March 31, 1943.

*District Conferences*

District agreements are to be made dealing with local or district conditions, and such agreements are to embody the basic rates of pay, hours of work, and conditions of employment set forth in the present agreement, as well as all specific rights and obligations of operators and mine workers recognized therein.

The agreement supersedes all existing and previous contracts; and all local rules, regulations, and customs heretofore established in conflict with this agreement are abolished. Prior practice and custom not in conflict with this agreement may be continued.

All internal differences are to be referred to the various districts for settlement, with the understanding that only by mutual consent shall anything be done in district conferences that will increase the cost of production or decrease the earning capacity of the men.

Proper arrangements for collections for the United Mine Workers of America are to be made in district conferences.

*Miscellaneous Provisions*

Matters affecting cost of explosives, blacksmithing, electric cap lamps, and house coal are referred to the district conferences.

To the extent that it has been the custom in each district, all bottom coal shall be taken up and loaded by the mine worker.

The cutter shall cut the coal as directed by the operator.

*House rents.*—Equitable adjustment of house rents shall be made in district conferences.

*Irregular work.*—An employee absent for 2 days without the consent of the operator for a cause other than proven sickness may be discharged.

## COLLECTIVE AGREEMENT WITH FORD MOTOR CO.

THE agreement negotiated by the United Automobile Workers, C. I. O., with the Ford Motor Co. was signed in Washington, D. C., on June 20, 1941, and was ratified by the workers in the River Rouge and Lincoln plants in Detroit on June 22. This is the first agreement with a major automobile manufacturer which establishes a union shop.

### *Union Shop*

The union is recognized as the exclusive collective-bargaining agency for "all the employees of the company in all of the production and assembly plants and units of the company in the United States of America." Superintendents, foremen, and all other persons working in a supervisory capacity, as well as office and professional employees and scientists, are excluded.

It is provided that as a continuing condition of employment all employees, both present and future, who are covered by the agreement shall be and remain union members in good standing and that persons who lose their membership in the union shall not be retained in the employ of the company. The union agrees to accept into membership all present employees and all persons employed by the company in the future, except that a person who is not now a member but who has been a member of the union and who has lost his membership by reason of resignation or expulsion may be excluded from the union in its discretion and such excluded person shall not be retained in the employ of the company.

The agreement provides for a blanket check-off of all union initiation fees, dues and assessments. Assessments may not exceed the sum of \$1 per year, although the union may levy additional assessments in accordance with its constitution, and persons who lose their union membership because of failure to pay such assessments will not be retained in the employ of the company.

### *Responsibility of Management*

The right to hire and to maintain order and efficiency is the sole responsibility of management, as is also the right to promote and the right to discipline and to discharge for cause. However, claims of discriminatory promotions and of wrongful or unjust discipline or discharges are to be subject to the grievance procedure. Prominent among other rights and responsibilities which the union recognizes as belonging solely to the company are rights to decide the number and location of plants, the machine and tool equipment, the products to be manufactured, the methods of manufacture, the schedule of production, the processes of manufacture or assembling, and all designing,

engineering, and the control of raw materials, semimanufactured and finished parts which may be incorporated into the products manufactured.

### *Union Committees*

The grievance machinery provided for in the agreement is composed of departmental committeemen, building committeemen, building chairmen, and plant committees. All committeemen must have been in the regular employ of the company for 1 year immediately preceding their designation as committeemen. It is provided that there shall be 1 departmental committeeman on each shift for the first 550 employees and 1 committeeman for each additional 500 employees. In each building, the building committee consists of 3 persons selected from each shift. The building chairman is automatically a member of the building committee. This committee meets with building supervisors once a week and may hold emergency meetings by mutual agreement. The plant committee is composed of the elected chairman of each building or unit committee. The plant committee also meets weekly with officials designated by the company and may hold emergency meetings by mutual agreement. At meetings between the plant committee and company officials, it is provided that an international union representative "should be present."

It is provided that building chairmen shall devote their full time to their duties as such and that they shall receive the same wages which were received by them on their respective jobs at the time they became building chairman. Also, the building chairman receives the benefit of any wage increases which may be given to those employed on operations formerly performed by the chairman.

In the event of lay-off, all committeemen, irrespective of their seniority ranking, shall be continued at work as long as there is a job in the departments under their respective jurisdiction which they are able to do and as long as any of their constituents are at work. The committeemen are to be recalled after lay-off as soon as there is a job in their respective jurisdiction which they can do and as soon as one of their constituents has been recalled. Notwithstanding their seniority ranking, the plant committee and the president, vice president, financial secretary, recording secretary, treasurer, and 3 trustees of the local union shall in the event of lay-off be continued at work at all times when one or more departments or fractions thereof are at work.

### *Grievance Procedure*

Grievances are handled according to the following procedure: (1) An employee having a grievance shall present it either to his foreman or to his departmental committeeman. The committeeman shall negotiate with the foreman or with the department superintendent.

(2) If there is no satisfactory settlement, the department committeeman shall refer the grievance in writing to the building committee, who shall negotiate with the building superintendent. Grievances which cannot be settled between the afternoon- or mid-night-shift building committee and the building superintendent shall be referred to the day-shift building committee. (3) Grievances which still are unsettled are referred in writing by the building committee to the plant committee who shall negotiate with designated company officials. (4) If there is still no settlement, the grievance is referred to an appeal board on which there is equal representation.

If a settlement on a grievance is not reached within 2 weeks of the time of its original presentation to the foreman or department superintendent, the grievance shall be referred in writing to the appeal board within 30 days, at the request of either party. The appeal board shall proceed with the disposition of the matter with the "utmost of dispatch."

### *Seniority Provisions*

*Acquiring seniority.*—Seniority is acquired after 6 months from the date of hiring and is then cumulative from the first day of employment. In the "production division", each building constitutes a unit for seniority. Seniority in the skilled groups (tool and die makers, pattern makers, molders, and all maintenance men) is by "interchangeable occupational groups on a plant-wide basis." Once an employee acquires seniority, his name must be placed on the seniority list for his building or unit in the order of date of hiring.

All employees involved in current National Labor Relations Board controversies who are or may be reinstated shall be deemed to have been continuously employed throughout their period of unemployment preceding their reinstatement.

*Seniority list.*—As soon as possible within 60 days of the date of the agreement, the company will submit to the building or unit chairman, a seniority list of the employees in his building or unit, and after 45 days, during which the union may file exceptions, the list will be considered a true one. After the 45-day period, exceptions must be taken up through the grievance procedure. The lists are to be revised by the company every 3 months.

*Transfers and promotion.*—Employees transferred from one department, building, or unit to another for a period of less than 6 months are considered temporary employees without seniority in the new department, building, or unit. Seniority continues to be accumulated in the old position. Requests for transfer back to the old department, building, or unit before the expiration of 6 months shall be granted.

Employees who have been transferred for more than 6 months accumulate this seniority in the new department, building or unit. In the event of lay-off, a transferred employee having the least

seniority shall be laid off and shall be transferred back to his old department, building, or unit.

No transfers will be made for the purpose of affecting seniority. Employees transferring to the aircraft building or to other defense work shall have the right to their former jobs on the basis of seniority when and if such operations are discontinued.

Promotion to other than supervisory positions are to be based primarily upon merit and ability, but "when all other things are equal, the employee having the greater seniority will receive the preference."

*Loss of seniority.*—Seniority is lost through quitting, discharge which is not reversed through the grievance procedure, or through failure to report to work within 5 days after notice and without a satisfactory reason.

*Lay-off and rehiring.*—The following is the procedure for lay-offs: First, employees with no seniority are laid off, then the weekly hours of work are reduced to 32, and finally, lay-offs are to be made according to seniority, in order to maintain the 32-hour week.

The following is the procedure for rehiring after lay-off: First, employees are to be returned to work according to seniority before the hours are increased above 32 per week, then the hours may be increased to 40 per week, and finally, all employees with seniority capable of doing the work are to be called back before employees with no seniority.

The order of lay-off and rehiring "shall be governed by, first, seniority of employment, second, ability." Disputes involving the application of this clause are subject to joint determination through the grievance procedure.

*Technological unemployment.*—In employing new people in any department the company will, as far as reasonably practicable, give preference to employees in occupational groups who are at the time laid off and are not expected to be returned to work at their plant.

When a classification of work is permanently discontinued, employees in such classification shall within 3 days be transferred without loss of seniority to other classifications of available work in which they can qualify, providing they have greater seniority than the employees in the new classifications.

*Promotion to supervisory jobs.*—An hourly rated employee who is promoted to any supervisory position and is later demoted to hourly day-rate employment shall commence work as an hourly rated employee with the same seniority ranking which he had at the time of promotion.

*Disability absences.*—When an employee's absence from work is due solely to sickness or injury and due proof is given, he is to be returned to work in accordance with his seniority as nearly as may be as if he

had not suffered disability. Disputes over this matter may be referred to the grievance procedure.

*Injured and handicapped workers.*—Employees handicapped by major physical disabilities may be “exempted from the operation of the seniority provisions of this agreement in the event of lay-off at the discretion of the company.” An employee who has been incapacitated at his regular work by injury or compensable occupational disease while employed by the company may be employed in other work in the plant which he can do, without regard to seniority.

### *Leave of Absence*

Requests for leaves of absence shall be made in writing to the foreman on a form provided for that purpose. Leave of absence may be granted for personal reasons for a period not to exceed 30 days, upon application of the employee and approval by his foreman. Such leave of absence shall not be renewed and seniority shall accumulate during the leave. Leave of absence shall be granted for personal reasons for a period not to exceed 90 days, upon application of the employee and approval by the management, when the services of the employee are not immediately required and there are employees available in the plant capable of doing the work.

*Leaves for union business.*—An employee selected to a union position or selected by the union to do work which takes him from his employment with the company shall, upon the written request of the union, receive a temporary leave of absence for the period of service for the union and upon his return shall be reemployed at work generally similar to that in which he was engaged prior to leave of absence. Seniority shall accumulate through this period of leave of absence. Application for such leave shall be made and granted yearly.

*Sick leave.*—An employee who is ill and whose claim of illness is supported by satisfactory evidence shall be granted sick leave of absence automatically.

### *Wages and Hours*

The company agrees to pay rates “in the several classifications at least as high as those paid by the major competitors” in the automobile, cement, glass, steel, and tire industries. The union agrees to name the competitor within 10 days. No employee shall suffer any reduction in the rates, and all wage adjustments under this section are to be retroactive to the date of the agreement.

Any employee called to work or permitted to come to work without having been properly notified that there will be no work, shall receive a minimum of 2 hours’ pay at the regular rate, except in case of labor disputes or other conditions beyond the control of the local management.

Employees working on the 2 night shifts shall receive 5 cents per hour in addition to their regular pay for the day period. Rotation of shifts is abolished.

If an employee is given an assignment in a plant other than the one in which he is regularly employed, his transportation fare shall be borne by the company.

The eventual determination of all matters affecting payment of wages shall be the subject matter for joint consideration between the company and the union. The question of a Christmas bonus in 1941 to employees covered by the agreement shall be a subject for joint negotiation "beginning early in December 1941." As soon as it can be effected, and in no event later than 6 months from the signing of the agreement, the company agrees that wages shall be paid weekly.

*Overtime.*—Time and a half is to be paid for all time over 8 hours per day and 40 hours per week. Time and a half is to be paid for Saturday work following a specified holiday in the same week; double time for Sundays and for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas. Employees working on "necessary continuous 7-day operations whose occupations involve work on Saturday, Sunday, and holidays" are to be paid overtime for work on these days only for time worked in excess of 8 hours per day and 40 hours per week.

No employee may be laid off during the week for the purpose of avoiding overtime payment. In case the laws of the United States are changed either to increase or decrease permissible working hours and overtime rates, modifications of the provisions of the agreement relating to working hours and overtime rates shall be subject to negotiation.

### *Strikes and Lock-Outs*

"Continuous and uninterrupted manufacture and production of goods by the company, and orderly collective-bargaining relations between the company and the union to secure prompt and fair disposition of grievances being essential considerations for this agreement, it is agreed that the union and its members, individually and collectively, will not, during the term of this agreement, cause, permit, or take part in any strike, picketing, sit-down, stay-in, slow-down, or other curtailment or restricting of production or interference with work in or about the company's plants or premises, until the procedure provided herein for the settlement of grievances has been complied with. The company reserves the right to discipline any employee taking part in any violation of this section of this agreement. Correlative with this provision the company agrees not to engage in a lock-out."



### *Apprentices*

All matters involving apprentices shall be the subject of negotiations and agreement between the union and the management of the respective plants of the company.

### *Miscellaneous Provisions*

*Bulletin boards.*—The company will erect bulletin boards in suitable places mutually agreed upon, to be used solely by the union for posting notices, except that additional notices may be posted by mutual consent. Notices posted shall be restricted to notices of recreational and social affairs, notices of union elections, appointments and results of union elections pertaining to the local plant, and notices of union meetings. The bulletin board shall not be used for disseminating propaganda of any kind, and among other things shall not be used for posting or distributing pamphlets or political matter of any kind, or for advertising.

*Rules and regulations.*—The rules and regulations shall be mutually agreed upon by the company and the union. The company agrees to supply each employee with a copy of the rules and regulations and such rules and regulations “shall not be so devised as to abridge the rights of the employees guaranteed by this agreement.” Violation of the rules shall be sufficient cause for discipline or discharge, provided that claims of wrongful and unjust discipline or discharge shall be subject to the grievance procedure.

*Separability.*—If any of the provisions of the agreement shall be or become invalid or unenforceable by reason of any existing or future Federal or State law, the remainder of the provisions shall not be affected.

*Safety and health.*—The company shall continue to make reasonable provisions for the safety and health of its employees and will provide protective devices and other equipment necessary to protect the employees from injury and sickness.

*No discrimination.*—The provisions of the agreement shall apply to all employees covered without discrimination on account of race, color, national origin, or creed.

*Plant-protection employees.*—In response to the union’s demand that the Ford Service Department be abolished, the following clause was included in the agreement: “All plant-protection employees shall wear conspicuous insignia to clearly distinguish them from other employees.”

*Military service.*—Seniority shall continue to accumulate during service with the armed forces or during enforced military training. Upon termination of service in the armed forces or military training,

an employee shall be reemployed by the company if he has been honorably discharged and reports for work within 60 days after his discharge.

*Union label.*—"The union will permit the company to use the union label on products manufactured in plants covered by this agreement."

### *Duration of Agreement*

The agreement shall continue for 1 year and from year to year thereafter unless either party gives 30 days' notice in writing prior to any expiration date of its desire to terminate the agreement, in which event the agreement shall terminate on the expiration date.

At least 30 days prior to any expiration date, either party may notify the other of its desire to amend the agreement. The notice shall set forth the nature of the amendments desired. If the parties are unable to agree upon the proposed amendments on or before the expiration date, the agreement shall expire unless the party or parties proposing the amendments shall have previously withdrawn them. Any amendment which may be agreed upon shall become a part of the agreement without modifying or changing any of the other terms of the agreement

# Employment and Labor Conditions

## EMPLOYABILITY OF PERSONS RECEIVING GENERAL ASSISTANCE IN PENNSYLVANIA

ABOUT 60 percent of the cases on public-assistance rolls in Pennsylvania contained 1 or more employable persons in April 1941, according to a report issued by the Department of Public Assistance in the State of Pennsylvania.<sup>1</sup> One employable person per family was the maximum in 92 percent of the employable general-assistance cases. The average assisted family was found to have fewer employable persons than the average family in the general population. In April, levels of employment, unemployment, and relief were more favorable than at any time since the beginning of State-wide relief in 1932. In recent months approximately 50 percent of the total unemployed have received some form of relief, either Federal WPA wages or State general-assistance grants.

The relief load is classified according to employability status and the various forms of assistance in the table below. Information is given as to number of cases and number of persons affected.

*Employability of Cases and Persons Dependent on Public Assistance or Work Relief in Pennsylvania, April 1941*

Type of assistance	Cases			Persons				
	Total	Employable	Unemployable	Total	In employable cases			In unemployable cases
					Total	Employable	Unemployable	
Total (net) <sup>1</sup> .....	417,788	187,722	230,066	1,004,000	564,000	217,000	347,000	440,000
Department of Public Assistance.....	307,106	77,040	230,066	648,563	208,253	83,900	124,353	440,310
General assistance.....	127,040	77,040	50,000	308,253	208,253	83,900	124,353	100,000
Old-age assistance.....	102,557	-----	102,557	102,557	-----	-----	-----	102,557
Aid to dependent children.....	63,982	-----	63,982	224,226	-----	-----	-----	224,226
Blind pensions.....	13,527	-----	13,527	13,527	-----	-----	-----	13,527
W. P. A. relief certified total <sup>2</sup> .....	115,286	115,286	-----	389,000	389,000	138,000	251,000	-----

<sup>1</sup> An average of 4.604 cases (33,794 persons) partially dependent upon general assistance granted to supplement WPA wages is included both in the Department of Public Assistance total and in the WPA average, but only once in the net DPA-WPA total. Hence, the net total (expressed for persons to the nearest 1,000) is less than the sum of the individual items.

<sup>2</sup> Estimated cases and persons dependent on relief earnings of WPA workers. This estimate excludes the families of recently assigned workers who have not received their first WPA check, and includes the families of recently released workers who are considered still dependent on their last WPA check. It does not include supervisory or technical nonrelief workers. However, these nonrelief workers are included in the State WPA employment quota.

<sup>1</sup> Pennsylvania Department of Public Assistance. Employability of Pennsylvania's General Assistance Case Load in April 1941. Harrisburg, 1941.

Employables in the upper-age groups on the general-assistance rolls were disproportionately large in number. Forty-four percent of such employables were 45 years of age or over, as compared with a corresponding figure of only 32 percent in the total employable population in Pennsylvania. Negroes were overrepresented among general-assistance employables. They made up nearly one-fourth of the employable general-assistance population, as compared with 5 percent of the total employable population. One-tenth of employables on the rolls were reported as having major physical handicaps which reduced their chances for employment but did not render them completely unemployable. Records for a number of counties indicated that, in addition, many employable general-assistance recipients had less marked physical disabilities which would somewhat limit their employability.

Of the employables receiving assistance, for whom records were available, 2 out of 5 had finished grammar school and 1 out of 25 had finished high school. A large majority of the employables lacked the training or experience to fit them for the types of job openings that were reported by the State Employment Service. Distribution of the employables by skill follows:

	<i>Percent</i>
Unskilled.....	33.5
Skilled.....	20.0
Semiskilled.....	15.1
Service workers.....	14.1
Clerical and sales.....	4.6
Agriculture, fishery, forestry.....	2.1
Professional and managerial.....	1.5
No special classification.....	9.1
Total.....	100.0

The Department of Public Assistance concluded that further reduction in the number of unemployed might be expected, owing to the increased tempo of national defense production and the expansion of the armed forces. To alleviate the labor shortage the Department of Labor and Industry of Pennsylvania finds the employers are relaxing their employee age requirements and certain other specifications; lower-grade workers are being advanced to positions of greater skill; complex operations are being broken down into a number of simple parts so that workers of less skill may replace a single skilled employee; training and retraining are being extended; and labor is not as yet being extensively recruited from other localities. Private industry in Pennsylvania is taking workers from general-assistance rolls at the rate of about 1,500 (net) per week. As the more highly skilled obtain jobs, the group left on relief will, of course, contain an increasing proportion of persons of doubtful or borderline employa-

bility. With unemployment reduced it should be feasible and is even more important to adopt an extensive training and rehabilitation program for those who are receiving public assistance.



## LOS ANGELES 40-PLUS CLUB FOR WOMEN

ON August 7, 1940, "Women, Associated," composed of unemployed woman executives over 40 years of age who had earned \$2,000 or more per annum, was established in Los Angeles with a membership of 15. In 6 months approximately 600 women had applied for membership in the organization and had been interviewed. Each candidate was carefully questioned and had the opportunity to report on her requirements and desires as to a position.

According to information received by the United States Bureau of Labor Statistics in the early part of the current year from the president of the club, 110 women had been admitted as members and 50 percent of them had secured positions. On February 11, 1941, the active members numbered 40 and the applicants for membership more than 25.

Women who have satisfactory business connections cannot become members, nor can women who have husbands able to support them. Other ineligible include women who are not able to support themselves until they get a position, those who cannot vote in Los Angeles, and those who are not willing to give 12 hours of work per week to office or committee work in the club.

Among the positions that had been secured were the following: Manager of construction office; manager of wholesale shirt company with a large mail-order business; apartment-house manager; Elliot-Fisher bookkeeper in Internal Revenue Department; secretary-companion-driver; head of alteration department of a large store; legal secretaries; and stenographers.

As indicative of the qualifications and experience of other members of "Women, Associated," the following work histories of various candidates for positions have been selected from the organization's printed list:

Executive secretaries and office managers:

No. 119.—Secretary to a large construction engineers corporation; president, automobile corporation; hotel manager; managing editor, large newspaper; civil-service rating; university education; metaphysical training and practice; publicity.

No. 178.—Administrative officer; executive secretary; office management; editorial executive; degrees, universities here and in Europe; research in Paris.

No. 157.—Office supervisor; installing office systems and records; reorganizer and supervisor stenographic department.]

Executive bookkeepers:

No. 144.—Head bookkeeper (wholesale grocery); chief clerk, exemption board; legal stenographer; university education (majored education and commerce).

No. 133.—Bookkeeper and secretary-manager, real-estate corporation, 16 years' full charge; secretary-bookkeeper large rancho; office manager; fire-insurance experience; receptionist; trained in drama; summer teaching.

Professional and business experience:

No. 180.—Lyric soprano; concert and radio experience; radio narrator; stenographer (statistics); billing (comptometer); real-estate saleswoman.

No. 125.—M. A. Boston; graduate work Yale and Geneva (Switzerland); European travel and study; principal, training school for Christian service; dean of women, school of religious education; field secretary, Methodist Deacon Association; head resident, Blaklee Hall, Yale; social service director; public addresses and contacts.

Designers:

No. 139.—Industrial worker and employees' counselor; designer of linens; saleswoman, linens, antiques, lamps; university education, and art schools of Paris and Florence.

No. 193.—Designer, fabrics and costumes; promotional selling; a buyer of fabrics, art goods and linens; stylist.

Publicity:

No. 143.—Publicity and exploitations director, motion pictures; art editor, magazine; public-relations director, film industry; film-studio reader; credit interviewer; advertising copy and lay-out; secretary-correspondent; receptionist and hostess.

No. 154.—Writer, news and features, newspapers, magazines, trade journals; public relations; ghost writing; house organs; business manager, publication; employment manager (U. S. Employment Service); library assistant.

# Youth in Industry

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## PHYSICAL FITNESS OF AMERICAN YOUTH, 1917-18 AND 1940-41

BECAUSE rejections for the military service under the Selective Service Act have been more numerous on a percentage basis than in 1917-18, it does not follow that national health has deteriorated. An article published by the Metropolitan Life Insurance Co. shows that health is now at its highest level, with the death rate at the lowest point on record and longevity at its peak.<sup>1</sup>

Figures on rejections for military duty in the first World War and at present are not comparable, for the most part. Both the methods of selection and the organization of the draft were essentially emergency procedures in 1917-18. They were developed after the United States was at war and was committed to raising a vast army with speed. This system tended to discourage very rigid standards. Even so, approximately one-fourth of the draftees were rejected altogether and nearly one-third were unavailable for general military service. In contrast, operations under the Selective Service Act were begun in peacetime and only the best and healthiest young men are being selected for service. The weeding out of the mentally as well as physically unfit is being given greater emphasis. Medical examinations are more complete and accurate than formerly.

The incidence of specific diseases in 1917-18 and now are cited in the study under review to prove the inadequacy of statistical comparisons as a measure of change in the physical status of American youth. For example, tuberculosis is today less often a cause of rejection than in 1917-18. However, the reduction amounts to only about 20 percent, while in the interval between the two drafts the mortality from the disease for white males of all ages has decreased 80 percent and for draft ages 90 percent. This is a disease for which diagnostic facilities have been vastly improved and are more generally in use. Therefore, cases that would not have been discovered in 1917-18 are now diagnosed in their early stages and prospective draftees are rejected.

A large increase in rejections for dental defects appears to the Metropolitan Life Insurance Co. to be caused by differences in

<sup>1</sup> Metropolitan Life Insurance Co. Statistical Bulletin: Physical Fitness of American Youth. New York, June 1941.

standards or their application, although on the surface the present standards do not appear more stringent than in the last war. Attention is sometimes focused on the high rejection rate for dental defects as a symptom of serious deterioration in nutrition standards. This is questionable, as dental defects are not confined to the poor, and per-capita consumption of protective foods has increased.

Heart disease also shows an apparent rise. Yet rheumatic fever, the most frequent cause of heart disease in the age group of selectees, has fallen steadily in the last 20 years. For ages 20 to 24 the decline since the last draft is 50 percent and at younger ages, when the disease usually gets its start, about 60 percent. Thus, there must have been a consequent reduction in heart diseases from this cause. Defects of vision and of hearing, which show apparent rises according to draft rejections, have certainly not increased in incidence or severity.

A good indicator of the greater strictness of selection for military service at present is that the rejection rate is far higher than for life insurance. Less than 2 percent of the applicants for standard insurance at draft ages are rejected outright and then largely for overweight. Hence the report warns against conclusions from the crude statistics of rejections. Actually, the causes of rejections today do not seriously impair the individual for ordinary civilian occupations and do not markedly affect his health or longevity.

The value of the data derived from the examinations should not be disregarded, however. In effect, the draft procedure is an intensive tuberculosis-finding project among American youth. This also applies to visual and other defects. Insofar as communities, physicians, and public-health officers utilize the findings by follow-up with appropriate medical services, there is an opportunity for contributing substantially to national health, through the defense effort.



## CERTAIN HAZARDOUS OCCUPATIONS FORBIDDEN FOR YOUNG WORKERS<sup>1</sup>

THE Fair Labor Standards Act of 1938 fixed a 16-year minimum age for employment in establishments which manufacture goods to be shipped in interstate commerce, and also in effect established the minimum age of 18 years in occupations found and declared by the Chief of the United States Children's Bureau, to be particularly detrimental or hazardous to the health and well-being of child workers. On June 24, 1941, in accordance with the provisions of this act, the Chief of the Children's Bureau issued Hazardous-Occupation

<sup>1</sup> United States Department of Labor. Children's Bureau. Child Labor Regulations: Hazardous-Occupation Orders (Washington); No. 1 (May 18, 1939), No. 2 (November 27, 1939), No. 3 (August 1, 1940), Nos. 4 and 5 (June 24, 1941).



Orders Nos. 4 and 5. Number 4 declares that "All occupations in logging and all occupations in the operation of any sawmill, lath mill, shingle mill, or cooperage-stock mill are particularly hazardous for the employment of minors between 16 and 18 years of age," except certain occupations which are listed below:

- (1) Work in offices or in repair or maintenance shops.
- (2) Work in the operation or maintenance of living quarters.
- (3) Work in timber cruising, surveying, or logging—engineering parties, provided that no work in the construction of roads or railroads is performed.
- (4) Work in forest protection, such as clearing fire trails or roads, piling and burning slash, maintaining fire-fighting equipment, constructing or maintaining telephone lines, or acting as fire lookout.
- (5) Work in the feeding or care of animals used in logging.

Order No. 5 declares that the following occupations in connection with the operation of woodworking machines are particularly hazardous for young persons between 16 and 18 years of age: (1) The occupation of operating power-driven woodworking machines, including the feeding of material into such machines, of helping the operator to feed material into such machines, or of having direct control or supervision over the operation of such machines. (2) The occupations of setting up, adjusting, repairing, oiling, or cleaning power-driven woodworking machines. (3) The occupation of off-bearing from circular saws and from guillotine-action veneer clippers.

Both these orders become effective August 1, 1941.

Three previous hazardous-occupation orders became effective respectively July 1, 1939, January 1, 1940, and September 1, 1940. In those orders the following occupations were pronounced particularly hazardous for young people in the same age group as is covered by Orders Nos. 4 and 5: Order No. 1, all occupations in or about any plant engaged in the manufacture of explosives or articles containing explosive components; Order No. 2, the occupations of motor-vehicle driver and helper; Order No. 3, all occupations in or about coal mines, with the exception of "the occupation of slate or other refuse picking at a picking table or picking chute in a tippie or breaker, and occupations requiring the performance of duties solely in offices or maintenance shops located on the surface part of any coal-mining plant."<sup>2</sup>

<sup>2</sup> Provisions of Order No. 3 were summarized in the Monthly Labor Review of October 1940.

# Negro Workers

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## PRESIDENT'S ORDER AGAINST RACE DISCRIMINATION

ON June 25, 1941, President Roosevelt created the Committee on Fair Employment Practices for the prevention of discrimination in the filling of national defense jobs and in programs for vocational training.

The executive order establishing this agency in the Office of Production Management stated "it is the policy of the United States to encourage full participation in the national defense program by all citizens of the United States, regardless of race, creed, color, or national origin, in the firm belief that the democratic way of life within the Nation can be defended successfully only with the help and support of all groups within its borders."

The President also declared that "it is the duty of employers and of labor organizations in furtherance of said policy and of this order, to provide for the full and equitable participation of all workers in defense industries, without discrimination because of race, creed, color, or national origin";

And it is hereby ordered as follows: <sup>1</sup>

1. All departments and agencies of the Government of the United States concerned with vocational and training programs for defense production shall take special measures appropriate to assure that such programs are administered without discrimination because of race, creed, color, or national origin.

2. All contracting agencies of the Government of the United States shall include in all defense contracts hereafter negotiated by them a provision obligating the contractor not to discriminate against any worker because of race, creed, color, or national origin.

3. There is established in the Office of Production Management a Committee on Fair Employment Practice, which shall consist of a chairman and four other members to be appointed by the President. The chairman and members of the committee shall serve as such without compensation but shall be entitled to actual and necessary transportation, subsistence and other expenses incidental to performance of their duties. The Committee shall receive and investigate complaints of discrimination in violation of the provisions of this order and shall take appropriate steps to redress grievances which it finds to be valid. The Committee shall also recommend to the several departments and agencies of the Government of the United States and to the President all measures which may be deemed by it necessary or proper to effectuate the provisions of this order.

<sup>1</sup> United States. Office for Emergency Management. Defense, Washington, July 1, 1941.

## NONWHITE FARM OPERATORS IN THE UNITED STATES, 1940

APPROXIMATELY 95 percent of the 719,071 nonwhite farm operators in the United States<sup>1</sup> on April 1, 1940,<sup>2</sup> were in the South. Mississippi ranked first in the number of nonwhite operators with a total of 159,540, Alabama second with 73,364, and South Carolina third with 61,307. Other States with large numbers of such operators were North Carolina, Louisiana, Georgia, Arkansas, Texas, and Virginia.

TABLE 1.—Number of Nonwhite Farm Operators by Sections, Divisions, and States, 1940

Division and State	Number	Increase or decrease in 1940 as compared with 1930		Division and State	Number	Increase or decrease in 1940 as compared with 1930	
	1940	Number	Percent		1940	Number	Percent
United States.....	719,071	-196,999	-21.5	South Atlantic—Con.			
The North.....	12,702	-3,254	-20.4	District of Columbia.....	4	-7	-63.6
The South.....	680,266	-201,421	-22.8	Virginia.....	35,090	-4,583	-11.6
The West.....	26,103	+7,676	+41.7	West Virginia.....	671	+180	+36.7
New England.....	563	+404	+254.1	North Carolina.....	60,268	-16,605	-21.6
Maine.....	18	+1	+5.9	South Carolina.....	61,307	-16,118	-20.8
New Hampshire.....	2	-6	-75.0	Georgia.....	59,132	-27,657	-31.9
Vermont.....	12	-10	-45.4	Florida.....	9,758	-1,285	-11.6
Massachusetts.....	481	+417	+651.6	East South Central...	266,426	-54,533	-17.0
Rhode Island.....	5	-6	-54.5	Kentucky.....	5,547	-3,557	-39.1
Connecticut.....	45	+8	+21.6	Tennessee.....	27,975	-7,163	-20.4
Middle Atlantic.....	1,337	+130	+10.8	Alabama.....	73,364	-20,465	-21.8
New York.....	567	+107	+23.3	Mississippi.....	159,540	-23,348	-12.8
New Jersey.....	448	+64	+16.7	West South Central...	182,934	-79,415	-30.3
Pennsylvania.....	322	-41	-11.3	Arkansas.....	57,025	-22,554	-28.3
East North Central...	3,329	-154	-4.4	Louisiana.....	59,584	-14,186	-19.2
Ohio.....	1,099	-138	-11.2	Oklahoma.....	13,572	-9,365	-40.8
Indiana.....	380	-95	-20.0	Texas.....	52,753	-33,310	-38.7
Illinois.....	785	-109	-12.2	Mountain.....	17,243	+6,320	+57.9
Michigan.....	761	+200	+35.6	Montana.....	1,076	-108	-9.1
Wisconsin.....	304	-12	-3.8	Idaho.....	566	-132	-18.9
West North Central...	7,473	-3,634	-32.7	Wyoming.....	303	+40	+15.2
Minnesota.....	294	+49	+20.0	Colorado.....	402	-199	-33.1
Iowa.....	127	-27	-17.5	New Mexico.....	5,564	+2,219	+66.3
Missouri.....	3,690	-2,171	-37.0	Arizona.....	8,229	+4,276	+108.2
North Dakota.....	593	-208	-26.0	Utah.....	677	+109	+19.2
South Dakota.....	1,741	-999	-36.5	Nevada.....	426	+115	+37.0
Nebraska.....	283	+13	+4.8	Pacific.....	8,860	+1,356	+18.1
Kansas.....	745	-291	-28.1	Washington.....	1,507	+158	+11.7
South Atlantic.....	230,906	-67,473	-22.6	Oregon.....	623	-60	-8.8
Delaware.....	625	-182	-22.6	California.....	6,730	+1,258	+23.0
Maryland.....	4,051	-1,216	-23.1				

Between 1930 and 1940 the number of nonwhite farm operators declined 21.5 percent, the heaviest decline in the 9 divisions—32.7 percent—being reported for the West North Central States, although the decrease in the actual number was only 3,634. Far more sub-

<sup>1</sup> United States. Department of Commerce. Bureau of the Census. Sixteenth Census of the United States, 1940. Press release, Washington, May 16, 1941.

<sup>2</sup> The figures presented above and in tables 1 and 2, are for Negroes, Indians, Chinese, Japanese, and other nonwhite operators. However, a comparison of these data with the figures for Negro operators reported in the 1930 census shows that the figures for nonwhite operators are indicative of the status of Negro operators of most of the States.

stantial declines in the number of nonwhite farm operators occurred among nonwhite operators in the West South Central, South Atlantic, and East South Central divisions, as indicated in table 1.

In the decade under review the number of nonwhite farm operators decreased in the District of Columbia and 32 States, the decline in Texas totaling 33,310 (table 1). Among the other States having substantial decreases were Georgia with a reported decrease of 27,657 and Mississippi with a decline of 23,348. In the same decade the increase in nonwhite farm operators in 16 States was 9,214 ranging from 1 in Maine to 4,276 in Arizona.

The shrinkage in the number of nonwhite operators and the dearth of urban jobs during the prolonged depression indicate that many Negro farm operators were "forced off the land by factors over which they could exercise little or no control." In order to cut down production costs, large landowners had recourse to machinery and to more modern production methods and let many of their tenants go, especially the sharecroppers who were dependent on them for work stock and also to a certain extent for food and feed.

These and possibly other developments have without doubt been of greater disadvantage to Negro operators than to white operators, among whom there was a smaller percentage of tenants.

Of the 680,266 nonwhite farm operators in the Southern States reported in the 1940 census, 141,902 (20.9 percent) were full owners, 31,361 (4.6 percent) were part owners, and 506,638 (74.5 percent) were tenants.

From 1930 to 1940 the number of full owners rose in Alabama, Florida, Louisiana, Mississippi, North Carolina, Texas, and West Virginia, as shown in table 2. It will be noted that in the same period the number of tenants declined in each southern State with the exception of West Virginia, for which an increase of 128 is reported. In both Kentucky and Texas the decline in nonwhite tenants was over 50 percent. In the same decade the number of croppers decreased 23.9 percent. However, at the time of the 1930 census, croppers constituted 56.2 percent of all tenants but 59.0 percent at the time the 1940 census was taken.

TABLE 2.—Number of Nonwhite Farm Operators, by Tenure, in Southern States, 1930 and 1940

Division and State	Total			Full owners			Part owners		
	1940	1930	Percent of increase or decrease	1940	1930	Percent of increase or decrease	1940	1930	Percent of increase or decrease
Southern States.....	680,266	881,687	-22.8	141,902	140,496	+1.0	31,361	41,523	-24.5
South Atlantic.....	230,906	298,379	-22.6	61,881	60,714	+1.9	14,275	19,789	-27.9
Delaware.....	625	807	-22.6	301	309	-2.6	44	64	-31.2
Maryland.....	4,051	5,267	-23.1	2,059	2,362	-12.8	212	579	-63.4
District of Columbia.....	4	11	-63.6	1	7	-85.7	1	1	-100.0
Virginia.....	35,090	39,673	-11.6	18,930	19,200	-1.4	3,320	5,248	-36.7
West Virginia.....	671	491	+36.7	396	328	+20.7	31	45	-31.1
North Carolina.....	60,268	76,873	-21.6	13,937	13,198	+5.6	4,308	6,513	-33.8
South Carolina.....	61,307	77,425	-20.8	13,145	11,937	+10.1	3,939	4,055	-2.9
Georgia.....	59,132	86,789	-31.9	8,604	9,014	-4.5	1,414	2,067	-31.6
Florida.....	9,758	11,043	-11.6	4,508	4,359	+3.4	1,007	1,217	-17.2
East South Central.....	266,426	320,959	-17.0	40,496	39,420	+2.7	8,673	11,168	-22.3
Kentucky.....	5,547	9,104	-39.1	2,702	3,055	-11.6	462	1,120	-58.8
Tennessee.....	27,975	35,138	-20.4	5,393	5,687	-5.2	1,493	2,145	-30.4
Alabama.....	73,364	93,829	-21.8	11,776	11,417	+3.1	3,916	4,514	-13.2
Mississippi.....	159,540	182,888	-12.8	20,625	19,261	+7.1	2,802	3,389	-17.3
West South Central.....	182,934	262,349	-30.3	39,525	40,362	-2.1	8,413	10,566	-20.4
Arkansas.....	57,025	79,579	-28.3	8,943	9,058	-1.3	1,610	2,397	-32.8
Louisiana.....	59,584	73,770	-19.2	9,526	8,786	+8.4	1,661	1,717	-3.3
Oklahoma.....	13,572	22,937	-40.8	4,912	6,550	-25.0	1,171	1,784	-34.4
Texas.....	52,753	86,063	-38.7	16,144	15,968	+1.1	3,971	4,668	-14.9

Division and State	Tenants					
	Total			Sharecroppers		
	1940	1930	Percent of increase or decrease	1940	1930	Percent of increase or decrease
Southern States.....	506,638	698,839	-27.5	299,118	392,897	-23.9
South Atlantic.....	154,544	217,397	-28.9	85,746	124,171	-30.9
Delaware.....	272	415	-34.5	49	60	-18.3
Maryland.....	1,758	2,206	-20.3	562	597	-5.9
District of Columbia.....	2	2	-----	-----	-----	-----
Virginia.....	12,804	15,148	-15.5	5,897	6,797	-13.2
West Virginia.....	239	111	+115.3	9	23	-60.9
North Carolina.....	41,994	57,139	-26.5	26,803	34,805	-23.0
South Carolina.....	44,194	61,362	-28.0	22,061	31,046	-28.9
Georgia.....	49,078	75,636	-35.1	29,303	49,450	-40.7
Florida.....	4,203	5,378	-21.8	1,062	1,393	-23.8
East South Central.....	217,176	270,230	-19.6	136,821	150,239	-8.9
Kentucky.....	2,377	4,914	-51.6	1,507	3,116	-51.6
Tennessee.....	21,079	27,272	-22.7	13,870	16,559	-16.2
Alabama.....	57,651	77,875	-26.0	19,334	27,572	-29.9
Mississippi.....	136,069	160,169	-15.0	102,110	102,992	-.9
West South Central.....	134,918	211,212	-36.1	76,551	118,487	-35.4
Arkansas.....	46,453	68,101	-31.8	33,122	45,465	-27.1
Louisiana.....	48,380	63,213	-23.5	27,549	32,214	-14.5
Oklahoma.....	7,475	14,559	-48.7	1,008	4,560	-77.9
Texas.....	32,610	65,339	-50.1	14,872	36,248	-59.0

## CHARACTERISTICS OF NEGROES UNDER OLD-AGE INSURANCE SYSTEM <sup>1</sup>

OF THE approximately 5.2 million workers who were paid taxable wages in 1938 in 12 Southern States (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia) and the District of Columbia, 1.2 million (23 percent) were Negroes. It is estimated that these 12 States and the District of Columbia include 58 percent of all Negro workers under old-age and survivors' insurance and 42 percent of all taxable wages paid to Negroes in the United States.

Although men predominated among both Negro and white workers in all 13 jurisdictions, the percentage of Negro women among all Negro workers in covered employment was considerably lower than the percentage of white women among all white workers—16 percent as compared with 30 percent for the 12 Southern States and the District of Columbia taken as a whole. In Arkansas, Negro women made up only 7 percent of all Negro workers for whom taxable wages were reported, while in North Carolina they formed 29 percent. For white women the percentage variations from State to State were not so marked, ranging from 23 percent in Kentucky to 36 percent in Georgia. In any analysis of taxable wages it should be emphasized that large numbers of Negroes are in agriculture and domestic service (noncovered employment) and that the wages in such employment are low.

### *Ages of Workers*

Proportionately, more Negro than white wage earners were under 15 years of age. This is accounted for in part by the fact that very young Negroes must frequently supplement the generally meager family income, and in part by the briefer school terms and a less strict enforcement of school-attendance and child-labor laws.

The ratio of the Negro workers in the 15–24 age group to all Negroes receiving taxable wages was smaller than the corresponding ratio for the white workers in the same age group. This may be explained by the larger number of white apprentices, for in numerous cases trade-union control seriously restricts apprenticeship opportunities for Negro youth. Furthermore, employers ordinarily would rather hire older and more experienced Negroes to do the jobs for which they might employ available younger white workers.

The differences in the age distribution become more significant with advancing age, particularly from the point of view of insured status, since to the older workers primary benefits are of more immediate concern. There were no substantial differences in the relative percentages of Negro and white men over 45 years of

<sup>1</sup> From an article by Charles L. Franklin in the Social Security Bulletin, Washington, March 1941. Only two designations are given, "Negro" and "White," the latter including all groups except Negroes.

age. On the other hand, the proportion of older Negro women in covered employment was larger than that of white women, possibly because Negro women find it necessary to continue at work even after marriage and do not withdraw from the labor market to the same extent as white woman workers. Their continuance in employment is to their advantage in accumulating additional quarters of coverage which may be used to maintain a currently insured status or acquire a fully insured status.

*Average Taxable Wages, by States*

In the last quarter of 1938 in 12 States and the District of Columbia taken as a whole, the average annual taxable wage<sup>2</sup> of all Negro workers in covered employment was, as stated above, \$388 or less than 50 percent of that for all white workers (\$839). The highest averages were paid in the District of Columbia—\$649 for Negro men and \$1,382 for white men, \$561 for Negro women and \$806 for white women, while the lowest averages were reported as follows: Negro men, approximately \$300 in Mississippi and South Carolina; white men, \$816 in Arkansas; Negro women—\$187 in Mississippi; and white women, \$408 in Arkansas, as shown in table 1.

TABLE 1.—Average Annual Taxable Wage, Fourth Quarter of 1938,<sup>1</sup> and Average for Negro Workers as Percent of Average for White Workers, in Specified States

State	Total	Negro	White	Male			Female			Percent of—		
				Total	Negro	White	Total	Negro	White	Total Negro to total white	Male Negro to male white	Female Negro to female white
12 States and the District of Columbia.....	\$736	\$388	\$839	\$827	\$413	\$974	\$483	\$255	\$519	46.2	42.4	49.1
Alabama.....	692	437	801	754	454	913	445	249	473	54.6	49.7	52.6
Arkansas.....	635	341	722	692	346	816	397	272	408	47.2	42.4	66.7
District of Columbia.....	1,060	635	1,182	1,185	649	1,382	777	561	806	53.7	47.0	69.6
Florida.....	685	342	805	769	361	945	440	227	475	42.5	38.2	47.8
Georgia.....	661	318	777	756	344	935	450	194	493	40.9	36.8	39.4
Kentucky.....	789	496	824	873	540	916	496	254	515	60.2	59.0	49.3
Louisiana.....	783	386	944	859	405	1,070	479	236	527	40.9	37.9	44.8
Maryland.....	948	548	1,013	1,094	597	1,190	572	293	596	54.1	50.2	49.2
Mississippi.....	557	293	725	606	303	864	386	187	419	40.4	35.1	44.6
North Carolina.....	653	336	742	751	370	868	453	253	500	45.3	42.6	50.6
South Carolina.....	606	294	703	677	308	829	425	189	451	41.8	37.2	41.9
Tennessee.....	736	413	805	831	437	934	488	276	510	51.3	46.8	54.1
Virginia.....	779	421	892	884	464	1,028	491	268	545	47.2	45.1	49.4

<sup>1</sup> Data not adjusted for 1937 and 1938 carry-over. For the United States, workers with taxable wages in fourth quarter of 1938 represent 77 percent of all workers and their taxable wages represent 89 percent of total wages, in 1938 tabulation.

The lower taxable wages of Negroes are largely the result of a greater degree of shifting between covered and noncovered jobs, more irregular and part-time work in employment which is covered, and the usually

<sup>2</sup> Averages were derived from the total of 1938 taxable wages of workers with taxable wages in the fourth quarter of 1938; they therefore include taxable wages of all full-time, but not all part-time, seasonal, or intermittent workers and are consequently slightly higher than if they had been based on the taxable wages paid to all workers employed at some time during 1938.

lower wage rates. Whereas in 1938 Negroes constituted 22.7 percent of all covered workers in the selected Southern States and the District of Columbia, their taxable wages amounted to only 12.0 percent.

### Distribution of Workers by Wage Groups

A comparison of total annual taxable wages paid Negro and white workers in covered employment at \$200 wage intervals is given in table 2. In the 12 States and the District of Columbia, in covered employment, 33 percent of all Negro men but only 16 percent of all white men were paid less than \$200 in taxable wages in 1938, while 51 percent of all Negro women in contrast to 28 percent of all white women were in this wage group. The concentration of both white and Negro workers in the wage group \$1 to \$199 is striking. This concentration was also reported for all workers in the United States.

About 77 percent of all Negro workers and about 46 percent of all white workers were paid under \$600, while 95 percent of all Negro workers, in contrast to 69 percent of all white workers, were paid less than \$1,000 in taxable wages. As for the Negro women, only 9 percent were paid \$600 or more and only 1 percent were paid over \$1,000.

TABLE 2.—Percentage Distribution of Workers With Taxable Wages in Fourth Quarter of 1938,<sup>1</sup> by \$200 Wage Intervals, in Southern States and District of Columbia

Wage interval	Total			Male			Female		
	Total	Negro	White	Total	Negro	White	Total	Negro	White
\$1-\$199 .....	23.2	35.8	19.6	20.5	33.1	16.0	31.1	51.0	27.9
\$1-\$99 .....	14.4	22.0	12.2	12.4	20.2	9.6	20.1	32.2	18.2
\$100-\$199 .....	8.8	13.8	7.4	8.1	12.9	6.4	11.0	18.8	9.7
\$200-\$399 .....	14.7	22.7	12.3	13.3	21.9	10.3	18.4	26.8	17.1
\$400-\$599 .....	14.8	18.2	13.7	13.5	19.2	11.5	18.1	12.9	19.0
\$600-\$799 .....	12.9	12.4	13.0	12.6	13.4	12.3	13.6	6.7	14.7
\$800-\$999 .....	9.1	6.0	10.1	9.5	6.8	10.4	8.2	1.8	9.2
\$1,000-\$1,199 .....	6.4	2.8	7.5	7.2	3.2	8.6	4.4	.5	5.1
\$1,200-\$1,399 .....	4.8	1.2	5.8	5.5	1.3	7.0	2.7	.2	3.0
\$1,400-\$1,599 .....	3.5	.5	4.3	4.2	.6	5.5	1.4	.1	1.6
\$1,600-\$1,799 .....	2.4	.2	3.1	3.1	.3	4.0	.7	(?)	.8
\$1,800-\$1,999 .....	2.2	.1	2.7	2.7	.1	3.7	.5	(?)	.6
\$2,000-\$2,199 .....	1.5	.1	1.9	1.9	.1	2.6	.3	(?)	.3
\$2,200-\$2,399 .....	1.0	(?)	1.3	1.3	(?)	1.8	.2	(?)	.2
\$2,400-\$2,599 .....	.8	(?)	1.1	1.1	(?)	1.4	.1	(?)	.1
\$2,600-\$2,799 .....	.6	(?)	.8	.8	(?)	1.1	.1	(?)	.1
\$2,800-\$2,999 .....	.4	(?)	.6	.6	(?)	.8	(?)	(?)	.1
\$3,000 and over .....	1.7	(?)	2.2	2.2	(?)	3.0	.2	(?)	.2
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average wage .....	\$736	\$388	\$839	\$827	\$413	\$974	\$483	\$255	\$519

<sup>1</sup> See table 1, footnote 1.

<sup>2</sup> Less than 0.05 percent.

### Conclusion

According to the author of the article under review, it is obvious "that Negro workers are at a disadvantage with respect to the old-age and survivors, insurance program, primarily because of three major



factors—employment excluded from coverage; mortality rates; and amounts of earnings in covered employment.”

With reference to the briefer life span of Negro workers, this factor precludes, for relatively more workers in this racial group, an opportunity to qualify for primary benefits at the age of 65. On the other hand, it is pointed out that in the younger groups “the greater mortality among Negroes than among white workers would make benefits possible for a relatively larger number of Negro widows with young children, if the deceased wage earners have had currently insured status at the time of their death.”

# *Migratory Workers*

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## AGRICULTURAL MIGRATION ON THE ATLANTIC COAST

OWING to the widespread interest in migration of farm workers and the social problems involved, the Labor Division of the Farm Security Administration made a survey of the Atlantic Coast area to establish a factual basis for considering remedial action.<sup>1</sup> The preliminary results of this investigation are now available and are summarized by the Labor Division in part, as follows. A final report will be published later.

### *Potato Migration*

The study revealed that the potato migration, though not the largest in terms of numbers involved, is the one which is of definite interstate character, moving successively from northern Florida into South Carolina, North Carolina, Virginia, and New Jersey before turning south again. Potato picking starts in early April in the Hastings section of north Florida, attracting approximately 3,000 workers.

When potatoes are finished there, in the middle of May, between 1,500 and 2,000 of the workers move into Charleston County, South Carolina, concentrating mainly in and around Meggett. The harvest is completed here about the middle of June, and the migrants move into North Carolina, where there are several concentrations, the largest being the Elizabeth City area, taking in Pasquotank, Camden, and Currituck Counties. By the time the movement reaches this area its numbers have been augmented by local workers, bringing the number up to 3,000.

The harvest is completed here in from 4 to 6 weeks, and by the third week in July the migrants are on their way across the Norfolk-Cape Charles Ferry. Once across, the migration divides. Part of it stays on the Eastern Shore of Virginia and Maryland, part of it goes directly into the Hightstown area of New Jersey.<sup>2</sup>

<sup>1</sup> U. S. Department of Agriculture. Farm Security Administration, Labor Division. Preliminary Report on Interstate Migration of Agricultural Labor in the Atlantic Seaboard Area. Washington, November 1940.

<sup>2</sup> For a more detailed statement on New Jersey migration see p. 410 of this issue.

There is evidence that the greatest numbers finally merge in the latter area in late July and remain there for about 6 weeks. By the time the migration has reached New Jersey, it numbers between 4,000 and 5,000 workers. A portion of the migrants continue into Long Island, New York, for the potato harvest, but the great majority of migrants turn south again.

The migration along the Atlantic Coast is made up almost completely of Negroes, of whom the great majority are unattached male workers. Relatively few of these workers have cars, the majority being carried on the trucks of contractors. These contractors are largely truckers and farmers from north Florida who have invested heavily in trucking and potato digging and grading machinery and who move up along the coast contracting with the farmer to dig, haul, and grade the potatoes for a set price. The labor is brought along to perform the job; and its presence on the scene is assurance to the farmer that the contractor is not a racketeer who will take an advance from the farmer and not show up with the labor.

Frequently the farmer will contract only the hauling and grading of the potatoes, and will hire the pickers and pay them himself. In such cases, it is to the contractor's benefit to have on hand a labor supply to use as an inducement to the farmer to turn over the hauling and grading jobs to the contractor.

The practice relieves the farmer of major responsibilities in the handling of labor, particularly where he lets a contract for the entire job of digging, hauling, and grading. In some areas, particularly New Jersey and South Carolina, more than one-half of the potatoes are dug under the contract system. Frequently an irresponsible contractor, unable to get any contracts, may leave a group of workers stranded somewhere along the line without transportation.

Housing for the potato migrants along the Atlantic coast consists mainly of unoccupied boxcars, the floors of packing sheds and grading stations, and unoccupied haylofts, barns, and shacks on the farm. Cooking facilities are completely absent except for an occasional broken-down stove discarded by the farmer. Weird collections of scrap iron and bricks ingeniously wired together somehow serve as cooking facilities for the majority of migrants. Under such conditions, the health of migrants has not flourished; but it cannot at this time be stated to what extent migration under such circumstances has been responsible for ill health.

While there are no tabulations available on earnings and income of all the potato migrants at this time, there are data which show that the annual income of these workers is extremely low, falling into the income level of the poorest sections of the American population.

### Other Migrations

In addition to the interstate, coastal migration of workers for the potato harvest, there are several other significant migrations on the Atlantic coast of a more local character, but involving larger numbers than even the interstate migration. The strawberry harvest in Chadbourn, N. C., draws 5,000 Negroes from a radius of 75 miles. The season in Chadbourn begins in early April and is completed in 6 weeks. Only 70 miles away, the Wallace area draws about 10,000 migrants for the strawberry harvest, at about the same time as the Chadbourn area. This migration also is locally recruited. While the moves are short ones, they are significant in that such large numbers flock into these areas for such low returns, indicating that the place of origin is a depressed "problem" area. For instance, it was found that 40 percent of the Chadbourn migrants originate in Marion County, South Carolina, only about 20 miles from Chadbourn. Upon further investigation of Marion County, it was found that in the town alone, with a population of 4,000, there were about 2,000 usually without work and farther south in the county there were several thousand subsistence-level farmers whose position in the economy was declining to the point where even subsistence at the lowest level is impossible.

The whole background against which the seasonal migration of large numbers of Negroes takes place is the general impoverishment of agriculture in the South, and a long-time trend in certain areas of the South Atlantic States leading to the displacement of Negroes on the farm. This is creating a large group of foot-loose people whose background in agricultural work leads them to seek seasonal agricultural labor, which they often obtain through acceptance of a lower wage scale than that acceptable to the local labor available.

Another significant migration occurring along the Atlantic coast is the movement of several thousand Italian families from Philadelphia and Camden into the truck areas of southern New Jersey. This migration does not present the same kind of problem, since the group is not so depressed as the Negroes who migrate. The problem of these families is one of unemployment and underemployment in the city.



### MIGRANT WORKERS IN DELAWARE

MOST of the migratory labor in Delaware is employed in canneries or on the nearby farms that supply the canneries with produce. Eight canneries were found to have camps for migratory workers in 1940 when the United States Women's Bureau made an investigation.<sup>1</sup> Here the migrants and their families could live during their stay in the

<sup>1</sup> U. S. Department of Labor. Women's Bureau Bull. No. 185: The Migratory Labor Problem in Delaware, by Arthur T. Sutherland. Washington, 1941.

State. The camps were of frame construction, divided into single rooms. Beds and bunks were furnished with straw, the occupants supplying their own bedding. Furniture was either lacking or of a makeshift character. The water supply was outside the buildings. Many families were provided with oil stoves or brought their own, but practically all camps had cooking facilities in sheds, where people took their turns. Three camps had electric light.

All the migrants were Negroes and included men, women, and children. Travel in family groups was general. About one-fourth of the migrants were unattached individuals. Some groups arrived as early as June, but the largest numbers came in July or August. Nearly all of them expected to remain until the end of the canning season, which was October in most cases.

On the basis of numerical importance the migrants were from Maryland and Florida, Virginia, North Carolina, Delaware, and Alabama, in the order named. Relatively few came from seven other southern and eastern States, and one individual came from the Bahama Islands. Six canners had obtained a part of their migrant force from a labor agent or their camp boss. These workers were transported to and from camp in company trucks. Most of the migrants, however, came in private cars, and a few by bus or train.

Their employment condition was not very favorable, as cash income was low and unemployment prevalent. Average earnings in 1939 for all wage earners together—family members and individuals without families—were \$6.64 a week for the average of 28.5 weeks worked. In the 8 or 9 months of 1940, for the average of 16½ weeks worked, earnings averaged \$6.75 weekly. In addition to the money income, the migrant worker was given a room in the camp without charge, as already stated. In one case electricity and heat were provided without charge; and in another, electricity in each room. In a third, some migrants had free electricity.

As the majority of migrants were members of families and each family group lived in one room, the following tabulation indicates a condition of overcrowding.

	<i>Number of families</i>	<i>Total persons</i>
All families.....	155	418
	==	==
2 persons.....	88	176
3 persons.....	41	123
4 persons.....	16	64
5 persons.....	6	30
6 persons.....	3	18
7 persons.....	1	7

Of the 418 persons in the 155 families, 174 were women, 149 men, and 95 children under 16 years old. Of the 144 migrants traveling as single or individual persons, 67 were women and 77 were men. In all,

there were 282 males and 280 females, including the 95 who were under 16 years of age; 37 who were 16 and under 20; 155 who were 20 and under 30; 119 who were 30 and under 40; and the remaining 156 who were older.



## FARM MIGRANTS IN NEW JERSEY

TWO distinct groups of migrant farm workers are employed in the State of New Jersey. In the comparatively small but concentrated potato-growing region of Mercer, Middlesex, and Monmouth Counties, the migrants are chiefly adult, unattended Negro males. Migratory workers in the vegetable, fruit, and berry regions of southern New Jersey (Burlington, Camden, Gloucester, Salem, northwestern Atlantic, and Cumberland Counties) are largely white, and of Italian stock. They travel as family or semifamily units, with women and children working as well as men. A discussion of the habits of farm migrants, the economic aspects of the problem as it exists in New Jersey, and possibilities for improving conditions, which appeared in a recent publication of the United States Bureau of Agricultural Economics, is summarized below.<sup>1</sup>

### *Characteristics of Farm Migrants*

Not more than 15 percent of the migrants in the potato region are families or parts of families. About 90 percent come from the seaboard south of New Jersey, primarily from Florida and Virginia. Approximately 40 percent of the total are crop followers throughout the year, and many of the others have a comparatively long migratory season. Workers from the deep South tend to make two or more moves to various points along the east coast before arriving in New Jersey where they usually remain from mid-July into October. Work is at its peak in August and September.

In contrast, 90 percent of the vegetable, fruit, and berry pickers in southern New Jersey come from the Philadelphia-Camden areas, and a number from Trenton, Chester, Newark, and New York City. While, as already stated, white workers predominate, appreciable numbers of both Negroes and whites from the South are attracted to the work. The harvest season lasts from early May to the middle of October, with the peak in July and August. The National Child Labor Committee found in 1938 that in 251 Italian migrant families employed in southern New Jersey, one-half were mothers and older children, 38 percent were children under 16 years old, and 12 percent were fathers. Children's earnings are important in the family income. Unlike nearly all western migratory agricultural workers and the cen-

<sup>1</sup> Land Policy Review, Washington, June 1941, pp. 29-37: Farm Migrants in New Jersey, by Samuel Liss.

tral New Jersey Negro migrants, the Italians do not seek relocation. They are practically all one-move, part-time, agricultural migrants who invariably have homes and permanent residences. A typical Italian migratory family arrives in New Jersey in late May and stays until the end of September or the middle of October, if remaining over for the cranberry season.

A third group of migrants, who are not strictly agricultural, consists of those attracted to the oyster industry at the southern tip of the State in the vicinity of Port Norris, Bivalve, and Heislerville, in Cumberland County. The work is primarily oyster shucking and many of the workers come from Delaware and the eastern shore of Maryland in advance of the oyster season beginning in September. They find employment on southern New Jersey farms. From 300 to 500 Negroes come each year. Related industries that attract migratory labor are the packing, processing, and canning of fruit and vegetables, chiefly in Camden, Salem, Swedesboro, and Bridgeton.

### *Economic Aspects*

Nonresident labor was needed to harvest the New Jersey potato crop even before the last war. The laborers themselves and the steadiness of work have changed since then and the present pattern did not crystallize until after the war period. From 1910 to 1940 the potato crop of central New Jersey increased from 36 to 75 percent of the State total, and the relative acreage also rose from 34 to 71 percent of the State total. In all, 4,000 to 5,000 migratory workers are employed. In this work Negro migrants perform at least 75 percent of the harvesting, grading, sacking, and hauling. The rest are Negro and white workers from nearby. About one-half of the migrants are attached to farms (i. e., available but not always working) for 10 weeks or more, slightly more than 60 percent for 8 weeks or more, and a little less than 80 percent for 6 weeks or more.

Need for migrants is proportionately lower in southern New Jersey. Probably 25 to 40 percent of the labor employed on the farms and in packing sheds and canneries is migrant or nonlocal. Approximately 800 to 1,000 Italian families, comprising 4,500 to 6,000 persons, make the annual journey to the farms of southern New Jersey. Of this total 80 percent, or 3,600 to 4,800 persons, actually work. Including all those who come from the outside, 6,000 strictly non-local farm workers must be housed at the peak of the season. Thus, migrants for the potato crop and those in the other branches of agriculture aggregate 10,000 or more.

Problems of housing migrants appear less serious in southern than in central New Jersey, because in the former section the migrants are employed in less concentrated areas. Also, a local labor supply has been built up through previous settlement of migrant Negroes

in small towns and open country communities. This is true to a less extent of former Italian migrants.

The need for migrant potato workers has arisen from changed methods of harvesting. Whereas the crop was formerly dug on a normal workday basis, the job is now done at a feverish pace when weather and market conditions permit. As potatoes are subject to scorch from the sun, the work is performed from 4 to 5 a. m. to 10 or 11 a. m. and again from 4 p. m. to sundown. Negro workers have come to be preferred because of their availability and willingness to work at a moment's notice and their ability to stand the sun.

### *Labor-Contract System*

Most of the commercial potato growers hire migrants under the labor-contract system. Besides recruiting labor the contractor supplies transportation and supervises the work. The grower frequently does no more than to give instructions and to pay off the contractor. If the farmer contracts for labor himself, the contractor is instructed to bring a stated number of workers. The contractors are Negroes from Florida, Georgia, North Carolina, South Carolina, and Virginia. Some operate on regular routes from Florida and South Carolina up the Atlantic seaboard. They follow different methods of recruiting and some have their own trucks for transporting the migrants. Whatever the arrangement, the migrant usually pays his own transportation charges both ways. While operators almost universally accept the contracting system, workers do so grudgingly as it may operate to their disadvantage.

More than one-half of the Italian migrants are recruited by contractors and the others find work for themselves. Agents in the southern part of the State are of two general types—the resident farm foreman and the resident or nonresident "padrone" who is a professional labor contractor. The foreman type usually lives on a New Jersey farm and hires labor for his employers. The padrone is the major supplier of Italian farm labor. Some padrones live in small towns and cities and others in Philadelphia, from which they operate their own trucks for transporting the migrants. The padrones furnish labor for one or more growers and strive to obtain a mobile labor supply. Transportation charges are paid by the farmer to the contractor who supplies the vehicles. Wages are usually paid to the workers direct but in some cases to the padrones. It is reported that advances have been made to workers during the winter, on the condition that they join the padrone's gang in the summer. The report here reviewed states that the "system is uneconomical and in most cases undesirable."



*Proposals for Improving the Situation*

The growth of large-scale industrialized farms in New Jersey has raised new problems, of which a local labor shortage is not of the greatest importance. The principal agricultural labor problem is reflected in substandard housing and living conditions, and lack of adequate year-round employment for the year-round population. Outside labor may be providing the additional weight of numbers sufficient to depress wages and other working conditions of local labor. Therefore, it is recommended that a program should be adopted designed to increase employment opportunities for local labor on farms, in the canneries, and other local industries. To achieve this, regularization of the local labor market and control of the migratory labor influx are necessary. Improved housing is urgently needed for locally resident seasonal farm and cannery workers. In this regard, the report states that a Farm Security Administration community-housing project for seasonal farm workers would be of value. Conditions could be improved also by regularizing production schedules. Since, for example, irregular potato harvesting results from market fluctuations, effort should be made to minimize the influence of market price and market demand on production and employment. This would mean steadier work and higher earnings and might mean that larger numbers of local workers would be attracted to the harvest. A more immediate measure is to canvass all sections of the local labor market, including public relief rolls, the WPA, and employment offices, to find locally available labor.

# Vacations With Pay

## PAID VACATIONS UNDER AGREEMENTS IN THE TEXTILE INDUSTRY <sup>1</sup>

UNDER the terms of agreements negotiated by the Textile Workers Union of America, approximately 100,000 textile workers employed by 171 companies receive vacations with pay. Additional companies, especially in the carpet and rug branch of the industry, grant vacations with pay outside the terms of the union agreement.

As in most other manufacturing industries, few textile workers received vacations with pay prior to 1937. Since that date an increasing number of union agreements have provided vacations and, in some instances, holidays with pay. The first contractual arrangement for vacations in the carpet and rug branch of the industry was with the Bigelow-Sanford Carpet Co. in 1937. At the present time practically all the carpet and rug companies grant vacations. In the synthetic-yarn industry, the 1937 agreement with the American Viscose Co. initiated the vacation movement. Nine of the 17 cotton-textile agreements providing vacations with pay are with companies situated in the South. Paid vacations in the woolen and worsted industry are of recent date, several large companies in the Pacific and Middle Atlantic States as well as a few smaller companies in other localities, now providing vacations. In the knit-goods industry, four large corporations, Munsingwear, Utica Knitting Corporation, Arcadia Knitting Mills, and Coopers, Inc., formally acknowledged the practice of paid vacations in their contracts.

### *Provisions for Vacations With Pay in Contracts With Textile Workers Union, May 1, 1941,*

Industry	Number of contracts	Number of employees	Industry	Number of contracts	Number of employees
All industries .....	154	94,356	Dyeing and finishing .....	42	6,347
Synthetic yarn .....	8	35,090	Bags .....	22	3,621
Carpets and rugs .....	10	14,171	Mattresses .....	4	113
Cotton yarn and cotton cloth .....	17	17,353	Cordage and rope .....	4	920
Cotton batting .....	6	366	Knit goods .....	4	5,300
Woolen and worsted .....	14	4,635	Curtain .....	6	263
Silk and rayon .....	4	1,955	Miscellaneous .....	13	4,192

<sup>1</sup> Summarized from a report prepared by the Textile Workers Union of America (C. I. O.), Research Department.

*Types of Vacation Provisions*

The great majority of the T. W. U. A. agreements provide a uniform plan of 1 week's vacation with pay after 1 year's service with the company. Shorter periods of service are required by 10 contracts, ranging in their requirements from 2 months' service to service of 6 months, 1,000 hours, 35 weeks, 39 weeks, 10 months, and 48 weeks. Four agreements grant vacations with pay to all employees who are on the pay roll on a given date. In contrast to these more liberal provisions are 5 contracts which prescribe a 2-year, and one which sets a 5-year, service period as a minimum.

A number of the agreements extend vacation benefits to employees with less than a full year's service. These plans vary but are usually graduated up to 1 week's pay according to the number of weeks or months worked.

Six contracts provide 2 weeks' pay for longer-service employees. Four of these require 5 years' service for 2 weeks' vacation with pay, while one establishes a minimum of 15 years and the fifth a 2-year service period. One of the companies agrees to pay 4 percent of the annual earnings to these longer-service employees, while a second agrees to pay 1 day's vacation pay for each 20 days' full employment, with the provision that the vacation allowance shall not exceed 2 weeks in case of employees with 2 years' service or more and 1 week for employees with less service.

*Holiday Pay*

Twenty-eight agreements negotiated by the T. W. U. A. provide pay for holidays. Sixteen of these also have vacation allowances while 12 provide pay for holidays but not for vacations. Most of the agreements having holiday pay provide for 6 holidays, although the number ranges in the various agreements from 2 to 7. The holiday pay usually consists of pay for 8 hours at the normal average hourly earnings of the employee. Holiday pay is usually given to employees who have been with the company 70 or 80 days prior to the holiday.

**PAY IN LIEU OF VACATIONS IN CERTAIN FEDERAL SERVICES**

FIELD-SERVICE employees of the War and Navy Departments, the Coast Guard, and the Panama Canal, who are required to forego their annual leave during the national emergency, will be granted compensation, under the terms of an Executive order issued on July 5, 1941.<sup>1</sup>

<sup>1</sup> Federal Register for July 8, 1941.

Compensatory payment for forfeiture of annual leave is to be made to those employees of the field services of the designated agencies who cannot be spared without detriment to the national defense, and who would otherwise permanently forfeit their vacations because of excess accumulation or because of lack of accumulation privileges. Such compensation is to be only for the portion of the requested leave which otherwise would be forfeited, and is to be, in addition to the regular pay, the equivalent of the pay that they would have drawn for such leave. Compensation for annual leave is not subject to deductions for retirement purposes.

The order also applies to employees who are engaged in construction, manufacturing, processing, and similar pursuits, and whose services are of a character in demand by private industry and cannot be spared without detriment to the national defense. They may be allowed compensation in lieu of current annual leave due them under existing law and regulations, regardless of the amount of accumulated leave to their credit. Maximum leave in lieu of which compensation is paid may not exceed the amount of accrued leave to the credit of the employee at the time of payment and may not exceed the current annual leave to which the employee is entitled during that calendar year and which he has not taken.

A deduction from the employee's statutory leave is required for the number of days for which he has received compensatory pay.

The Secretaries of War, the Navy, and the Treasury, and the Governor of the Panama Canal, who are empowered to authorize these payments may delegate their powers to such subordinate officers as they deem necessary under this order. All payments must be authorized specifically in advance of the payment and the need for each employee certified.

No employee may be required to forego his vacation who for exceptional reasons, such as physical condition, is determined by a responsible designated officer to require all or part of his vacation, in the interest of health or efficiency.

The enabling laws for the President's action were enacted on June 28, 1940 (54 Stat. 676, 678), and June 3, 1941 (Public Law 100, 77th Cong.).

## BRITISH VACATION POLICY IN 1941

A FORMAL announcement was made in the May 1941 issue of the Ministry of Labor Gazette that the British Government favored observance of paid vacations this year. To insure efficiency in war production and other essential business it was felt that the customary summer holiday, not to exceed one week, should be taken. This does not mean that vacations should necessarily be granted at the usual times or in the usual way. Although the Government believes that a vacation should provide a physical and mental change from the person's ordinary work, owing to existing conditions travel should be kept at a minimum. Special travel facilities are not being made available, as the lines must continue to give priority to the movement of essential traffic.

Conditions under which vacations shall be granted are laid down as follows: (1) Wider use of rotation of vacations by individuals to avoid dislocating production and the ordinary routine of the country; (2) a plant shut-down for the holiday period, if advantage can be taken of this time to overhaul the plant; (3) provision to enable goods to be received even though establishments are closed; and (4) avoidance of a general holiday period in a particular town or area, even though this may in a number of cases prevent families from vacationing together.

A week's vacation in one spell is favored, but it may be desirable to divide it into two in particular cases, as was done in 1940. Where necessary, modification of the law to permit such a division was promised by the Government. If the vacation is divided, one spell should immediately precede or follow a week-end, if this is practicable. Concentration of vacations in August is to be avoided, with vacations spread over the period from May to October insofar as possible. The announcement points out that existing laws or collective agreements already make provision regarding payment for vacations and payment for work done on days when labor would not ordinarily be performed.

Subject to unforeseen circumstances, it was not expected to cancel the Whit-Monday holiday in England and Wales <sup>1</sup> and the Victoria Day holiday in Scotland.

<sup>1</sup> See Monthly Labor Review for September 1940 (p. 573).

## *Social Security*

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### DISMISSAL COMPENSATION BY A GROUP OF PHILADELPHIA FIRMS

THE characteristics of Philadelphia companies that pay dismissal compensation to employees differ from those of companies having such plans throughout the country. This is brought out in a recent survey made in the Wharton School.<sup>1</sup> The investigation in Philadelphia covered 29 Philadelphia firms, and comparisons are made with the results of a Nation-wide study by the National Industrial Conference Board issued in 1939. Although most national plans are found in firms with relatively low labor costs and noncompetitive markets, this was not true in Philadelphia. Also, establishments paying dismissal compensation in the country as a whole were generally larger than in Philadelphia. For example, the median numbers of employees were 2,100 and 923, respectively. In Philadelphia the percentage of plans in companies employing no wage earners was substantially higher than the national percentage, owing to the larger proportion of financial institutions in the local sample.

It was concluded, on the basis of study, that no appreciable difference exists between national and local plans of dismissal compensation. Payments under both are inadequate and uncertain. This, however, is not a condemnation of the practice, the author states, as the financial assistance granted has been proved valuable in the recipient's readjustment after dismissal. As the difficulty of obtaining reemployment increases with age, it is recommended that greater weight be given to age as a factor in computing payments. By more widespread use of funds, the dependency of payments upon successful short-run business operations could be minimized. In this way much of the present uncertainty concerning the actual disbursement of dismissal wages could be avoided.

Although Philadelphia firms are exceptional, it is concluded that the total number of firms making termination allowances to employees will probably remain a small percentage of the total, as only companies with low labor costs and little competition seem financially able to

<sup>1</sup> Beck, Fred W., Jr.: *Dismissal Compensation in 29 Philadelphia Companies*. (Reprinted from "Philadelphia," issued by Philadelphia Chamber of Commerce, June 1941, pp. 13-16.)

make the payments. The author of the study foresees that many companies will continue to operate their plan independent of State unemployment compensation. Modification is likely, in order to take advantage of taxes paid for social insurance. This would entail making dismissal compensation supplementary to State benefits.

### *Characteristics of Plans*

Of the 29 Philadelphia plans, 11 were introduced between 1936 and 1940; the date of 5 was unknown; and the remaining 13 were adopted prior to 1936. Eighteen plans were formal and 11 informal. In all, 15 of the firms had fewer than 1,000 employees each and the remaining 14 had more. Ten of the plans were in effect in manufacturing firms, 10 in financial institutions, 4 in public utilities, and 4 in retail stores; and for 1 the industry classification was not specified.

In the National Industrial Conference Board study it was found that 7.2 percent of 2,700 companies had formal dismissal-wage plans. In Philadelphia, 10.5 percent of 190 firms had formal plans and an additional 5.6 percent had informal plans. Approximately 21 percent of the 4,986,853 employees in the firms surveyed by the Conference Board were covered by formal plans. In Philadelphia, 38,878 workers (or 20 percent of 172,509) were covered by formal plans and an additional 7,450 by informal plans. One-third of the national plans were in firms having no wage earners on their pay rolls, as compared with one-half in Philadelphia. Both studies show that about 60 percent of the firms employing both salaried and hourly-paid workers include both classes under their plans' benefits.

Most national plans were operated for the benefit of permanently dismissed employees, but in Philadelphia a clear-cut distinction was not made between permanent and temporary lay-off. The majority of companies in Philadelphia and elsewhere did not give compensation to employees dismissed for cause.

Length of service was the most common requisite for eligibility in both national and local Philadelphia plans. One year of service was the most widespread service minimum. Companies having informal plans considered service qualitatively as well as quantitatively. Age, earnings, and dependents were seldom taken into account and in Philadelphia only age was considered and then only by two firms. The most usual rate of compensation was 1 week's pay for 1 year's service. (This applied to formal plans.) Nationally the compensation was paid as a lump sum. In Philadelphia, lump-sum or installment payments were used, according to suitability.

Few firms had created funds or reserves for the payment of dismissal compensation. In Philadelphia, one fund and one reserve had been established. Outside Philadelphia most plans were administered by personnel or industrial-relations departments. In Philadelphia, one-half of the formal plans were run by personnel officers with a provision that certain cases be referred to superior officers; 5 formal plans were handled by a designated person or department; 3 could be put into operation after consultation between two levels of authority; and one was administered jointly by employees and the employer. Most local informal plans were supervised by a single appointed official. A single administrator was thus responsible for formal and informal plans in the majority of cases.

One-half of the formal Philadelphia plans had been announced, but only in few instances had the terms been published. As none of the informal plans were announced, the majority of the local plans were unpublished. This conformed with national custom, under which the employee usually learned of the dismissal-compensation policy only if he received a payment.



## PLACEMENT WORK OF PUBLIC EMPLOYMENT SERVICE, MAY 1941<sup>1</sup>

JOB placements by public employment offices during May topped the half-million mark for the first time since January 1936, in which month, however, the greater part of the placements were on public works and work-relief projects. The 500,100 jobs filled in May totaled 13 percent more than in April and were 43 percent above May 1940. About 1,500,000 applications for work were filed during the month, the highest May total in the history of the United States Employment Service. However, they numbered 16 percent less than in April, primarily because of the slackening in registrations following the intensive recruitment campaign for defense workers in March and April. The active file of job seekers registered for work, totaling 5,200,000, was slightly higher than at the end of the previous month.

More than 1,400,000 individuals were placed in jobs during the first 5 months of this year, a gain of approximately 60 percent over the same period of 1940. Only Connecticut, Florida, Hawaii, North Carolina, and West Virginia made fewer placements in May than in April. Shortages of materials in Connecticut and completion of defense construction projects in the other States slackened the

<sup>1</sup> Prepared by Research and Statistics Division, Bureau of Employment Security, Social Security Board.



demand for workers. Placements in Alabama doubled because of expanding seasonal employment in agriculture, lumbering, construction, and coal mining; aluminum and steel operations also advanced. Alaska reported an increase of 83 percent, and gains of more than 50 percent also took place in Colorado and Utah; large defense projects were recently undertaken in these States. California, Maine, Michigan, Missouri, and Wisconsin were the only leading industrial States with gains of about 15 percent or more. All but 6 States filled more jobs this May than last; exceptional gains took place in Maine, Massachusetts, Rhode Island, and South Carolina, where placements were from 2 to 3 times as great as last May. Employers in the latter three States have received many important defense contracts.

Supplementary placements during May totaled 122,000, the highest number since November 1940 and more than double the April volume. The rise in placements reflected mainly the heavy seasonal demand for agricultural workers. This increase, however, was much larger than gains usually experienced from April to May of previous years.

Only 59 percent of the placements were expected to last longer than a month, the lowest proportion so far in 1941. Compared with May 1940, regular placements have increased proportionately more than temporary placements. The 295,000 placements expected to last longer than a month totaled 70 percent more than in May 1940, whereas temporary placements were only 17 percent higher.

TABLE 1.—*Summary of Placement Activities of Public Employment Services, May 1941*

[Data reported by State agencies, corrected to June 23, 1941]

Activity	Number	Percent of change from—		
		April 1941	May 1940	May 1939
Total complete placements.....	500, 121	+12.8	+43.1	+50.1
Regular.....	295, 147	+10.6	+69.9	+57.8
Temporary.....	204, 974	+16.2	+16.6	+40.3
Supplementary placements.....	121, 815	+165.9	+45.9	+67.4
Total applications.....	1, 538, 974	-15.7	+15.9	+26.8
Active file.....	5, 154, 392	+1.8	-10.3	-19.5

<sup>1</sup> Based on comparable data.

Approximately 322,000 jobs were filled by men and more than 178,000 by women in May. Placements of men were 49 percent greater than those made in May 1940, whereas placements of women were only 34 percent higher. For the third successive month, the rate of increase for men over the comparable period in the preceding year declined steadily; the gain for women over the same month of 1940 was also smaller than in April 1941. Placements in both groups were less than in April in Oklahoma and Washington; for men alone, decreases were reported in six additional States, and for women alone,

in eight other States. In New York, placements of men were greater than those of women for the first time in a year. As in previous months, however, placements of women exceeded those of men in Delaware, the District of Columbia, and New Jersey. Slightly less than two-thirds of the jobs filled by men and more than half of the jobs filled by women were expected to last longer than a month.

More than 1,000,000 applications for work were received from men, a 14-percent increase over May 1940; the 513,000 filed by women represented a gain of 20 percent. At the end of May 1941, the active file of men was 12 percent lower than on May 31, 1940; for women it was 6 percent lower. Male job seekers totaled less than on May 31, 1940, in 36 States, and there were fewer woman registrants in 34 States.

TABLE 2.—*Summary of Placement Activities for Veterans, May 1941*

[Data reported by State agencies, corrected to June 23, 1941]

Activity	Number	Percent of change from—		
		April 1941	May 1940	May 1939
Total complete placements.....	18,071	+18.6	+33.4	+14.3
Regular.....	9,480	+15.1	(1)	(1)
Temporary.....	8,591	+22.8	(1)	(1)
Total applications.....	52,938	-22.9	+15.2	+22.4
Active file.....	237,517	<sup>2</sup> -4.2	<sup>2</sup> -4.4	<sup>2</sup> -29.2

<sup>1</sup> Total veteran placements by duration not reported prior to 1941.

<sup>2</sup> Based on comparable data.

TABLE 3.—Activities of Public Employment Services, All Registrants, by States, May 1941  
 [Data reported by State agencies, corrected to June 23, 1941]

Social Security Board region and State	Complete placements						Supplementary placements	Total applications received		Active file as of May 31, 1941	
	May 1941			January-May 1941				Number	Percent of change from April 1941	Number	Percent of change from May 31, 1940
	Number	Percent of change from—		Regular (over 1 month)	Total						
		April 1941	May 1940		Number	Percent of change from January-May 1940					
Total.....	500,121	+12.8	+43.1	295,147	2,027,107	+54.5	121,815	1,538,974	-15.7	5,154,392	+10.3
Region I:											
Conn.....	9,452	-4	+56.9	6,842	40,946	+81.1	31	22,752	+4.8	38,873	-53.8
Maine.....	4,539	+18.6	+135.5	3,534	15,142	+117.2	49	9,626	-17.2	31,024	-34.0
Mass.....	10,245	+8.2	+143.4	8,538	39,507	+130.4	81	52,728	-12.4	174,937	-16.6
N. H.....	2,484	+30.2	-4.2	1,777	9,157	+7.4	62	5,233	-19.5	15,818	-35.7
R. I.....	2,488	+2.0	+199.8	2,056	10,264	+205.7	17	8,521	-29.6	42,708	-2.6
Vt.....	1,375	+13.8	+14.6	829	5,092	+34.0	21	2,762	-8.0	9,253	-48.8
Region II:											
N. Y.....	49,514	+1.9	+71.3	27,258	202,862	+83.3	1,332	196,285	-31.0	564,835	-18.3
Region III:											
Del.....	1,760	+12.8	+17.0	758	6,883	+45.0	77	3,037	+1.4	8,614	-30.6
N. J.....	17,416	+12.2	+63.5	11,216	71,960	+60.3	19	54,214	-1.0	187,175	-29.6
Pa.....	22,721	+9.8	+34.0	16,494	87,916	+51.8	896	105,574	-21.2	328,861	-7.7
Region IV:											
D. C.....	6,107	+4.3	+20.5	2,668	26,135	+48.8	8	11,944	(?)	22,254	-35.5
Md.....	7,168	+12.2	+46.1	4,780	27,996	+69.9	296	24,772	+14.5	37,371	-48.3
N. C.....	12,449	-16.6	+70.8	9,013	97,311	+226.7	5,455	37,895	+8.1	84,934	-7.1
Va.....	11,919	+9.0	+76.4	8,336	50,735	+127.1	1,196	29,265	-19.5	69,849	+21.5
W. Va.....	3,708	-8.3	+22.4	2,090	17,188	+43.9	753	18,486	-40.3	67,453	-22.2
Region V:											
Ky.....	5,228	+27.4	+18.4	2,502	17,718	+42.7	128	21,886	+11.8	95,796	-3.6
Mich.....	17,931	+17.8	+36.2	11,646	64,372	+39.8	490	45,648	-23.5	133,743	-43.0
Ohio.....	29,962	+11.5	+60.2	15,424	108,680	+63.7	319	83,158	+5.5	286,808	-7.6
Region VI:											
Ill.....	25,964	+8.4	+69.1	14,988	103,097	+61.3	1,300	72,316	+3.6	285,142	+40.8
Ind.....	17,163	+12.6	+88.4	11,079	61,128	+70.9	1,817	50,440	+15.7	211,466	+28.9
Wis.....	11,928	+20.4	+54.6	6,296	42,144	+46.8	559	23,933	-11.1	94,112	-19.2
Region VII:											
Ala.....	9,652	+112.9	+14.5	5,299	24,240	+11.6	286	37,115	-6.0	119,592	-4.6
Fla.....	4,086	-8	+53.4	2,789	31,543	+110.7	187	22,170	-38.7	112,138	+77.2
Ga.....	10,957	+13.9	+13.6	6,871	42,246	+13.0	925	35,977	-1.4	116,027	-28.8
Miss.....	4,864	+21.9	+1	3,597	17,220	-7.7	152	21,853	-44.2	80,193	+51.1
S. C.....	6,845	+11.9	+99.1	5,335	35,757	+147.6	711	12,836	-36.5	47,148	+4
Tenn.....	12,324	+48.3	+96.0	7,914	43,011	+97.9	6,472	24,632	-19.9	135,514	+8.7
Region VIII:											
Iowa.....	9,721	+8.2	+27.9	5,040	35,540	+21.2	348	18,521	-19.6	65,142	-25.2
Minn.....	9,751	+25.0	+36.1	5,345	29,836	+33.0	378	24,929	-30.4	103,078	-32.5
Nebr.....	4,053	+12.9	+27.4	2,262	12,887	+14.0	60	10,121	-39.0	49,552	+2.0
N. Dak.....	2,916	+8.1	+26.0	1,399	9,736	+28.4	39	5,486	-5.0	29,846	+1.7
S. Dak.....	2,184	+36.8	+24.0	1,124	6,393	+19.5	188	4,943	-4.8	24,635	-13.1
Region IX:											
Ark.....	8,259	+47.4	+16.6	2,234	31,132	+46.4	32,950	13,980	-26.5	69,860	+28.1
Kans.....	8,705	+27.1	+90.3	3,999	31,812	+86.5	329	17,481	-25.6	63,462	+4.4
Mo.....	15,234	+18.7	+65.7	9,367	71,995	+102.6	4,018	47,656	-33.0	204,380	+9.2
Okla.....	5,010	+21.7	-23.5	2,177	18,682	-23.3	1,413	19,907	-16.8	65,444	-25.5
Region X:											
La.....	5,798	+17.7	+70.4	3,960	29,497	+62.1	3,416	26,196	-2.3	107,799	+27.3
N. Mex.....	1,791	+28.8	-45.7	1,202	7,264	+29.3	372	5,873	+3.3	24,070	-36.1
Texas.....	29,585	+3.0	+3.5	12,864	155,071	+10.5	30,758	101,968	+2.5	332,171	+31.2
Region XI:											
Ariz.....	3,072	+27.4	+6	1,440	13,463	-7.9	3,492	6,217	-3.8	19,687	-23.8
Colo.....	5,583	+53.9	+2.3	2,852	16,581	+5.6	395	13,562	-26.2	58,409	-6.2
Idaho.....	3,497	+30.2	-17.8	1,470	10,633	+7.5	1,563	5,323	-32.9	33,519	(?)
Mont.....	2,719	+8.6	-3.6	1,999	7,829	+8.0	505	5,397	-14.6	18,487	-33.3
Utah.....	2,548	+50.9	+41.5	1,357	7,988	+56.2	183	7,187	-1.8	20,918	+3.7
Wyo.....	1,495	+38.8	+7.2	870	6,846	+90.1	26	2,833	-26.5	5,608	-34.7
Region XII:											
Calif.....	37,793	+14.5	+69.9	21,005	144,946	+60.5	6,152	114,241	-17.7	374,510	-23.0
Nev.....	1,957	+29.5	+59.2	1,287	6,700	+28.4	48	3,120	-5.7	4,956	-13.2
Oreg.....	8,588	+13.2	+42.4	6,084	34,109	+57.5	8,725	17,193	-7.9	31,611	-26.6
Wash.....	7,333	+3.0	-22.1	4,007	29,200	-10.0	2,769	28,220	+6.9	38,177	-64.2
Territories:											
Alaska.....	1,458	+83.2	+91.1	1,165	3,651	+38.6	43	1,779	+20.5	1,777	-30.1
Hawaii.....	822	-32.0	+8.0	709	5,066	+34.5	6	1,783	-24.0	5,656	-43.0

<sup>1</sup> Based on comparable data.

<sup>2</sup> Decrease of less than a tenth of 1 percent.

<sup>3</sup> Does not include 5,583 supplementary placements made in cooperation with the Arkansas State Employment Service.

<sup>4</sup> Data not comparable.

TABLE 4.—Activities of Public Employment Services, for Veterans, by States, May 1941

[Data reported by State agencies, corrected to June 23, 1941]

Social Security Board region and State	Complete placements			Total applications received	Active file as of May 31, 1941		
	Number	Percent of change <sup>1</sup> from—			Number	Percent of change from—	
		April 1941	May 1940			Apr. 30, 1941	May 31, 1940
Total.....	18,071	+18.6	+33.4	52,938	237,517	<sup>2</sup> -4.2	<sup>2</sup> -4.4
Region I:							
Connecticut.....	364	-15.7	+25.5	764	1,461	-22.3	-62.8
Maine.....	175	0	+150.0	384	1,876	-19.3	-25.8
Massachusetts.....	270	+18.9	+178.4	2,359	9,427	-2.5	+52.7
New Hampshire.....	106	+30.9	-35.8	236	867	-12.6	-10.7
Rhode Island.....	88	-4.3		209	1,529	-4.0	+27.7
Vermont.....	60			77	427	-16.1	-47.3
Region II:							
New York.....	1,300	+26.3	+61.7	3,179	14,408	-15.3	-17.4
Region III:							
Delaware.....	52		+2.0	154	363	-8	-13.2
New Jersey.....	368	+11.8	+77.8	1,184	8,022	-5.3	-17.8
Pennsylvania.....	686	+32.9	+61.4	4,061	17,764	-7.9	+28.9
Region IV:							
District of Columbia.....	293	+18.6	+19.6	699	1,708	-17.7	-11.0
Maryland.....	251	+21.2	+14.1	732	1,035	-18.0	-67.0
North Carolina.....	285	-4.4	+74.8	955	2,454	+12.5	+19.4
Virginia.....	187	-26.7	+12.0	543	1,512	+8.2	+12.9
West Virginia.....	76	-24.8	-15.6	599	3,305	-12.1	-26.6
Region V:							
Kentucky.....	179	+20.9	-9.6	771	4,162	+3.6	+9
Michigan.....	874	+21.9	+37.8	2,267	9,131	-19.0	-30.8
Ohio.....	1,240	+26.4	+66.9	2,879	14,683	-2.2	+14.4
Region VI:							
Illinois.....	1,007	+16.6	+90.4	2,312	14,523	-2.0	+58.1
Indiana.....	522	+29.5	+74.6	2,006	9,447	+6.0	+8.7
Wisconsin.....	467	+48.2	+122.4	1,001	7,295	-9.9	-2
Region VII:							
Alabama.....	168	+54.1	-13.4	1,255	5,068	-2	+1.6
Florida.....	118	+1.7	+73.5	967	6,167	+12.4	+110.3
Georgia.....	300	+66.2	+24.0	1,187	3,565	+12.8	-20.6
Mississippi.....	107	+17.6	+9.2	604	2,255	+22.4	+72.4
South Carolina.....	248	+29.2	+105.0	396	1,251	-5.5	-15.5
Tennessee.....	384	+81.1	+66.2	655	4,905	+6	-1
Region VIII:							
Iowa.....	753	+12.7	-4.7	922	4,527	-1.2	-13.0
Minnesota.....	390	+13.7	+14.7	1,142	6,401	-15.9	-34.3
Nebraska.....	247	+5.6	+100.8	505	3,057	+2.3	+11.0
North Dakota.....	91	+15.2	+8.3	143	1,309	-2	+1.8
South Dakota.....	111	+44.2	+48.0	225	1,397	+2.6	-8.7
Region IX:							
Arkansas.....	261	+54.4	-5.1	448	2,964	+15.1	+19.9
Kansas.....	276	+1.1	+59.5	581	4,066	-3.1	+6.8
Missouri.....	734	+21.1	+70.7	1,628	10,825	-13.1	+6.1
Oklahoma.....	284	+42.7	-16.2	1,013	4,242	( <sup>3</sup> )	-23.2
Region X:							
Louisiana.....	85	-8.6	+46.6	741	3,310	+17.3	+30.0
New Mexico.....	73	+35.2	0	240	1,431	+4	-26.2
Texas.....	894	+14.3	-18.6	2,661	10,677	+15.0	+36.6
Region XI:							
Arizona.....	158	+47.7	+1.9	393	1,334	+10.5	-17.6
Colorado.....	212	+37.7	+14.6	567	2,654	-13.0	-19.4
Idaho.....	210	-11.0	-25.3	347	2,233	( <sup>4</sup> )	( <sup>4</sup> )
Montana.....	177	-5.3	-23.4	304	1,168	-12.0	-24.8
Utah.....	73	-5.2	+21.7	176	1,029	-9.8	-14.0
Wyoming.....	82	-5.7	-30.5	143	301	-36.1	-35.8
Region XII:							
California.....	1,798	+18.9	+58.1	5,883	21,300	-4	-25.5
Nevada.....	121	+30.1	+39.1	142	230	-30.9	-34.6
Oregon.....	400	+3.1	+5.0	806	2,175	-5.8	-23.5
Washington.....	363	+13.1	+14.2	1,369	1,963	-24.2	-63.1
Territories:							
Alaska.....	84		+64.7	96	102	-8.1	-32.0
Hawaii.....	19			28	212	-8.6	-54.3

<sup>1</sup> Where less than 50 veteran placements were involved in either month the percentage change was not computed.<sup>2</sup> Based on comparable data.<sup>3</sup> Decrease of less than a tenth of 1 percent.<sup>4</sup> Data not comparable.

## UNEMPLOYMENT-COMPENSATION OPERATIONS, MAY 1941<sup>1</sup>

SHARP reductions in unemployment-compensation benefit payments and claims from May of last year reflect the generally higher level of employment this year. Moderate gains over the previous month in payments and weeks compensated were largely due to continued unemployment among workers who began new uniform benefit-years in April in nine States. Part of the increase was also due to payments to workers involved in the bituminous-coal work stoppage. Benefit payments increased for the first time since January 1941 and totaled \$31,600,000; they were paid to an average weekly total of more than 659,000 workers, 542,000 fewer than in May 1940. Approximately 767,000 workers received one or more benefit checks during the month, compared with at least 1,400,000 in May 1940.

More than 2,900,000 weeks of unemployment were compensated during May, an increase of 16 percent over April, but 46 percent below May 1940. Approximately 92 percent of all weeks compensated were for total unemployment. Weeks of partial and part-total unemployment compensated totaled 241,000, an increase of 11 percent over April, as compared with a 17-percent increase in weeks of total unemployment compensated.

Benefit payments issued to unemployed workers in May were 17 percent higher than in the preceding month; the gain, however, was smaller than the increase from April to May of the previous year. Of the 26 States reporting increased benefit payments, Virginia and West Virginia, which, unlike most other April benefit-year States, do not permit advance filing of claims, issued about three times as many payments as in April; Illinois and New York, in which uniform benefit-years also began in April, reported increases of 87 and 78 percent, respectively. Expanding defense and seasonal employment was mainly responsible for the reductions in most of the 25 States reporting decreases. Thus far there has been a continually widening gap between the amounts paid out last year and this year. For the first 5 months of 1941 benefit payments, totaling \$166,000,000, have been 28 percent lower than for the corresponding period of 1940.

The average weekly number of claimants receiving benefits increased 12 percent over April; last May the rise in benefit recipients was much larger. Reductions from April 1941 occurred in 30 States; practically all of the States in the West North Central, Rocky Mountain, and Pacific Coast areas had fewer claimants.

<sup>1</sup> Prepared by Research and Statistics Division, Bureau of Employment Security, Social Security Board.

Continued Unemployment-Compensation Claims<sup>1</sup> Received, Weeks Compensated, and Benefits Paid, by State, May 1941

[Data reported by State agencies, corrected to June 20, 1941]

Social Security Board region and State	Continued claims <sup>1</sup>			Weeks compensated			
	Number	Type		Number	Type of unemployment		
		Waiting period	Compen- sable		Total	Partial and part- total com- bined <sup>2</sup>	Partial only <sup>2</sup>
Total.....	3,914,066	926,795	2,987,271	2,967,048	2,726,026	241,022	
Region I:							
Connecticut.....	19,729	4,618	15,111	15,238	13,805	1,433	( <sup>3</sup> )
Maine.....	28,052	3,811	24,241	25,462	22,261	3,201	1,287
Massachusetts.....	220,334	54,671	165,663	177,402	170,466	6,936	6,055
New Hampshire.....	16,696	3,925	12,771	12,982	11,834	1,148	( <sup>3</sup> )
Rhode Island.....	53,234	4,264	48,970	48,970	45,070	3,900	( <sup>3</sup> )
Vermont.....	3,774	625	3,149	3,293	2,999	294	192
Region II:							
New York.....	873,962	264,054	609,908	553,668	553,668	( <sup>2</sup> )	( <sup>2</sup> )
Region III:							
Delaware.....	5,140	701	4,439	4,358	3,446	912	823
New Jersey.....	144,861	28,739	116,122	106,111	94,844	11,267	( <sup>3</sup> )
Pennsylvania.....	353,969	138,693	215,276	273,321	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Region IV:							
District of Columbia.....	17,352	2,098	15,254	14,797	13,896	901	( <sup>3</sup> )
Maryland.....	67,195	4,544	62,651	56,389	50,360	6,029	5,439
North Carolina.....	61,008	6,286	54,722	56,519	53,711	2,808	2,306
Virginia.....	60,280	10,039	50,241	47,503	45,844	1,659	440
West Virginia.....	55,359	8,279	47,080	47,345	36,071	<sup>6</sup> 11,274	11,112
Region V:							
Kentucky.....	22,083	3,950	18,133	36,266	32,138	4,128	1,908
Michigan.....	81,803	15,733	66,070	67,634	62,437	5,197	( <sup>3</sup> )
Ohio.....	130,277	34,323	95,954	93,811	83,261	10,550	( <sup>3</sup> )
Region VI:							
Illinois.....	300,972	65,984	234,988	232,969	194,051	38,918	21,453
Indiana.....	41,092	10,759	30,333	30,224	25,042	5,182	( <sup>3</sup> )
Wisconsin.....	20,656	7,997	12,659	12,283	10,958	1,325	528
Region VII:							
Alabama.....	71,410	28,471	42,939	40,328	37,181	3,147	722
Florida.....	51,577	14,602	36,975	36,752	31,780	4,972	( <sup>3</sup> )
Georgia.....	48,274	13,109	35,165	35,312	33,862	1,450	791
Mississippi.....	25,203	4,158	21,045	20,201	18,776	1,425	870
South Carolina.....	23,005	3,919	19,086	17,137	15,146	1,991	521
Tennessee.....	71,811	16,903	54,908	47,894	45,986	1,908	473
Region VIII:							
Iowa.....	31,046	8,874	22,172	21,953	18,827	3,126	529
Minnesota.....	57,155	6,068	51,087	55,533	48,719	6,814	4,432
Nebraska.....	11,426	1,429	9,997	10,219	8,992	1,227	665
North Dakota.....	5,639	774	4,865	4,665	3,850	815	500
South Dakota.....	5,619	904	4,715	4,495	4,239	256	( <sup>3</sup> )
Region IX:							
Arkansas.....	46,180	7,304	38,876	38,876	36,409	2,467	43
Kansas.....	19,491	4,865	14,626	14,709	12,701	2,008	970
Missouri.....	71,187	26,382	44,805	44,065	38,000	6,065	1,868
Oklahoma.....	37,288	8,022	29,266	27,106	23,250	3,856	449
Region X:							
Louisiana.....	84,748	16,730	68,018	65,894	62,136	3,758	( <sup>3</sup> )
New Mexico.....	11,368	1,479	9,889	9,380	8,607	773	434
Texas.....	118,455	14,640	103,815	74,518	63,460	11,058	( <sup>3</sup> )
Region XI:							
Arizona.....	8,338	2,235	6,103	6,051	5,657	394	7
Colorado.....	26,882	4,568	22,314	21,258	18,811	2,447	1,420
Idaho.....	12,316	2,113	10,203	9,581	8,862	719	( <sup>3</sup> )
Montana.....	27,063	2,522	24,541	24,315	24,315	( <sup>2</sup> )	( <sup>2</sup> )
Utah.....	6,252	883	5,369	5,424	4,705	719	120
Wyoming.....	6,929	1,607	5,322	5,248	4,156	1,092	573
Region XII:							
California.....	370,926	41,617	329,309	343,639	291,242	52,397	38,450
Nevada.....	6,382	697	5,685	5,337	4,641	696	157
Oregon.....	22,857	6,038	16,819	14,893	12,379	2,514	1,825
Washington.....	48,956	10,250	38,706	39,084	33,448	5,636	( <sup>3</sup> )
Territories:							
Alaska.....	3,981	1,037	2,944	2,770	2,690	80	0
Hawaii.....	4,474	502	3,972	3,866	3,716	150	149

Continued Unemployment-Compensation Claims<sup>1</sup> Received, Weeks Compensated, and Benefits Paid, by State, May 1941—Continued

Social Security Board region and State	Benefits paid				Month and year benefits first payable	Amount of benefits since first payable <sup>4</sup>
	Amount <sup>3</sup>	Type of unemployment				
		Total	Partial and part-total combined <sup>2</sup>	Partial only <sup>2</sup>		
Total	\$31,573,799	\$29,748,067	\$1,796,297			\$1,510,020,597
Region I:						
Connecticut	149,228	139,201	9,248	(5)	January 1938	23,813,572
Maine	172,930	153,670	19,260	\$7,860	do	11,840,163
Massachusetts	1,788,024	1,749,210	37,722	31,799	do	85,932,167
New Hampshire	105,629	99,626	6,003	(5)	do	7,137,664
Rhode Island	486,633	463,603	23,030	(5)	do	24,520,407
Vermont	28,742	27,099	1,629	930	do	2,656,663
Region II:						
New York	6,354,304	6,354,304	(2)	(2)	do	296,313,936
Region III:						
Delaware	34,464	29,686	4,696	4,115	January 1939	1,861,661
New Jersey	1,135,886	1,063,157	70,767	(4)	do	36,486,981
Pennsylvania	3,295,116	3,295,116	(2)	(2)	January 1938	184,365,507
Region IV:						
District of Columbia	182,754	171,858	9,895	(5)	do	6,364,150
Maryland	595,363	551,313	43,775	38,808	do	24,426,977
North Carolina	305,038	296,243	8,719	6,378	do	18,476,654
Virginia	355,536	345,787	9,738	2,335	do	17,273,888
West Virginia	496,994	361,089	135,905	134,916	do	21,542,941
Region V:						
Kentucky	259,731	241,216	18,442	(5)	January 1939	10,888,540
Michigan	727,130	696,481	30,649	(5)	January 1938	109,149,907
Ohio	875,081	815,118	53,015	(5)	January 1939	54,906,778
Region VI:						
Illinois	2,865,304	2,528,130	333,980	171,487	July 1939	72,584,202
Indiana	294,257	265,287	28,839	(5)	April 1938	38,417,976
Wisconsin	120,814	111,845	8,969	3,309	July 1936	20,901,879
Region VII:						
Alabama	285,308	268,630	17,106	3,322	January 1938	18,613,396
Florida	381,093	347,973	33,120	(5)	January 1939	11,508,197
Georgia	250,309	242,500	7,809	4,818	do	8,860,268
Mississippi	154,974	146,896	8,021	4,590	April 1938	5,830,563
South Carolina	120,749	110,629	9,987	2,235	July 1938	5,870,801
Tennessee	381,994	370,228	11,766	2,654	January 1938	18,865,030
Region VIII:						
Iowa	192,235	173,725	18,260	2,600	July 1938	13,591,976
Minnesota	533,918	479,886	54,032	35,185	January 1938	30,269,620
Nebraska	87,521	79,008	8,513	4,158	January 1939	4,026,009
North Dakota	41,839	35,781	6,058	3,517	do	1,545,142
South Dakota	30,318	28,918	1,391	(5)	do	974,532
Region IX:						
Arkansas	283,762	272,795	10,837	202	do	5,928,774
Kansas	129,996	117,484	12,512	5,701	do	5,157,815
Missouri	363,431	332,280	31,114	9,209	do	14,965,929
Oklahoma	245,025	220,762	24,263	1,654	December 1938	9,335,860
Region X:						
Louisiana	627,281	600,340	25,909	(5)	January 1938	19,388,390
New Mexico	81,264	75,613	5,651	3,082	December 1938	2,915,538
Texas	576,976	515,124	60,409	(5)	January 1938	32,814,866
Region XI:						
Arizona	62,883	59,897	2,986	67	do	5,137,693
Colorado	207,547	188,339	19,202	11,171	January 1939	8,998,139
Idaho	101,118	95,496	5,594	(5)	September 1938	5,729,418
Montana	267,448	267,468	(1)	(2)	July 1939	5,756,401
Utah	58,825	53,663	5,162	1,032	January 1938	6,456,696
Wyoming	64,777	54,666	10,111	4,738	January 1939	2,839,319
Region XII:						
California	4,664,003	4,176,927	476,937	341,646	January 1938	155,756,621
Nevada	68,172	61,127	7,045	1,418	January 1939	2,496,640
Oregon	168,730	148,953	19,416	13,876	January 1938	15,668,024
Washington	450,683	403,668	47,015	(5)	January 1939	19,232,438
Territories:						
Alaska	39,092	38,230	862	0	do	1,062,395
Hawaii	23,550	22,622	928	927	do	651,671

<sup>1</sup> I. e. certification that the claimant has completed a waiting-period week or compensable period (usually a calendar week or 7-day period).

<sup>2</sup> Benefits for partial and part-total unemployment are not provided by State law in Montana, New York, and Pennsylvania.

<sup>3</sup> Includes supplemental payments, not classified by type of unemployment.

<sup>4</sup> Adjusted to exclude returned and voided benefit checks except for May 1941.

<sup>5</sup> Data for partial unemployment included with data for part-total unemployment.

<sup>6</sup> Payments for part-total and partial unemployment are made for benefit periods of 1 quarter. The number of weeks represented by each such payment is determined by dividing the amount paid by the claimant's benefit rate for total unemployment.

A reduction in waiting-period claims which normally occurs in the month following the initiation of new uniform benefit-years, and the absence of any large-scale lay-offs, were mainly responsible for an 8-percent decline in continued claims. Increased employment—particularly in construction, canning, logging, manufacturing, ship-building, and in related defense activities—was responsible for decreases in continued claims in most States. Increases from April were reported by 14 States; the largest relative gains occurred in Illinois, New Jersey, New York, and Virginia, all of them attributable in part to administrative factors.

Continued claims averaged 919,000 weekly, a slight decrease from the preceding month, with 35 States reporting reduced averages. The number of persons filing claims declined continuously from approximately 1,100,000 in the week ended May 3 to 782,000 in the last week ended within the month. Claims filed for total unemployment declined from 1,000,000 during the first week ended within the month to 715,000 in the week ended May 31.



## Cooperation

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### OPERATIONS OF CREDIT UNIONS IN 1940

THE credit-union movement reached an all-time high point in 1940, with membership exceeding 2,800,000, assets of over \$250,000,000, and business (loans granted) rising above \$300,000,000. The State credit unions accounted for 60 percent of the members, 71 percent of the assets, and 65 percent of the loans made in 1940. The Federal credit unions, however, form an increasing proportion of the movement each year.

Over 1,300 new credit unions were formed in 1940, bringing the total number in existence at the end of the year to 9,510. Of these, 5,300 had been organized under State credit-union laws and 4,210 under the Federal act. These cooperative credit associations are now found in every State as well as in the District of Columbia and Hawaii.

The State and Federal laws are drawn on the same general lines, both laying down general requirements for credit-union operation. The Federal act, however, is so worded as to permit groups anywhere in the United States to incorporate under it. As some of the State acts were passed many years ago, their provisions do not in all cases embody practices which experience has shown to be most desirable. Also, in the past the State acts have in some cases been enforced by officials not in sympathy with the credit-union movement and therefore in a position to retard it by withholding charters sought by new associations or by making oppressive rulings. In such States and in those without enabling legislation, the Federal act provides an opportunity for incorporation under a modern well-drawn law.

In 1940 the number of Federal credit unions increased 18.8 percent over 1939, whereas those incorporated under State laws increased only 11.1 percent.

All credit unions combined made some 2,300,000 loans in 1940, averaging \$130 each. Generally these associations serve small borrowers who can offer little or no security. A very large proportion of the loans made are "character" loans of \$50 or less, on which the only security is the signature of the borrower. It is therefore evident how important is the requirement usually made by the credit-union laws that the members must be drawn from a group having some common bond, so that they know each other and are able to gauge the personal integrity of the borrowers.

Some of the laws permit credit unions to accept savings deposits, and practically all permit them to borrow limited amounts. For the most part, however, credit-union funds come from the share capital provided by the members. At the end of 1940 such capital amounted to nearly \$212,000,000.

Net earnings on the year's business totaled about \$11,000,000 (3.7 percent) and of this over \$7,000,000 was returned to members in dividends. These savings were in addition to undeterminable amounts saved by the borrowers through being able to obtain their loans at the moderate rates charged by credit unions.

As compared with 1939, the combined membership increased 22.4 percent, amount of loans granted 33.5 percent, and share capital 31.8 percent.

Leading States, in point of number of associations were, in order, New York (796), Illinois (758), Ohio (603), and Pennsylvania (600). Other States with 500 or more credit unions were Massachusetts and Wisconsin. Illinois led in membership (310,809) followed in order by New York (255,463), Massachusetts (226,450), and Pennsylvania (201,179). California, Ohio, and Wisconsin each had over 100,000 members.

Illinois was also the leader as regards amount of loans made during the year, with well over \$37,000,000, but Massachusetts and New York both reported a business of over \$30,000,000.

The above findings were obtained in the course of the Bureau's annual collection of credit-union data. The figures for the State-chartered associations were furnished to the Bureau by the State officials—usually the Superintendent of Banks—charged with the supervision of credit unions. Exceptions were Georgia and Mississippi, whose reports were unavoidably delayed beyond the closing of the Bureau's tabulations, and South Carolina, whose officials state that they have no authority to require reports; for these States, therefore estimates were made for 1940 on the basis of the trend for previous years. The same was done for certain items (such as number of loans) concerning which some of the States do not require reports. The data for the associations under Federal charter were drawn from the 1940 report of the Credit Union Division of the Farm Credit Administration.<sup>1</sup>

### *Geographical Distribution of Credit Unions*

An indication of the relative geographical development, as well as the relative growth of State- and Federal-chartered credit unions in the various States, is shown in table 1. As it reveals, there were 9,510 associations chartered at the end of 1940,<sup>2</sup> of which 4,210 or 44.3

<sup>1</sup> U. S. Farm Credit Administration. Division of Finance and Accounts. *Federal Credit Unions: Annual report on operations, December 31, 1940.* Washington, 1941.

<sup>2</sup> Except in Arizona, Florida, New Hampshire, and West Virginia, where the State data are as of June 30, 1940.

percent were under charters issued under the Federal credit-union law. In general the Federal credit unions predominate in number in those States which have either had no State law until recently or in which the law is less satisfactory than the Federal statute. In Connecticut, where the State act was passed in 1939, no credit unions had been chartered by the end of 1940. Delaware, Hawaii, Nevada, New Mexico, South Dakota,<sup>3</sup> Vermont,<sup>4</sup> and Wyoming were without enabling legislation.

TABLE 1.—Chartered Credit Unions at End of 1940, by State and Type of Charter

State and type of charter	Associations	State and type of charter	Associations	State and type of charter	Associations
All States	9,510	Kentucky	127	North Dakota	87
State associations	5,300	State	115	State	42
Federal associations	4,210	Federal	12	Federal	45
Alabama	87	Louisiana	118	Ohio	603
State	65	State	27	State	339
Federal	22	Federal	91	Federal	264
Arizona	21	Maine	41	Oklahoma	93
State	4	State	3	State	46
Federal	17	Federal	38	Federal	47
Arkansas	39	Maryland	74	Oregon	77
State	24	State	41	State	33
Federal	15	Federal	33	Federal	44
California	445	Massachusetts	531	Pennsylvania	600
State	156	State	441	State	87
Federal	289	Federal	90	Federal	513
Colorado	110	Michigan	256	Rhode Island	34
State	56	State	170	State	18
Federal	54	Federal	86	Federal	16
Connecticut: Federal	201	Minnesota	369	South Carolina	50
Delaware: Federal	12	State	349	State	6
District of Columbia	118	Federal	20	Federal	44
State	25	Mississippi	20	South Dakota: Federal	24
Federal	93	State	6	Tennessee	145
Florida	166	Federal	14	State	71
State	57	Missouri	377	Federal	74
Federal	109	State	350	Texas	401
Georgia	157	Federal	27	State	93
State	110	Montana	31	Federal	308
Federal	47	State	10	Utah	58
Hawaii: Federal	97	Federal	21	State	36
Idaho	38	Nebraska	201	Federal	22
State	7	State	169	Vermont: Federal	5
Federal	31	Federal	32	Virginia	111
Illinois	758	Nevada: Federal	6	State	32
State	644	New Hampshire	16	Federal	79
Federal	114	State	10	Washington	221
Indiana	307	Federal	6	State	167
State	136	New Jersey	245	Federal	54
Federal	171	State	53	State	71
Iowa	243	Federal	192	West Virginia	20
State	238	New Mexico: Federal	13	State	51
Federal	5	New York	796	Federal	593
Kansas	126	State	217	State	592
State	97	Federal	579	Federal	1
Federal	29	North Carolina	171	Wyoming: Federal	20
		State	138		
		Federal	33		

<sup>1</sup> Chartered but not in operation.

<sup>3</sup> The 1935 South Dakota law was repealed at the time the State code was compiled in 1939.

<sup>4</sup> But a credit-union law was passed at the 1941 session of the Vermont Legislature (Acts of 1941, No. 166)

## Operations of Credit Unions, 1939 and 1940

Table 2 shows the operations of credit unions, State by State, for 1939 and 1940. It indicates gains in membership and business (loans made) in every State but North Carolina in 1940, and in fact (except for the same State) in both of these points that year showed the greatest development thus far.

In 3 States (Delaware, Maine, and North Carolina) fewer loans were made in 1940 than in 1939, but in the first two of these States the average loan made was larger, so that the total business showed an increase over 1939.

The data shown are for the calendar year in all States except Arizona, Florida, New Hampshire, and West Virginia where they are for the year ending June 30, 1940. As noted in the table, most of the associations not covered by the reports were either new organizations which had transacted no business in 1940 or older associations which were liquidating their assets prior to discontinuance of the association.

TABLE 2.—Operations of Credit Unions in 1939 and 1940, by States

State and type of charter	Year	Number of associations <sup>1</sup>		Number of members	Number of loans made during year	Amount of loans—	
		Total	Report- ing			Made during year	Outstanding end of year
All States.....	1940	9,510	8,894	2,816,653	2,311,678	\$302,339,864	\$189,705,374
	1939	8,315	7,841	2,300,422	<sup>1</sup> 1,892,851	<sup>2</sup> 226,499,347	148,773,153
State associations.....	1940	5,300	5,179	1,696,421	1,412,610	197,353,073	134,195,431
	1939	4,771	4,677	1,454,435	<sup>1</sup> 1,227,654	<sup>2</sup> 155,473,287	111,305,503
Federal associations....	1940	4,210	3,715	1,120,232	899,068	104,986,791	55,509,943
	1939	3,544	3,164	845,987	665,197	71,026,060	37,467,650
Alabama.....	1940	87	85	24,587	<sup>3</sup> 29,917	<sup>3</sup> 3,109,556	1,514,519
	1939	85	82	22,220	<sup>3</sup> 23,478	<sup>3</sup> 1,580,396	1,252,499
Arizona.....	1940	21	20	<sup>3</sup> 3,128	<sup>3</sup> 2,539	<sup>3</sup> 420,549	253,639
	1939	21	19	2,686	<sup>3</sup> 2,273	<sup>3</sup> 311,302	174,531
Arkansas.....	1940	39	36	4,867	5,561	508,910	238,570
	1939	36	33	4,660	4,875	408,878	192,920
California.....	1940	445	414	176,651	<sup>3</sup> 126,303	<sup>3</sup> 20,398,827	15,149,858
	1939	405	379	145,530	<sup>3</sup> 98,909	<sup>3</sup> 14,608,806	11,708,928
Colorado.....	1940	110	105	24,545	<sup>3</sup> 19,356	<sup>3</sup> 2,371,113	1,740,072
	1939	105	102	21,082	<sup>3</sup> 18,040	<sup>3</sup> 2,134,589	1,387,522
Connecticut <sup>4</sup> .....	1940	201	178	69,966	51,471	5,521,426	2,752,885
	1939	165	151	48,309	36,021	3,302,293	1,690,604
Delaware <sup>4</sup> .....	1940	12	9	2,542	1,725	221,289	101,903
	1939	12	11	2,418	1,903	106,761	71,092
District of Columbia.....	1940	118	108	70,255	<sup>3</sup> 60,702	7,806,279	4,478,712
	1939	114	107	61,103	<sup>3</sup> 54,037	6,395,684	3,659,269
Florida.....	1940	166	149	30,895	31,416	3,486,878	2,081,128
	1939	142	129	25,407	25,474	3,150,597	1,594,316
Georgia.....	1940	157	<sup>3</sup> 153	<sup>3</sup> 39,850	<sup>3</sup> 40,964	<sup>3</sup> 3,112,280	<sup>3</sup> 2,368,617
	1939	126	124	33,130	<sup>3</sup> 33,762	<sup>3</sup> 2,510,841	2,371,636
Hawaii <sup>4</sup> .....	1940	97	95	33,722	34,194	4,437,697	2,519,132
	1939	91	90	26,856	25,076	3,295,204	1,763,718
Idaho.....	1940	38	35	3,824	2,874	322,133	173,198
<sup>4</sup> 1939	30	27	2,866	1,973	198,359	107,531	
Illinois.....	1940	758	743	310,809	<sup>3</sup> 262,488	37,385,536	22,924,981
	1939	671	663	253,474	<sup>3</sup> 249,278	27,009,318	16,365,721
Indiana.....	1940	307	288	86,826	<sup>3</sup> 73,986	<sup>3</sup> 8,249,814	4,556,032
	1939	291	277	<sup>3</sup> 72,008	<sup>3</sup> 60,635	<sup>3</sup> 6,440,225	3,244,858
Iowa.....	1940	243	209	42,214	39,316	4,563,454	3,088,343
	1939	230	196	37,065	34,159	3,802,636	2,476,464

See footnotes at end of table.

TABLE 2.—Operations of Credit Unions in 1939 and 1940, by States—Continued

State and type of charter	Year	Number of associations <sup>1</sup>		Number of members	Number of loans made during year	Amount of loans—	
		Total	Reporting			Made during year	Outstanding end of year
Kansas.....	1940	126	122	21,272	<sup>3</sup> 16,244	<sup>3</sup> \$2,150,418	\$1,494,910
	1939	96	95	16,636	<sup>3</sup> 13,239	<sup>3</sup> 1,446,399	1,016,047
Kentucky.....	1940	127	113	32,668	<sup>3</sup> 24,391	<sup>3</sup> 3,099,023	2,450,938
	1939	108	102	29,121	<sup>3</sup> 21,176	<sup>3</sup> 3,042,018	2,005,768
Louisiana.....	1940	118	95	<sup>3</sup> 32,003	<sup>3</sup> 30,747	<sup>3</sup> 3,441,868	1,883,186
	1939	102	92	<sup>3</sup> 25,292	<sup>3</sup> 26,194	<sup>3</sup> 3,332,499	1,473,416
Maine.....	1940	41	35	8,420	5,426	747,761	512,030
	1939	36	32	7,343	5,713	606,674	425,904
Maryland.....	1940	74	72	29,206	<sup>3</sup> 26,565	2,338,363	1,350,783
	1939	61	57	23,659	<sup>3</sup> 21,237	1,910,358	1,050,078
Massachusetts.....	1940	531	517	226,450	<sup>3</sup> 193,444	30,109,316	18,339,221
	1939	475	462	198,726	<sup>3</sup> 186,587	25,982,697	15,983,042
Michigan.....	1940	256	235	83,533	66,207	11,703,055	7,336,295
	1939	231	218	65,295	<sup>3</sup> 42,359	<sup>3</sup> 6,506,970	5,758,967
Minnesota.....	1940	369	364	74,372	63,663	7,854,645	7,342,896
	1939	346	337	64,961	57,292	6,334,740	5,860,087
Mississippi.....	1940	20	18	<sup>3</sup> 5,520	<sup>3</sup> 4,300	<sup>3</sup> 442,311	<sup>3</sup> 281,799
	1939	20	18	4,476	<sup>3</sup> 3,910	<sup>3</sup> 334,384	222,826
Missouri.....	1940	377	355	94,666	<sup>3</sup> 68,689	<sup>3</sup> 9,688,709	7,242,490
	1939	351	334	81,044	<sup>3</sup> 59,657	<sup>3</sup> 7,478,092	5,867,109
Montana.....	1940	31	27	3,815	<sup>3</sup> 2,420	<sup>3</sup> 245,333	154,427
	1939	24	21	<sup>3</sup> 2,465	<sup>3</sup> 1,740	<sup>3</sup> 151,625	105,739
Nebraska.....	1940	201	196	32,593	30,905	4,258,712	2,203,417
	1939	186	185	<sup>3</sup> 30,039	<sup>3</sup> 29,504	<sup>3</sup> 3,919,328	1,871,511
Nevada <sup>4</sup> .....	1940	6	6	685	324	37,727	20,553
	1939	4	4	275	140	16,155	8,886
New Hampshire.....	1940	16	16	5,265	<sup>3</sup> 4,292	<sup>3</sup> 695,155	575,638
	1939	14	14	3,956	<sup>3</sup> 3,474	<sup>3</sup> 617,677	453,335
New Jersey.....	1940	245	234	91,843	76,907	8,655,825	4,566,673
	1939	216	206	71,084	60,969	6,108,919	3,209,676
New Mexico <sup>4</sup> .....	1940	13	11	1,472	1,250	169,327	69,674
	1939	11	9	1,218	1,214	137,640	53,603
New York.....	1940	796	725	255,463	<sup>3</sup> 212,351	<sup>3</sup> 30,712,998	18,002,843
	1939	642	590	206,799	<sup>3</sup> 158,899	<sup>3</sup> 25,214,098	14,279,258
North Carolina.....	1940	171	150	28,792	24,951	2,582,364	1,502,312
	1939	143	129	22,164	31,108	2,742,448	1,278,513
North Dakota.....	1940	87	68	<sup>3</sup> 7,561	<sup>3</sup> 5,526	<sup>3</sup> 459,018	237,203
	1939	37	30	3,379	3,075	253,774	131,992
Ohio.....	1940	603	574	196,447	<sup>3</sup> 142,705	18,358,204	10,368,673
	1939	495	467	143,198	<sup>3</sup> 91,962	<sup>3</sup> 10,674,079	8,126,204
Oklahoma.....	1940	93	89	<sup>3</sup> 15,512	<sup>3</sup> 11,678	<sup>3</sup> 1,686,219	1,070,095
	1939	82	80	<sup>3</sup> 12,650	<sup>3</sup> 9,123	<sup>3</sup> 1,205,859	837,975
Oregon.....	1940	77	70	16,465	13,186	1,735,420	1,217,987
	1939	67	61	13,949	12,436	1,424,369	999,567
Pennsylvania.....	1940	600	546	201,179	151,687	18,218,517	9,799,832
	1939	515	472	153,132	114,506	12,107,497	7,054,580
Rhode Island.....	1940	34	29	20,168	10,074	2,426,655	3,109,366
	1939	33	30	19,579	8,831	1,834,695	2,665,825
South Carolina.....	1940	<sup>3</sup> 50	<sup>3</sup> 44	<sup>3</sup> 8,378	<sup>3</sup> 6,725	<sup>3</sup> 533,148	<sup>3</sup> 268,640
	1939	33	28	6,113	4,864	395,559	186,349
South Dakota <sup>4</sup> .....	1940	24	23	4,350	3,714	447,750	225,517
	1939	18	17	3,383	2,973	345,683	159,057
Tennessee.....	1940	145	130	40,122	<sup>3</sup> 37,563	<sup>3</sup> 4,247,721	2,548,360
	1939	130	117	35,305	<sup>3</sup> 32,922	<sup>3</sup> 2,861,498	2,136,291
Texas.....	1940	401	356	<sup>3</sup> 96,568	<sup>3</sup> 90,557	<sup>3</sup> 11,173,725	6,924,808
	1939	340	308	<sup>3</sup> 76,895	<sup>3</sup> 70,692	<sup>3</sup> 7,840,453	<sup>3</sup> 5,584,021
Utah.....	1940	58	53	11,325	<sup>3</sup> 8,592	<sup>3</sup> 1,093,323	784,788
	1939	50	47	9,960	<sup>3</sup> 7,947	<sup>3</sup> 826,107	608,796
Vermont <sup>4</sup> .....	1940	5	3	265	268	14,348	6,937
	1939	5	3	210	236	10,765	4,479
Virginia.....	1940	111	93	27,843	29,180	3,078,118	1,672,046
	1939	95	81	23,917	16,947	<sup>3</sup> 1,765,047	<sup>3</sup> 1,376,194
Washington.....	1940	221	218	45,693	<sup>3</sup> 35,452	<sup>3</sup> 4,497,402	2,786,110
	1939	188	186	37,287	<sup>3</sup> 28,346	<sup>3</sup> 2,912,999	2,033,527
West Virginia.....	1940	71	61	17,029	<sup>3</sup> 12,677	<sup>3</sup> 1,211,950	816,835
	1939	61	51	12,768	<sup>3</sup> 7,616	<sup>3</sup> 728,388	621,624
Wisconsin <sup>5</sup> .....	1940	593	592	153,849	<sup>3</sup> 115,000	12,144,474	8,507,044
	1939	563	563	133,504	<sup>3</sup> 85,000	10,051,591	7,197,949
Wyoming <sup>4</sup> .....	1940	20	17	2,175	1,306	165,221	91,459
	1939	17	15	1,730	1,070	122,374	63,349

<sup>1</sup> Most of the difference between the total number of associations and the number reporting is accounted for by associations chartered but not in operation by the end of the year and associations in liquidation which had not relinquished their charter.

<sup>2</sup> Revised figure.

<sup>3</sup> Partly estimated.

<sup>4</sup> Federal credit unions only.

<sup>5</sup> State credit unions only. No Federal credit unions in operation although 1 had received a charter.

## Funds, Earnings, and Dividends, 1939 and 1940

The results of the year's operations in 1939 and 1940, as well as the financial status of the credit unions, are shown in table 3. This table reveals notable increases in share capital and total assets. Every State shared in these increases.

In those States with comparable figures for net earnings, all but two (Iowa and North Carolina) showed an increase in 1940 over the preceding year. It is possible that some of the decrease in earnings in Iowa and North Carolina may have been due to a lowering of the interest rate by individual associations. In Idaho the State associations as a group showed a loss of \$18 but, with the earnings of the Federal credit unions added, that State showed earnings amounting to \$8,685. Several States showed decreases in the amount of reserves, possibly indicating losses from bad debts which had to be written off.

TABLE 3.—Resources, Earnings, and Dividends of Credit Unions, 1939 and 1940, by States

State and type of association	Year	Number of associations reporting	Paid-in share capital	Reserves	Total assets	Net earnings	Dividends
All States	1940	8,894	\$211,600,502	\$13,766,907	\$252,294,887	\$11,050,800	\$7,006,768
	1939	7,841	<sup>1</sup> 160,532,414	10,926,108	193,300,538	6,701,458	4,516,586
State associations	1940	5,179	146,189,677	11,759,241	180,200,006	7,727,354	4,880,186
	1939	4,677	<sup>1</sup> 117,494,824	9,664,917	145,803,444	4,564,708	3,141,506
Federal associations	1940	3,715	65,410,825	2,007,666	72,094,881	3,323,446	2,126,582
	1939	3,164	43,037,590	1,261,191	47,497,094	2,136,750	1,375,080
Alabama	1940	85	1,512,255	131,785	<sup>2</sup> 1,767,675	<sup>2</sup> 84,721	65,510
	1939	82	1,223,036	126,106	1,413,319	<sup>2</sup> 61,757	48,407
Arizona	1940	20	248,224	8,665	285,018	<sup>2</sup> 15,397	11,176
	1939	19	168,236	6,222	197,741	<sup>3</sup> 8,305	<sup>5</sup> 5,320
Arkansas	1940	36	251,168	16,015	289,427	15,337	11,436
	1939	33	207,996	12,621	236,235	13,692	8,451
California	1940	414	15,972,764	660,542	19,114,143	<sup>2</sup> 659,648	<sup>2</sup> 469,901
	1939	379	12,192,848	482,714	14,599,521	<sup>3</sup> 232,046	<sup>3</sup> 142,368
Colorado	1940	105	1,757,645	119,855	2,272,401	<sup>2</sup> 70,624	<sup>2</sup> 52,694
	1939	102	1,513,554	80,298	1,800,319	<sup>3</sup> 11,886	<sup>3</sup> 6,708
Connecticut <sup>3</sup>	1940	178	3,975,566	91,672	4,274,199	158,031	101,320
	1939	151	2,269,216	54,029	2,453,720	92,356	56,097
Delaware <sup>3</sup>	1940	9	120,286	3,901	131,735	6,661	4,475
	1939	11	78,276	2,475	85,704	4,441	2,587
District of Columbia	1940	108	5,201,306	211,440	5,792,543	<sup>2</sup> 280,834	200,901
	1939	107	4,068,977	148,384	4,522,193	<sup>2</sup> 218,818	165,692
Florida	1940	149	2,267,355	119,269	2,572,612	<sup>2</sup> 125,992	90,700
	1939	129	1,706,071	73,124	1,944,380	<sup>2</sup> 90,432	63,293
Georgia	1940	153	<sup>2</sup> 3,538,744	<sup>2</sup> 192,856	<sup>2</sup> 3,809,840	<sup>2</sup> 99,471	<sup>2</sup> 65,030
	1939	124	2,091,728	177,046	3,096,774	<sup>3</sup> 27,728	<sup>3</sup> 18,546
Hawaii <sup>3</sup>	1940	95	2,822,417	74,487	3,149,862	157,198	105,945
	1939	90	1,799,207	41,436	2,068,676	99,264	62,729
Idaho	1940	35	174,183	5,668	200,759	8,685	5,324
	<sup>3</sup> 1939	27	113,027	3,566	125,271	5,253	3,644
Illinois	1940	743	27,201,862	1,716,530	29,510,611	1,520,410	1,010,910
	1939	663	20,074,622	1,250,864	21,688,582	1,086,990	759,360
Indiana	1940	288	5,479,129	227,430	6,053,877	259,038	156,096
	1939	277	3,799,500	253,556	4,213,778	<sup>3</sup> 77,634	<sup>3</sup> 50,379
Iowa	1940	209	3,293,357	331,967	3,874,701	131,813	118,353
	1939	196	2,609,851	263,493	3,076,440	162,372	104,370
Kansas	1940	122	1,523,938	59,302	1,718,557	91,887	56,978
	1939	95	1,122,478	45,269	1,248,433	<sup>3</sup> 5,591	<sup>3</sup> 3,794
Kentucky	1940	113	2,557,274	<sup>2</sup> 27,568	2,937,941	<sup>2</sup> 62,380	<sup>2</sup> 46,506
	1939	92	<sup>1</sup> 2,026,141	25,799	2,381,094	<sup>3</sup> 767	<sup>3</sup> 475
Louisiana	1940	105	2,015,302	109,543	2,289,933	126,787	83,838
	1939	92	1,556,906	83,824	1,778,945	100,820	67,706

See footnotes at end of table.

TABLE 3.—Resources, Earnings, and Dividends of Credit Unions, 1939 and 1940, by States—Continued

State and type of association	Year	Number of associations reporting	Paid-in share capital	Reserves	Total assets	Net earnings	Dividends
Maine	1940	35	\$436,255	\$33,784	\$707,431	\$21,631	\$20,305
	1939	32	355,093	22,184	590,231	21,089	14,512
Maryland	1940	72	1,517,200	144,519	1,751,832	91,573	61,208
	1939	57	1,137,555	110,516	1,325,831	65,143	41,072
Massachusetts	1940	517	20,442,319	2,816,498	27,860,637	899,175	646,291
	1939	462	17,738,221	2,532,942	24,465,707	784,943	626,032
Michigan	1940	235	9,290,118	396,618	10,613,435	<sup>2</sup> 340,537	257,642
	1939	218	6,266,491	247,666	7,463,161	128,333	<sup>3</sup> 24,800
Minnesota	1940	364	6,599,851	303,709	9,004,138	382,084	264,294
	1939	337	5,558,912	239,444	7,440,423	313,068	222,850
Mississippi	1940	18	<sup>2</sup> 230,948	<sup>2</sup> 17,160	<sup>2</sup> 323,623	<sup>2</sup> 13,009	<sup>2</sup> 8,540
	1939	18	171,789	14,484	249,694	11,949	6,359
Missouri	1940	355	7,907,292	420,880	8,988,575	<sup>2</sup> 328,720	<sup>2</sup> 225,697
	1939	334	6,536,676	<sup>3</sup> 8,889	7,413,671	<sup>3</sup> 15,950	<sup>3</sup> 10,753
Montana	1940	27	167,518	5,503	185,747	8,624	5,829
	1939	21	111,972	2,915	123,992	5,730	3,520
Nebraska	1940	196	1,454,267	165,803	3,916,067	114,645	47,104
	1939	185	1,210,540	65,005	3,146,141	<sup>2</sup> 85,050	<sup>2</sup> 16,569
Nevada <sup>3</sup>	1940	6	22,268	650	23,689	922	626
	1939	4	9,701	324	10,879	351	297
New Hampshire	1940	16	381,807	42,759	728,106	28,226	10,839
	1939	14	296,115	33,622	564,574	22,324	9,127
New Jersey	1940	234	6,152,368	178,458	6,727,167	272,854	174,617
	1939	206	4,265,156	190,568	4,685,058	187,506	128,152
New Mexico <sup>3</sup>	1940	11	75,159	2,896	83,449	4,349	3,090
	1939	9	53,049	2,086	60,497	2,447	1,973
New York	1940	725	20,972,376	2,134,968	25,177,867	1,384,334	669,091
	1939	590	16,815,022	2,163,364	20,438,066	866,315	607,767
North Carolina	1940	150	1,414,004	82,635	1,832,537	<sup>2</sup> 74,405	<sup>2</sup> 58,650
	1939	129	1,087,489	78,192	1,522,676	78,044	<sup>2</sup> 46,295
North Dakota	1940	68	250,133	9,698	288,487	10,514	7,783
	<sup>3</sup> 1939	30	137,013	6,165	154,980	7,332	5,069
Ohio	1940	574	11,508,077	389,753	12,700,736	<sup>2</sup> 388,125	389,094
	1939	467	<sup>2</sup> 6,797,565	<sup>2</sup> 197,021	<sup>2</sup> 6,783,377	<sup>2</sup> 106,461	<sup>3</sup> 68,199
Oklahoma	1940	89	508,138	60,083	1,300,344	<sup>2</sup> 52,064	<sup>2</sup> 36,994
	1939	80	371,635	20,134	1,000,514	<sup>3</sup> 12,636	<sup>3</sup> 9,074
Oregon	1940	70	1,318,496	63,281	1,524,450	65,049	40,963
	1939	61	1,027,832	48,412	1,170,175	53,586	37,789
Pennsylvania	1940	546	11,719,940	401,700	13,320,751	598,914	397,925
	1939	472	8,193,912	279,167	9,347,451	376,920	285,094
Rhode Island	1940	29	2,374,549	193,670	4,376,416	135,645	80,974
	1939	30	1,958,171	12,902	3,661,485	<sup>2</sup> 80,050	63,713
South Carolina	1940	<sup>2</sup> 44	<sup>2</sup> 319,242	<sup>2</sup> 13,223	<sup>2</sup> 353,389	<sup>2</sup> 14,076	<sup>2</sup> 7,128
	<sup>3</sup> 1939	28	197,621	8,650	221,735	10,044	6,093
South Dakota <sup>3</sup>	1940	23	249,154	8,830	277,261	14,083	9,020
	1939	17	180,129	6,137	198,746	9,949	5,410
Tennessee	1940	130	2,715,992	203,518	3,245,513	202,070	71,030
	1939	117	2,201,136	172,858	2,655,899	157,322	42,718
Texas	1940	356	7,215,584	307,429	8,296,477	<sup>2</sup> 442,088	301,816
	1939	308	<sup>2</sup> 5,915,207	<sup>2</sup> 283,398	<sup>2</sup> 6,684,208	<sup>2</sup> 333,001	<sup>2</sup> 235,556
Utah	1940	53	773,945	31,312	902,626	34,563	<sup>2</sup> 24,361
	1939	47	613,030	39,296	699,064	<sup>3</sup> 7,364	<sup>3</sup> 5,122
Vermont <sup>3</sup>	1940	3	7,823	371	8,615	376	281
	1939	3	4,952	357	5,613	270	183
Virginia	1940	93	1,480,867	173,550	1,973,536	<sup>2</sup> 69,687	49,423
	1939	81	1,207,703	143,496	1,647,514	56,020	43,560
Washington	1940	218	3,103,484	132,527	3,479,210	195,828	121,612
	1939	186	2,370,509	132,908	2,584,613	88,471	53,647
West Virginia	1940	61	724,997	48,128	932,177	<sup>2</sup> 34,387	<sup>2</sup> 22,040
	1939	51	518,005	36,197	692,947	<sup>3</sup> 12,373	<sup>3</sup> 6,967
Wisconsin <sup>4</sup>	1940	592	10,270,026	871,066	11,238,678	598,395	332,073
	1939	563	8,537,851	693,543	9,287,975	497,740	316,189
Wyoming <sup>3</sup>	1940	17	93,530	3,433	106,087	4,934	3,335
	1939	15	64,692	2,440	72,516	3,525	2,199

<sup>1</sup> Revised figure.<sup>2</sup> Partly estimated.<sup>3</sup> Federal credit unions only.<sup>4</sup> State credit unions only.

### Trend of Credit-Union Development, 1936 to 1940

As already indicated, 1940 represented the peak of credit-union development thus far. The trend since 1936, by years, is shown in table 4.

TABLE 4.—Estimated Relative Growth of State and Federal Credit Unions, 1936 to 1940

Item and year	Total	State-chartered associations	Federal-chartered associations
Number of credit unions:			
1936	5,437	3,575	1,862
1937	6,400	3,900	2,500
1938	7,265	4,250	3,015
1939	8,315	4,771	3,544
1940	9,510	5,300	4,210
Membership:			
1936	1,209,902	893,932	315,970
1937	1,546,400	1,013,900	532,500
1938	1,931,400	1,241,000	690,400
1939	2,421,000	1,475,000	946,000
1940	2,816,600	1,696,400	1,120,200
Amount of loans:			
1936	\$112,134,577	\$96,476,517	\$15,658,060
1937	\$139,355,200	\$102,770,200	\$36,585,000
1938	\$186,302,800	\$134,513,800	\$51,789,000
1939	\$240,500,000	\$161,000,000	\$79,500,000
1940	\$302,340,000	\$197,353,000	\$104,987,000



## FATE OF GERMAN CONSUMERS' COOPERATIVE ASSOCIATIONS<sup>1</sup>

"THOSE who had hoped the German consumers' movement, after its subordination to Nazi economic aims (*Gleichschaltung*) and the liquidation of most of the big societies in the large industrial centers, would be allowed at least a certain external appearance of a limited independence must have been finally disillusioned by the latest German decree concerning the consumers' societies, of February 28, 1941. This decree is a death blow to what remnant of life still remained in the German consumers' movement—once a stronghold of German economic democracy. The effects of the decree, according to an official German version, are:

"The property of the consumers' cooperative societies has been transferred to the German 'Labor Front.'

"Cooperative shops are to be converted into ordinary retail shops and given over to private ownership, but as they are mainly to be given to men who fought at the front the change will take place, on the whole, only after the war.

"Dr. Ley, the leader of the 'Labor Front,' commenting on the new development in the cooperative field in Angriff of March 1, makes some very illuminating statements on the attitude of National Socialism towards consumers' cooperation, while his remarks on the contemplated changes themselves are rather vague or even contradictory. The fundamental rejection of the cooperative idea as embodied in consumers' cooperation is expressed in the following terms:

"The consumers' cooperative societies represented a collectivist form of economy of which we, as National Socialists, do not approve; by virtue of their political power they were able to compete unfairly with the small artisan and trader who was, therefore, their sworn enemy \* \* \*. The collectivist idea \* \* \* runs counter to our program, which seeks to further individual values and personal initiative.

<sup>1</sup> Reprinted from Review of International Cooperation (London), April 1941.



“Dr. Ley then states that at the Führer’s request he had proceeded slowly and carefully to liquidate the societies, but he has to admit the great achievements of the consumers’ movement and goes so far as to stress the growing dependence of the country on the productive units and the distributive facilities of the movement during the war. ‘All objections had to give way in the face of this discovery. The liquidation had, in fact, to be stopped since the consumers’ societies had proved their value.’ After this admission of cooperative efficiency by a proved enemy of consumers’ cooperation the article continues: ‘What proves itself in war has also its justification in peacetime. Hence the Führer decided that the useful institutions in the cooperative machinery shall be preserved and become part of the National Socialist economy.’ How this ‘preservation’ of the useful cooperative institutions is to be reconciled with the handing over of these institutions to soldiers after the war—who, financed by the Bank of the German Labor Front, will be given a ‘chance eventually to become independent business men’—remains the secret of Dr. Ley.

“The immediate change which is taking place is the complete integration of the consumers’ movement, with all its capital and productive units, in the German Labor Front, to which it had been affiliated since 1933. ‘The shares of the members are transferred to the Labor Front’ and the members are promised that they will ‘suffer no loss by this transaction.’ This means the complete abolition of cooperative democracy, as the member, having no longer any share in the society which he helped to build up, cannot claim a voice in its affairs. The article in *Angriff* is, therefore, quite correct in stating bluntly: ‘The movement thereby loses its cooperative character and its shops are open to everybody.’ The complete perversion of the purpose of the consumers’ societies is revealed in the statement that the stores and factories, which are to become ‘model’ shops and workshops, will be ‘a means of serving the trader and artisan.’ ”

## Self-Help Cooperatives

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### SELF-HELP COOPERATIVES IN UTAH, 1935-41

OVER \$557,000 in wages, economic rehabilitation of participants, experience in industrial democracy, and development of the natural resources of the State are cited as some of the benefits accruing under the Utah self-help program established by legislative act of March 25, 1935.

The program was established for the purpose of assisting, by means of small loans, groups of unemployed to become self-supporting by operating small productive enterprises.

The State Self-Help Board, which has administered the program, went out of existence July 1, 1941, its functions being transferred to a new State department. The whole period of its operations from 1935 to May 1941 is reviewed in a report issued by the retiring board.<sup>1</sup>

The report points out that, although self-help membership is made up of people either on or about to go on relief or WPA, "very few have continued on relief after joining a self-help unit." Some have worked on WPA during the winter and on self-help during the summer. "Again, some units whose members were all on WPA earlier are now entirely off it, their project having become profitable enough to take the place of WPA."

Further, according to the report, the self-help activities cost the public much less than either direct relief or WPA, and brought much greater returns. For every \$1 expended, over \$2 has been returned to the members in benefits, and in individual units the return has been considerably greater. Thus one unit, described as "relatively successful," has "brought to its members about \$15 for each dollar the State has contributed, and the State's dollar includes both the cost of State administration as well as the part which went to the unit."

Over 2,000 families have benefited by the work of these self-help units. Although many units have operated for periods varying from a few months to several years and then gone out of business, there were 12 groups still in active existence in May 1941. These

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<sup>1</sup> Utah Cooperative News, June 1941. For earlier articles on self-help cooperatives under the Utah board, see *Monthly Labor Review*, August 1936, July 1938, and December 1939. These articles were also issued in pamphlet form as Serials Nos. R. 424, R. 774, and R. 1045, respectively.

had over 800 members and were operating sawmills, canneries, stores, and gasoline stations, a coal mine, and other enterprises.

Some of the lumber is sold in Nevada. The canned goods from the canneries is shipped to various places and as far away as Kansas City. "These canneries are doing much to subsidize small farmers who just have a few acres, and when their products are processed by their own labor, they are able to live on a very small tract of land. The products, being hand packed, always bring a premium from the dealers."

On the basis of 6 years' experience with the self-help program, the Board expresses its opinion that—

The self-help system of Utah is the most powerful sustainer of independence and initiative among disadvantaged groups that is before the people today. Under it, banded groups organize their own business, select their own leaders, run their own business, and ask only the loan of sufficient money to provide them with the equipment necessary to work it. They want neither free corn, or cash relief, or government-made work; rather the opportunity to pool their weakened strength and try once more together what they could not do alone. \* \* \* The essence of sound manhood lies in the same homely virtues that have always characterized it. Our chief business is to encourage, nurture, and sustain these virtues. Self-help is not the only way to do this. It is one of the very good ways.

### *New Legislation on Self-Help*

The 1941 Legislature of Utah passed an act (ch. 75) creating the Department of Publicity and Industrial Development. The duties of this new department, which was to come into existence July 1, 1941, are those of "providing opportunities for increased employment in Utah, of providing employment for the young men and women of the State and creating and sponsoring a program of industrial development of the natural resources in every part of the State." To this end it is directed to cooperate with Federal, State, and local authorities and undertake research and investigation on industrial developments which offer possibilities in the department's task of raising the earning power of Utah residents.

The law specifically empowers the department to "erect industrial plants for experimental purposes and the purpose of utilizing Utah resources and of stimulating industrial development, and shall operate such plants through their experimental stages and with the approval of the Governor may sell the same to Utah cooperatives."

The act also provided that the department shall direct the activities of self-help associations as the legislature may provide. This general provision was supplemented by a later act (ch. 27 of the 1941 special session) which abolished the State Self-Help Board (created in 1935) as of July 1, when the new department came into being. The three commissioners of the new department were designated as members of

a new self-help board. They were directed to employ a director to supervise the administrative work, who must be "a person especially qualified by training and experience."

To carry out all of the above purposes an appropriation of \$25,000 was made, which also covers the salaries of the three commissioners at \$4,000 per annum each.

### *Operations Under Utah Self-Help Board, 1935-41*

The 1935 legislature appropriated \$40,000 to be used in the self-help program, and the Federal Government made a grant of \$90,000 from relief funds, under the program in effect at that time. Three later appropriations by the Utah Legislature totaled \$74,500. Thus, in the 6-year period of its operations the State Self-Help Board had total funds amounting to \$204,500.

This money was used to make loans to finance self-help activities, the main purpose of which was to take the unemployed off the relief rolls or to prevent their going on relief, and to "put them to work for themselves." At first the principal aim was to make work and the matter of permanent organization was not stressed. Many groups were formed for strictly seasonal projects which could not hope to provide year-round work and these discontinued operations after a few seasons or even after the first season's work was done.

As experience was gained, an increasing attempt was made to create projects promising permanent employment and to limit the project members to a number to which the project could furnish a reasonably good return in the form of wages.

Among the activities carried on were farming, fruit raising, sewing, quarrying of building stone, mining of coal, and operation of such enterprises as box factory, sawmill, soap factory, woodworking shop, machine shop, battery plant, coal yard, and dairy.

Of 57 associations for which the report gives data, 16 operated for less than 6 months, 13 for 6 months to 1 year, 9 for 1 year but less than 2 years, 2 for 2-3 years, 3 for 3-4 years, 5 for 4-5 years, and 9 for 5-6 years. Of these last two groups, 11 were still in operation in May 1941, in addition to one farm group for which the date of organization was not reported.

#### LOAN EXPERIENCE

From the first, any group wishing to borrow from the self-help fund was required to organize as a cooperative. Also, its proposed field of operation had to be approved by the State board. Preference was given to projects whose purpose was to develop local resources.

Although most of the groups which received loans were producer groups, in several cases loans were made to consumers' cooperatives. At least 3 producer groups, which received loans, later became consumers' cooperatives and an additional association developed con-

sumer as well as producer activities. Of eight consumer or producer-consumer groups, 5 were still in operation in May 1941.

Altogether 2,280 persons participated in the activities of the 52 groups for which membership was reported.

During the board's 6 years' operation it made loans to 58 groups, in a total sum of \$162,671. These loans, which were without interest and ran for a 20-year period, ranged in amount from \$6.92 to \$19,173 and averaged \$2,805. The distribution of loans, by amount, is shown below:

	<i>Number of loans</i>
Less than \$100.....	5
\$100 and under \$500.....	17
\$500 and under \$1,000.....	13
\$1,000 and under \$5,000.....	15
\$5,000 and under \$10,000.....	3
\$10,000 and over.....	5
Total.....	58

As 60 percent of the loans were in amounts less than \$1,000 and 86 percent were less than \$5,000, the members of the cooperatives soon found that the loan amounts would have to be supplemented if their small businesses were to survive. They therefore required contributions of capital from the members, ranging in amount from \$50 to \$100 or more. As many of the members were unable to pay this in cash, they made their contribution by leaving in the association all or part of their wages until the subscription was met.

It has been one of the policies of the board to encourage the members to build up capital by regularly leaving in the business a portion of their wages—possibly 10 percent.

The following statement summarizes the loan operations over the period 1935 to May 1941:

Total amount loaned.....	\$162, 671
Total repaid by units.....	\$49, 208
Total still unpaid, but secured by assets.....	15, 994
	65, 202
Amount of loans charged off.....	97, 469
Administrative cost.....	87, 466
	184, 935
Total cost to State.....	184, 935

### *Status of Associations Still Active*

Of the groups which have participated in the State program, 12 were still active in May 1941. Of these, 6 (with 151 members) are producer associations, 2 (with 35 members) carry on consumer as well as producer activities, 3 (with 625 members) are consumers' cooper-

atives, and 1 is a consumers' cooperative wholesale association to which 7 retail cooperatives are affiliated.

These associations are operating 3 sawmills, 3 canneries, a soap factory, a coal mine, a farm, 3 grocery stores, 2 coal yards, 3 gasoline filling stations, 2 repair garages, and a wholesale warehouse. According to the report, the producer associations have combined assets of nearly \$50,000. No data were given in the report as to the assets of the consumers' cooperatives, but data in the possession of the Bureau of Labor Statistics indicate a combined figure of well over \$50,000.

These active groups have paid in wages and in commodities the sum of \$394,746, besides repaying \$28,736 on total loans amounting to \$92,554.

Though not all of the groups have been able to attain the goal of full-time employment sufficiently lucrative to furnish full family support, all are working toward this end and several have made notable progress toward it. Thus, one of the sawmills cut over 800,000 feet of lumber in 1940, and paid its members in wages the sum of \$18,000, or an average of \$1,125 each. "The city and county officials and the bank management all agree that this project is a real asset to the community."

Another sawmill unit with 19 members has built up quite a community at the site of operations, with cabins, electricity, community dining room, cows to furnish milk, etc. In fact, as the report puts it, "they have a real summer resort." This unit paid wages in 1940 amounting to \$21,322 or \$1,122 per member.

Another group of 23 families is composed of very small farmers, having 2 to 20 acres each. This group operates a cannery in which are packed the products of their farms, a store through which the members buy their supplies for home and farm, and a coal yard. In addition to the saving made by the purchase of fuel and supplies and the sale of their canned goods at higher rates than would be obtained for the raw products, employment was provided for some of the members in the store, cannery, and coal yard.

The wholesale association was originally started as a clearing house through which to exchange or otherwise dispose of the products of the self-help units. It has since developed into an independent consumers' cooperative wholesale serving local or retail cooperatives, though it still assists in the marketing of the producer units' output. It handles petroleum products, automobile tires and accessories, and farm supplies. In 1940 it did a business of \$199,523 on which it realized a net gain of \$7,709. It has six employees.

The loan and benefit status of the groups that are still active is shown in the accompanying table.

Membership, Loan Status, and Benefits of Active Groups Aided by Self-Help Program of Utah

Association	Kind of business	Year organized	Members	Amount of loan		Benefits		
				Total	Re-paid	Total	Cash	Commodities
Iron County Cooperative Assn.	Sawmill.....	1936	19	\$4,715	<sup>1</sup> \$950	\$63,170	\$58,170	\$5,000
Sanpete Self-Help Cooperative.	do.....	1935	40	14,756	<sup>1</sup> 2,768	104,293	74,293	30,000
National Cooperative Assn.	Cannery; sawmill; store.	1935	12	6,182	<sup>1</sup> 2,118	9,448	7,448	2,000
Payson Producers' Assn.	Cannery.....	1936	25	3,828	<sup>1</sup> 1,284	19,324	4,324	15,000
Lindon Cooperative Assn.	Cannery; coal yard; store	1936	23	19,173	<sup>1</sup> 14,779	37,204	32,204	5,000
Sopo Manufacturing Co. <sup>2</sup>	Soap manufacture.....	1935	5	603	603	4,000	4,000	-----
Twin Cities Cooperative	Coal mine.....	1935	54	7,542	<sup>1</sup> 2,613	64,800	59,800	5,000
Oram Farm Cooperative	Farm.....	( <sup>3</sup> )	8	500	<sup>1</sup> 7	1,350	1,350	-----
Sevier Valley Cooperative Assn.	2 gas stations and repair garages.	1936	200	58	58	13,000	13,000	-----
Hurricane Cooperative Assn.	Grocery store.....	1936	200	271	46	11,000	11,000	-----
Logan Consumers' Cooperative.	Gas station; coal yard; merchandise.	1937	225	-----	-----	16,000	16,000	-----
Utah Cooperative Assn.	Wholesaler of petroleum products, tires, etc.	1935	<sup>4</sup> 7	34,926	3,510	51,157	51,157	-----
All associations.....	-----	-----	<sup>5</sup> 811	92,554	28,736	394,746	332,746	62,000

<sup>1</sup> Part of unpaid balance is secured by lien on assets of association.

<sup>2</sup> Still active, but now a unit in Mormon Church Welfare Program.

<sup>3</sup> No data.

<sup>4</sup> Number of affiliated retail cooperatives.

<sup>5</sup> Not including associations affiliated with Utah Cooperative Association.

# Industrial Accidents and Safety

## FATAL INDUSTRIAL ACCIDENTS IN CANADA, 1940

THE total number of fatal industrial accidents in Canada reported for the year 1940 was 1,144, of which 19.93 percent occurred in transportation and public-utility services. The next highest percentage of fatalities for any industrial group—14.34—was recorded for each of two industries, logging and construction.

These figures and statistics for other industrial groups, as shown in the table below, are based on a more detailed tabulation in the Canadian Labor Gazette for March 1941.

*Total Fatal Industrial Accidents in Canada, 1939 and 1940*

Industry	1940		1939 <sup>1</sup>		Gainfully employed, latest census	
	Number of fatalities	Percent of total	Number of fatalities	Percent of total	Year of census	Number
All industries.....	1,144	100.00	1,070	100.00	-----	-----
Agriculture.....	125	10.93	162	15.14	1931	1,128,188
Logging.....	164	14.34	148	13.83	1931	49,960
Fishing and trapping.....	32	2.80	29	2.71	<sup>2</sup> 1939	68,941
Mining, nonferrous smelting, and quarrying.....	160	13.99	168	15.70	1939	107,941
Manufacturing.....	137	11.97	110	10.28	1938	642,016
Construction.....	164	14.34	133	12.43	1931	256,282
Electric light and power.....	25	2.18	25	2.34	1939	18,848
Transportation and public utilities.....	228	19.93	181	16.92	-----	( <sup>3</sup> )
Trade.....	49	4.28	44	4.11	1931	387,315
Finance.....	1	.09	-----	-----	1931	92,317
Service.....	59	5.15	70	6.54	1931	767,705
Unclassified.....	-----	-----	-----	-----	-----	169,263

<sup>1</sup> Revised figures.

<sup>2</sup> Fishermen only.

<sup>3</sup> No data for group as a whole.

## COMPULSORY MEDICAL EXAMINATION OF DOMESTIC SERVANTS IN COSTA RICA<sup>1</sup>

ALL domestic servants in Costa Rica are required (by decree No. 7 of May 7, 1941) to obtain from the Bureau of Epidemic Studies (*Departamento de Epidemiología*) in the Secretariat of Public Health and Social Protection (*Secretaría de Salubridad Pública y Protección Social*) certificates showing that they do not have any infectious or con-

<sup>1</sup> Data are from report of S. Roger Tyler, Jr., United States vice consul at San José, Costa Rica.



tagious diseases. The classes of domestic servants specified are servants, cooks, waitresses, janitors, chauffeurs, gardeners, governesses, and nurses. The certificate shall be issued without charge by the Bureau of Epidemic Studies, and a report shall be sent weekly to the Section of Vital Statistics (*Seccion de Biodemografia*), listing the persons examined, with specification of age, sex, civil status, occupation, and illness found.

The head of a household is required to demand of the person he employs this certificate of health. The head of a household who employs any person not having such a certificate and persons who accept employment without obtaining such certificate are subject to fines of specified limits.

The decree was to become effective on June 1. For some time free clinics have been open to persons in the servant class in Costa Rica.

## Labor Laws and Court Decisions

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### COURT DECISIONS OF INTEREST TO LABOR

#### *Benefits Denied to Workers Unemployed Because of Labor Dispute*

AS a result of the refusal of the United States Supreme Court to review a decision of the Supreme Court of Alabama,<sup>1</sup> employees of the Tennessee Coal, Iron & Railroad Co. are denied unemployment compensation for time lost during the 1939 bituminous-coal stoppage.

The Alabama unemployment-compensation law, like similar laws in other States, provides that compensation shall not be paid if unemployment is due to a labor dispute. The miners in this instance had filed claims for compensation for unemployment during the so-called soft-coal "holiday" following the expiration of former collective-bargaining agreements on March 31, 1939. The stoppage had occurred while the terms of a new contract were being negotiated. The miners had refused to work until a new contract was signed, but in filing claims for compensation they alleged that no dispute had existed.

The Alabama Court of Appeals decided, however, that the miners were a party to a controversy over wages, hours, and working conditions and that the unemployment had therefore resulted from a labor dispute within the meaning of the State Unemployment Compensation Act. The Supreme Court of Alabama, in affirming the decision of the Court of Appeals declared that there was no foundation for the argument that the words "labor dispute" must necessarily refer to a controversy that results in a strike or lock-out.<sup>2</sup>

#### *Beauty Shops Held Subject to Minimum-Wage Law*

A person operating a beauty shop has been held to be engaged in an "industry, trade, or business" within the Illinois minimum wage law.<sup>3</sup> The Appellate Court of Illinois, in making this ruling, declared that the practice of beauty culture is not a "profession," and hence the operator of a beauty parlor was subject to a fine for failure to report to the State Department of Labor the hours and wages of her employees, as required by the law.

<sup>1</sup> *Pesnell v. Department of Industrial Relations of Alabama* (61 Sup. Ct., 1113).

<sup>2</sup> *Department of Industrial Relations v. Pesnell* (199 So. 720); *Ex parte Pesnell* (199 So. 726).

<sup>3</sup> *People v. Maggi* (33 N. E. (2d) 925).

The State minimum-wage law applies to any occupation defined in the act as "an industry, trade, or business or branch thereof or class of work therein in which women or minors are gainfully employed." It was urged that the practice of beauty culture is the practice of a profession, since a beauty culturist must have a scientific and theoretical education, and must use complicated machinery and processes which require the constant exercise of discretion and judgment. The court, however, ruled that the practice of beauty culture is not a profession. The law requiring the licensing of beauty culturists, the court said, does not apply to any person giving treatments for disease or muscular or nervous disorder, but is applied strictly to the practice of beauty culture when done for cosmetic or beautifying purposes. It is in the class with the barbers' statute which speaks of the "business, art, and avocation of a barber." The court also called attention to the dictionary definition of "profession" generally applying to the professions of theology, law, and medicine.

### *Action for Occupational Disease Under Indiana Employers' Liability Law*

An action to recover damages for an occupational disease was properly brought under the Indiana Employers' Liability Act, according to a recent decision of the Appellate Court of the State.<sup>4</sup> This action was based on the failure of the employer to comply with the State Factory Act, which requires employers to furnish sufficient means of ventilation and to provide exhaust fans of sufficient power for the purpose of carrying off dust from emery wheels, grindstones, and dust-creating machinery. The evidence showed that the employee contracted silicosis and became permanently and totally disabled. The disease and disability were found to be the result of the failure of the employer to comply with the Factory Act.

The employer contended that an employee could recover for an "ordinary occupational disease," such as benzol poisoning, which results quickly from continuous exposure, but was not entitled to recover where, as in this case, a "true occupational disease," such as silicosis, is contracted. A true occupational disease, it was said, affects the employee "drop by drop, little by little, day by day, for weeks and months, and finally enough is accumulated to produce symptoms after a long period of time." The court, however, could see no basis for this distinction, as "the law is well settled in this State that any occupational disease which is the proximate result of the negligence of the employer is actionable."

<sup>4</sup> *Dean v. Dalton Foundries, Inc.* (34 N. E. (2d) 145). Since this suit was instituted, an occupational-disease law has been enacted in Indiana.

### *Loss of Teeth Compensable Under Workmen's Compensation Law*

The Supreme Court of Idaho has held that an injury resulting in the loss of front teeth is compensable under the workmen's compensation act.<sup>5</sup> In the case under consideration the employee, after the injury, obtained false teeth which were "just as useful and sightly as his natural teeth," but the court held that the loss of the teeth was, as a matter of law, a "substantial physical impairment" for which the employee was entitled to compensation. It was unnecessary, the court said, for the employee to establish the fact that the deprivation of his teeth had resulted in substantial loss to him in his future work.

In connection with the provision of the statute that diminished ability to obtain employment because of disfigurement may constitute partial disability, the court said that the seeking and procuring of future employment after the injury is not confined to the kind of work the injured employee was pursuing at the time of the accident. Thus, it was unnecessary for the employee to show the degree to which he was disqualified for future employment. The statute enumerates in a schedule certain injuries for which compensation is to be awarded and then states that "in all other cases" the award "shall bear such relation to the amount stated in the above schedule as the disabilities bear to those produced by the injuries named in the schedule." The Industrial Accident Board is required to make awards in such cases, and the court declared that the board could similarly make an award in a case involving the loss of teeth, even though no evidence was produced as to the degree to which the employee was disabled or disqualified from employment.

### *Assault by Employer Not Covered by Workmen's Compensation Act*

In a recent New Jersey case, decided by the Common Pleas Court, of Union County, the State workmen's compensation act was held not to cover an injury which resulted from a direct assault by an employer upon an employee.<sup>6</sup> The court held that the compensation court had no jurisdiction in a case of this character and that the employee's remedy was a suit for assault and battery.

In this case an argument took place between the employer and the employee, and the employer was alleged to have assaulted the employee and permanently injured him. However, the court ruled that the compensation court does not have exclusive jurisdiction over a workman's claim against his employer for a personal assault. This would leave an employer with no remedy for his claim that the workman assaulted him or would require the employer to sue the employee in the common-law court while the employee sued him in the compensation court. This, the court said, would be an absurd procedure.

<sup>5</sup> *Olson v. Union Pac. R. Co.* (112 Pac. (2d) 1005).

<sup>6</sup> *Rumbolo v. Erb* (20 Atl. (2d) 54).

## Cost of Living

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### CHANGES IN COST OF LIVING, JUNE 15, 1941

LIVING costs in large cities increased more in the quarter from mid-March to mid-June than in the entire period from August 1939 to March 1941. The advance of 3.4 percent during the past quarter, half of which was from May 15 to June 15, brought the Bureau of Labor Statistics' cost-of-living index 6 percent above the level prevailing when the war broke out in Europe. Food and housefurnishings costs rose most sharply.

The Bureau of Labor Statistics' index of the cost of living of wage earners and lower-salaried workers in large cities stood at 104.6 on June 15, as compared with average costs in 1935-39 as 100. This was 4.1 percent above June 1940; 0.3 percent above the September 1937 peak; and 15.2 percent above the low point of June 1933.

*Food.*—Retail food costs rose by 3.7 percent from mid-May to mid-June in the most rapid and widespread advance since September 1939. In the last half of June, preliminary reports indicate a further advance. The steady rise in food prices, which began last November, has brought food costs to moderate-income families up 10.4 percent in 7 months. On June 15, 1941, they were 13.3 percent above the comparatively low level of August 1939.

The price rise from May to June occurred in all groups of foods and was reported from all 51 of the large cities included in the Bureau's food-cost index. The greatest increases were in prices of pork and lamb, lard and other shortening, eggs, onions, potatoes, and apples. Dairy products and some canned goods also advanced. These increases reflect earlier advances in the wholesale markets. They are in part attributable to seasonal factors and short supplies, particularly in the case of potatoes, apples, and certain other fruits and vegetables. The principal reason for the increase is, however, the larger volume of purchases by the Government and by individuals, together with some speculative buying.

*Housefurnishings.*—Prices of furniture and household furnishings rose in all the cities from which the Bureau has reports. The volume of sales continues above the level of recent years, and in cities with extensive defense activity, predepression sales records are being broken. Following price advances in the wholesale furniture markets, retail

prices of living-room, dining-room, and bedroom suites rose by 5 to 7 percent during the quarter. The Bureau's agents report that prices of refrigerators and washing machines have increased in almost all of the cities covered, and that plastic and tinned copper have now been substituted for some parts formerly made of aluminum. Preliminary tests show that some of the substitutes will probably be quite as satisfactory as aluminum from the consumer's point of view. Prices of rugs, sheets, and towels continued to rise, as retailers reported to the Bureau's agents that deliveries of many textiles are behind schedule. In contrast to other prices in this group, wholesale prices of linoleum declined and this decrease was reflected in retail stores.

The following statement shows the percentage changes in prices paid by wage earners and clerical workers for important house-furnishings since March 15, 1941, and August 15, 1939:

Item	June 1941 compared with—	
	Mar. 15, 1941	Aug. 15, 1939
Living-room suites.....	+6.9	+15.6
Dining-room suites.....	+4.9	+10.4
Bedroom suites.....	+5.3	+10.1
Electric refrigerators.....	+4.6	-11.7
Washing machines.....	+3.0	+5.7
Rugs.....	+4.5	+21.0
Linoleum.....	-.1	-1.4
Mattresses.....	+1.6	+3.8
Sheets.....	+4.5	+12.0

*Clothing.*—The steady rise in clothing prices since the first of this year continued between mid-May and mid-June, particularly for men's clothing. Men's suits, work clothing and shoes increased in almost all of the cities covered in the Bureau's cost-of-living surveys and scattered rises were reported for most other articles of clothing. Prices of women's silk hosiery showed further declines, as a result of competition with nylon hose and the increased use of cotton socks. On the average, clothing costs are now 1.2 percent higher than in March of this year and 3 percent above the pre-war level of two years ago.

Changes in prices of important articles of clothing from March 15, 1941, and August 1939, to June 15, 1941, are shown below:

Item	June 1941 compared with—	
	Mar. 15, 1941	Aug. 15, 1939
Men's wool suits.....	+1.6	+5.2
Men's street shoes.....	+2.6	+7.7
Men's business shirts.....	+ .7	+1.6
Men's work shirts.....	+4.3	+9.5
Men's overalls.....	+6.0	+12.8
Men's work trousers.....	+3.7	+7.5
Women's silk hose.....	-.3	-.5

*Rent.*—All but 5 of the 34 cities covered by the Bureau's cost-of-living surveys reported advances in average rents from March to June. Rents rose sharply for moderate-income families who moved to new quarters in cities particularly affected by the defense program. In Baltimore, Buffalo, Indianapolis, Jacksonville, the Norfolk area, and Seattle the average increase to families whose rents changed between March and June varied from \$2.50 to \$3.50 a month. In these cities the average increase in the entire rent bill, including rents which changed and those which did not, ranged from 1.9 to 2.5 percent. In Denver and Houston, rents declined slightly, as is usual in the summer. There was also a decline in rents in Scranton where many workers have left the city to seek employment in defense industries.

Between May and June changes in rents were small in most of the 20 cities from which monthly reports are received, as comparatively few tenants move at this time of year. In Baltimore, Detroit, Pittsburgh, and Seattle rents were increased during the month for 10 to 22 percent of the homes covered in the surveys, and the average rent increase for all homes amounted to about half of 1 percent.

*Fuel, electricity, and ice.*—Although coal prices usually decline at this season of the year, few decreases were reported between mid-May and mid-June and increases in bituminous-coal prices were reported from most of the cities. Increases in fuel-oil prices were reported from New England cities and there were sharp increases in the price of ice in Norfolk, New Orleans, and Philadelphia over the quarter.

*Miscellaneous goods and services.*—Prices of two of the three makes of moderate-price automobiles included in the Bureau's index increased between mid-May and mid-June, and gasoline prices rose in almost all of these cities. In Cincinnati, Cleveland, Denver, Minneapolis, and Seattle, higher automobile-insurance rates helped to raise miscellaneous costs. Increases in soap prices followed advances in wholesale prices of fats and oils.

In Detroit, which reported the most extensive advance in the cost of miscellaneous goods and services, there were increases in hospital fees and in prices for beauty-shop services. There are continued reports of increases in domestic-service rates this month. In Seattle there was a substantial rise in the price of barber services. In Houston,

lowered telephone rates counterbalanced other increases in the miscellaneous group.

### Changes in Prices of Goods, by Commodity Groups

Table 1 presents percentage changes in the cost of goods purchased by wage earners and lower-salaried workers in 20 large cities and in large cities combined, from May 15 to June 15, 1941, by groups of items. Table 2 presents indexes of these costs, based on average costs in 1935-39 as 100.

TABLE 1.—Percent of Change, May 15 to June 15, 1941, in Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in 20 Large Cities

Area and city	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Average: Large cities.....	+1.7	<sup>1</sup> +3.7	+0.5	+0.1	<sup>2</sup> +0.3	+2.0	+0.8
New England: Boston.....	+1.3	+3.1	+5	+1	-3	+3.0	+4
Middle Atlantic:							
Buffalo.....	+1.7	+3.9	+5	(3)	+1	+3.3	+6
New York.....	+1.9	+4.3	+3	+1	+1	+2.6	+5
Philadelphia.....	+1.6	+3.2	+1.0	(3)	+3	+1.5	+8
Pittsburgh.....	+1.7	+3.6	+2	+4	+5	+1.3	+1.2
East North Central:							
Chicago.....	+1.6	+3.8	+6	(3)	+1	+1.0	+4
Cincinnati.....	+1.9	+3.9	+2	(3)	+1.4	+2.6	+1.3
Cleveland.....	+1.8	+4.3	+4	+2	+1	+2.0	+1.2
Detroit.....	+2.8	+6.3	+4	+1.2	+2.1	+2.7	+1.4
West North Central:							
Kansas City.....	+1.4	+3.5	+4	(3)	+2	+2.7	+8
Minneapolis.....	+1.6	+4.2	+1.2	(3)	+2	+2.3	+6
St. Louis.....	+2.0	+4.7	+6	+1	-2	+8	+1.0
South Atlantic:							
Baltimore.....	+2.0	+4.8	+2	+7	-5	+1.4	+7
Savannah.....	+1.6	+4.0	+4	+1	(3)	+1.2	+5
East South Central: Birmingham.....	+2.4	+5.4	+1.5	+3	+1.5	+1.6	+1.6
West South Central: Houston.....	+5	+1.3	+3	-2	(3)	+1.4	(3)
Mountain: Denver.....	+1.3	+3.5	+3	-1	(3)	+1.3	+5
Pacific:							
Los Angeles.....	+1.1	+2.1	+1.6	+2	-1	+1.4	+6
San Francisco.....	+1.2	+2.1	+1.4	(3)	(3)	+2.0	+4
Seattle.....	+1.1	+1.6	+3	+4	+2	+1.5	+1.3

<sup>1</sup> Based on data for 51 cities.

<sup>2</sup> Based on data for 34 cities.

<sup>3</sup> No change.



TABLE 2.—Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in 34 Large Cities, by Groups of Items, June 15, 1941

[Average 1935-39=100]

Area and city	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Average: Large cities.....	104.6	<sup>1</sup> 105.9	103.3	105.8	101.4	105.3	103.3
New England:							
Boston.....	102.5	102.6	102.7	100.8	106.8	102.7	102.3
Manchester.....	104.4	104.6	101.8	104.1	105.6	101.9	105.5
Portland, Maine.....	102.8	104.2	100.7	100.7	102.6	101.6	103.7
Middle Atlantic:							
Buffalo.....	107.3	110.1	103.1	109.9	99.8	107.5	105.7
New York.....	104.5	106.7	103.1	102.8	103.4	100.1	103.9
Philadelphia.....	103.3	103.3	103.3	104.5	100.5	105.0	103.1
Pittsburgh.....	105.2	107.3	102.6	106.7	104.5	106.2	102.2
Scranton.....	102.8	105.2	104.9	98.3	96.7	106.9	102.5
East North Central:							
Chicago.....	104.8	105.8	101.4	110.3	100.4	106.0	101.6
Cincinnati.....	103.9	104.8	104.6	102.8	99.8	107.3	103.3
Cleveland.....	106.2	107.8	102.9	110.2	109.2	108.6	102.3
Detroit.....	106.4	107.0	103.2	111.3	101.9	106.4	104.6
Indianapolis.....	105.6	106.5	103.8	114.2	100.0	107.9	102.3
Milwaukee.....	103.6	106.5	99.9	103.1	100.6	105.7	102.4
West North Central:							
Kansas City.....	101.8	101.3	103.5	103.3	101.0	103.2	101.1
Minneapolis.....	105.6	107.4	103.5	108.3	96.0	107.9	105.3
St. Louis.....	104.1	107.2	104.2	101.7	102.5	99.8	102.9
South Atlantic:							
Atlanta.....	103.3	103.4	104.7	104.8	100.2	104.0	102.6
Baltimore.....	105.9	108.7	103.5	108.4	99.9	106.1	102.8
Jacksonville.....	106.1	107.6	102.9	111.6	98.1	104.1	105.0
Norfolk area.....	106.4	107.0	105.3	109.6	108.8	104.7	103.9
Richmond.....	103.0	102.9	104.7	103.3	99.8	109.1	102.2
Savannah.....	105.0	108.9	103.1	106.2	96.9	105.4	102.4
Washington, D. C.....	103.2	104.8	104.8	100.3	99.0	111.5	102.6
East South Central:							
Birmingham.....	105.5	103.0	105.5	119.3	95.5	103.4	103.8
Memphis.....	103.5	103.3	103.5	109.7	94.7	105.3	102.6
Mobile.....	105.1	106.6	102.4	112.8	96.3	105.5	103.0
West South Central:							
Houston.....	104.0	106.4	103.9	106.9	93.1	109.1	101.3
New Orleans.....	105.6	108.5	104.3	104.3	98.8	110.2	103.5
Mountain: Denver.....	102.9	103.0	100.6	106.6	97.4	106.0	102.4
Pacific:							
Los Angeles.....	105.6	107.7	105.7	106.6	94.2	105.1	104.5
Portland, Oreg.....	106.2	110.2	103.9	108.8	95.3	105.8	104.3
San Francisco.....	105.4	107.1	105.2	104.0	91.6	105.5	105.9
Seattle.....	107.2	109.7	106.6	110.8	95.9	102.0	106.1

<sup>1</sup> Based on data for 51 cities.

# Industrial Disputes

## RECENT STRIKES

PRELIMINARY estimates indicate that there were 385 new strikes in June involving approximately 134,000 workers. There were over 1,300,000 man-days of idleness due to strikes in progress during the month. As compared with previous estimates for May, these figures represent decreases of 23 percent in number of strikes, 57 percent in number of workers involved, and 39 percent in number of man-days of idleness.

About 3½ times as many workers were involved in strikes in June 1941 as in June 1940, and the amount of idleness was almost 3 times as great although the number of strikes was not quite double. Strike activity in June, in comparison with the 5-year period preceding the defense program (1935-39), showed an increase of about one-third in number of strikes and workers involved but a decrease of 27 percent in man-days of idleness.

The largest strikes beginning in June were the strike at the North American Aviation Corporation plant in Inglewood, Calif., and a strike of construction workers and truck drivers on small-home building projects in the New York area, principally in Queens.

The estimates for June are shown in the table below along with figures for other periods for comparison.

*Strikes in May and June 1941 Compared with Averages of Preceding 5-year Period*

Item	June 1941 <sup>1</sup>	May 1941 <sup>1</sup>	June 1940	Averages for 5-year period, 1935-39	
				June	May
Number of strikes beginning in month.....	385	500	214	290	308
Number of workers involved in new strikes.....	134,000	315,000	38,542	101,832	135,816
Number of man-days idle during all strikes in progress during month.....	1,375,000	2,250,000	484,007	1,893,299	2,084,334

<sup>1</sup> Preliminary estimates.

## STRIKES IN APRIL 1941<sup>1</sup>

THE Bureau has obtained verified information on 358 strikes which began in April 1941, in which 508,000 workers were involved. The idleness during these strikes and the 166 which continued into April from preceding months, amounted to 7,086,000 man-days.

<sup>1</sup> The Bureau's statistics on strikes exclude minor disputes lasting less than 1 day or involving fewer than 6 workers.

These figures, when compared with March, show for April 1941 an increase of 12 percent in number of strikes, with approximately  $4\frac{1}{2}$  times as many workers involved and man-days of idleness. Compared with April 1940, there was an increase of 57 percent in number of strikes, with more than 12 times as many workers involved and about 16 times as much idleness.

The extremely high number of workers and man-days involved in April strikes was due primarily to the industry-wide stoppage in the bituminous-coal mining industry which was in effect during the entire month. This strike accounted for 62 percent of the total number of workers involved in strikes beginning in April and for nearly three-fourths of the total idleness during the month. Excluding the coal stoppage, the increase in strike activity in April as compared with March amounted to about 65 percent in number of workers involved and 22 percent in man-days of idleness. The Ford Motor Co. strike at Dearborn, Mich., accounted largely for this increase. Both the coal strike and the Ford Motor Co. strike are referred to in greater detail below.

TABLE 1.—Trend of Strikes, 1935 to April 1941

Year and month	Number of strikes			Workers involved in strikes			Man-days idle during month or year
	Beginning in month or year	In progress during month	Ending in month	Beginning in month or year	In progress during month	Ending in month	
1935.....	2, 014			1, 117, 213			15, 456, 337
1936.....	2, 172			788, 648			13, 901, 956
1937.....	4, 740			1, 860, 621			28, 424, 857
1938.....	2, 772			688, 376			9, 148, 273
1939.....	2, 613			1, 179, 962			17, 812, 219
1940.....	2, 508			576, 988			6, 700, 872
<i>1940</i>							
January.....	128	222	124	26, 937	41, 284	32, 743	246, 674
February.....	172	270	153	29, 509	38, 050	17, 252	289, 992
March.....	178	295	187	22, 433	43, 231	29, 593	386, 981
April.....	228	336	214	39, 481	53, 119	29, 226	441, 866
May.....	239	361	239	53, 231	77, 124	59, 263	665, 688
June.....	214	336	190	38, 542	56, 403	36, 559	484, 007
July.....	244	390	227	63, 126	82, 970	54, 100	585, 651
August.....	231	394	253	61, 356	90, 226	47, 199	706, 308
September.....	253	394	242	65, 362	108, 389	72, 523	780, 570
October.....	267	419	253	71, 997	107, 863	68, 730	915, 014
November.....	207	373	243	62, 399	101, 532	82, 571	739, 807
December.....	147	277	168	42, 615	61, 576	43, 605	458, 314
<i>1941</i>							
January.....	221	330	211	90, 976	108, 947	53, 411	664, 813
February.....	250	369	228	69, 443	124, 979	64, 778	1, 128, 386
March.....	320	461	295	115, 419	175, 620	122, 541	1, 543, 544
April.....	358	524	363	508, 337	561, 416	472, 847	7, 085, 634

<sup>1</sup> Succeeding reports may show slightly different figures for the various months due to corrections and additions made as later information is received.

A little more than 2 percent of the total employed workers were involved in the strikes in progress during April, as compared with a little more than one-half of 1 percent (0.65 percent) in March. In bituminous-coal mining more than 78 percent of the employed workers

were involved in strikes during April. Largely because of the Ford strike, nearly 10 percent (9.88 percent) of the employed workers in the transportation-equipment manufacturing industries were involved in strikes during April.

The idleness during strikes in April amounted to 1.18 percent of the available working time, whereas in March the total idleness during strikes was only about one-fourth of 1 percent of the available working time. In the bituminous-coal mining industry only about 30 percent of the available working time was actually worked and much of this was not by production workers but rather by maintenance workers taking care of the mines and equipment during the strike. Chiefly owing to the Ford dispute, in the manufacture of transportation equipment, idleness during strikes amounted to nearly 3½ percent of the available working time, as compared with 0.55 percent in March.

*Bituminous-coal-mine stoppage.*—The 2-year agreement between the United Mine Workers of America and the various coal operators' associations in the Appalachian area, which was signed in May 1939 and was effective until March 31, 1941, provided that a joint conference should begin March 11, 1941, to consider what revisions, if any, should be made as to hours, wages, and working conditions.<sup>2</sup>

When this conference convened, the union presented demands for a wage increase of \$1 a day, elimination for day workers of the 40-cent wage differential between northern and southern fields, a minimum guaranty of 200 days' work per year, and 2 weeks' vacation with pay. When employers rejected these demands, the union proposed that there be no stoppage of work upon expiration of the contract in case a new agreement was not reached and that any gains agreed upon subsequently be made retroactive to April 1. The operators rejected this proposal, contending that such action would place on the firms a contingent liability amounting to many millions of dollars.

The Federal Conciliation Service intervened in an attempt to avoid a stoppage which constituted a serious threat to national-defense production throughout the country. All efforts were unsuccessful, however, including a last-minute appeal from President Roosevelt to company and union representatives.

The stoppage became effective at midnight March 31, when the old contract expired and approximately 318,000 mine workers became idle. In all areas affected the union agreed to let the necessary maintenance men continue at work to take care of the mines and machinery and, in some cases, certain mines were allowed to operate to provide coal for hospitals and public utilities. In some sections outside the Appalachian areas mines were also shut down, since agreements covering these areas expired March 31; in others, a large proportion of the miners remained at work under extension agreements providing

<sup>2</sup> See Monthly Labor Review, September 1939, for an account of the 1939 coal stoppage and the agreement.

that any benefits agreed upon subsequently should be made retroactive to April 1; in still other sections the mines were idle, not necessarily because of the dispute but because of seasonal shutdowns.

Negotiations continued for about a week, when a tentative agreement was reached between the union and operators in the northern Appalachian area providing for a wage increase of \$1 per day which would make the basic daily wage in the industry \$7. This \$7 basic wage meant an increase of \$1.40 per day in southern fields.<sup>3</sup> The southern operators would not agree to the elimination of the 40-cent North-South differential and withdrew from the conference on April 11.

In the meantime the agreement was concluded with the northern operators conditional upon its acceptance by the southern group also. As the days passed with little progress toward final settlement, the President on April 21 issued an urgent appeal that mines of the northern operators be opened under terms of the agreement already reached and that the southern operators open their mines and continue negotiations with an agreement that the final settlement be retroactive to the date operations were resumed. Brief but unsuccessful negotiations during the next day or two, coupled with an imminent coal shortage which would cause a curtailment of defense production, resulted in certification of the entire dispute by the Secretary of Labor to the National Defense Mediation Board on April 24.

On April 30, an agreement was reached providing for resumption of work on the basis of the President's proposal, with any final wage settlement for the southern fields to be made retroactive to the date work was resumed. The southern operators agreed to resume operations with a \$1 wage increase effective at once, making the basic wage \$6.60 per day in southern fields as compared with \$7 in northern fields. Many of the workers in northern fields returned to work April 30, and a substantial majority of the miners were back at work May 1. In a few areas, however, particularly in Alabama and Illinois, agreements were not reached for some workers until a few days later.

From May 12 to 21, the southern operators and representatives of the union met again in New York to attempt a final settlement, but as no agreement could be reached on the wage-differential issue, the union threatened another stoppage of the entire industry, whereupon the dispute went back to the National Defense Mediation Board. After further hearing the Board recommended that the differential issue be arbitrated. The operators agreed to this but the union re-

<sup>3</sup> Northern territory—Pennsylvania, Michigan, Ohio, together with Ohio, Brooke, Hancock, and Marshall Counties of West Virginia, and northern West Virginia, including counties of Barbour, Braxton, Calhoun, Doddridge, Gilmer, Harrison, Jackson, Lewis, Marion, Monongalia, Pleasants, Preston, Randolph, Ritchie, Roane, Taylor, Tyler, Upshur, Webster, Wetzel, Wirt, Wood, and that portion of Nicholas County including mines served by the Baltimore & Ohio Railroad, and north Maryland and upper Potomac districts including Grant, Mineral, and Tucker Counties of West Virginia.

Southern territory—The State of Virginia, northern Tennessee, that part of Kentucky lying east of a line drawn north and south through the city of Louisville, and that part of West Virginia not included in northern territory.

fused, pointing out that the agreement with northern operators was contingent upon acceptance by the southern operators of the \$7 basic wage, and consequently an arbitration decision retaining the differential would nullify the agreement already reached for the northern fields.

Unable to obtain an agreement directly, the Board issued recommendations on terms of final settlement and gave the operators and union representatives until the evening of June 9 to accept or reject. Most important was the recommendation that the long-disputed 40-cent wage differential for day workers be eliminated. The basis for such recommendation was the Board's finding that such elimination, since it did not apply to tonnage-rate workers, would add only 3 to 3½ cents per ton in labor costs to the southern operators which would not be an "unendurable competitive burden."

The Board's recommendations were accepted by both parties and final agreement was reached on July 6 when company and union representatives negotiating in Washington signed a 2-year contract for the entire Southern Appalachian area, including mines of the Harlan County (Ky.) Coal Operators Association, which had not accepted the union-shop agreement in 1939. (See page 374 for details of the agreement.)

*Ford Motor Co. strike, Dearborn, Mich.*—Although intensive organizing activities have been carried on among Ford employees since 1937, when most of the automobile industry was unionized, such activities were met with strong opposition and effective resistance on the part of the company. Several cases coming before the National Labor Relations Board resulted in orders adverse to the Company's position. The Supreme Court's refusal in February 1941 to review the most important case confirmed the decision of the Board and lower courts requiring the company, in effect, to stop discouraging membership in the union (United Automobile Workers of America—C. I. O.), to cease interfering with the organizing rights of employees, and to reinstate with back pay a number of men found to have been discharged because of union activity.

After this decision the organizing campaign was intensified. Unable to obtain formal recognition, the union on February 26, 1941, filed with the State Labor Mediation Board notice of intent to strike at Ford plants in the Detroit area. (The filing of notice was in accordance with the Michigan labor-relations law.)

On the afternoon of April 1, there was a stoppage of work in one department of the River Rouge plant, which the union claimed was a spontaneous stoppage in protest against the company's attempt to eliminate the committee method of adjusting grievances and against the firing of eight union men. The union claimed that the stoppage

developed only after workers attempted to telephone the union headquarters for advice concerning their grievances and were denied the use of telephones by company officials.

As a result of this dispute a strike was authorized on April 2 throughout the River Rouge plant, making about 85,000 workers idle. Several of the company's outlying assembly plants were also closed, causing the enforced idleness of an additional 40,000 workers when the supply of materials was cut off from the River Rouge plant.

Through efforts of a Federal conciliator and the Governor of the State of Michigan, settlement negotiations got under way immediately. Since the dispute hinged largely upon the question of the status of the union as a bargaining agent, the National Labor Relations Board on April 7 ordered an election to be held within 45 days. The Governor's proposal for a return to work pending the outcome of the election was accepted by the union. It was also accepted by the company on condition that certain hearings scheduled before the National Labor Relations Board be postponed until after the election. The National Labor Relations Board agreed to postpone the hearings and the strike was terminated on Friday, April 11, with the following understanding:

All of the striking workers were to be taken back without discrimination; five of the eight union workers who were discharged—the immediate provocation for the strike—were to be rehired and the return of the remaining three was to be arbitrated by a Federal conciliator; an appeal board consisting of two union and two company officials was established to rule on disputes which could not be settled by grievance committees within the plant.

The National Labor Relations Board election was held on May 21 and results for the River Rouge plant showed 51,866 votes for the United Automobile Workers (C. I. O.), 20,364 votes for Federal Labor Union No. 22550 (A. F. of L.), and 1,958 for neither organization.

During the ensuing weeks negotiations were carried on for a union contract which was agreed upon and signed June 20, providing terms which exceeded, by far, the original union demands. The company expressed the belief that, if it must accept union recognition, it was better policy to go the whole way, that better results would thus be obtained than by adopting any half-way measures. Accordingly an agreement was signed which provided for a union shop, check-off of union dues, wage rates at least equal to the highest rates in the industry, and a shop-steward system for handling grievances, with an appeals board consisting of an equal number of company and union representatives. Overtime is to be paid for at the rate of time and a half, with double time for Sunday and holiday work. (See page 383 for details of the agreement.)

TABLE 2.—Workers Involved and Man-Days Idle During Strikes in March and April 1941, Compared with Total Workers and Available Work

Industry or group	Percent of employed workers <sup>1</sup> involved in strikes during—		Man-days idle during strikes as percentage of total man-days of work available <sup>2</sup>	
	March	April	March	April
All industries.....	0.65	2.06	0.27	1.18
All manufacturing groups.....	1.51	1.97	.61	.74
Iron, steel, and their products, excluding machinery.....	3.81	1.62	.65	.55
Machinery, excluding transportation equipment.....	3.01	2.00	1.69	.61
Transportation equipment.....	1.62	9.88	.55	3.42
Nonferrous metals and their products.....	1.17	1.98	.46	.70
Lumber and allied products.....	.82	1.15	.43	.50
Stone, clay, and glass products.....	.62	1.93	.50	.88
Textiles and their products.....	1.09	.83	.34	.33
Fabrics.....	1.27	.80	.38	.31
Wearing apparel.....	.90	1.00	.31	.42
Leather and its manufactures.....	.30	.78	.11	.23
Food and kindred products.....	.57	.47	.27	.24
Tobacco manufactures.....	0	.82	0	.34
Paper and printing.....	.33	.32	.11	.14
Chemicals and allied products.....	.48	.65	.36	.42
Rubber products.....	1.96	1.45	.59	.87
Building and construction.....	.55	.35	.09	.08
Mining:				
Anthracite.....	.55	6.05	.06	.73
Bituminous coal.....	.48	78.27	.07	68.66
Metalliferous.....	.07	.21	.09	.04
Quarrying and nonmetallic.....	0	.08	0	.02

<sup>1</sup> "Employed workers" as used here includes all workers except those in occupations and professions where strikes rarely, if ever, occur. In general, the term "employed workers" includes all employees except the following groups: Government workers, agricultural wage earners on farms employing less than 6, managerial and supervisory employees, and certain groups which because of the nature of their work cannot or do not strike, such as teachers, clergymen, and domestic servants. Self-employed and unemployed persons are, of course, excluded.

<sup>2</sup> "Total man-days of work available" was estimated for purposes of this table by multiplying the total employed workers in each industry or group by the number of days worked by most of the employees in the respective groups.

A classification of strikes in April according to industries (table 3) shows large proportions of the total strike activity in mining and transportation-equipment manufacturing. More than 65 percent of the total workers involved and 74 percent of the total idleness during strikes were in the bituminous-coal mining industry, and more than 17 percent of the total workers involved and nearly 10 percent of the total idleness were in the automobile-manufacturing industry. Aside from these industries, where major strikes occurred, the most workers involved and man-days of idleness were in the iron and steel industries and machinery-manufacturing industries.

In terms of number of strikes, more new strikes began in the textile industries than in any other industry group. There were 38 in wholesale and retail trade, 35 on building and construction projects, and 30 in the machinery-manufacturing industries.



TABLE 3.—*Strikes in April 1941, by Industry, with Comparative Man-Day Figures for the Preceding 2 Years*

Industry	April 1941			Number of man-days idle during the 12-month period ending with—	
	Strikes beginning in month		Number of man-days idle during month	April 1941	April 1940
	Number	Workers involved			
<b>All industries</b> .....	<b>358</b>	<b>508,337</b>	<b>7,085,634</b>	<b>15,744,745</b>	<b>12,590,749</b>
<b>Iron, steel and their products, excluding machinery</b> .....	<b>28</b>	<b>15,110</b>	<b>138,975</b>	<b>710,855</b>	<b>248,231</b>
Blast furnaces, steel works, and rolling mills.....	6	1,704	10,222	255,525	75,684
Bolts, nuts, washers, and rivets.....	1	587	9,871	13,920	—
Cast-iron pipe and fittings.....	—	—	13,464	53,041	34,828
Cutlery (not including silver and plated cutlery), and edge tools.....	—	—	—	864	152
Forgings, iron and steel.....	2	420	4,848	10,643	6,062
Hardware.....	1	32	1,734	6,589	26,091
Plumbers' supplies and fixtures.....	3	549	5,819	40,498	4,615
Steam and hot-water heating apparatus and steam fittings.....	1	300	7,264	36,324	2,393
Stoves.....	1	312	5,616	42,342	24,537
Structural and ornamental metal work.....	4	581	3,612	21,020	6,809
Tin cans and other tinware.....	1	915	12,535	25,385	19,758
Tools (not including edge tools, machine tools, files, and saws).....	—	—	1,911	1,484	4,444
Wire and wire products.....	3	5,235	48,065	77,146	13,982
Other.....	5	4,475	25,834	126,074	28,876
<b>Machinery, excluding transportation equipment</b> .....	<b>30</b>	<b>13,250</b>	<b>220,738</b>	<b>2,197,031</b>	<b>421,190</b>
Agricultural implements.....	1	212	2,812	472,711	15,089
Cash registers, adding machines, and typewriters.....	—	—	—	59,512	153
Electrical machinery, apparatus, and supplies.....	3	1,336	47,578	623,571	82,294
Engines, turbines, tractors, and water wheels.....	2	1,044	8,924	18,473	125,070
Foundry and machine-shop products.....	13	4,610	73,534	763,384	107,754
Machine tools (power-driven).....	2	370	11,227	52,728	9,772
Radios and phonographs.....	4	478	11,031	50,063	393
Textile machinery and parts.....	1	220	1,320	1,320	—
Other.....	4	4,980	64,310	155,269	80,665
<b>Transportation equipment</b> .....	<b>8</b>	<b>88,875</b>	<b>704,207</b>	<b>1,149,355</b>	<b>2,651,962</b>
Aircraft.....	1	27	108	49,566	52,288
Automobiles, bodies and parts.....	4	87,080	696,685	917,192	2,512,825
Cars, electric- and steam-railroad (including repair shops).....	2	1,538	7,184	97,905	66,160
Shipbuilding.....	1	230	230	81,367	12,801
Other.....	—	—	—	3,325	7,888
<b>Nonferrous metals and their products</b> .....	<b>12</b>	<b>6,185</b>	<b>53,525</b>	<b>344,232</b>	<b>171,914</b>
Aluminum manufactures.....	3	3,316	5,964	59,827	95
Brass, bronze, and copper products.....	3	1,889	30,916	38,164	33,832
Clocks, watches, and other time-recording devices.....	—	—	—	312	10,726
Jewelry.....	—	—	—	9,720	2,950
Lighting equipment.....	1	110	11,908	24,187	5,631
Silverware and plated ware.....	1	152	1,552	49,427	1,925
Smelting and refining—copper, lead, and zinc.....	—	—	—	48,194	98,984
Stamped and enameled ware.....	—	—	1,156	44,888	11,163
Other.....	4	718	3,029	69,513	6,608
<b>Lumber and allied products</b> .....	<b>25</b>	<b>4,237</b>	<b>73,594</b>	<b>892,623</b>	<b>727,988</b>
Furniture.....	12	2,211	38,375	263,974	197,485
Millwork and planing.....	3	774	5,906	70,595	107,666
Sawmills and logging camps.....	5	707	21,929	444,904	309,769
Other.....	5	545	7,384	113,150	113,068
<b>Stone, clay, and glass products</b> .....	<b>19</b>	<b>4,989</b>	<b>62,770</b>	<b>304,330</b>	<b>166,898</b>
Brick, tile, and terra cotta.....	8	1,755	28,778	124,245	42,550
Cement.....	—	—	—	31,190	628
Glass.....	2	1,052	10,897	49,072	51,551
Marble, granite, slate, and other products.....	1	11	110	540	26,436
Pottery.....	3	1,857	17,298	45,649	4,633
Other.....	5	314	5,687	53,634	41,100

<sup>1</sup> Man-days of idleness resulting from a strike which continued into April from the preceding month.

TABLE 3.—Strikes in April 1941, by Industry, with Comparative Man-Day Figures for the Preceding 2 Years—Continued

Industry	April 1941			Number of man-days idle during the 12-month period ending with—	
	Strikes beginning in month		Number of man-days idle during month	April 1941	April 1940
	Number	Workers involved			
<b>Textiles and their products</b> .....	39	8,437	132,405	944,790	980,920
Fabrics.....	18	4,238	77,638	492,383	498,320
Carpets and rugs.....				3,826	1,811
Cotton goods.....	8	2,758	57,327	261,934	316,403
Cotton small wares.....			1,104	857	3,376
Dyeing and finishing textiles.....	1	64	384	38,271	17,638
Silk and rayon goods.....	1	270	9,764	84,872	64,523
Woolen and worsted goods.....	5	878	3,405	34,800	43,164
Other.....	3	268	6,654	67,823	51,405
Wearing apparel.....	21	4,199	54,767	452,407	482,600
Clothing, men's.....	2	304	1,086	27,880	39,311
Clothing, women's.....	12	770	11,630	166,218	244,382
Corsets and allied garments.....				5,759	3,296
Men's furnishings.....	1	43	86	18,822	24,609
Hats, caps, and millinery.....				1,452	26,952
Shirts and collars.....					19,245
Hosiery.....	2	468	25,477	103,684	63,192
Knit goods.....	3	2,114	14,536	61,675	43,292
Other.....	1	500	500	22,172	8,923
<b>Leather and its manufactures</b> .....	10	2,009	16,379	94,058	189,185
Boots and shoes.....	5	1,284	9,099	55,487	73,361
Leather.....	1	600	6,000	26,942	16,269
Other leather goods.....	4	125	1,280	11,629	99,555
<b>Food and kindred products</b> .....	17	1,687	43,461	277,803	317,152
Baking.....	2	400	2,744	27,783	32,334
Beverages.....	3	70	108	6,691	8,337
Butter.....					930
Canning and preserving.....	3	597	9,597	51,553	79,400
Confectionery.....	1	22	3,864	34,054	12,865
Flour and grain mills.....	2	98	588	8,580	5,957
Ice cream.....	1	19	57	57	340
Slaughtering and meat packing.....	3	135	22,780	69,448	82,824
Sugar refining, cane.....			1,473	35,577	85,788
Other.....	2	346	3,250	43,130	9,276
<b>Tobacco manufactures</b> .....	1	725	6,525	77,352	53,032
Chewing and smoking tobacco and snuff.....					18
Cigars.....	1	725	6,525	77,334	53,032
<b>Paper and printing</b> .....	10	1,265	19,411	117,474	130,875
Boxes, paper.....	2	197	1,626	41,294	73,608
Paper and pulp.....	2	572	9,062	22,718	14,580
Printing and publishing:					
Book and job.....	2	20	5,031	13,798	4,215
Newspapers and periodicals.....	2	56	168	15,436	5,033
Other.....	2	420	3,524	24,228	33,439
<b>Chemicals and allied products</b> .....	5	1,654	40,898	250,392	341,955
Chemicals.....	3	1,427	34,429	55,971	18,975
Cottonseed—oil, cake, and meal.....				1,661	13,458
Druggists' preparations.....				542	904
Explosives.....			1,990	3,267	801
Fertilizers.....				842	390
Paints and varnishes.....	1	83	1,079	14,422	4,829
Petroleum refining.....				9,747	42,960
Rayon and allied products.....				85,000	223,338
Soap.....				500	8,839
Other.....	1	144	4,400	78,440	27,461
<b>Rubber products</b> .....	6	1,748	27,064	143,006	71,406
Rubber boots and shoes.....				5,650	690
Rubber tires and inner tubes.....			1,688	88,790	27,382
Other rubber goods.....	6	1,748	26,376	48,566	43,334
<b>Miscellaneous manufacturing</b> .....	11	1,359	39,512	262,024	144,576
Electric light, power, and manufactured gas.....	1	26	182	2,690	11,358
Broom and brush.....				10,283	108
Furriers and fur factories.....	1	401	2,124	13,198	31,445
Other.....	9	932	37,206	235,853	101,665

TABLE 3.—*Strikes in April 1941, by Industry, with Comparative Man-Day Figures for the Preceding 2 Years—Continued*

Industry	April 1941			Number of man-days idle during the 12-month period ending with—	
	Strikes beginning in month		Number of man-days idle during month	April 1941	April 1940
	Number	Workers involved			
<b>Extraction of minerals</b> .....	9	337,571	5,271,375	5,498,018	3,205,742
Coal mining, anthracite.....	2	4,204	9,113	98,040	77,260
Coal mining, bituminous.....	4	333,200	5,261,170	5,385,845	3,071,824
Metalliferous mining.....	1	122	838	8,309	47,282
Quarrying and nonmetallic mining.....	1	35	175	3,395	5,706
Other.....	1	10	79	2,429	3,670
<b>Transportation and communication</b> .....	20	5,523	30,069	537,119	723,421
Water transportation.....	3	1,405	7,008	103,800	527,554
Motortruck transportation.....	9	3,363	18,563	174,169	81,315
Motorbus transportation.....	5	427	2,905	48,323	10,072
Taxicabs and miscellaneous.....	1	190	1,140	190,640	82,757
Electric railroad.....				11,051	
Steam railroad.....				837	71
Telephone and telegraph.....	1	125	375	7,571	19,848
Air transportation.....					670
Radio broadcasting and transmitting.....	1	13	78	593	1,104
Other.....				135	30
<b>Trade</b> .....	38	6,113	84,823	863,318	341,367
Wholesale.....	10	941	11,311	129,410	92,965
Retail.....	28	5,172	73,512	733,908	248,402
<b>Domestic and personal service</b> .....	18	1,165	20,646	104,587	221,998
Hotels, restaurants, and boarding houses.....	8	316	13,682	62,954	58,749
Personal service, barbers, beauty parlors.....	1	42	218	3,780	1,104
Laundries.....	3	461	5,718	24,429	101,904
Dyeing, cleaning, and pressing.....	3	253	695	5,703	54,231
Elevator and maintenance workers (when not attached to specific industry).....	3	93	333	6,765	4,780
Other.....				956	1,230
<b>Professional service</b> .....	4	376	4,100	18,746	26,695
Recreation and amusement.....	2	19	333	13,520	18,785
Professional.....				1,459	1,033
Semiprofessional, attendants, and helpers.....	2	357	3,767	3,767	6,877
<b>Building and construction</b> .....	35	5,380	27,564	497,875	499,261
Buildings, exclusive of PWA.....	30	5,263	25,980	440,185	360,661
All other construction (bridges, docks, etc., and PWA buildings).....	5	117	1,584	57,690	138,600
<b>Agriculture and fishing</b> .....	2	191	63,844	392,597	503,833
Agriculture.....	2	191	63,844	329,949	193,120
Fishing.....				62,648	310,713
<b>WPA and relief projects</b> .....				5,214	410,147
<b>Other nonmanufacturing industries</b> .....	11	488	3,751	61,946	41,001

The States with the most man-days of idleness during strikes in April were, in order, Pennsylvania (1,734,000), West Virginia (1,548,000), Michigan (715,000), Kentucky (545,000), Illinois (463,000), and Alabama (342,000). States with the greatest numbers of workers involved were, in order, Pennsylvania (109,000), Michigan (91,000), West Virginia (90,000), Illinois (42,000), Kentucky (33,000), and Ohio (28,000). In all of these States, except Michigan, the bituminous-coal strike was the big factor; in Michigan it was the Ford strike. As for the number of strikes, New York with 62 had more than any other State and was followed in order by Ohio (38),

TABLE 4.—Strikes in April 1941, by States, with Comparative Man-Day Figures for the Preceding 2 Years

State	Strikes beginning in April 1941		Number of man-days idle during April	Number of man-days idle during the 12-month period ending with—	
	Number	Workers involved		April 1941	April 1940
All States .....	1 358	508,337	7,085,634	15,744,745	12,590,749
Alabama .....	6	20,416	341,886	416,541	245,253
Arizona .....				13,049	8,199
Arkansas .....	3	631	3,713	83,155	16,165
California .....	28	10,417	239,443	1,017,479	872,847
Colorado .....	3	5,145	52,398	56,878	58,041
Connecticut .....	8	3,615	18,196	166,794	55,577
Delaware .....			4,290	56,039	3,601
District of Columbia .....	2	71	272	19,716	36,267
Florida .....				57,744	120,123
Georgia .....	3	518	9,415	46,667	89,023
Idaho .....			732	8,143	1,540
Illinois .....	16	41,516	462,505	1,287,475	629,224
Indiana .....	10	7,992	118,924	501,065	372,980
Iowa .....	8	5,268	114,571	175,059	70,636
Kansas .....				9,045	25,128
Kentucky .....	6	32,985	545,284	622,380	638,455
Louisiana .....	5	664	3,182	49,654	27,441
Maine .....	3	1,950	11,278	18,179	9,194
Maryland .....	7	3,516	43,898	243,532	252,155
Massachusetts .....	11	844	5,117	192,263	319,953
Michigan .....	17	91,086	714,621	1,043,715	2,428,105
Minnesota .....	5	1,778	5,156	95,873	93,453
Mississippi .....	3	174	654	10,744	38,143
Missouri .....	22	3,524	23,898	259,799	218,728
Montana .....				5,898	22,727
Nebraska .....	1	150	2,850	4,466	7,954
Nevada .....				1,086	850
New Hampshire .....				6,684	10,788
New Jersey .....	26	10,650	126,559	584,775	391,826
New Mexico .....	2	900	5,670	11,921	20,540
New York .....	62	8,603	192,950	1,614,412	1,021,258
North Carolina .....	2	27	4,915	122,016	95,139
North Dakota .....				1,537	17,765
Ohio .....	38	27,750	288,337	745,353	418,155
Oklahoma .....			478	6,406	48,714
Oregon .....	5	374	20,423	166,951	157,543
Pennsylvania .....	37	109,041	1,734,051	2,733,294	1,520,845
Rhode Island .....	9	1,145	4,955	50,679	74,013
South Carolina .....	5	1,322	3,575	69,418	108,219
South Dakota .....				90	373
Tennessee .....	6	10,134	142,352	203,251	166,490
Texas .....			1,019	95,807	145,992
Utah .....	1	1,700	22,100	23,774	38,693
Vermont .....				2,831	8,270
Virginia .....	3	11,332	189,196	273,322	200,238
Washington .....	6	1,066	26,347	453,204	375,756
West Virginia .....	6	90,375	1,547,650	1,572,625	782,625
Wisconsin .....	7	1,358	48,874	540,057	305,595
Wyoming .....	1	300	3,900	3,900	20,150

<sup>1</sup> The sum of this column is more than 358. This is due to the fact that 8 strikes which extended across State lines have been counted in this table as separate strikes in each State affected, with the proper allocation of number of workers involved and man-days idle.

Pennsylvania (37), California (28), New Jersey (26), and Missouri (22). The amount of idleness during strikes in the 12-month period ending with April 1941 was 25 percent greater than the amount during the 12-month period ending with April 1940. In the latest 12 months there was more idleness during strikes in 26 States than in the preceding

period, while 22 States and the District of Columbia had less idleness during the latter 12-month period.

The average number of workers involved per strike beginning in April was 1,420, the average being exceedingly high because of the coal stoppage. In the 4-month period, January to April 1941, the average was 682. In table 5, the 1,149 strikes beginning in the 4-month period are classified according to industry group and number of workers involved. More than half of the strikes involved fewer than 100 workers each, 38½ percent involved from 100 up to 1,000 workers each, and 7 percent involved 1,000 or more workers each.

In the 4-month period there were more strikes (150) in the textile industries than in any other industry group; there were 107 in wholesale and retail trade, 106 on building and construction projects, 103 in the iron and steel industries, and 102 in the machinery-manufacturing industries.

TABLE 5.—*Strikes Beginning in the First 4 Months of 1941, by Industry Group and 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 250	250 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:									
Number.....	1,149	192	434	224	129	90	71	1	8
Percent.....	100.0	16.7	37.8	19.5	11.2	7.8	6.2	0.1	0.7
<i>Manufacturing</i>									
Iron, steel, and their products, excluding machinery.....	103	2	23	28	19	19	9		3
Machinery, excluding transportation equipment.....	102	6	38	21	17	10	8	1	1
Transportation equipment.....	44	1	4	9	3	11	15		1
Nonferrous metals and their products.....	33	5	9	9	3	1	6		
Lumber and allied products.....	80	7	35	25	8	5			
Stone, clay, and glass products.....	43	2	17	11	6	4	3		
Textiles and their products.....	150	23	61	25	22	9	10		
Leather and its manufactures.....	19	1	8		4	6			
Food and kindred products.....	60	10	30	12	4	3	1		
Tobacco manufactures.....	1					1			
Paper and printing.....	37	10	11	12	3	1			
Chemicals and allied products.....	19	2	9	2	4	1	1		
Rubber products.....	16	3	4	3	2	3	1		
Miscellaneous manufacturing.....	35	5	16	6	4	4			
<i>Nonmanufacturing</i>									
Extraction of minerals.....	32	1	7	4	7	6	4		3
Transportation and communication.....	57	9	22	16	4	3	3		
Trade.....	107	40	46	10	7	1	3		
Domestic and personal service.....	52	16	28	6	2				
Professional service.....	8	5	1	1	1				
Building and construction.....	106	31	43	19	9	1	3		
Agriculture and fishing.....	9	1	4	1		1	2		
Other nonmanufacturing industries.....	36	12	18	4			2		

Slightly more than half of the strikes beginning in April were primarily over union-organization issues. Except for the Ford strike, most of these were small. Wages and hours were secondary issues in about half of these. In 38 percent wages and hours were the major

issues, and 11 percent of the strikes were due to reasons of sympathy, rivalry between unions or factions, jurisdiction, or miscellaneous grievances such as protests over speeding up of work, allegedly unfair supervisors, size of working force, and delayed pay.

More than 72 percent of the workers involved in April strikes were concerned primarily with trying to obtain increases in wages. Among this group were the workers involved in the bituminous-coal stoppage. About 25 percent of the total workers involved in April strikes were concerned principally with recognition or other union-organization issues. The Ford strike included about two-thirds of this group.

In the 4-month period, January to April, about 53 percent of the strikes were principally over union-organization issues, and nearly 31 percent were due principally to wage-and-hour issues. Of the total number of workers involved in strikes during this period 57 percent were striking primarily over wage-and-hour issues and 35 percent were in strikes in which union-organization issues were the most important.

TABLE 6.—*Strikes Beginning in April 1941, by Major Issues Involved, with Cumulative Figures for the Period, January through April 1941*

Major issue	Strikes beginning in April 1941				Strikes beginning in the period, Jan.-Apr. 1941			
	Number	Per- cent of total	Workers involved	Per- cent of total	Number	Per- cent of total	Workers involved	Per- cent of total
All issues.....	358	100.0	508,337	100.0	1,149	100.0	784,175	100.0
Wages and hours.....	137	38.3	368,524	72.5	354	30.8	447,528	57.0
Wage increase.....	123	34.4	367,095	72.2	303	26.3	433,459	55.3
Wage decrease.....	4	1.1	438	.1	18	1.6	3,908	.5
Wage increase, hour decrease.....	9	2.5	823	.2	26	2.2	9,729	1.2
Wage decrease, hour increase.....	1	.3	168	( <sup>1</sup> )	3	.3	275	( <sup>1</sup> )
Hour increase.....					1	.1	18	( <sup>1</sup> )
Hour decrease.....					3	.3	139	( <sup>1</sup> )
Union organization.....	181	50.5	127,497	25.1	613	53.4	274,152	35.0
Recognition.....	38	10.6	97,982	19.3	129	11.2	146,887	18.8
Recognition and wages.....	76	21.2	15,891	3.1	238	20.8	65,418	8.3
Recognition, wages, and hours.....	22	6.1	4,612	.9	65	5.7	8,309	1.1
Discrimination.....	8	2.2	2,104	.4	46	4.0	8,219	1.0
Strengthening bargaining position.....	6	1.7	2,273	.4	24	2.1	16,328	2.1
Closed or union shop.....	29	8.1	4,344	.9	99	8.6	26,245	3.3
Other.....	2	.6	291	.1	12	1.0	2,746	.4
Miscellaneous.....	40	11.2	12,316	2.4	182	15.8	62,495	8.0
Sympathy.....	2	.6	90	( <sup>1</sup> )	9	.8	423	.1
Rival unions or factions.....	14	3.9	3,817	.8	51	4.4	14,971	1.9
Jurisdiction <sup>2</sup> .....	5	1.4	383	.1	24	2.1	3,454	.4
Other.....	18	5.0	7,926	1.5	87	7.5	42,887	5.5
Not reported.....	1	.3	100	( <sup>1</sup> )	11	1.0	760	.1

<sup>1</sup> Less than a tenth of 1 percent.

<sup>2</sup> It is probable that the figures here given do not include all jurisdictional strikes. Owing to the local nature of these disputes, it is difficult for the Bureau to find out about all of them.

During the first 4 months of 1941, unions affiliated with the American Federation of Labor were involved in 53 percent of the strikes which occurred. These strikes were small on the average, however, and included only 17 percent of the total workers involved. Unions affiliated with the Congress of Industrial Organizations were involved in 38 percent of the total strikes and these included 79 percent of the

total workers involved. There was no union involved in nearly 3 percent of the strikes occurring in the 4-month period.

TABLE 7.—*Strikes Beginning in the First 4 Months of 1941, by Affiliations of Labor Organizations Involved*

Labor organization involved	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total.....	1, 149	100. 0	784, 175	100. 0
American Federation of Labor.....	610	53. 0	132, 392	16. 9
Congress of Industrial Organizations.....	432	37. 6	619, 054	79. 0
Unaffiliated unions.....	17	1. 5	8, 057	1. 0
Railroad brotherhoods.....	2	. 2	82	(1)
Two rival unions.....	48	4. 2	13, 541	1. 7
Company unions.....	6	. 5	977	. 1
No organization.....	31	2. 7	9, 890	1. 3
Organization involved, but type not reported.....	1	. 1	8	(1)
Not reported.....	2	. 2	174	(1)

<sup>1</sup> Less than a tenth of 1 percent.

Nearly 42 percent of the 1,097 strikes which ended during the first 4 months of 1941 lasted less than a week; a similar proportion lasted from 1 week up to 1 month; 12 percent lasted from 1 up to 3 months; and nearly 4 percent had been in progress for 3 months or more (table 8). The average duration of the 1,097 strikes was approximately 18½ calendar days.

TABLE 8.—*Strikes Ending in the 4-Month Period, January through April 1941, by Industry Group and Duration*

Industry group	Total	Number of strikes with duration of—					3 months or more
		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	
All industries.....	1, 097	457	280	184	104	32	40
<i>Manufacturing</i>							
Iron, steel, and their products, excluding machinery.....	98	54	27	8	6	1	2
Machinery, excluding transportation equipment.....	93	38	24	12	11	7	1
Transportation equipment.....	46	18	19	7	2	—	—
Nonferrous metals and their products.....	31	13	10	2	3	1	2
Lumber and allied products.....	76	22	13	24	11	2	4
Stone, clay, and glass products.....	39	11	13	8	2	2	3
Textiles and their products.....	139	58	33	31	9	2	6
Leather and its manufactures.....	15	4	8	3	—	—	—
Food and kindred products.....	60	19	13	14	10	2	2
Tobacco manufactures.....	1	—	1	—	—	—	—
Paper and printing.....	33	11	9	5	5	2	1
Chemicals and allied products.....	14	4	4	3	3	—	—
Rubber products.....	14	5	3	1	3	1	1
Miscellaneous manufacturing.....	35	6	12	7	6	2	2
<i>Nonmanufacturing</i>							
Extraction of minerals.....	30	16	6	4	1	2	1
Transportation and communication.....	53	23	16	8	3	2	1
Trade.....	105	41	25	19	12	4	4
Domestic and personal service.....	49	26	5	8	3	1	6
Professional service.....	9	7	—	1	—	—	1
Building and construction.....	110	60	25	16	7	—	2
Agriculture and fishing.....	9	2	4	1	1	1	—
WPA and relief projects.....	1	—	—	—	—	—	1
Other nonmanufacturing industries.....	37	19	10	2	6	—	—

Government officials and boards rendered assistance in negotiating settlements of approximately half of the strikes ending in the 4-month period January to April. They assisted in settling the larger disputes as evidenced by the fact that 84 percent of the total workers involved were in the strikes in which they intervened. Settlements were negotiated by employers and union officials directly for about 35 percent of the strikes, but these were small on the average and included only 11 percent of the total workers involved. Approximately 12 percent of the strikes were terminated without formal settlements. In most of these cases the strikes were abandoned and employees returned to work on employers' terms or they lost their jobs entirely when employers replaced them with new workers, moved, or liquidated their businesses.

TABLE 9.—*Methods of Negotiating Settlements of Strikes Ending in the 4-Month Period, January through April 1941*

Settlement negotiations carried on by—	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total.....	1,097	100.0	713,577	100.0
Employers and workers directly.....	19	1.7	4,038	.6
Employers and representatives of organized workers directly.....	383	34.9	77,162	10.8
Government officials or boards.....	546	49.8	599,071	84.0
Private conciliators or arbitrators.....	11	1.0	1,625	.2
Terminated without formal settlement.....	136	12.4	31,545	4.4
Not reported.....	2	.2	136	( <sup>1</sup> )

<sup>1</sup> Less than a tenth of 1 percent.

Approximately two-thirds of the workers involved in strikes which ended during the first 4 months of the year gained substantially all of their demands. Included in this group was the large number of workers involved in the bituminous-coal and Ford strikes. About one-fourth of the total workers obtained compromise settlements, and only a little more than 4 percent gained little or nothing. In terms of number of strikes, table 10 indicates that nearly 43 percent of the strikes were successful, 33 percent were settled on a compromise basis, and about 15 percent brought the workers little or no gains.

TABLE 10.—*Results of Strikes Ending in the 4-Month Period, January through April 1941*

Result	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total.....	1,097	100.0	713,577	100.0
Substantial gains to workers.....	470	42.8	473,226	66.4
Partial gains or compromises.....	364	33.2	176,599	24.7
Little or no gains to workers.....	162	14.8	30,754	4.3
Jurisdiction, rival union, or faction settlements.....	75	6.8	18,175	2.5
Indeterminate.....	15	1.4	13,968	2.0
Not reported.....	11	1.0	855	.1



In table 11 the results of strikes ending in the first 4 months of 1941 are shown in relation to the major issues involved. Approximately 47 percent of the wage-and-hour strikes were successful, 41 percent were settled on a compromise basis, and 12 percent brought little or no gains to the workers. About the same proportion (47.5 percent) of the union-organization strikes were successful, only 32½ percent were settled on a compromise basis, and 18½ percent brought little or no gains to the workers.

Eighty-two percent of the workers involved in wage-and-hour strikes obtained substantially all of their demands, 16 percent obtained compromise settlements, and about 2 percent gained little or nothing. In the strikes in which union-organization matters were the major issues, about 54 percent gained substantially all of their demands, 37 percent obtained compromise settlements, and 6½ percent gained little or nothing.

TABLE 11.—Results of Strikes Ending in the 4-Month Period, January through April 1941, in Relation to Major Issues Involved

Major issue	Total	Strikes resulting in—					
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdiction, rival union, or faction settlements	Indeterminate	Not reported
<b>Strikes</b>							
All issues.....	1,097	470	364	162	75	15	11
Wages and hours.....	331	155	137	39	-----	-----	-----
Union organization.....	579	275	188	107	-----	7	2
Miscellaneous.....	187	40	39	16	75	8	9
<b>Percentage distribution</b>							
All issues.....	100.0	42.8	33.2	14.8	6.8	1.4	1.0
Wages and hours.....	100.0	46.8	41.4	11.8	-----	-----	-----
Union organization.....	100.0	47.5	32.5	18.5	-----	1.2	.3
Miscellaneous.....	100.0	21.4	20.9	8.6	40.0	4.3	4.8
<b>Workers involved</b>							
All issues.....	713,577	473,226	176,599	30,754	18,175	13,968	855
Wages and hours.....	390,594	320,183	63,347	7,064	-----	-----	-----
Union organization.....	261,106	140,829	97,097	17,033	-----	6,011	136
Miscellaneous.....	61,877	12,214	16,155	6,657	18,175	7,957	719
<b>Percentage distribution</b>							
All issues.....	100.0	66.4	24.7	4.3	2.5	2.0	0.1
Wages and hours.....	100.0	82.0	16.2	1.8	-----	-----	-----
Union organization.....	100.0	53.9	37.2	6.5	-----	2.3	.1
Miscellaneous.....	100.0	19.7	26.1	10.8	29.3	12.9	1.2

## ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, JUNE 1941

THE United States Conciliation Service, in June, disposed of 738 situations, involving 544,942 workers. The services of this agency were requested by the employers, employees, and other interested parties. Of these situations, 540 were strikes, threatened strikes, lock-outs, and controversies, involving 386,864 workers. The remaining situations, involving 158,078 workers, included such services as filling requests for information, adjusting complaints, consulting with labor and management, etc.

The facilities of the Service were used in 29 major industrial fields, such as the building trades and the manufacture of foods, iron and steel, textiles, etc. (table 1), and were utilized by employees and employers in 42 States and the District of Columbia, Hawaii, and Alaska.

TABLE 1.—Situations Disposed of by U. S. Conciliation Service, June 1941, by Industries

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries.....	565	432,860	173	112,082	738	544,942
Agriculture.....	1	1,800	—	—	1	1,800
Automobile.....	18	81,562	5	143	23	81,705
Building trades.....	34	8,853	28	2,049	62	10,907
Chemicals.....	14	13,223	1	125	15	13,348
Communications.....	3	5,118	—	—	3	5,118
Domestic and personal.....	10	3,666	4	312	14	3,978
Electrical equipment.....	24	16,005	3	317	27	16,322
Food.....	67	21,542	4	12,056	71	33,598
Furniture.....	16	2,131	5	427	21	2,558
Iron and steel.....	97	25,555	17	8,765	114	34,320
Leather.....	10	2,715	—	—	10	2,715
Lumber.....	23	44,809	4	344	27	45,153
Machinery.....	44	44,353	14	3,367	58	47,720
Maritime.....	5	670	5	15,005	10	15,675
Mining.....	12	2,457	4	14	16	2,471
Motion picture.....	—	—	1	16	1	16
Nonferrous metals.....	22	21,347	1	145	23	21,492
Paper.....	6	925	2	281	8	1,206
Petroleum.....	5	940	4	1,043	9	1,983
Printing.....	5	133	1	5	6	138
Professional.....	2	185	—	—	2	185
Rubber.....	11	35,026	14	19	25	35,045
Stone, clay, and glass.....	32	12,867	3	155	35	13,022
Textile.....	28	14,758	13	2,083	41	16,841
Tobacco.....	1	750	4	39	5	789
Trade.....	17	14,492	7	2,196	24	16,688
Transportation.....	22	9,426	8	339	30	9,765
Transportation equipment.....	16	42,952	12	61,062	28	104,014
Utilities.....	6	853	1	108	7	961
Unclassified.....	14	3,742	8	1,067	22	4,809

TABLE 2.—Situations Disposed of by U. S. Conciliation Service, June 1941, by States

State	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States.....	565	432,860	173	112,082	738	544,942
Alabama.....	19	2,706	3	227	22	2,933
Alaska.....	4	702	2	31	6	733
Arizona.....	2	168			2	168
Arkansas.....	6	117	1	1	7	118
California.....	51	43,164	6	25,498	57	68,662
Colorado.....	2	264	3	210	5	474
Connecticut.....	1	1,225			1	1,225
Delaware.....	1	35			1	35
District of Columbia.....	5	619	4	173	9	792
Florida.....	17	3,240	6	328	23	3,568
Georgia.....	7	759			7	759
Hawaii.....			1	700	1	700
Illinois.....	27	32,938	9	10,732	36	43,670
Indiana.....	18	7,041	5	218	23	7,259
Iowa.....	7	1,065	2	30	9	1,095
Kansas.....	1	30	1	65	2	95
Kentucky.....	15	4,651	1	425	16	5,076
Louisiana.....	14	3,557	2	24,502	16	28,059
Maryland.....			1	100	1	100
Massachusetts.....	12	6,102	8	13	20	6,115
Michigan.....	50	108,322	6	3,317	56	111,639
Minnesota.....	6	5,326	2	2	8	5,328
Mississippi.....	2	2,066	2	3	4	2,069
Missouri.....	36	6,546	6	543	42	7,089
Montana.....	1	40			1	40
Nebraska.....	1	87			1	87
New Jersey.....	30	30,402	13	14,017	43	44,419
New Mexico.....	2	256			2	256
New York.....	40	44,343	13	3,973	53	48,316
North Carolina.....	7	2,691	3	362	10	3,053
Ohio.....	48	34,776	4	4,846	52	39,622
Oklahoma.....	2	724	1	31	3	755
Oregon.....	4	1,509	3	14,301	7	15,810
Pennsylvania.....	50	29,645	32	4,605	82	34,250
Rhode Island.....	5	1,195	5	5	10	1,200
South Carolina.....	2	3,900	1	2	3	3,902
Tennessee.....	11	3,604	2	41	13	3,645
Texas.....	8	1,470	6	747	14	2,217
Utah.....	1	212			1	212
Vermont.....	1	44	1	1	2	45
Virginia.....	11	2,672	6	1,055	17	3,727
Washington.....	17	40,530	8	940	25	41,470
West Virginia.....	3	372	1	1	4	373
Wisconsin.....	17	3,645	3	37	20	3,682
Wyoming.....	1	100			1	100



## ACTIVITIES OF NATIONAL DEFENSE MEDIATION BOARD IN JULY 1941

OF THE 57 cases referred to the National Defense Mediation Board all but 3 were settled on July 31, 1941. In all, 6 cases were carried over from the previous month<sup>1</sup> and 11 were certified to the Board during July. The status of the cases handled in the month of July is shown as of the last day of the month.

<sup>1</sup> This total includes the Twin District Council case on which several issues were still open.

## Status of National Defense Mediation Board Cases as of July 31, 1941

Case	Date of strike	Number of men involved	Date certified to Board	Date of back-to-work agreement <sup>a</sup>
American Potash .....	Mar. 15	1,300	Apr. 23	July 31
Twin District Council .....	May 9	12,000	May 9	June 16
North American Aviation, Inc. ....	June 5	11,000	May 22	June 9
Duquesne Light Co. ....	( <sup>2</sup> )	312	June 18	
Sealed Power Corporation .....	July 8	1,163	June 21	July 21
Western Cartridge Co. ....	( <sup>2</sup> )	4,500	June 25	
Federal Shipbuilding Corporation .....	( <sup>2</sup> )	16,000	June 30	
Cheney Bros. ....	( <sup>2</sup> )	2,300	July 2	July 3
Seullin Steel Co. ....	( <sup>2</sup> )	2,200	July 7	July 8
Breeze Corporations, Inc. ....	( <sup>2</sup> )	520	July 12	July 13
Tennessee Coal, Iron, and Railroad Co. ....	( <sup>2</sup> )	1,000	July 14	July 15
Air Associates, Inc. ....	July 14	525	July 17	July 30
Federal Mogul Corporation .....	( <sup>2</sup> )	1,500	July 22	July 22
Gulf States Utilities Co. ....	July 9	200	July 22	July 30
Armour & Co. ....	( <sup>2</sup> )	14,000	July 26	July 28
Borg-Warner Corporation .....	( <sup>2</sup> )	868	July 26	July 28
Aluminum Co. of America .....	( <sup>2</sup> )	1,750	July 28	July 29
Lincoln Mills .....	( <sup>2</sup> )	1,800	July 28	July 29

<sup>a</sup> Or strike postponement.

<sup>1</sup> Men returned to work; several issues referred to impartial commission.

<sup>2</sup> Postponed at request of Board.

<sup>3</sup> Slow-down ended at request of Board.



## AMENDMENTS TO CANADIAN INDUSTRIAL DISPUTES INVESTIGATION ACT <sup>1</sup>

TWO recent legislative enactments are designed to improve the operation of the Canadian Industrial Disputes Investigation Act.

The first measure prevents any person from being a member of a conciliation board if he is, or within 6 months has been, a counsel or paid agent of either of the parties to the dispute. The purpose of this provision is to insure greater impartiality in the procedure of boards, in accordance with the original objective of the act.

The second measure, Order in Council P. C. 4020, provides for an industrial disputes inquiry commission of three members. "This body will make an immediate preliminary investigation into any threatened dispute." If it can bring about a settlement, it will in this way avoid the delay and expense involved in the establishment of a board of conciliation. If it is unable to get the parties to agree, it will clarify the principal issues and make way for prompt action by a conciliation board if it is necessary to appoint one.

<sup>1</sup> Canadian Labor Gazette (Ottawa), June 1941.

## *Labor Turn-Over*

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### LABOR TURN-OVER IN MANUFACTURING, MAY 1941

CONTINUED demand for industrial workers in manufacturing industries was indicated by reports on labor turn-over received from nearly 7,500 manufacturing establishments employing approximately 3,500,000 wage earners in May. The accession rate of 5.95 per 100 employees, although slightly lower than the April rate, represented the highest May rate since 1933. High accession rates continued in key defense industries: shipbuilding registered a hiring rate of 13.24; aircraft, 10.46; foundries and machine shops, 6.88; electrical machinery, 6.67; and machine tools, 5.83. In slaughtering and meat packing the accession rate rose to the highest point (13.48) for any month since September 1934.

Total separations for all manufacturing industries combined (3.86 per 100 employees) showed little change, although there were slight variations among the several types of separations. The quit rate rose to an all-time high for all manufacturing in May, when 2.20 out of every 100 workers left their jobs. Although only slightly higher than the April rate of 2.08, it was nearly 3 times as high in May 1940. Quit rates showed a substantial increase compared with May 1940 in all of the 39 industries for which separate rates are published. Lay-offs fell close to the record low level of March 1941, reflecting continued expansion in most manufacturing industries. Compared with May 1940, lay-off rates declined in 34 industries. Marked decreases over the year were reported for the automobile parts and equipment, from 7.53 to 1.57; cotton manufacturing, from 4.11 to 0.77; men's clothing, from 6.99 to 1.50; rubber boots and shoes, from 2.56 to 0.07; silk and rayon goods, from 5.90 to 1.11; structural and ornamental metal work, from 4.54 to 1.31; and woolen and worsted goods, from 5.21 to 0.86 per 100 employees. The military separation rate for May was 0.21 per 100 employees as compared with 0.28 for April and 0.32 for March.

TABLE 1.—Monthly Labor Turn-Over Rates in Representative Factories in 135 Industries <sup>1</sup>

Class of turn-over and year	January	February	March	April	May	June	July	August	September	October	November	December	Average
Separations:													
Quits:													
1941.....	1.31	1.33	1.70	2.08	2.20								
1940.....	.63	.62	.67	.74	.77	0.78	0.85	1.10	1.37	1.31	1.10	0.99	0.91
Discharges:													
1941.....	.18	.19	.21	.25	.24								
1940.....	.14	.16	.15	.13	.13	.14	.14	.16	.16	.19	.18	.16	.15
Lay-offs: <sup>2</sup>													
1941.....	1.61	1.20	1.06	1.19	1.08								
1940.....	2.55	2.67	2.53	2.69	2.78	2.32	2.25	1.63	1.48	1.53	1.60	1.86	2.16
Miscellaneous separations: <sup>3</sup>													
1941.....	.31	.43	.43	.37	.34								
1940.....	.11	.11	.11	.10	.10	.12	.11	.11	.21	.20	.18	.15	.13
Total:													
1941.....	3.41	3.15	3.40	3.89	3.86								
1940.....	3.43	3.56	3.46	3.66	3.78	3.36	3.35	3.00	3.22	3.23	3.06	3.16	3.35
Accessions:													
Rehirings:													
1941.....	1.45	1.08	1.24	1.04	.92								
1940.....	1.96	1.26	1.38	1.42	1.49	2.06	1.94	3.04	2.20	1.22	1.18	1.13	1.69
New hirings:													
1941.....	4.09	3.84	4.38	5.00	5.03								
1940.....	1.78	1.72	1.56	1.63	1.87	2.70	2.83	3.59	4.01	4.30	3.47	2.98	2.70
Total:													
1941.....	5.54	4.92	5.62	6.04	5.95								
1940.....	3.74	2.98	2.94	3.05	3.36	4.76	4.77	6.63	6.21	5.52	4.65	4.11	4.39

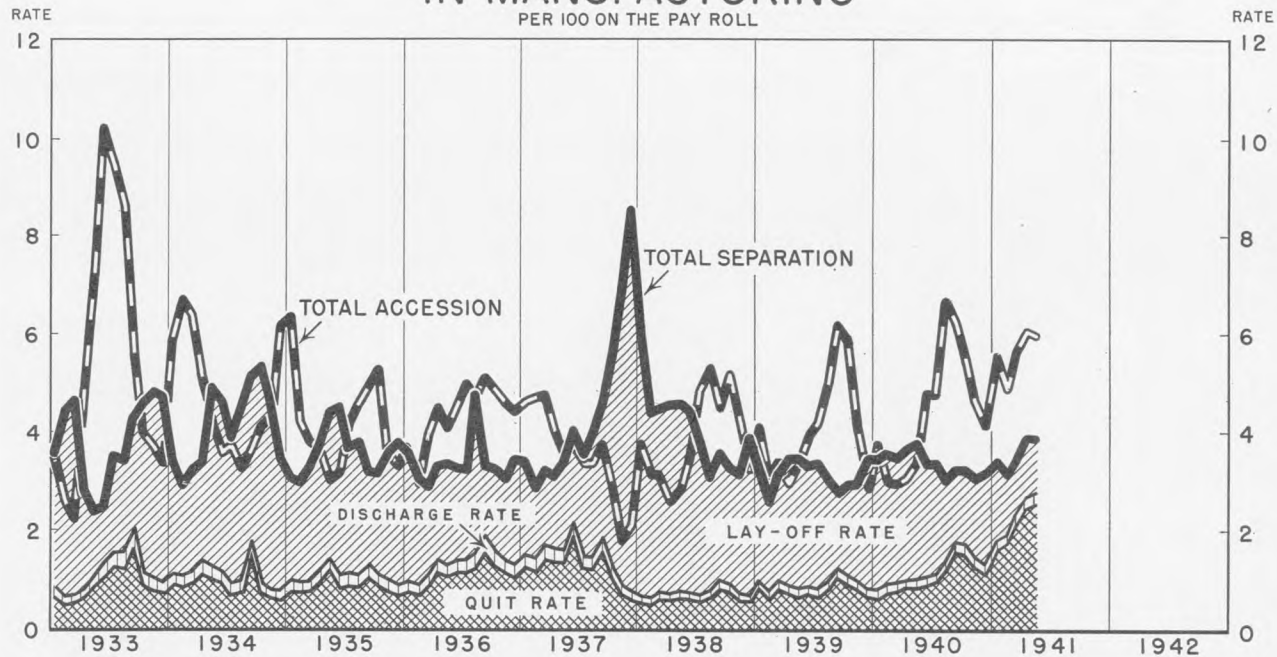
<sup>1</sup> The various turn-over rates represent the number of quits, discharges, lay-offs, total separations, and accessions per 100 employees.

<sup>2</sup> Including temporary, indeterminate, and permanent lay-offs.

<sup>3</sup> Beginning with September 1940, workers leaving to enter the Army or Navy are included in "miscellaneous separations."

# LABOR TURN-OVER RATES IN MANUFACTURING

PER 100 ON THE PAY ROLL



UNITED STATES BUREAU OF LABOR STATISTICS

*Labor Turn-Over*

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TABLE 2.—Monthly Turn-Over Rates (per 100 Employees) in 39 Manufacturing Industries<sup>1</sup>

Industry	Date	Separation rates					Accession rates		
		Quit <sup>2</sup>	Discharge	Lay-off	Miscellaneous separation <sup>2</sup>	Total separation	Re-hiring	New hiring	Total accession
Agricultural implements	May 1941	1.48	0.22	0.56	0.43	2.69	1.46	3.60	5.06
	Apr. 1941	1.72	.17	.61	.59	3.09	.76	2.38	3.14
	May 1940	.52	.10	3.32	.11	4.05	.50	.86	1.36
Aircraft	May 1941	2.59	.44	.54	.32	3.89	.17	10.29	10.46
	Apr. 1941	2.46	.42	.42	.35	3.65	.29	9.52	9.81
	May 1940	2.23	.35	.09	.02	2.69	.82	10.95	11.77
Aluminum	May 1941	2.43	.29	2.84	.70	6.26	.73	3.76	4.49
	Apr. 1941	2.28	.38	.94	.63	4.23	.75	6.57	7.32
	May 1940	.43	.10	2.06	.68	3.27	.69	1.66	2.35
Automobiles and bodies	May 1941	1.98	.11	1.09	.49	3.67	1.29	2.09	3.38
	Apr. 1941	1.81	.12	1.13	.60	3.66	1.63	3.22	4.85
	May 1940	.87	.05	5.30	.06	6.28	1.28	1.05	2.33
Automobile parts and equipment	May 1941	2.32	.40	1.57	.36	4.65	1.30	5.29	6.59
	Apr. 1941	2.10	.35	2.48	.63	5.56	.84	5.36	6.20
	May 1940	.93	.22	7.53	.11	8.79	1.57	2.46	4.03
Boots and shoes	May 1941	1.94	.14	2.57	.27	4.92	.61	3.04	3.65
	Apr. 1941	1.73	.11	1.47	.41	3.72	.65	2.47	3.12
	May 1940	.59	.10	4.70	.05	5.44	1.02	.58	1.60
Brass, bronze, and copper products	May 1941	3.09	.29	.84	.37	4.59	.54	5.61	6.15
	Apr. 1941	2.87	.35	1.25	.64	5.11	.42	6.84	7.26
	May 1940	.67	.06	1.65	.07	2.45	1.86	1.36	3.22
Brick, tile, and terra cotta	May 1941	2.13	.15	2.08	.25	4.61	1.90	5.70	7.60
	Apr. 1941	2.19	.42	.87	.37	3.85	5.00	7.17	12.17
	May 1940	.75	.09	3.44	.05	4.33	4.13	3.24	7.37
Cast-iron pipe	May 1941	1.78	.43	.09	.38	2.68	1.21	3.68	4.84
	Apr. 1941	1.00	.21	.07	.25	1.53	1.13	2.65	3.78
	May 1940	.81	.17	.41	.04	1.43	.93	1.46	2.39
Cement	May 1941	.68	.12	.63	.31	1.74	.39	4.79	5.18
	Apr. 1941	.83	.13	.37	.47	1.80	3.76	4.64	8.40
	May 1940	.22	.07	.44	.09	.82	1.16	2.46	3.62
Cigars and cigarettes	May 1941	2.67	.12	.23	.21	3.23	.74	3.46	4.20
	Apr. 1941	2.15	.11	.44	.15	2.85	1.34	1.96	3.30
	May 1940	1.16	.17	.63	.16	2.12	.79	2.52	3.31
Cotton manufacturing	May 1941	3.91	.31	.77	.36	5.35	1.13	5.69	6.82
	Apr. 1941	3.37	.29	.62	.30	4.58	1.19	4.98	6.17
	May 1940	1.48	.23	4.11	.12	5.94	1.64	1.82	3.46
Dyeing and finishing textiles	May 1941	3.46	.27	.86	.50	5.09	.79	3.81	4.60
	Apr. 1941	2.73	.30	.95	.28	4.26	.59	4.16	4.75
	May 1940	.95	.13	1.92	.04	3.04	.83	.58	1.41
Electrical machinery	May 1941	1.66	.24	.33	.52	2.75	.53	6.14	6.67
	Apr. 1941	1.70	.24	.28	.58	2.80	.83	5.95	6.78
	May 1940	.55	.06	1.44	.18	2.23	.99	1.21	2.20
Foundries and machine shops	May 1941	2.64	.48	.63	.33	4.08	.45	6.43	6.88
	Apr. 1941	2.52	.41	1.00	.38	4.31	.58	6.69	7.27
	May 1940	.74	.17	1.93	.10	2.94	.94	.42	1.36
Furniture	May 1941	3.50	.48	.61	.51	5.10	1.15	6.57	7.72
	Apr. 1941	2.92	.26	.81	.46	4.45	1.25	4.91	6.16
	May 1940	.95	.19	2.17	.13	3.44	2.61	1.40	4.01
Glass	May 1941	1.77	.18	1.09	.34	3.38	.54	3.47	4.01
	Apr. 1941	1.22	.16	.87	.37	2.62	.89	3.76	4.65
	May 1940	.28	.04	2.90	.08	3.30	.74	1.18	1.92
Hardware	May 1941	3.77	.25	.51	.30	4.83	.71	5.56	6.27
	Apr. 1941	3.93	.28	.21	.52	4.94	.32	5.57	5.89
	May 1940	1.16	.09	1.85	.11	3.21	.35	1.82	2.17
Iron and steel	May 1941	1.00	.11	.28	.37	1.76	.67	3.20	3.87
	Apr. 1941	.99	.12	.19	.52	1.82	.47	3.42	3.89
	May 1940	.38	.06	1.12	.15	1.71	1.75	1.78	3.53
Knit goods	May 1941	2.19	.27	1.13	.17	3.76	.92	3.10	4.02
	Apr. 1941	2.06	.15	.68	.13	3.02	1.27	2.93	4.20
	May 1940	.83	.12	3.48	.04	4.47	.60	.73	1.33
Machine tools	May 1941	2.22	.47	.10	.22	3.01	.09	5.74	5.83
	Apr. 1941	2.22	.47	.16	.25	3.10	.30	5.58	5.88
	May 1940	1.29	.44	.53	.10	2.36	.47	3.68	4.15
Men's clothing	May 1941	1.89	.20	1.50	.20	3.79	1.32	3.63	4.95
	Apr. 1941	1.57	.19	2.16	.16	4.08	1.05	2.69	3.74
	May 1940	.66	.38	6.99	.05	8.08	3.30	1.40	4.70

See footnotes at end of table.



TABLE 2.—Monthly Turn-Over Rates (per 100 Employees) in 39 Manufacturing Industries<sup>1</sup>—Continued

Industry	Date	Separation rates					Accession rates		
		Quit <sup>2</sup>	Discharge	Lay-off	Miscellaneous separation <sup>2</sup>	Total separation	Re-hiring	New hiring	Total accession
Paints and varnishes.....	May 1941	1.76	0.32	0.42	0.21	2.71	0.90	4.77	5.67
	Apr. 1941	1.96	.35	.38	.40	3.09	.73	5.92	6.65
	May 1940	.57	.25	1.07	.13	2.02	.83	1.77	2.60
Paper and pulp.....	May 1941	1.31	.17	.62	.29	2.39	.28	3.52	3.80
	Apr. 1941	1.15	.17	.52	.41	2.25	.31	3.94	4.25
	May 1940	.51	.10	.91	.18	1.70	.53	2.19	2.72
Petroleum refining.....	May 1941	.35	.07	.46	.27	1.15	.40	2.31	2.71
	Apr. 1941	.38	.06	.71	.33	1.48	.63	1.92	2.55
	May 1940	.23	.05	1.01	.10	1.39	1.17	1.45	2.62
Planing mills.....	May 1941	2.87	.31	1.01	.34	4.53	1.79	5.18	6.97
	Apr. 1941	2.65	.31	2.30	.50	5.76	1.49	3.63	5.12
	May 1940	.72	.19	1.79	.07	2.77	1.79	2.29	4.08
Printing:									
Book and job.....	May 1941	1.79	.32	2.60	.27	4.98	1.49	3.46	4.95
	Apr. 1941	2.38	.33	3.87	.76	7.34	1.93	5.54	7.47
	May 1940	.51	.22	3.46	.18	4.37	2.43	1.39	3.82
Newspapers and periodicals.....	May 1941	.40	.08	1.36	.15	1.99	.68	.93	1.61
	Apr. 1941	.43	.31	.86	.19	1.79	1.04	1.20	2.24
	May 1940	.26	.15	1.60	.09	2.10	1.06	.69	1.75
Radios and phonographs.....	May 1941	2.66	.16	1.07	.25	4.14	2.56	6.50	9.06
	Apr. 1941	2.29	.30	.55	.24	3.38	3.16	5.93	9.09
	May 1940	1.39	.25	.97	.03	2.64	4.61	3.19	7.80
Rayon and allied products.....	May 1941	1.29	.13	.16	.19	1.77	.67	3.31	3.98
	Apr. 1941	.97	.10	.21	.47	1.75	.38	3.63	3.99
	May 1940	.57	.11	.25	.02	.95	.73	1.43	2.16
Rubber boots and shoes.....	May 1941	2.42	.15	.07	.37	3.01	.74	7.15	7.89
	Apr. 1941	2.53	.27	.57	.55	3.92	.91	6.81	7.72
	May 1940	.78	.21	2.56	.17	3.72	1.71	1.50	3.21
Rubber tires.....	May 1941	1.45	.08	.48	.24	2.25	.62	5.08	5.70
	Apr. 1941	1.16	.09	.95	.30	2.50	.31	3.36	3.67
	May 1940	.33	.05	1.85	.23	2.46	.87	.48	1.35
Sawmills.....	May 1941	2.30	.25	1.46	.33	4.34	1.51	4.63	6.14
	Apr. 1941	2.43	.30	1.23	.27	4.23	2.29	4.91	7.20
	May 1940	1.11	.19	2.76	.13	4.19	1.99	3.46	5.45
Shipbuilding.....	May 1941	2.38	.52	3.62	.43	6.95	2.04	11.20	13.24
	Apr. 1941	2.49	.48	4.28	.55	7.80	2.18	12.16	14.34
	May 1940	.85	.29	4.66	.15	5.95	2.59	4.24	6.83
Silk and rayon goods.....	May 1941	3.90	.26	1.11	.25	5.52	1.34	4.21	5.55
	Apr. 1941	3.52	.88	1.77	.18	6.35	1.13	4.91	6.04
	May 1940	.78	.10	5.90	.12	6.90	1.97	1.13	3.10
Slaughtering and meat packing.....	May 1941	1.63	.21	4.48	.47	6.79	6.65	6.83	13.48
	Apr. 1941	1.40	.20	6.93	.54	9.07	5.50	3.62	9.12
	May 1940	.55	.17	5.14	.27	6.13	5.62	2.53	8.15
Steam- and hot-water heating apparatus.....	May 1941	3.44	.31	.75	.45	4.95	.26	4.59	4.85
	Apr. 1941	2.62	.29	.68	.48	4.07	.16	4.63	4.79
	May 1940	.86	.10	.65	.08	1.69	.92	1.00	1.92
Structural and ornamental metal work.....	May 1941	1.95	.21	1.31	.46	3.93	.69	4.85	5.54
	Apr. 1941	1.93	.22	2.10	.56	4.81	.81	4.44	5.25
	May 1940	.54	.04	4.54	.14	5.26	2.56	3.35	5.91
Woolen and worsted goods.....	May 1941	3.30	.21	.86	.21	4.58	1.45	4.45	5.90
	Apr. 1941	3.07	.25	1.01	.30	4.63	1.53	5.11	6.64
	May 1940	1.02	.07	5.21	.06	6.36	8.01	1.05	9.06

<sup>1</sup> No individual industry data shown unless reports cover at least 25 percent of industrial employment.

<sup>2</sup> Beginning with September 1940, workers leaving to enter the Army or Navy are included in "miscellaneous separations."

<sup>3</sup> Revised.

# Wage and Hour Regulation

## PAY INCREASES UNDER WAGE ORDERS <sup>1</sup>

ORDERS issued under the Fair Labor Standards Act of 1938 have resulted in pay increases for approximately 800,000 workers in low-wage industries, according to a statement issued by the Administrator of the law on July 7, 1941. The statutory minimum wage of 30 cents an hour which became effective October 24, 1939, is estimated to have raised the pay of 610,000 employees engaged in interstate commerce or the production of goods for interstate commerce.

*Effect of Wage Orders Under Fair Labor Standards Act, as of July 1, 1941*

Committee	Wage rate	Number of workers—		Effective date
		Employed	Affected	
	<i>Cents</i>			
Woolen .....	36	150,000	12,000	June 17, 1940
Apparel .....	1 32½-40	650,000	190,000	July 15, 1940
Hosiery .....	40	140,000	46,000	Sept. 18, 1939
Full-fashioned .....	40	80,000	16,000	
Seamless .....	32½	60,000	30,000	
Hat .....	40	25,000	5,500	July 1, 1940
Wool-felt, fur-felt, hatters' fur .....	40	21,100	4,500	
Straw and harvest .....	35	3,900	1,000	
Millinery .....	40	23,500	3,500	Jan. 15, 1940
Shoes and allied industries .....	35	234,000	60,000	Apr. 29, 1940
Knitted outerwear .....	35	23,000	7,500	July 1, 1940
Knitted underwear and commercial knitting .....	33½	60,000	16,000	May 6, 1940
Railroad carrier .....	36	1,017,000	65,300	Mar. 1, 1941
Trunk lines .....	36	1,000,000	60,000	
Short lines .....	33	17,000	5,300	
Leather .....	40	50,000	3,000	Sept. 16, 1940
Pulp and primary paper .....	40	130,000	8,500	Sept. 16, 1940
Carpet and rug .....	40	31,000	1,100	Mar. 17, 1941
Wool and wool-yarn .....	40	30,100	1,000	
Paper, grass, fiber, cotton .....	35	900	100	
Luggage and leather .....	35	18,250	4,900	Jan. 6, 1941
Converted paper products .....	1 36-40	200,000	50,000	June 30, 1941
Embroideries .....	37½	14,250	4,400	Jan. 27, 1941
Portable lamp and shade .....	40	10,000	5,000	July 1, 1941
Enameled utensil .....	40	6,200	1,200	Apr. 21, 1941
Drug, medicine, and toilet preparations .....	40	44,000	9,000	July 7, 1941
Textile .....	37½	650,000	300,000	June 30, 1941

<sup>1</sup> Differs by subdivision of industry.

Of the industrial wage orders establishing minimum-wage rates above 30 cents up to 40 cents an hour, that for the textile industry resulted in an increase in pay for 300,000 employees, the garment order 190,000, the railroad order 65,000, and the shoe order 60,000 workers.

<sup>1</sup> U. S. Department of Labor. Wage and Hour Division. Press release No. R. 1487.

The accompanying tabulation shows the industries under wage orders as of the beginning of July and the number of workers affected. The total number employed in industries subject to wage orders is approximately 3,500,000. The totals exclude employees in the rubber industry, for whom a wage order became effective on July 28, 1941.



## SUSPENSION OF 8-HOUR LAW ON PUBLIC WORKS IN OUTLYING TERRITORIES <sup>1</sup>

LABORERS and mechanics engaged on cantonments, airfields, fortifications, and other public works which are necessary for the national defense, in the Panama Canal Zone, Alaska, and Puerto Rico, are no longer subject to the limitation of an 8-hour workday. The 8-hour law was suspended for such workers by Executive order of June 18, 1941. Because of the extraordinary emergency, this action was taken as it appeared that, unless the 8-hour limitation was suspended for War Department employees of these particular categories engaged on public works, it would be impossible to accomplish the work necessary in the time required by the interests of national defense. The remoteness of these areas from sources of supply in the United States and the difficulties of housing and transporting additional labor from the United States made the suspension of the 8-hour day necessary.

Legislation limiting the employment of laborers and mechanics on public works of the United States to 8 hours a day was enacted by Congress in 1892 and amended in 1913.<sup>2</sup> In 1917 an amendment was adopted<sup>3</sup> which authorized the President to suspend this law in case of national emergency, with pay at the rate of time and a half for all work in excess of 8 hours.



## WAGE ORDER FOR RUBBER-PRODUCTS MANUFACTURE <sup>4</sup>

A WAGE rate of not less than 40 cents an hour for the rubber-products manufacturing industry became effective on July 28, 1941, by order of the Administrator of the Fair Labor Standards Act. This rate of pay was recommended by the industry committee after investigation of economic and competitive conditions in rubber-products manufacture. For the purposes of the order, the industry definition includes the manufacture of all products which have as an ingredient any form of natural rubber (including latex), reclaimed

<sup>1</sup> Federal Register for June 21, 1941.

<sup>2</sup> U. S. Code 1934, title 40, secs. 321, 322.

<sup>3</sup> *Idem*, title 40, sec. 326.

<sup>4</sup> Federal Register for July 1, 1941.

rubber, scrap rubber, compounded rubber, rubber derivatives, balata, gutta-percha, or synthetic rubber, including parts for use in other products, and including footwear made by the vulcanizing of the entire article or the vulcanizing (as distinct from cementing) of the sole to the upper; the manufacture of reclaimed rubber; and the preparation of scrap rubber for use in the manufacture of reclaimed rubber or rubber products.



## WAGE ORDER FOR DRUG, MEDICINE, AND TOILET- PREPARATIONS INDUSTRY <sup>1</sup>

A MINIMUM wage of 40 cents an hour for the drug, medicine, and toilet-preparations industry became effective on July 7, 1941, by order of the Administrator of the Fair Labor Standards Act. It is estimated that 9,000 workers of the approximately 44,000 employed in the industry benefited from the wage increase. The order covers all occupations which are necessary to the production of drugs, medicines, and toilet preparations, including clerical, maintenance, shipping, and selling occupations. Excluded are employees of an independent wholesaler or employees of a manufacturer who are engaged exclusively in marketing and distributing products of the industry, which have been purchased for resale.

As defined in the wage order the industry includes the manufacture or packaging of any one or more of the following products:

- (1) Drugs or medicinal preparations (other than food) intended for internal or external use in the diagnosis, treatment, or prevention of disease in, or to affect the structure or any function of, the body of man or other animals; or
- (2) Dentrifrices, cosmetics, perfume, or other preparations designed or intended for external application to the person for the purpose of cleansing, improving the appearance of, or refreshing the person,
- (3) Provided that this definition shall not include the manufacture or packaging of shaving cream, shampoo, essential (volatile) oils, glycerine, and soap, or the milling or packaging without further processing of crude botanical drugs.



## WAGES OF TEMPORARY AGRICULTURAL LABOR IN SCOTLAND <sup>2</sup>

MINIMUM wages for temporary agricultural workers in Scotland were established, effective May 12, 1941, by an order of the Secretary of State for Scotland. This action was taken under regulation 25A of the Defense (Agricultural and Fisheries) Regulations of 1939. The chief purpose is to fix wage rates for special categories of workers who are engaged temporarily in agriculture, including horticulture

<sup>1</sup> U. S. Department of Labor. Wage and Hour Division. Press releases Nos. 1463 and 1464.

<sup>2</sup> Report of Alton T. Murray, acting agricultural attaché in London.

and forestry. These special groups of labor are schoolboys and schoolgirls, student harvesting and youth service groups, women in the Auxiliary Force of the Women's Land Army, and volunteers for forestry operations during holiday periods. The rates are as follows:

*Rates of Pay of Temporary Agricultural Workers in Scotland*

Age group	Full-time workers— Weekly rates (in shillings) of—		Other workers— Hourly rates (in pence) of—	
	Males	Females	Males	Females
20 years and over .....	43		10	
18 and under 20 years .....	36	<sup>1</sup> 30	9	18
16 and under 18 years .....	25	24	7	7
14 and under 16 years .....	18	18	5	5

<sup>1</sup> 18 years and over.

For overtime employment the minimum-wage rates of males range from 7d. to 1s. hourly, according to age, on Saturday afternoons and Sundays, and from 6d. to 11d. at other times. Female workers are entitled to 7d. to 10d. hourly on Saturday afternoons and Sundays, and 6d. to 9d. at other times.

Board and lodging may be reckoned as payment in lieu of cash. For males, the value per week is 14s. for those 14 and under 16 years of age; 18s. for those 16 and under 18; and 20s. for those 18 years of age and over. For females, the amount per week allowable for board and lodging is 14s. for those 14 and under 16 years of age, and 18s. for older workers.

# *Wage and Hour Statistics*

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## EARNINGS AND HOURS IN THE RAYON AND SILK INDUSTRY, 1940<sup>1</sup>

### *Summary*

HOURLY earnings of employees in the rayon and silk industry averaged 43.6 cents in September 1940, according to the findings in a study recently completed by the Bureau of Labor Statistics. The study covered 20,173 workers in 132 mills engaged in the manufacture of yarn and thread and the weaving of broad goods of filament rayon and silk. Earlier studies by the Bureau had shown hourly earnings in this industry to average 26.9 cents in 1933 and 44.8 cents in 1934.

The survey revealed considerable variation in earnings by sex, region, and type of mill. Male workers averaged 48.4 cents, compared with an average of only 38.5 cents an hour for females. Employees of northern establishments averaged 45.6 cents, while southern workers earned an average of 40.2 cents. Workers in independent throwing establishments averaged 38.2 cents, those in independent weaving mills averaged 48.9 cents, and employees of integrated throwing and weaving plants received earnings averaging 43.1 cents an hour.

### *Characteristics of the Industry*

Over the brief span of three decades, the industry now known as rayon and silk manufacture has undergone changes that were revolutionary in character and scope. In 1911 silk was the acknowledged leader of luxury fabrics. Its unique qualities apparently rendered it proof against the competition of lesser materials, and its manufacturers enjoyed substantial profits and a steadily growing market. The continued well-being of the industry seemed assured. A quarter of a century earlier, however, the end of this period of domination had been presaged by the development of a commercially practicable method of manufacturing rayon.

Few silk manufacturers in the United States had seen in the new fiber any threat to their security. True, their somewhat hesitant offerings of rayon fabrics had found a ready public response, but even

<sup>1</sup> Prepared by Louis M. Solomon, assisted by Toivo P. Kanninen, of the Bureau's Division of Wage and Hour Statistics. The study was supervised by H. E. Riley.

after the release in 1911 of the first domestically produced rayon, they considered the man-made filaments only a poor substitute for silk. Rayon had the luster and the rustle of silk, however, and it was inexpensive. These factors alone were enough to insure for it a constantly growing market. As the quality of the new yarns improved, consumer demand increased even more rapidly. By 1927, domestic consumption of rayon had outstripped the use of silk, and never since that time has silk regained its leadership. The use of rayon in broad goods has continued to increase. Today, in fact, the textile industry produces approximately 40 yards of rayon fabric for each yard of silk woven. Cotton and wool have also yielded considerable ground to the newer product.

Although surpassed by the gigantic cotton-textile industry and by the manufacture of woolens and worsteds, the rayon and silk industry ranks high among American manufactures. In 1939 the production of yarn and thread, narrow fabrics, and broad goods of rayon and silk was carried on in 829 establishments and gave employment to 120,000 workers. The products of the industry were valued at approximately \$405,000,000.

#### GEOGRAPHICAL DISTRIBUTION

The manufacture of rayon and silk is carried on largely in the East. When the production of rayon first assumed commercial significance, the silk industry had long been concentrated in the New England and Middle Atlantic States. The newer product was at first manufactured almost exclusively in silk factories, and consequently was produced largely in the States of Pennsylvania, New Jersey, New York, Connecticut, Massachusetts, and Rhode Island. Prior to the World War, the production of rayon and silk in other States amounted to less than a tenth of the total.

It soon developed, however, that with but minor adjustments in equipment, cotton mills could process the new fiber successfully—could, in fact, produce at lower cost than the silk mills, which were handicapped by older, slower machinery. As the demand for rayon goods increased, more and more cotton mills diverted some or all of their machinery to the production of these fabrics. This resulted in a measurable increase in the proportion of total silk and rayon looms found in Southern States. In 1932, the South, including the border States, had only 7.5 percent of the active silk and rayon looms. Each succeeding year, however, saw an increase in the proportion of the industry in the Southern States. Thus, 13.4 percent of the looms in 1934, 15.8 percent in 1936, 19.9 percent in 1938, and 24.2 percent in 1940 were in these States. At the same time, a reduction in the demand for silk resulted in a considerable decrease in the number of mills weaving this fiber. Many were unable to turn successfully to

the production of rayon and were forced into liquidation. Pennsylvania, for example, which in 1932 operated 50,000 looms, had only 26,000 looms 8 years later. New Jersey experienced almost as drastic a reduction, having by 1940 lost 13,000 of the 30,000 looms in place in 1932.

Table 1, based on data secured in the present survey,<sup>2</sup> reveals that the proportion of workers employed by the industry in the South is even larger than the proportion of looms operated. The greater concentration of workers than of looms in the Southern States arises from the greater extent of multishift operations in southern mills. At the time of the survey, more than one-half of the southern wage earners were working on a second or third shift, but less than one-third of the northern workers were on extra shifts.

TABLE 1.—Regional Distribution of Mills and Employees Included in Survey of Rayon and Silk Industry, September 1940

State	Number of mills	Employees	
		Number	Percent
United States.....	132	20, 173	100. 0
North.....	110	12, 861	63. 8
Connecticut.....	7	1, 542	7. 6
Massachusetts.....	6	1, 235	6. 1
New Jersey.....	27	1, 113	5. 5
New York.....	12	1, 306	6. 5
Pennsylvania.....	48	6, 094	30. 3
Rhode Island.....	6	1, 129	5. 6
Other States <sup>1</sup> .....	4	442	2. 2
South.....	22	7, 312	36. 2
North Carolina.....	10	3, 653	18. 1
Virginia.....	6	1, 598	7. 9
Other States <sup>2</sup> .....	6	2, 061	10. 2

<sup>1</sup> Includes 1 in Illinois, 1 in Indiana, 1 in Maine, and 1 in New Hampshire.

<sup>2</sup> Includes 1 in Georgia, 1 in Maryland, 2 in South Carolina, and 2 in Tennessee.

#### TYPES OF ESTABLISHMENTS

The manufacture of silk and rayon goods is carried on in three distinct types of establishments: Independent spinning or throwing mills, which spin, twist, or throw yarn or thread for sale or on commission; integrated spinning and weaving mills, which both produce yarn and weave it into fabrics; and independent weaving plants, which buy yarn to weave into fabrics.

As shown by table 2, most of the independent throwsters and the independent weavers are found in the North, whereas a majority of the integrated establishments are in the Southern States. It is particularly noteworthy that 14 of the 16 southern weaving mills surveyed are integrated plants.

<sup>2</sup> The plants included in the present study were selected with great care, so that their characteristics with respect to location, type of mill, type of product, etc., are believed to be representative of the entire industry. As is noted below, however, the industry covered by the study excludes the manufacture of narrow fabrics and products of spun rayon; in this respect, the definition differs from that used by the Census of Manufactures.



TABLE 2.—*Distribution of Mills and Employees Included in Survey of Rayon and Silk Industry, September 1940, by Region and Type of Mill*

Region and type of mill	Number of mills	Employees	
		Number	Percent
United States.....	132	20, 173	100. 0
Independent throwsters.....	47	5, 613	27. 8
Integrated spinning and weaving mills <sup>1</sup> .....	25	8, 186	40. 6
Independent weavers.....	60	6, 374	31. 6
North:			
Independent throwsters.....	41	4, 530	22. 5
Integrated spinning and weaving mills.....	9	1, 957	9. 7
Independent weavers.....	60	6, 374	31. 6
South:			
Independent throwsters.....	6	1, 083	5. 3
Integrated spinning and weaving mills <sup>2</sup> .....	16	6, 229	30. 9

<sup>1</sup> Includes 2 Southern independent weaving mills.

<sup>2</sup> Includes 2 independent weaving mills.

## FABRICS PRODUCED

Although rayon and silk fabrics are woven in numerous different constructions, they may be broadly classified, on the basis of the type of loom used in their weaving, as plain, box, or jacquard loom fabrics.<sup>3</sup> Few, if any, of the southern mills in the industry and, as indicated by table 3, none of the southern mills in the sample were manufacturing jacquard fabrics, although nearly one-fourth of the northern weaving mills were producing these more elaborate constructions.

TABLE 3.—*Distribution of Mills and Employees Included in Survey of Rayon and Silk Industry, September 1940, by Region and Type of Product*

Region and type of product	Number of mills	Employees	
		Number	Percent
United States.....	132	20, 173	100. 0
Yarn and thread.....	47	5, 613	27. 8
Plain-loom fabrics.....	43	8, 437	41. 8
Box-loom fabrics.....	25	4, 698	23. 3
Jacquard-loom fabrics <sup>1</sup> .....	17	1, 425	7. 1
North:			
Yarn and thread.....	41	4, 530	22. 5
Plain-loom fabrics.....	32	4, 608	22. 8
Box-loom fabrics.....	20	2, 298	11. 4
Jacquard-loom fabrics.....	17	1, 425	7. 1
South:			
Yarn and thread.....	6	1, 083	5. 3
Plain-loom fabrics.....	11	3, 829	19. 0
Box-loom fabrics.....	5	2, 400	11. 9

<sup>1</sup> No representation of southern jacquard-fabric mills included in survey.

<sup>3</sup> Plain looms are used to weave materials of relatively simple constructions, such as taffetas or voiles; box looms are employed in the weaving of cross-striped materials (plaids, checks, etc.); and jacquard looms for the weaving of elaborately patterned fabrics such as those used for upholstery. Many of the mills making a variety of fabrics have installed all three kinds of looms. Such plants have been classified in the present study on the basis of the dominant product at the time of the study.

## UNIONIZATION

Thirty-three establishments employing 3,812 wage earners were reported as having effective union contracts or agreements regulating the hours and earnings for substantial proportions of their employees. Unionization (which was confined to establishments in Northern States) was most prevalent among jacquard-fabric mills, of which nearly half had contractual relations with a labor organization. Among yarn mills, on the other hand, only about one-fifth of the plants had entered into any union agreement. The Textile Workers Union of America, a C. I. O. affiliate, was a party to a substantial majority of the union agreements.

## SIZE AND COMPOSITION OF LABOR FORCE

Rayon and silk mills vary in size from small plants employing fewer than 10 workers to large establishments employing 2,500 or more. Of the 132 mills included in the study, 68 employed 100 or fewer wage earners, 25 employed 101 to 250, 14 employed 251 to 500, 16 employed between 501 and 1,000, 7 employed between 1,000 and 2,500, and 2 employed more than 2,500 workers.

These establishments were in communities differing widely in size. Fifteen were in towns of under 10,000, 42 in communities of 10,000 to 100,000, 17 in communities ranging from 100,000 to 500,000, and 58 in urban areas of over one-half million.

The working force in the rayon and silk industry includes a high proportion of semiskilled and skilled workers. Nearly half (49.3 percent) of the wage earners were in semiskilled occupations, while skilled employees accounted for about 30 percent of the total. The North had a larger percentage of skilled workers than did the South (34.0 percent as against 20.3 percent) and a smaller proportion of unskilled employees (17.9 percent contrasted with 28.3 percent).

Slightly more than half (50.9 percent) of the employees in the industry were women. Negroes accounted for less than one-half of 1 percent of the total employment.

*Scope and Method of Study*

The Bureau's study of wages and hours of work in the rayon and silk industry was undertaken in the fall of 1940, a majority of the schedules collected representing the months of August and September. The study covered establishments engaged in the manufacture of yarn and thread and the weaving of broad goods from filament rayon <sup>4</sup>

<sup>4</sup> Rayon filaments are extruded in the form of very long continuous strands. Yarns thrown from these long filaments are referred to as "continuous filament" or "filament" yarns. Spun rayon yarns, which are manufactured from short lengths of these filaments have been described as "textile yarns, made from cut or short-length rayon filaments, and drawn out and twisted by the usual textile spinning processes such as the cotton, worsted or spun silk systems." Products made of spun rayon constitute a small but growing proportion of the total.

and silk. The study excluded mills manufacturing yarns or fabrics of spun rayon (which are closely associated with cotton textiles and were included in the Bureau's study of that industry), mills weaving or braiding narrow fabrics,<sup>5</sup> and all mills employing fewer than three wage earners. Thus limited, the industry studied by the Bureau employs approximately 100,000 workers.

The study was based on reports for a representative sample of approximately one-fifth of the mills and one-fifth of the wage earners in the industry covered. The establishments to be surveyed were carefully selected to provide proper representation with respect to such factors as product, size of plant, location, and unionization. In order to obtain a proper representation of all types of mills, it was necessary to include somewhat more than one-fifth of the largest mills. The coverage in each of these larger establishments, however, was limited to a representative sample of the employees; hence the survey included only one-fifth of the workers in each plant-size group.

The study was made by the Bureau's field representatives, who obtained the necessary data directly from company records, through personal observation of processes and plant practices, and by means of interviews with plant officials. The information obtained from each establishment included actual hours worked and earnings received by each employee during a selected pay-roll period. The occupation, sex, color, and method of wage payment were also obtained for each employee scheduled. In transcribing wage data, the field representatives reported earnings at regular rates of pay separately from those resulting from application of an extra overtime rate. The wage data presented in this report include only the earnings at regular rates of pay.<sup>6</sup>

The field representatives prepared a description of duties involved in each occupation and elicited from plant officials an estimate of the degree of skill necessary for the proper performance of these duties. This information supplied a basis for the occupational groupings and skill classification used in the present report. Information was obtained for both factory and clerical employees, but data for clerical workers have been excluded from all tabulations except tables 8 and 9, which present averages for separate occupations.

### *Average Hourly Earnings*

#### METHOD OF WAGE PAYMENT

Almost three-fifths of the wage earners in the rayon and silk industry were paid on a straight-time basis. Most of these employees were paid at hourly rates, but workers in a few occupations, chiefly working

<sup>5</sup> Narrow fabrics consist of woven or braided materials 12 inches and under in width.

<sup>6</sup> Had the extra overtime earnings been included, the industry average would have been increased by only six-tenths of a cent.

supervisors and maintenance employees, were paid a weekly or monthly salary. Only 5.5 percent of the workers (a majority of whom were loom fixers and weavers) were working under a production-bonus plan. However, more than one-third of the employees were paid piece rates. This method of pay was very largely used as a basis for determining the earnings of weavers, spinners, twisters, and winders.

#### HOURLY EARNINGS OF ALL WORKERS

Hourly earnings of all workers in the rayon and silk industry averaged 43.6 cents an hour in September 1940 (table 4). Earnings of individual employees, however, varied conspicuously—ranging from under 32.5 cents to well over \$1 an hour. Despite this broad dispersion, the majority of workers tended to concentrate in the lower wage classes. More than one-fifth of the wage earners averaged exactly 32.5 cents an hour.<sup>7</sup> About one-third (34.1 percent) earned more than 32.5 cents but less than 40.0 cents an hour, and still another substantial group (20.7 percent) had average earnings of 40.0 but under 50.0 cents an hour. Thus, fully three-fourths of all employees in the industry received hourly earnings averaging less than 50.0 cents. In contrast, only 4 percent of the workers had average earnings exceeding 75.0 cents.

TABLE 4.—Percentage Distribution of Rayon and Silk Workers by Average Hourly Earnings, Skill, and Sex, September 1940

Average hourly earnings (in cents)	All workers			Skilled workers			Semiskilled workers			Unskilled workers		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Under 32.5	0.9	0.4	1.5	0.1	0.1	0.2	0.4	0.2	0.6	3.1	1.2	5.9
Exactly 32.5	20.5	16.0	24.9	1.9	1.4	3.6	24.1	16.1	27.6	37.1	40.4	32.4
32.6 and under 35.0	11.2	7.9	14.4	2.0	1.1	4.5	13.4	9.5	15.0	18.6	17.5	20.2
35.0 and under 37.5	14.3	11.6	16.8	3.7	2.4	7.3	18.4	19.7	17.7	19.1	17.9	20.8
37.5 and under 40.0	8.6	4.6	12.4	3.9	2.5	7.9	11.2	5.8	13.6	8.9	6.8	12.0
40.0 and under 42.5	6.7	5.4	8.0	6.5	4.5	12.3	7.4	5.8	8.1	5.4	6.4	4.0
42.5 and under 45.0	5.2	4.4	6.0	5.3	4.3	8.1	6.4	5.4	6.8	2.7	3.6	1.4
45.0 and under 47.5	5.3	6.3	4.3	8.2	7.5	10.5	5.0	7.9	3.8	1.9	2.4	1.2
47.5 and under 50.0	3.5	4.0	2.9	6.3	5.5	8.5	2.9	4.3	2.3	1.0	1.2	.7
50.0 and under 52.5	4.0	5.7	2.3	8.3	8.3	8.3	2.7	5.8	1.4	1.0	1.1	.9
52.5 and under 55.0	2.9	4.3	1.6	6.9	7.2	6.1	1.8	3.5	1.0	.2	.3	.1
55.0 and under 57.5	2.7	4.1	1.4	6.1	6.0	6.2	1.8	4.5	.7	.3	.3	.2
57.5 and under 60.0	2.0	3.2	.9	5.3	5.7	4.2	.8	1.9	.3	.3	.3	.1
60.0 and under 62.5	2.0	3.2	.9	5.3	5.6	4.5	1.0	2.5	.3	.1	.1	-----
62.5 and under 65.0	1.2	1.9	.6	3.1	3.1	2.8	.6	1.5	.3	.2	.3	-----
65.0 and under 67.5	1.3	2.4	.3	3.8	4.7	1.2	.4	1.0	.1	.1	.1	.1
67.5 and under 70.0	1.2	2.2	.2	3.6	4.5	.7	.3	.8	.1	(1)	.1	-----
70.0 and under 72.5	1.4	2.5	.3	4.3	5.3	1.5	.3	.7	.1	(1)	(1)	-----
72.5 and under 75.0	1.1	2.2	.1	3.6	4.7	.4	.2	.5	.1	-----	-----	-----
75.0 and under 77.5	1.4	2.7	.1	4.1	5.4	.5	.3	1.0	(1)	-----	-----	-----
77.5 and under 82.5	1.1	2.1	.1	3.4	4.5	.5	.2	.4	.1	(1)	(1)	-----
82.5 and under 87.5	.6	1.2	(1)	1.7	2.2	.1	.2	.7	-----	-----	-----	-----
87.5 and under 92.5	.5	.9	(1)	1.4	1.9	.1	.1	.3	(1)	-----	-----	-----
92.5 and under 97.5	.1	.2	-----	.3	.4	-----	(1)	.1	-----	-----	-----	-----
97.5 and under 102.5	.1	.2	-----	.4	.5	-----	(1)	(1)	-----	-----	-----	-----
102.5 and over	.2	.4	(1)	.5	.7	-----	.1	.1	(1)	-----	-----	-----
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of workers	20,173	9,914	10,259	5,858	4,358	1,500	9,939	2,979	6,960	4,376	2,577	1,799
Average hourly earnings	\$0.436	\$0.484	\$0.385	\$0.563	\$0.591	\$0.475	\$0.393	\$0.434	\$0.374	\$0.354	\$0.357	\$0.348

<sup>1</sup> Less than a tenth of 1 percent.

<sup>7</sup> This was the legal minimum in effect for the industry at the time of the study.

## DIFFERENCES BY SEX AND SKILL

A large part of the diversity of hourly earnings may be attributed to the sharply contrasted wage levels of employees in different skill and sex groups. Compared with an average of 59.1 cents an hour received by skilled males, semiskilled males earned 43.4 cents and unskilled males 35.7 cents an hour. In contrast, skilled females averaged 47.5 cents, semiskilled females 37.4 cents, and unskilled females only 34.8 cents an hour. The difference in average earnings between the highest-paid (skilled males) and the lowest-paid group (unskilled females) is 24.3 cents an hour. It should be noted that differences in earnings according to the sex of the workers increased directly with the degree of skill. Thus, unskilled males earned only 0.9 cent more than unskilled females, but semiskilled males received 6.0 cents more than semiskilled females, and skilled males averaged 11.6 cents more than did the skilled female workers.

With relatively minor exceptions, receipt of earnings in excess of 75.0 cents was confined to skilled males, 15.6 percent of whom earned this amount or more. Only about 1 percent of the skilled females and less than 3 percent of the semiskilled males had earnings averaging 75.0 cents or over.

Equally striking differences appeared at the lower end of the distribution. Whereas only 2.6 percent of the skilled males and 8.3 percent of the skilled females earned less than 35.0 cents, more than one-fourth of the semiskilled males and more than two-fifths of the semiskilled females had earnings below this level. Moreover, among both male and female unskilled workers, nearly three-fifths of the employees had earnings averaging less than 35.0 cents.

## REGIONAL DIFFERENCES

Regional influences account for some of the widespread variations in earnings in evidence among employees in the rayon and silk industry. As shown by table 5, workers in northern establishments averaged 45.6 cents an hour, contrasting with average earnings of 40.2 cents received by wage earners in Southern States. Compared with the 52.0 cents received by northern male employees, males in the South averaged only 43.1 cents an hour. The difference between northern and southern females, however, was not so pronounced—females in the North averaging only 2.7 cents more than southern females, who received 36.7 cents an hour.

TABLE 5.—Percentage Distribution of Rayon and Silk Workers by Region, Average Hourly Earnings, Skill, and Sex, September 1940

Average hourly earnings (in cents)	All workers			Skilled workers			Semiskilled workers			Unskilled workers		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>North</b>												
Under 32.5.....	0.6	0.5	0.6	0.1	0.1	-----	0.3	0.2	0.4	2.1	1.7	2.5
Exactly 32.5.....	20.4	12.5	27.6	1.9	1.6	2.9	27.7	16.2	32.0	36.2	34.3	38.4
32.6 and under 35.0.....	7.0	2.9	10.8	1.9	1.3	3.5	9.7	3.4	12.1	9.5	6.0	13.8
35.0 and under 37.5.....	9.8	8.0	11.5	3.5	2.5	6.2	11.5	9.4	12.3	17.3	19.5	14.3
37.5 and under 40.0.....	10.0	5.0	14.6	4.0	2.6	7.6	12.9	5.3	15.7	13.8	10.3	18.2
40.0 and under 42.5.....	7.5	6.1	8.7	6.2	3.7	12.5	7.9	6.7	8.4	8.6	11.2	5.4
42.5 and under 45.0.....	6.1	5.3	6.8	5.2	4.3	7.3	7.5	6.8	7.7	4.1	5.8	2.0
45.0 and under 47.5.....	6.2	7.4	5.2	8.2	7.2	10.4	6.0	10.1	4.5	3.0	3.9	1.8
47.5 and under 50.0.....	3.7	4.1	3.4	6.0	4.8	8.8	2.9	4.2	2.4	1.8	2.2	1.3
50.0 and under 52.5.....	4.7	6.6	2.9	8.0	7.6	8.7	3.4	8.0	1.6	1.9	2.1	1.6
52.5 and under 55.0.....	3.0	4.2	1.9	5.9	5.6	6.6	1.9	4.5	1.0	.4	.5	.2
55.0 and under 57.5.....	3.1	4.6	1.8	5.7	5.3	6.8	2.3	6.4	.7	.5	.7	.2
57.5 and under 60.0.....	2.5	4.0	1.1	5.6	6.0	4.5	1.1	3.1	.3	.3	.5	.2
60.0 and under 62.5.....	2.5	4.0	1.1	5.4	5.5	5.1	1.4	4.2	.3	.1	.2	-----
62.5 and under 65.0.....	1.6	2.6	.8	3.5	3.7	3.0	.8	2.1	.3	.3	.6	-----
65.0 and under 67.5.....	1.4	2.6	.3	3.3	4.1	1.4	.5	1.8	(1)	.1	.2	.1
67.5 and under 70.0.....	1.1	2.2	.2	2.8	3.5	.9	.4	1.3	(1)	(1)	.1	-----
70.0 and under 72.5.....	1.5	2.8	.4	3.9	4.7	1.8	.4	1.3	.1	(1)	.1	-----
72.5 and under 75.0.....	1.4	2.8	.1	3.7	5.1	.5	.2	.6	(1)	-----	-----	-----
75.0 and under 77.5.....	2.0	4.1	.1	5.2	7.0	.6	.5	1.8	(1)	-----	-----	-----
77.5 and under 82.5.....	1.6	3.2	.1	4.3	5.9	.6	.2	.7	.1	(1)	.1	-----
82.5 and under 87.5.....	.9	1.8	(1)	2.2	3.0	.2	.3	1.0	-----	-----	-----	-----
87.5 and under 92.5.....	.7	1.4	(1)	1.9	2.6	.1	.1	.4	(1)	-----	-----	-----
92.5 and under 97.5.....	.2	.3	-----	.4	.6	-----	-----	.2	-----	-----	-----	-----
97.5 and under 102.5.....	.2	.4	-----	.5	.7	-----	(1)	.1	-----	-----	-----	-----
102.5 and over.....	.3	.6	(1)	.7	1.0	-----	.1	.2	.1	-----	-----	-----
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of workers.....	12,861	6,077	6,784	4,377	3,121	1,256	6,178	1,680	4,498	2,306	1,276	1,030
Average hourly earnings.....	\$0.456	\$0.520	\$0.394	\$0.572	\$0.605	\$0.485	\$0.403	\$0.470	\$0.376	\$0.367	\$0.374	\$0.357
<b>South</b>												
Under 32.5.....	1.6	0.2	3.1	0.2	-----	1.2	0.6	0.1	0.9	4.3	0.6	10.5
Exactly 32.5.....	20.7	21.4	20.1	1.9	0.8	7.4	18.5	15.6	20.0	38.3	46.3	24.3
32.6 and under 35.0.....	18.5	15.8	21.5	2.0	.6	9.4	19.5	17.3	20.4	28.7	28.7	28.7
35.0 and under 37.5.....	22.1	17.4	27.3	4.1	2.3	13.1	29.7	32.9	27.9	21.3	16.3	29.7
37.5 and under 40.0.....	6.2	4.1	8.5	3.5	2.3	9.4	8.7	6.5	9.9	3.5	3.4	3.6
40.0 and under 42.5.....	5.3	4.2	6.5	7.2	6.5	10.7	6.5	4.6	7.5	1.8	1.6	2.1
42.5 and under 45.0.....	3.8	3.1	4.5	5.5	4.3	11.9	4.5	3.7	5.0	1.1	1.4	.7
45.0 and under 47.5.....	3.5	4.5	2.4	8.3	7.9	10.2	3.2	4.9	2.4	.7	.9	.3
47.5 and under 50.0.....	3.0	3.9	1.9	7.2	7.2	7.0	2.8	4.5	2.0	.1	.2	-----
50.0 and under 52.5.....	2.8	4.4	1.0	9.5	10.1	6.6	1.6	3.1	.8	.1	.2	-----
52.5 and under 55.0.....	2.8	4.4	1.0	9.9	11.2	3.7	1.5	2.3	1.1	(1)	.1	-----
55.0 and under 57.5.....	2.0	3.3	.6	7.2	8.0	3.3	1.1	2.2	.5	(1)	-----	.1
57.5 and under 60.0.....	1.1	1.8	.5	4.5	4.9	2.5	.4	.3	.4	.1	.2	-----
60.0 and under 62.5.....	1.2	1.9	.3	5.0	5.7	1.6	.3	.3	.3	-----	-----	-----
62.5 and under 65.0.....	.6	.8	.3	1.7	1.7	1.6	.4	.7	.3	-----	-----	-----
65.0 and under 67.5.....	1.1	2.0	.2	5.3	6.2	.4	.1	-----	.2	-----	-----	-----
67.5 and under 70.0.....	1.3	2.3	.1	5.9	7.0	-----	.1	.1	.2	(1)	.1	-----
70.0 and under 72.5.....	1.1	2.2	-----	5.6	6.7	-----	.1	.1	-----	-----	-----	-----
72.5 and under 75.0.....	.7	1.3	.1	3.1	3.7	-----	.2	.3	.1	-----	-----	-----
75.0 and under 77.5.....	.2	.4	(1)	1.1	1.3	-----	.1	.1	(1)	.1	-----	-----
77.5 and under 82.5.....	.2	.3	.1	.7	.9	-----	.1	-----	.1	-----	-----	-----
82.5 and under 87.5.....	.1	.2	-----	.3	.4	-----	.1	.3	-----	-----	-----	-----
87.5 and under 92.5.....	.1	.1	-----	.2	.2	-----	(1)	.1	-----	-----	-----	-----
92.5 and under 97.5.....	(1)	(1)	-----	.1	.1	-----	-----	-----	-----	-----	-----	-----
97.5 and under 102.5.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of workers.....	7,312	3,837	3,475	1,481	1,237	244	3,761	1,299	2,462	2,070	1,301	789
Average hourly earnings.....	\$0.402	\$0.431	\$0.367	\$0.538	\$0.557	\$0.429	\$0.378	\$0.390	\$0.371	\$0.339	\$0.341	\$0.335

<sup>1</sup> Less than a tenth of 1 percent.

The earnings of individual employees supply additional evidence as to the effect of geographical location. More than one-fourth (28.7 percent) of all northern workers, but less than one-sixth (15.3 percent) of all southern employees, had average earnings of 50.0 cents or more. On the other hand, 40.8 percent of the workers in southern mills averaged less than 35.0 cents an hour, whereas only 28.0 percent of the northern wage earners received less than this amount.

*Earnings in union and nonunion plants.*—As already noted, unionization among the plants studied was confined to the Northern States. In the northern area, hourly earnings in union plants averaged 49.7 cents an hour, as against 43.9 cents in the nonunion establishments.

The effect of unionization was most pronounced in the case of plain-loom-fabric mills, in which group union mills averaged 53.0 cents and nonunion mills 47.8 cents. In jacquard-fabric establishments, earnings in union plants averaged 54.8 cents or about 3 cents more than the 51.9 cents received by employees of nonunion mills. These substantial differences did not appear in box-loom mills, where union plants averaged only eight-tenths of a cent more than nonunion plants (46.0 as compared with 45.2 cents), nor in the yarn group, where average earnings in union plants were slightly less than those paid by nonunion establishments (38.2 as against 38.8 cents). It should be noted that average earnings of workers in northern nonunion plants were higher than the average southern wage—43.9 as compared with 40.2 cents. Hence, it is evident that unionization cannot be credited with all of the difference between northern and southern wage levels.

#### HOURLY EARNINGS IN RELATION TO TYPE OF PLANT

The sex and skill differences pointed out above afford a partial explanation of the different wage levels which table 6 shows to be in effect among the three types of plants found in the industry. Inspection of table 6 reveals that only about 6 percent of the independent throwing-mill workers were skilled. By way of contrast, more than half of the employees of independent weaving plants were in skilled occupations. Integrated establishments, which carry on all of the processes performed in the two other types of mills, and hence might logically be expected to partake of the characteristics of both, were found to have about one-fourth of their employees in skilled occupations. Furthermore, although nearly three-fourths of the workers in throwing mills were females, woman workers represented only about 40 percent of the total employment both in the integrated and in the independent weaving mills.

TABLE 6.—Average Hourly Earnings of Rayon and Silk Workers, September 1940, by Region, Type of Plant, Skill, and Sex

Region and type of plant	All workers			Skilled workers			Semiskilled workers			Unskilled workers		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>Average hourly earnings</b>												
United States.....	\$0.436	\$0.484	\$0.385	\$0.563	\$0.591	\$0.475	\$0.393	\$0.434	\$0.374	\$0.354	\$0.357	\$0.348
Independent throwsters.....	.382	.427	.363	.548	.567	.480	.374	.410	.365	.343	.364	.321
Integrated throwsters and weavers <sup>1</sup> .....	.431	.463	.386	.565	.589	.461	.398	.418	.383	.351	.351	.353
Independent weavers.....	.489	.536	.417	.563	.595	.482	.429	.494	.385	.366	.369	.361
North.....	.456	.520	.394	.572	.605	.485	.403	.470	.376	.367	.374	.357
Independent throwsters.....	.387	.438	.365	.567	.588	.490	.376	.418	.365	.354	.369	.337
Integrated throwsters and weavers.....	.501	.560	.427	.615	.658	.499	.463	.537	.419	.385	.393	.375
Independent weavers.....	.489	.536	.417	.563	.595	.482	.429	.494	.385	.366	.369	.361
South.....	.402	.431	.367	.538	.557	.429	.378	.390	.371	.339	.341	.335
Independent throwsters.....	.358	.374	.353	.450	.455	(?)	.364	.367	.363	.304	.339	.280
Integrated throwsters and weavers <sup>3</sup> .....	.410	.435	.372	.541	.561	.428	.381	.392	.374	.343	.341	.345
<b>Number of employees</b>												
United States.....	20,173	9,914	10,259	5,858	4,358	1,500	9,939	2,979	6,960	4,376	2,577	1,799
Independent throwsters.....	5,613	1,548	4,065	350	266	84	4,409	853	3,556	854	429	425
Integrated throwsters and weavers <sup>1</sup> .....	8,186	4,635	3,551	2,166	1,730	436	3,660	1,414	2,246	2,360	1,491	869
Independent weavers.....	6,374	3,731	2,643	3,342	2,362	980	1,870	712	1,158	1,162	657	505
North.....	12,861	6,077	6,784	4,377	3,121	1,256	6,178	1,680	4,498	2,306	1,276	1,030
Independent throwsters.....	4,530	1,286	3,244	295	225	70	3,572	707	2,865	663	354	309
Integrated throwsters and weavers.....	1,957	1,060	897	740	534	206	736	261	475	481	265	216
Independent weavers.....	6,374	3,731	2,643	3,342	2,362	980	1,870	712	1,158	1,162	657	505
South.....	7,312	3,837	3,475	1,481	1,237	244	3,761	1,299	2,462	2,070	1,301	769
Independent throwsters.....	1,083	262	821	55	41	14	837	146	691	191	75	116
Integrated throwsters and weavers <sup>3</sup> .....	6,229	3,575	2,654	1,426	1,196	230	2,924	1,153	1,771	1,879	1,226	653

<sup>1</sup> Includes 2 southern independent weaving mills.<sup>2</sup> Number of employees not sufficient to justify computation of an average.<sup>3</sup> Includes 2 independent weaving mills.

These differences in the composition of the respective labor forces are reflected in the general average earnings. Thus, workers in independent throwing mills received only 38.2 cents an hour, compared with average earnings of 48.9 cents for independent weaving-mill employees. Wage earners in integrated plants, again occupying a position between these extremes, had average hourly earnings of 43.1 cents.

An examination of the data for the northern region reveals in its wage pattern some deviation from that portrayed for the country as a whole. In this area, integrated establishments paid slightly higher wages than were received by workers in independent weaving mills. A partial explanation of this variation lies in the larger size of the



integrated establishments; earnings of rayon and silk employees appear to be related directly to the size of the mill in which they work.<sup>8</sup>

#### HOURLY EARNINGS IN RELATION TO PRODUCT

As shown by table 7, the nature of the product manufactured also has an effect on the earnings of rayon- and silk-mill employees. Thus, whereas 34 of the 47 yarn and thread mills had plant average hourly earnings of less than 40 cents, only 8 of 43 plain-loom mills and 5 of the 25 box-loom mills failed to average 40 cents or more. None of the 17 jacquard-fabric mills averaged less than 40 cents. Plant average earnings exceeding 55 cents were virtually confined to jacquard mills, of which 11 averaged that amount or more. No yarn plant and only one plant each in the plain- and box-loom groups paid earnings averaging 55 cents or more.

TABLE 7.—*Distribution of Rayon and Silk Mills, September 1940, by Plant Average Hourly Earnings, Type of Product, and Region*

Average hourly earnings (in cents)	Total			Type of product						
	United States	North	South	Yarn and thread		Plain-loom fabrics		Box-loom fabrics		Jacquard-loom fabrics
				North	South	North	South	North	South	North <sup>1</sup>
All mills.....	132	110	22	41	6	32	11	20	5	17
30 and under 35.....	15	12	3	12	3	-----	-----	-----	-----	-----
35 and under 40.....	32	24	8	16	3	3	5	5	-----	-----
40 and under 45.....	32	23	9	8	-----	6	5	7	4	2
45 and under 50.....	24	22	2	3	-----	13	1	4	1	2
50 and under 55.....	16	16	-----	2	-----	9	-----	3	-----	2
55 and under 60.....	10	10	-----	-----	-----	1	-----	1	-----	8
60 and over.....	3	3	-----	-----	-----	-----	-----	-----	-----	3

<sup>1</sup> No representation of southern jacquard-fabric mills included in the survey.

The average for all employees in yarn and thread mills was 38.2 cents. In comparison, workers in plain-loom mills received 45.2 cents, box-loom mill workers averaged 43.9 cents, and wage earners in the jacquard-fabric group had earnings averaging 53.3 cents.

Analysis of the data indicates that here, too, the composition of the labor force plays a dominant role in determining the wage levels. As pointed out previously, only about 6 percent of the employees in yarn plants are skilled. In contrast, more than one-third of both box- and plain-loom mill employees and nearly two-thirds of the workers in jacquard-fabric mills are in skilled occupations. Females represent only one-third of the jacquard-mill workers, and less than half of the

<sup>8</sup> Employees in plants having 100 or fewer workers averaged 42.6 cents an hour, those in mills employing more than 100 but less than 500 averaged 43.7 cents, while workers in the largest mills, those employing 500 or more, averaged 43.9 cents an hour.

There is also some indication that earnings are influenced by the size of the community in which the mills are located.

plain- and box-loom fabric plant employees, but almost three-fourths of the wage earners working in yarn mills.

#### OCCUPATIONAL DIFFERENCES

The highest average hourly earnings received by any occupational group was paid to the 26 maintenance foremen, who averaged 80.8 cents (table 8). Of more significance, however, are the earnings of the important group of loom fixers, who had the second highest average, 72.5 cents an hour. The lowest earnings among the skilled male occupations were received by the fixers on productive machines, whose average was 46.8 cents an hour. Wide variations in earnings were also found in the semiskilled male occupations. Machine knotters and twisters-in averaged 62.1 cents, but yarn inspectors received only 34.1 cents an hour. Beam changers (who earned 42.2 cents) were the highest paid among the unskilled male occupations and averaged 13.5 cents an hour more than learners on productive machines (who received 28.7 cents).<sup>9</sup>

TABLE 8.—Average Hourly Earnings, and Average Weekly Hours and Earnings of Rayon and Silk Employees, September 1940, by Sex, Skill, and Occupation

Sex, skill, and occupation	Number of employees	Average hourly earnings	Average weekly hours	Average weekly earnings
<i>Males</i>				
Skilled employees:				
Assistant foremen, working.....	66	\$0.533	43.2	\$23.04
Beamer tenders.....	27	.531	42.0	22.29
Carpenters.....	37	.581	41.7	24.20
Electricians.....	41	.622	41.9	26.08
Fixers, productive machines.....	205	.468	44.1	20.63
Foremen, working, direct.....	304	.701	45.1	31.65
Foremen, working, indirect.....	26	.808	46.2	37.38
Loom fixers.....	900	.725	41.9	30.36
Machinists.....	53	.631	42.5	26.77
Mechanics.....	37	.541	45.4	24.57
Warp hangers, loom starting <sup>1</sup> .....	113	.502	40.6	20.34
Warpers.....	164	.585	36.9	21.63
Weavers, box loom.....	690	.512	39.8	20.38
Weavers, combination <sup>2</sup> .....	190	.556	37.2	20.67
Weavers, jacquard loom.....	446	.568	38.2	21.73
Weavers, plain loom.....	915	.519	40.6	21.07
Miscellaneous skilled, direct.....	89	.644	41.0	26.38
Miscellaneous skilled, indirect.....	55	.647	44.6	28.87
Semiskilled employees:				
Coners, redrawers and rewinders.....	91	.360	35.2	12.66
Coppers and quillers.....	122	.352	40.3	14.19
Cut-off men, cloth.....	53	.345	37.6	12.95
Firemen, power plant.....	65	.473	43.7	20.69
Fixers, parts.....	51	.400	41.6	16.64
Handy men.....	38	.419	38.8	16.27
Inspectors, cloth.....	96	.503	45.8	23.06
Inspectors, processes.....	46	.484	41.3	19.98
Inspectors, yarn.....	56	.341	41.1	14.03
Knotters and twisters-in, machine.....	92	.621	38.0	23.63
Loom fixer's helpers.....	48	.511	41.2	21.05
Machine fixer's helpers.....	26	.392	45.1	17.68
Oilers, productive machines.....	89	.374	40.8	15.25
Shearers, cloth.....	48	.445	41.5	18.47
Shippers and receivers.....	56	.518	45.4	23.52
Slasher tenders.....	146	.558	36.7	20.47
Smash hands.....	144	.496	41.9	20.79
Soakers.....	68	.410	40.9	16.80

See footnotes at end of table.

<sup>9</sup> Many learners' certificates were issued by State or Federal agencies, thus permitting payment of hourly wages averaging less than 32.5 cents.

TABLE 8.—Average Hourly Earnings, and Average Weekly Hours and Earnings of Rayon and Silk Employees, September 1940, by Sex, Skill, and Occupation—Continued

Sex, skill, and occupation	Number of employees	Average hourly earnings	Average weekly hours	Average weekly earnings
<i>Males—Continued</i>				
Semiskilled employees—Continued.				
Spinners.....	680	\$0.383	37.2	\$14.25
Twisters and spinners, 5-B.....	286	.386	41.4	15.97
Stock clerks.....	34	.428	47.0	20.13
Twisters-in, hand.....	113	.605	36.3	21.96
Weighmasters.....	50	.374	38.7	14.44
Miscellaneous semiskilled, direct.....	296	.415	39.3	16.31
Miscellaneous semiskilled, indirect.....	185	.479	42.5	20.35
Unskilled employees:				
Beam changers and warp hangers, laborers.....	47	.422	37.0	15.62
Bobbin boys.....	445	.345	39.3	13.58
Doffers, bobbins.....	93	.379	41.9	15.88
Floor boys.....	37	.350	39.3	14.96
Janitors.....	188	.349	39.0	13.60
Knotters and twisters-in, machine.....	37	.413	36.5	15.05
Laborers, shipping and receiving.....	40	.362	39.2	14.22
Laborers, yard.....	34	.381	39.4	15.00
Learners, machine operators.....	35	.287	39.8	11.42
Machine cleaners.....	318	.345	38.2	13.18
Magazine boys and shuttle fillers.....	307	.346	39.5	13.68
Packers, cloth.....	92	.358	41.4	14.82
Slasher tender's helpers.....	85	.367	37.8	13.88
Steamer tenders, yarn.....	52	.365	40.4	14.75
Truckers, hand.....	278	.361	39.8	14.34
Watchmen.....	132	.359	42.6	15.28
Miscellaneous unskilled, direct.....	286	.373	40.1	14.97
Miscellaneous unskilled, indirect.....	71	.372	40.6	15.10
Clerical employees.....	157	.521	42.8	22.33
<i>Females</i>				
Skilled employees:				
Forewomen, working.....	105	.467	40.2	18.75
Warpers.....	325	.459	36.0	16.50
Weavers, box loom.....	368	.460	37.5	17.26
Weavers, combination <sup>1</sup> .....	68	.475	37.4	17.75
Weavers, jacquard loom.....	141	.522	37.5	19.58
Weavers, plain loom.....	493	.485	38.7	18.77
Semiskilled employees:				
Coners, redrawers and rewinders.....	1,611	.365	34.7	12.66
Coppers and quillers.....	1,011	.365	37.9	13.84
Enterers, hand.....	280	.488	31.7	15.50
Inspectors, cloth.....	223	.372	35.8	13.33
Inspectors, yarn.....	88	.362	38.3	13.86
Reelers.....	54	.369	35.7	13.17
Smash hands.....	61	.467	38.5	17.98
Spinners.....	323	.367	36.3	13.32
Twisters-in, hand.....	55	.489	35.7	17.46
Twisters and spinners, 5-B.....	1,026	.370	37.4	13.83
Winders.....	1,882	.367	36.1	13.26
Miscellaneous semiskilled.....	396	.388	38.5	14.96
Unskilled employees:				
Banders, skeins.....	36	.338	35.9	12.13
Bobbin girls.....	103	.348	36.3	12.65
Creelers.....	176	.364	35.3	12.84
Doffers, bobbins.....	47	.346	40.0	13.87
Drop-wire girls.....	51	.376	34.0	12.78
Enterer's helpers.....	35	.356	32.2	11.45
Janitresses.....	27	.347	34.5	11.97
Learners, spinners.....	37	.282	36.2	10.20
Learners, winders.....	53	.250	36.3	9.41
Learners, other, direct.....	75	.295	36.4	10.74
Machine cleaners.....	99	.349	35.8	12.48
Magazine girls and shuttle fillers.....	583	.347	37.9	13.14
Pickers, cloth, hand.....	217	.369	37.0	13.64
Shakers and silk hangers.....	64	.348	35.4	12.32
Miscellaneous unskilled.....	196	.361	39.4	14.24
Clerical employees.....	328	.444	40.1	17.83

<sup>1</sup> Includes loom starters.<sup>2</sup> Includes weavers regularly assigned to more than one type of loom and spare weavers.

Earnings of skilled females varied from 52.2 cents for jacquard-loom weavers to 45.9 cents, which was the average received by warpers. Smash hands, who earned 46.7 cents, were the highest paid of the semiskilled female workers. Yarn inspectors, averaging 36.2 cents,

were the lowest paid among the semiskilled women. Winder learners, most of whom were working under learner's permits, averaged only 25.9 cents and were the lowest paid of any occupational group. Earnings averaging 37.6 cents an hour were received by drop-wire girls, who thus became the highest-paid unskilled females.

Table 9 presents data on average earnings for each of the occupational groups by region. Sharp regional differentials in hourly earnings (amounting to 18 cents in the case of warpers, for example) are in evidence, in most instances favoring the northern employees. In a few occupations, however, southern workers were paid higher rates than were received by similarly classified employees of the northern mills.

TABLE 9.—Average Hourly and Weekly Earnings of Rayon and Silk Employees, September 1940, by Sex, Skill, Occupation, and Region

Sex, skill, and occupation	Average hourly earnings		Average weekly earnings	
	North	South	North	South
<i>Males</i>				
Skilled employees:				
Assistant foremen, working	\$0. 548	(1)	\$22. 98	(1)
Beamer tenders	(1)	\$0. 527	(1)	\$22. 19
Carpenters	. 643	(1)	26. 81	(1)
Electricians	. 647	(1)	26. 57	(1)
Fixers, productive machines	. 531	. 413	22. 53	18. 86
Foremen, working, direct	. 738	. 621	32. 54	29. 56
Foremen, working, indirect	(1)	(1)	(1)	(1)
Loom fixers	. 745	. 685	30. 27	30. 56
Machinists	. 649	(1)	27. 36	(1)
Mechanics	(1)	. 503	(1)	23. 38
Warp hangers, loom starting <sup>2</sup>	(1)	. 497	(1)	20. 36
Warpers	. 623	. 449	22. 93	16. 83
Weavers, box loom	. 497	. 550	19. 19	23. 89
Weavers, combination <sup>3</sup>	. 596	. 486	21. 87	18. 48
Weavers, jacquard	. 568		21. 73	
Weavers, plain loom	. 518	. 522	20. 33	22. 94
Miscellaneous skilled, direct	. 657	(1)	26. 82	(1)
Miscellaneous skilled, indirect	. 667	(1)	29. 77	(1)
Semiskilled employees:				
Coners, redrawers and rewinders	. 363	(1)	12. 56	(1)
Coppers and quillers	. 351	(1)	14. 27	(1)
Cut-off men, cloth	(1)	. 340	(1)	12. 49
Firemen, power plant	. 493	(1)	21. 63	(1)
Fixers, parts	(1)	. 393	(1)	16. 57
Handy men	. 449	(1)	17. 58	(1)
Inspectors, cloth	. 550	. 461	24. 34	21. 83
Inspectors, processes	. 519	(1)	19. 66	(1)
Inspectors, yarn	(1)	. 340	(1)	13. 98
Knotters and twisters-in, machine	. 644	. 579	23. 43	24. 05
Loom fixer's helpers	. 518	(1)	21. 34	(1)
Machine fixer's helpers	(1)	(1)	(1)	(1)
Oilers, productive machines	. 397	. 349	16. 21	14. 22
Shearers, cloth	(1)	. 373	(1)	15. 96
Shippers and receivers	. 544	(1)	24. 02	(1)
Slasher tenders	. 583	. 514	21. 29	19. 00
Smash hands	. 513	. 474	21. 62	19. 74
Soakers	. 440	. 362	18. 10	14. 70
Spinners	. 411	. 353	15. 13	13. 28
Twisters and spinners, 5-B	. 430	. 366	16. 39	15. 76
Stock clerks	(1)	(1)	(1)	(1)
Twisters-in, hand	. 614	(1)	22. 50	(1)
Weighmaster	. 402	(1)	15. 07	(1)
Miscellaneous semiskilled, direct	. 448	. 376	16. 91	15. 52
Miscellaneous semiskilled, indirect	. 612	. 402	21. 82	16. 97
Unskilled employees:				
Beam changers and warp hangers, laborers	. 410	(1)	15. 62	(1)
Bobbin boys	. 353	. 336	13. 43	13. 78
Doffers, bobbins	. 401	. 371	16. 78	15. 53
Floor boys	. 382	(1)	15. 00	(1)
Janitors	. 387	. 327	15. 48	12. 55

See footnotes at end of table.

TABLE 9.—Average Hourly and Weekly Earnings of Rayon and Silk Employees, September 1940, by Sex, Skill, Occupation, and Region—Continued

Sex, skill, and occupation	Average hourly earnings		Average weekly earnings	
	North	South	North	South
<i>Males—Continued</i>				
Unskilled employees—Continued.				
Knotters and twisters-in, machine	\$0.422	(1)	\$14.74	(1)
Laborers, shipping and receiving	(1)	(1)	(1)	(1)
Laborers, yard	(1)	(1)	(1)	(1)
Learners, machine operators	(1)	(1)	(1)	(1)
Machine cleaners	.369	\$0.329	14.19	\$12.52
Magazine boys and shuttle fillers	.350	.342	13.99	13.40
Packers, cloth	.367	.351	15.02	14.66
Slasher tender's helpers	.377	.350	14.67	12.76
Steamer tenders, yarn	(1)	.343	(1)	14.29
Truckers, hand	.403	.340	15.69	13.65
Watchmen	.364	.345	15.89	13.88
Miscellaneous unskilled, direct	.389	.350	15.76	13.80
Miscellaneous unskilled, indirect	.389	.340	15.84	13.75
Clerical employees	.606	.447	24.50	20.19
<i>Females</i>				
Skilled employees:				
Forewomen, working	.478	(1)	19.01	(1)
Warpers	.482	.369	17.00	14.32
Weavers, box loom	.459	(1)	17.18	(1)
Weavers, combination <sup>3</sup>	.481	.471	16.78	18.35
Weavers, jacquard loom	.522		19.58	
Weavers, plain loom	.500	.441	19.04	17.87
Semiskilled employees:				
Coners, redrawers and rewinders	.369	.359	12.69	12.61
Coppers and quillers	.362	.368	13.67	13.99
Enterers, hand	.463	.506	16.06	15.17
Inspectors, cloth	.368	.380	12.80	14.56
Inspectors, yarn	.365	(1)	13.45	(1)
Reelers	.369		13.17	
Smash hands	.487	(1)	17.89	(1)
Spinners	.371	.355	13.20	13.68
Twisters-in, hand	.490	(1)	17.66	(1)
Twisters and spinners, 5-B	.383	.351	13.99	13.59
Winders	.367	.367	13.05	13.88
Miscellaneous semiskilled	.394	.367	15.07	14.52
Unskilled employees:				
Banders, skeins	.338		12.13	
Bobbin girls	.347	(1)	12.59	(1)
Creelers	.370	.360	12.98	12.75
Doffers, bobbins	.345	(1)	13.48	(1)
Drop-wire girls	.388	(1)	12.63	(1)
Enterer's helpers	.359	(1)	11.97	(1)
Janitresses	(1)	(1)	(1)	(1)
Learners, spinners	(1)	.283	(1)	10.55
Learners, winders	(1)	.254	(1)	9.12
Learners, other, direct	(1)	.306	(1)	11.92
Machine cleaners	.352	(1)	12.47	(1)
Magazine girls and shuttle fillers	.352	.345	13.29	13.07
Pickers, cloth, hand	.371	(1)	13.68	(1)
Shakers and silk hangers	.352	(1)	11.90	(1)
Miscellaneous unskilled	.363	(1)	14.27	(1)
Clerical employees	.449	.424	17.81	17.89

<sup>1</sup> Not a sufficient number of employees to justify the computation of an average.

<sup>2</sup> Includes loom starters.

<sup>3</sup> Includes weavers regularly assigned to more than one type of loom and spare weavers.

Employees working in integrated establishments tend to earn more than those in identical occupations in either independent throwing or independent weaving mills. This is indicated by a comparison of a few occupations representing substantial groups of employees in both independent and integrated mills. Thus, the earnings of male box-loom weavers, plain-loom weavers, and loom fixers in northern independent mills averaged 47.9, 51.3, and 74.1 cents an hour, respectively.

Employees in the corresponding occupations in northern integrated mills averaged 59.0, 53.7, and 76.2 cents an hour, respectively.

Female coners in northern independent plants averaged 35.9 cents and those in integrated mills 38.6 cents; male spinners in independent mills received 40.4 cents, those in the integrated establishments averaging 47.9 cents; female twisters in independent mills earned an average of 37.4 cents, while those working in integrated plants averaged 44.2 cents an hour.

### Average Weekly Hours and Earnings

The time actually worked in 1 week by rayon- and silk-mill employees at the time of the study averaged 38.4 hours (table 10).

TABLE 10.—Percentage Distribution of Rayon and Silk Workers, by Weekly Hours, Sex, and Region, September 1940

Weekly hours actually worked	All employees			Males			Females		
	United States	North	South	United States	North	South	United States	North	South
Under 8.....	0.7	0.7	0.6	0.5	0.5	0.4	0.9	0.9	0.9
8 and under 16.....	2.1	2.2	2.1	1.6	1.7	1.4	2.7	2.6	2.9
16 and under 24.....	3.2	3.0	3.5	2.0	1.7	2.5	4.3	4.2	4.6
24 and under 32.....	6.3	6.3	6.2	3.8	3.3	4.5	8.7	9.1	8.1
32 and under 36.....	9.1	9.0	9.4	6.3	5.8	7.1	11.9	11.8	11.9
36 and under 40.....	9.6	9.9	9.1	6.0	5.9	6.3	13.1	13.6	12.2
Exactly 40.....	40.1	46.8	28.2	41.9	52.5	25.2	38.3	41.7	31.4
Over 40 and under 44.....	14.4	15.7	12.2	14.9	16.5	12.5	13.9	15.0	11.8
44 and under 48.....	5.3	3.0	9.4	7.5	5.2	11.2	3.1	.9	7.3
48 and under 52.....	7.4	1.6	17.5	11.9	3.2	25.7	3.0	.1	8.6
52 and under 56.....	1.0	.9	1.3	2.0	1.8	2.2	.1	.1	.3
56 and over.....	.8	.9	.5	1.6	1.9	1.0	( <sup>1</sup> )	-----	( <sup>1</sup> )
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of employees.....	20,173	12,861	7,312	9,914	6,077	3,837	10,259	6,784	3,475
Average weekly hours.....	38.4	37.8	39.4	40.2	39.5	41.3	36.6	36.2	37.3

<sup>1</sup> Less than a tenth of 1 percent.

The effect of the limitations imposed by the Fair Labor Standards Act is indicated by the large number of employees (40.1 percent) who worked exactly 40 hours. However, a considerable number of workers (28.9 percent) were employed for more than 40 hours, and over 9 percent of the wage earners were found to be working 48 or more hours in the scheduled week.

Further inspection of table 10 reveals that northern wage earners worked fewer hours than employees of southern mills, and also that females generally had a substantially shorter workweek than did the males. Southern males worked an average of 41.3 hours, compared with average hours of 39.5 for the male employees in northern establishments. These figures may be contrasted with the average of 37.3 hours which was worked by southern females and of 36.2 hours which was worked by females in the North.

Employees in the rayon and silk industry had weekly earnings averaging \$16.73 at the time of the study (table 11). Earnings of individual employees ranged from less than \$5 to over \$40 a week, but more than one-half of the workers (56.6 percent) earned less than \$16, and fully three-fourths (76.4 percent) had weekly earnings of less than \$20.

TABLE 11.—Percentage Distribution of Rayon and Silk Workers, by Weekly Earnings, Sex, and Region, September 1940

Weekly earnings	All workers			Males			Females		
	United States	North	South	United States	North	South	United States	North	South
Less than \$5.....	2.4	2.5	2.4	1.7	1.8	1.6	3.1	3.1	3.3
\$5 and less than \$10.....	6.2	6.0	6.7	3.7	3.1	4.6	8.7	8.5	9.1
\$10 and less than \$12.....	7.3	6.5	8.8	3.9	2.6	6.1	10.6	9.9	11.9
\$12 and less than \$14.....	22.3	21.0	24.2	15.1	11.6	20.9	29.1	29.6	27.8
\$14 and less than \$16.....	18.4	16.3	21.8	14.0	11.8	17.7	22.5	20.6	26.3
\$16 and less than \$18.....	12.1	11.9	12.6	11.4	10.7	12.4	12.9	12.9	12.8
\$18 and less than \$20.....	7.7	8.8	5.8	9.3	10.9	6.6	6.2	6.9	4.8
\$20 and less than \$22.....	5.8	6.6	4.5	8.7	9.7	7.6	3.1	3.7	1.8
\$22 and less than \$24.....	4.3	5.1	2.8	6.8	8.3	4.6	1.8	2.3	.9
\$24 and less than \$26.....	3.3	3.7	2.5	5.5	6.3	4.1	1.1	1.3	.7
\$26 and less than \$28.....	2.6	2.6	2.6	4.9	5.0	4.6	.4	.5	.3
\$28 and less than \$30.....	2.3	2.9	1.4	4.4	5.7	2.5	.3	.4	.2
\$30 and less than \$35.....	3.8	4.3	2.8	7.5	8.8	5.3	.2	.3	.1
\$35 and less than \$40.....	1.0	1.1	1.0	2.1	2.2	1.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
\$40 and over.....	.5	.7	.1	1.0	1.5	.2	-----	-----	-----
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of employees.....	20, 173	12, 861	7, 312	9, 914	6, 077	3, 837	10, 259	6, 784	3, 475
Average weekly earnings.....	\$16.73	\$17.23	\$15.86	\$19.48	\$20.53	\$17.81	\$14.08	\$14.27	\$13.70

<sup>1</sup> Less than a tenth of 1 percent.

The regional and sex differences already shown to exist in average hourly earnings also appear in the average weekly earnings—to a degree somewhat modified, however, by the influence of the longer workweek prevalent in the South. Thus, northern males averaged \$20.53 a week, contrasting with earnings of \$17.81 for the men employed in southern mills. Females in the North averaged only \$14.27 and the pay envelopes of southern females contained an average of but \$13.70. Weekly earnings of \$30 or more were virtually confined to male workers, 10.6 percent of whom received at least that amount. Nearly three-fourths (74.0 percent) of the females, as compared with two-fifths (38.4 percent) of the males received less than \$16.

Weekly earnings of the various occupational groups extended over an extremely wide range. Reference to table 8 shows that the highest weekly earnings were received by male maintenance foremen, who averaged \$37.38. This was nearly four times the earnings (\$9.41) averaged by female winder learners.

### Comparison With Results of Previous Studies

In 1933 and again in 1934, the Bureau of Labor Statistics conducted wage studies of the rayon and silk industry similar in scope and method to the present survey. The 1933 study covered a pay-roll period in April before the application of the President's Reemployment

Agreement. The latter survey covered data for August 1934, a period when the industry code was in operation.<sup>10</sup> The wage data in both of these earlier studies included earnings resulting from extra rates for overtime. Although the present survey excluded extra overtime rates, it has been pointed out that the inclusion of such rates would have increased the industry average by only six-tenths of a cent; hence the wage data of the three studies may be considered roughly comparable. As shown by table 12, average earnings of all employees in the industry increased very sharply after the adoption of the rayon and silk code, but had shown little additional change by September 1940.

TABLE 12.—*Cumulative Percentage Distribution of Rayon and Silk Workers, by Average Hourly Earnings, 1933, 1934, and 1940*

Average hourly earnings	April 1933	August 1934	September 1940
Less than 12.5 cents.....	4.1	5.6	0.9
Less than 17.5 cents.....	19.6		
Less than 22.5 cents.....	40.8		
Less than 27.5 cents.....	62.8		
Less than 30.0 cents.....	68.9		
Less than 32.5 cents.....	75.3		
Less than 35.0 cents.....	80.0	30.8	32.6
Less than 40.0 cents.....	86.6	49.3	55.5
Less than 45.0 cents.....	91.2	62.7	67.4
Less than 50.0 cents.....	94.1	73.4	76.2
Less than 60.0 cents.....	97.4	85.5	87.8
Less than 70.0 cents.....	98.8	92.8	93.5
Total.....	100.0	100.0	100.0
Total number of workers.....	41,713	28,959	20,173
Average hourly earnings.....	\$0.269	\$0.448	\$0.436

The average earnings of individual employees were subject to somewhat more variation. For example, 5.6 percent of the employees in 1934 were receiving less than 32.5 cents, but by 1940, after the application of the textile minimum wage under the Fair Labor Standards Act, the number of workers paid less than this amount had dropped to a fraction of 1 percent of the total. On the other hand, the proportion of workers in the higher wage ranges was substantially reduced during the 7-year period, reflecting in part, no doubt, the abrogation of the code requirement that occupational differentials be maintained. Thus, 50.7 percent in 1934 but only 44.5 percent in 1940 received 40 cents an hour or more; 14.5 percent in 1934 but only 12.2 percent in 1940 were paid 60 cents or more. The proportion of workers in the wage range 32.5 to 40.0 cents increased sharply, rising from 43.7 percent in 1934 to 54.6 percent in 1940.

The information on earnings by occupation which is presented in table 13 supplies additional evidence that the wage structure of the industry underwent changes between 1934 and 1940. Earnings of

<sup>10</sup> Data were also secured for August 1933, but are not presented in the present report.



the higher paid occupations (those averaging 50 cents or more in 1934) were measurably greater in 1934 than in 1940. Loom fixers, for example, earned 4 cents an hour more in 1934 than in 1940. Earnings of the lower paid occupations, however, experienced an opposite trend, and these groups (with but two exceptions) earned more in 1940 than in 1934.

TABLE 13.—Average Hourly Earnings in Specified Occupations in the Rayon and Silk Industry, 1933, 1934, and 1940

Occupation	April 1933	August 1934	September 1940
Loom fixers, male.....	\$0.534	\$0.765	\$0.725
Warpers, male.....	.396	.620	.585
Warpers, female.....	.321	.499	.459
Weavers, male.....	.287	.482	.529
Weavers, female.....	.254	.433	.481
Spinners, male.....	.251	.456	.383
Spinners, female.....	.211	.356	.367
Winders, female.....	.206	.356	.367
Quillers, female.....	.192	.357	.365
Pickers, female.....	.194	.346	.369
Redrawers, female.....	.177	.353	.365
Bobbin boys.....	.178	.337	.345



## WAGES IN CANADA, 1940

THE wage recovery in Canada which was first discernible in logging and sawmilling and in common factory labor in 1934, expanded to all industrial groups in 1935. Since that date this upward movement has continued.<sup>1</sup> In 1939, however, wage levels in general rose less than one-half of 1 percent. In 1940 the increase was 3 percent, reflecting the speeding up of industry under war contracts and some rise in the cost of living.

As the figures are collected each year for the compilation of the wage indexes for September first or earlier, subsequent wage changes in the calendar year are not reflected in the annual report of the Canadian Department of Labor except in a few cases, such as electric railways and the building trades, for which later data are ordinarily available.

Among the wage increases in 1940 as compared with the preceding year, according to the index numbers on the new base (1935-39=100) as shown in table 1, were 2.3 percent in the building trades, 4.4 percent in the metal trades, 3.4 percent for common factory labor, 4.3 percent in the miscellaneous factory trades, and 3.5 percent in logging and sawmilling.

<sup>1</sup> Canada. Department of Labor. Wages and Hours of Labor in Canada, 1929, 1939, and 1940. Ottawa, Wis. 1941. (Report No. 24.)

TABLE 1.—*Indexes of Wage Rates in Canada, 1929, 1933, and 1936 to 1940*

[1935-39=100]

Industry	1929	1933	1936	1937	1938	1939	1940
General average, weighted <sup>1</sup> .....	104.1	89.7	95.0	101.8	104.7	105.1	108.3
Building trades <sup>2</sup> .....	119.6	95.6	97.3	100.1	102.5	103.3	105.7
Metal trades <sup>3</sup> .....	101.8	93.3	93.8	103.4	104.4	104.7	109.3
Printing trades <sup>4</sup> .....	107.7	98.1	98.6	99.9	101.5	101.9	103.6
Electric railways <sup>5</sup> .....	104.7	96.3	97.8	100.4	102.1	102.7	105.6
Steam railways <sup>6</sup> .....	105.0	92.4	94.6	100.8	105.0	105.0	105.0
Coal mining <sup>7</sup> .....	99.6	95.5	97.9	98.4	102.9	102.9	104.0
Common factory labor.....	98.7	88.4	94.5	102.8	105.0	105.9	109.5
Miscellaneous factory trades <sup>8</sup> .....	101.1	87.9	94.4	101.9	105.2	106.0	110.6
Logging and sawmilling <sup>8</sup> .....	103.3	67.8	92.4	104.7	109.8	108.2	112.0
Metal mining.....	96.4	91.1	97.6	101.9	102.4	102.8	103.5
Steamships.....	105.7	89.3	90.6	101.2	109.0	110.0	115.5
Laundries.....	103.5	98.6	98.7	100.0	101.4	101.7	103.1
Telephone employees.....	97.1	90.6	96.7	101.6	102.8	103.1	104.1

<sup>1</sup> Weighted according to average number of workers in each group in 1921 and 1931 except metal mining where years 1921, 1931, and 1938 are used.

<sup>2</sup> 9 trades, 14 cities in 1929; in later years reported, 31 to 42 cities.

<sup>3</sup> 4 trades.

<sup>4</sup> 6 trades.

<sup>5</sup> 5 classes.

<sup>6</sup> 23 classes.

<sup>7</sup> 12 classes.

<sup>8</sup> Number of samples (and industries) increased from time to time; machine operators, helpers, etc., also included.

Table 2 shows the wage rates and working hours in specified occupations in Ottawa, Toronto, and Vancouver, in the years 1938, 1939, and 1940. Increases occurred in various occupations of the metal trades in all three cities in 1940 as compared with the preceding year. In Toronto, in the building trades, rates of electrical workers were raised from \$1 to \$1.10 per hour, and those of laborers from a range of 35-50 cents to one of 40-50 cents; rates of street-railway electricians were raised from a range of 60-79 cents to one of 63-82 cents. In Ottawa, rates of street-railway trackmen and laborers were raised from 38½-44½ cents to 40-44½ cents; and in the printing trades, bookbinders' wage rates increased from \$30-35 per week to \$30-\$37 per week, and those of bindery girls from \$11.50-\$14.50 per week to \$11.50-\$15.30 per week.

TABLE 2.—Rates of Wages and Hours of Labor in Specified Canadian Cities, 1938, 1939, and 1940,<sup>1</sup> by Occupation

BUILDING TRADES <sup>2</sup>

Occupation	Ottawa		Toronto		Vancouver	
	Wage rates	Hours per week	Wage rates	Hours per week	Wage rates	Hours per week
Bricklayers and masons:	<i>Per hour</i>		<i>Per hour</i>		<i>Per hour</i>	
1938.....	\$0.90	44	\$1.05	40	\$1.10	40
1939.....	0.90 - 1.00	44	1.00	40	1.10	40
1940.....	1.00	44	1.05	40	1.10	40
Carpenters:						
1938.....	.85	44	.95	40	0.75 - .90	40-44
1939.....	.85	44	.90	40	.75 - .90	40-44
1940.....	.85	44	.95	40	.75 - .90	40-44
Electrical workers:						
1938.....	.80	40	1.00	40	.75 - 1.00	40-44
1939.....	.80	40	1.00	40	.75 - 1.00	40-44
1940.....	.80	40	1.10	40	.85 - 1.00	40-44
Painters:						
1938.....	.65	44	.75	40	.62½ - .80	40-44
1939.....	.70	44	.75	40	.62½ - .80	40-44
1940.....	.70	44	.80	40	.62½ - .80	40-44
Plasterers:						
1938.....	.85	44	.90	40	1.00	40
1939.....	.85	44	.90	40	1.00	40
1940.....	.85	44	1.00	40	1.00	40
Plumbers:						
1938.....	.95	40	1.00	40	1.00	40-44
1939.....	.95	40	1.00	40	1.00	40-44
1940.....	.95	40	1.00	40	1.00	40-44
Sheet-metal workers:						
1938.....	.85	40-44	.97½	40	1.00	40-44
1939.....	.85	40-44	.92½	40	1.00	40-44
1940.....	.85	40-44	1.00	40	1.00	40-44
Stonecutters:						
1938.....	.80	44	.95	40	1.00	40
1939.....	.80	44	.95	40	1.00	40
1940.....	.80	44	.95	40	1.00	40
Laborers:						
1938.....	.40 - .50	40-50	0.35 - .50	40-50	.45 - .50	40-48
1939.....	.40 - .50	40-50	.35 - .50	40-50	.45 - .50	40-48
1940.....	.40 - .50	40-50	.40 - .50	40-50	.45 - .50	40-48

METAL TRADES

Blacksmiths:						
1938.....	\$0.45 - 0.65	44-50	\$0.47 - 0.75	36 - 50	\$0.60 - 0.95	40-44
1939.....	.40 - .65	44-50	.47 - .75	36 - 50	.65 - .95	40-44
1940.....	.45 - .65	44-50	.50 - .80	40 - 58	.70 - .95	40-44
Boilermakers:						
1938.....	.40 - .67	44	.40 - .70	40 - 48	.62½ - .95	40-44
1939.....	.40 - .67	44	.40 - .70	40 - 48	.62½ - .95	40-44
1940.....	.40 - .67	44	.44 - .70	44 - 56	.75 - .95	40-44
Machinists:						
1938.....	.45 - .65	44-50	.50 - .85	37½ - 60	.60 - .95	40-48
1939.....	.45 - .75	41-50	.50 - .90	37½ - 50	.60 - .95	40-48
1940.....	.50 - .80	44-50	.50 - .96	40 - 59	.65 - .95	40-48
Molders:						
1938.....	.48 - .65	40-50	.50 - .85	24 - 50	.70 - .77	40-45
1939.....	.45 - .65	36-45	.50 - .85	24 - 48	.70 - .77	40-45
1940.....	.45 - .70	40-50	.55 - .89	32 - 59	.70 - .80	40-45

<sup>1</sup> Some revisions have been made in the 1938 and 1939 figures since publication of reports for those years.  
<sup>2</sup> Many of the rates in the building trades in Ottawa and a few of the Toronto rates are minimum rates approved under the Ontario Industrial Standards Act of 1935. Some of the Vancouver rates were approved under the Male Minimum Wage Act of British Columbia, 1934.

TABLE 2.—Rates of Wages and Hours of Labor in Specified Canadian Cities, 1938, 1939, and 1940,<sup>1</sup> by Occupation—Continued

Occupation	Ottawa		Toronto		Vancouver	
	Wage rates	Hours per week	Wage rates	Hours per week	Wage rates	Hours per week
<b>Conductors and motormen:<sup>4</sup></b>	<i>Per hour</i>		<i>Per hour</i>		<i>Per hour</i>	
1938:						
1-man cars .....	\$0.54	49½	\$0.65	44-48	\$0.69	48
2-man cars .....			.60	44-48	.63	48
1939:						
1-man cars .....	.54	49½	.65	44	.69	48
2-man cars .....			.60	44	.63	48
1940:						
1-man cars .....	.54	49½	.65	44	.69	48
2-man cars .....			.63	44	.63	48
<b>Linemen:<sup>5</sup></b>						
1938 .....	0.51- .53	48	0.72- .78	44	0.68½- .97	40
1939 .....	.51- .53	48	.72- .78	44	.68½- .97	40
1940 .....	.51- .53	48	.75- .81	44	.68½- .97	40
<b>Shop and barnmen:<sup>6</sup></b>						
1938 .....	.35- .59	48	.54- .81	44-48	.52- .75	44-48
1939 .....	.36½- .59	48	.54- .81	44-48	.52- .75	44-48
1940 .....	.39½- .59	48	.57- .84	44-48	.52- .75	44-48
<b>Electricians:<sup>7</sup></b>						
1938 .....	.45- .61	48	.60- .79	44-48	.70- .75	44
1939 .....	.45- .61	48	.60- .79	44-48	.70- .75	44
1940 .....	.45- .56	48	.63- .82	44-48	.70- .75	44
<b>Trackmen and laborers:</b>						
1938 .....	.35- 44½	48	.45- .50	48	.45- .54	44
1939 .....	.38½- 44½	48	.45- .50	48	.45½- .54	44
1940 .....	.40- 44½	48	.48- .53	48	.45½- .54	44

## PRINTING TRADES

	<i>Per week</i>		<i>Per week</i>		<i>Per week</i>	
<b>Compositors, machine and hand, newspapers:</b>						
1938 .....	\$41.80	45	\$44.00	40	\$39.75-\$47.70	37½-45
1939 .....	41.80	45	45.50	40	39.75	37½
1940 .....	41.80	45	47.00	40	39.75	37½
<b>Compositors, machine and hand, job:</b>						
1938 .....	30.00-38.00	45-48	31.00-40.00	44-48	40.50	44-48
1939 .....	30.00-38.00	45-48	31.00-40.00	44-48	40.00-40.50	40-44
1940 .....	30.00-38.00	45-48	31.00-40.00	44-48	40.00-40.50	40-44
<b>Pressmen, newspapers:</b>						
1938 .....	40.85	48	44.00-50.30	40-48	47.70	48
1939 .....	40.85	45-48	45.50-52.10	40-48	47.70	48
1940 .....	40.85	45-48	47.00	40	47.70	48
<b>Pressmen, job:</b>						
1938 .....	30.00-38.00	45-48	30.00-40.00	44-48	40.50	44-48
1939 .....	30.00-38.00	48	30.00-40.00	44-48	40.00-40.70	40-44
1940 .....	30.00-38.00	44-48	30.00-40.00	44-48	40.00-40.70	40-44
<b>Bookbinders:</b>						
1938 .....	30.00-36.00	45-48	29.00-38.00	44-48	37.20-45.00	44-48
1939 .....	30.00-35.00	48	29.00-38.00	44-48	37.20-45.00	40-48
1940 .....	30.00-37.00	44-48	29.00-38.00	44-48	37.20-45.00	40-48
<b>Bindery girls:</b>						
1938 .....	11.50-14.50	45-48	12.50-18.00	44-48	14.00-20.25	44-48
1939 .....	11.50-14.50	45-48	12.50-18.00	44-48	14.00-20.00	40-48
1940 .....	11.50-15.30	45-48	12.50-18.00	44-48	14.00-20.00	40-48

<sup>1</sup> Some revisions have been made in the 1938 and 1939 figures since publication of reports for those years.

<sup>2</sup> Where a range appears, figures represent predominant rates.

<sup>3</sup> Maximum rates based on length of service; in most cities bus drivers on lines operated in connection with street railways receive the same maximum rates of wages as 1-man-car operators.

<sup>4</sup> Including trouble men and groundmen.

<sup>5</sup> Including shedmen, pitmen, cleaners, blacksmiths, carpenters, painters, etc.

<sup>6</sup> Including armature winders, wiremen, etc.

In table 3, daily wages in coal mining in Canada for the years 1939 and 1940 are presented. Various increases and a few reductions are reported for the latter year as compared with the former. In all but two of the nine localities covered, contract miners' wages were higher in 1940 than in 1939. In the Edmonton District, Alberta, their wages were reduced from \$6.79 to \$6.67 per day, and in the Princeton District, British Columbia, no rates for contract miners were reported.

TABLE 3.—Wages and Hours in Coal Mining in Canada, 1939 and 1940<sup>1</sup>

Locality and occupation	Daily wages		Hours per day, 1939 and 1940	Locality and occupation	Daily wages		Hours per day, 1939 and 1940
	1939	1940			1939	1940	
<i>Nova Scotia</i> <sup>2</sup>				<i>Alberta (Drumheller District)—Con.</i>			
Contract miners.....	\$6.67	\$7.00	8	Laborers, surface.....	\$4.62	\$4.62	8
Hand miners.....	3.45- 5.00	3.45- 5.00	8	Machinists.....	5.34- 5.93	5.24- 5.93	8
Hoisting engineers.....	3.45- 5.01	3.45- 5.01	8	Carpenters.....	5.73	5.73	8
Drivers.....	3.00- 3.71	3.00- 3.71	8	Blacksmiths.....	5.73	5.73	8
Bratticemen.....	3.11- 3.85	3.11- 4.00	8	<i>Alberta (Lethbridge District)</i>			
Pumpmen.....	3.33- 4.12	3.33- 4.12	8	Contract miners.....	7.95	8.38	8
Laborers, under-ground.....	3.00- 3.71	3.00- 3.90	8	Hand miners.....	5.51	5.51	8
Laborers, surface.....	3.00- 3.71	3.00- 3.90	8	Hoisting engineers.....	5.77	5.77	8
Machinists.....	3.28- 4.36	3.28- 4.36	8	Drivers.....	5.51	5.51	8
Carpenters.....	3.11- 4.20	3.11- 4.20	8	Bratticemen.....	5.20	5.20	8
Blacksmiths.....	3.28- 4.20	3.28- 4.20	8	Pumpmen.....	4.85	4.85	8
<i>New Brunswick</i>				Laborers, under-ground.....	4.85	4.85	8
Contract miners.....	3.56	4.31	8	Laborers, surface.....	4.62	4.62	8
Hoisting engineers.....	3.05	3.36	8-9	Machinists.....	5.34- 5.93	5.34- 5.93	8
Drivers.....	2.70	2.95	8	Carpenters.....	5.73	5.73	8
Bratticemen.....	2.70	2.95	8	Blacksmiths.....	5.73	5.73	8
Pumpmen.....	2.70	2.95	8	<i>Alberta and British Columbia (Crow's Nest Pass and Mountain District)</i>			
Laborers, under-ground.....	2.83	3.08	8	Contract miners.....	7.85	8.12	8
Laborers, surface.....	2.61	2.89	8-9	Hand miners.....	5.78	5.78	8
Machinists.....	3.65	4.22	8-9	Hoisting engineers.....	5.39- 6.10	5.39- 6.10	8
Carpenters.....	3.09	3.32	8-9	Drivers.....	5.39	5.39	8
Blacksmiths.....	3.61	3.88	8-9	Bratticemen.....	5.78	5.78	8
<i>Saskatchewan</i> <sup>4</sup>				Pumpmen.....	4.90	4.90	8
Contract miners.....	4.28	4.79	8-10	Laborers, under-ground.....	4.90- 5.11	4.90- 5.11	8
Hoisting engineers.....	4.29	4.38	8-10	Laborers, surface.....	4.90	4.90	8
Drivers.....	3.24	3.52	8-10	Machinists.....	5.39- 6.10	5.39- 6.10	8
Pumpmen.....	3.48	3.40	8-10	Carpenters.....	5.39- 5.88	5.39- 5.88	8
Laborers, under-ground.....	3.24	3.20	8-10	Blacksmiths.....	5.88	5.88	8
Laborers, surface.....	3.08	3.20	8-10	<i>British Columbia (Princeton District)</i>			
Machinists.....	4.63	( <sup>5</sup> )	( <sup>5</sup> )	Machine miners.....	4.53	4.53	8
Carpenters.....	4.29	4.40	8-10	Hand miners.....	4.56	4.56	8
Blacksmiths.....	4.58	4.93	8-10	Hoisting engineers.....	4.00	4.00	8
<i>Alberta (Edmonton District)</i>				Drivers.....	3.80	3.80	8
Contract miners.....	6.79	6.67	8	Bratticemen.....	4.29	4.29	8
Hand miners.....	4.41	4.41	8	Pumpmen.....	4.50	4.50	8
Hoisting engineers.....	4.41	4.41	8	Laborers, under-ground.....	3.90	3.90	8
Drivers.....	4.20- 4.41	4.20- 4.41	8	Laborers, surface.....	3.87	3.87	8
Bratticemen.....	4.41	4.41	8	Machinists.....	5.03	5.03	8
Pumpmen.....	3.55- 4.41	3.55- 4.41	8	Carpenters.....	5.02	5.02	8
Laborers, under-ground.....	3.55- 4.00	3.55- 4.00	8	Blacksmiths.....	5.02	5.02	8
Laborers, surface.....	3.40- 4.00	3.40- 4.00	8	<i>Vancouver Island</i> <sup>6</sup>			
Machinists.....	5.79	5.79	8	Contract miners.....	6.65	7.05	8
Carpenters.....	4.73	4.73	8	Machine miners.....	5.30- 5.99	5.30- 5.90	8
Blacksmiths.....	4.41- 4.80	4.41- 4.80	8	Hand miners.....	5.30	5.30	8
<i>Alberta (Drumheller District)</i>				Hoisting engineers.....	5.50- 6.00	5.50- 6.00	8
Contract miners.....	7.79	8.04	8	Drivers.....	4.60	4.60	8
Machine miners.....	6.94	6.94	8	Bratticemen.....	4.85	4.85	8
Hand miners.....	5.51	5.51	8	Pumpmen.....	4.60	4.60	8
Hoisting engineers.....	5.77	5.77	8	Laborers, under-ground.....	4.60	4.60	8
Drivers.....	5.51	5.51	8	Laborers, surface.....	4.00	4.00	8
Bratticemen.....	5.51	5.51	8	Machinists.....	5.56	5.50	8
Pumpmen.....	4.85	4.85	8	Carpenters.....	5.44	5.44	8
Laborers, under-ground.....	4.85	4.85	8	Blacksmiths.....	5.36	5.36	8

<sup>1</sup> For contract miners, average earnings at piece rates; for some mines figures include helpers and loaders on piece work; for machine and hand miners, rates per day.

<sup>2</sup> Higher rates are paid in two or three mines for some of these classes; also in the large mines for certain positions.

<sup>3</sup> Hours not reported for 1939.

<sup>4</sup> Several mines have changed to steam shovel operation.

<sup>5</sup> Hours not reported.

<sup>6</sup> No figures for Chinese employees included.

## ANNUAL WAGES OF FARM WORKERS IN CANADA, 1940<sup>1</sup>

THE average wages per annum of both male and female farm help in Canada were higher in the year 1940 than in 1939, males being paid \$275 and females \$151 in the later year, and \$245 and \$140, respectively, in 1939. The value of board for male and also for female workers in 1940, however, was only \$2 more than in the preceding year, as shown in the following table, which gives the average annual wages and board for farm help in the Dominion as a whole and in each of the 9 Provinces in 1939 and 1940.

*Average Annual Wages of Farm Workers in Canada, 1939 and 1940*

Province	Year	Males			Females		
		Wages	Value of board	Wages and board	Wages	Value of board	Wages and board
Canada.....	1940	\$275	\$181	\$456	\$151	\$145	\$296
	1939	245	179	424	140	143	283
Prince Edward Island.....	1940	231	168	399	132	136	268
	1939	219	153	372	128	131	259
Nova Scotia.....	1940	299	173	472	142	123	265
	1939	271	181	452	143	128	271
New Brunswick.....	1940	353	165	518	151	133	284
	1939	293	146	439	143	121	264
Quebec.....	1940	288	165	453	142	120	262
	1939	243	155	398	124	116	240
Ontario.....	1940	289	194	483	186	159	345
	1939	252	188	440	165	155	320
Manitoba.....	1940	239	170	409	134	142	276
	1939	221	177	398	124	143	267
Saskatchewan.....	1940	243	164	407	134	136	270
	1939	218	163	381	122	140	262
Alberta.....	1940	288	187	475	157	158	315
	1939	251	180	431	143	152	295
British Columbia.....	1940	314	237	551	183	196	379
	1939	285	240	525	172	198	370



## WAGES OF AGRICULTURAL LABOR IN SPAIN, 1941<sup>2</sup>

LEGISLATION now in effect in Spain authorizes the Ministry of Labor, upon the recommendation of labor syndicates, to fix the conditions of labor. From time to time there have appeared orders of that Ministry concerning wage scales which must be followed in certain specified industries.

Under date of May 27, 1941, the Ministry of Labor issued an order setting forth conditions and minimum wages for agricultural laborers employed in harvesting cereals in the Toledo region, which includes the important agricultural Provinces of Toledo and Ciudad Real. Wheat, barley, oats, and rye are extensively grown in this area.

<sup>1</sup> Canada. Dominion Bureau of Statistics. Quarterly Bulletin of Agricultural Statistics, Ottawa, January-March 1941.

<sup>2</sup> Data are from report of Ralph H. Ackerman, U. S. commercial attaché at Madrid.

This is the first order which has been issued applying to agricultural labor and is significant as it authorizes relatively high scales of wages for labor during the present harvesting season.

It specifies that the working day for mowing and reaping by hand is limited to 8 hours, whereas the working day for mechanical reaping and other harvesting operations extends to 9½ hours. Wage scales in the Province of Toledo are divided according to zones, and the scales applying to the first zone are slightly higher than those of the second zone.

The following statement shows the minimum daily rates set for the various occupations in the Province of Toledo. Those established for the Province of Ciudad Real average approximately 50 céntimos lower than those in Toledo.

	<i>Minimum daily rate (in pesetas<sup>1</sup>)</i>	
	<i>First zone</i>	<i>Second zone</i>
Hand reapers.....	13. 50	12. 50
Leaders of reaper teams.....	14. 50	13. 50
Binders..... <sup>2</sup>	11. 50-13. 50	10. 50-12.50
Apprentice reapers <sup>3</sup> .....	8. 00	7. 50
Drivers of reaping machines (not skilled mechanics).....	14. 50	13. 50
Laborers handling bundles.....	13. 00	12. 00
Laborers spreading grain for threshing.....	9. 50	8. 50
Drivers of threshing plants <sup>4</sup> .....	5. 50	5. 00

<sup>1</sup> Nominal exchange rate of Spanish peseta (100 céntimos) in May 1941=9.13 cents.

<sup>2</sup> According to number of reapers served.

<sup>3</sup> These may not exceed 1 for every 10 reapers unless special authorization is granted.

<sup>4</sup> Usually old people, women, and children.

When laborers are fed by the employer, the cost of the food, not to exceed 4 pesetas per day per person, will be deducted from their wages. Laborers also are entitled to receive from the employer 10 kilograms<sup>3</sup> of wheat or its equivalent in flour for each member of their family per month of work, such wheat or flour to be paid for to the employer at official prices.

Harvesting work may also be contracted at fixed sums amounting to 60, 65, or 70 pesetas per hectare,<sup>4</sup> plus an additional 20 percent if this contractual price is lower than the wages paid to day laborers. Alternatively, laborers may be engaged for the entire harvesting season at 12 to 13 pesetas per day for a minimum period of 60 days.

The order also includes a table setting forth the average amount of time which should be required for harvesting acreages of the different types of cereals, scaled according to the average production per hectare.

<sup>3</sup> 1 kilogram=2.2046 pounds.

<sup>4</sup> 1 hectare=2.471 acres.

# Building Operations

## SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, JUNE 1941<sup>1</sup>

JUNE building-permit valuations for all classes of construction combined declined 9.4 percent from May. The level of new residential construction, as measured by permit valuations, was 7.9 percent higher than in May. Permit valuations for new nonresidential construction declined 36.4 percent in June while additions, alterations, and repairs to existing structures showed a gain of 2.1 percent.

As compared with June 1940 permit valuations for all classes of construction combined rose 25.7 percent. New residential construction was up 52.5 percent from the level of June 1940. Permit valuations for new nonresidential construction, however, declined 2.0 percent over the year period. Additions, alterations, and repairs to existing structures increased 5.1 percent.

### *Comparison of June 1941 with May 1941 and June 1940*

A summary of building construction in 2,114 identical cities in June 1941, with percentage changes from May 1941 and June 1940, is given in table 1.

**TABLE 1.—Summary of Building Construction for Which Permits Were Issued in 2,114 Identical Cities, June 1941**

Class of construction	Number of buildings			Permit valuation		
	June 1941	Percentage change from—		June 1941	Percentage change from—	
		May 1941	June 1940		May 1941	June 1940
All construction.....	85,595	-3.3	+17.3	\$249,888,301	-9.4	+25.7
New residential.....	28,929	+1.4	+31.7	147,065,873	+7.9	+52.5
New nonresidential.....	14,240	-5.0	+16.6	65,364,116	-36.4	-2.0
Additions, alterations, and repairs.....	42,426	-5.7	+9.3	37,458,312	+2.1	+5.1

<sup>1</sup> More detailed information by geographic division and individual cities is given in a separate pamphlet entitled "Building Construction, June 1941," copies of which will be furnished upon request.

A summary of permit valuations and the number of family-dwelling units provided in new dwellings in 2,114 identical cities having a population of 1,000 and over, is shown in table 2 for June 1941 with percentage changes from May 1941 and June 1940.



TABLE 2.—Number and Permit Valuation of New Dwelling Units in 2,114 Identical Cities, June 1941, by Type of Dwelling

Type of dwelling	Permit valuation			Number of dwelling units		
	June 1941	Percentage change from—		June 1941	Percentage change from—	
		May 1941	June 1940		May 1941	June 1940
All types.....	\$144,979,642	+8.0	+53.1	38,098	+6.3	+47.2
1-family.....	109,866,884	+1.8	+36.3	26,577	+6	+29.1
2-family <sup>1</sup> .....	6,138,946	+11.5	+28.8	2,280	+4.0	+20.1
Multifamily <sup>2</sup> .....	28,973,812	+39.3	+212.5	9,241	+27.6	+171.5

<sup>1</sup> Includes 1- and 2-family dwellings with stores.

<sup>2</sup> Includes multifamily dwellings with stores.

Construction During First 6 Months, 1940 and 1941

Cumulative totals for the first 6 months of 1941 compared with the same months of the preceding year are shown in table 3. The data are based on reports received from cities having a population of 1,000 and over.

TABLE 3.—Permit Valuation of Building Construction, First 6 Months, 1940 and 1941, by Class of Construction<sup>1</sup>

Class of construction	Permit valuation of building construction, first 6 months of—		Percentage change
	1941	1940	
All construction.....	\$1,374,301,149	\$1,040,079,986	+32.1
New residential.....	742,145,360	584,595,599	+27.0
New nonresidential.....	447,709,298	285,038,147	+57.1
Additions, alterations, and repairs.....	184,446,491	170,446,240	+8.2

<sup>1</sup> Based on reports from cities with a population of 1,000 and over, the cities being identical for any given month of both years.

Table 4 presents the permit valuation and number of family-dwelling units provided in cities with a population of 1,000 and over, for the first 6 months of 1940 and 1941.

TABLE 4.—Number and Permit Valuation of New Dwelling Units, First 6 Months of 1940 and 1941, by Type of Dwelling<sup>1</sup>

Type of dwelling	Permit valuation, first 6 months of—		Percentage change	Number of dwelling units, first 6 months of—		Percentage change
	1941	1940		1941	1940	
All types.....	\$733,226,887	\$573,207,478	+27.9	199,865	160,429	+24.6
1-family.....	541,289,052	438,456,219	+23.5	134,412	113,694	+18.2
2-family <sup>2</sup> .....	31,193,930	31,828,928	-2.0	12,085	12,414	-2.7
Multifamily <sup>3</sup> .....	160,743,905	102,922,331	+56.2	53,368	34,341	+55.6

<sup>1</sup> Based on reports from cities with a population of 1,000 and over, the cities being identical for any given month of both years.

<sup>2</sup> Includes 1- and 2-family dwellings with stores.

<sup>3</sup> Includes multifamily dwellings with stores.

## Analysis by Size of City, June 1941

Table 5 shows the value of permits issued for building construction in June 1941 with percentage changes from May 1941 and June 1940, by size of city and by class of construction.

TABLE 5.—Permit Valuation of Various Classes of Building Construction in 2,114 Identical Cities, June 1941, by Size of City

Size of city	Number of cities reporting	Total construction			New residential buildings		
		Permit valuation, June 1941	Percentage change from—		Permit valuation, June 1941	Percentage change from—	
			May 1941	June 1940		May 1941	June 1940
Total, all reporting cities.....	2, 114	\$249, 888, 301	-9. 4	+25. 7	\$147, 065, 873	+7. 9	+52. 5
500,000 and over.....	14	73, 339, 907	+9. 8	+22. 6	43, 166, 018	+20. 4	+98. 9
100,000 and under 500,000.....	78	57, 843, 104	-13. 5	+9. 4	30, 320, 082	+4. 7	+29. 5
50,000 and under 100,000.....	106	28, 971, 867	-43. 0	+39. 2	16, 073, 062	-5. 0	+45. 6
25,000 and under 50,000.....	193	32, 288, 982	+6. 4	+29. 1	18, 591, 982	+6. 8	+37. 0
10,000 and under 25,000.....	468	31, 843, 124	-12. 2	+41. 7	20, 540, 383	+2. 0	+46. 4
5,000 and under 10,000.....	403	15, 268, 250	+7. 2	+43. 9	11, 146, 374	+10. 2	+45. 3
2,500 and under 5,000.....	439	7, 353, 104	-1. 3	+45. 3	5, 150, 232	+7. 5	+48. 7
1,000 and under 2,500.....	413	2, 979, 963	-7. 7	+37. 9	2, 077, 740	-5. 5	+35. 4

Size of city	New nonresidential buildings			Additions, alterations, and repairs			Population (census of 1940)
	Permit valuation, June 1941	Percentage change from—		Permit valuation, June 1941	Percentage change from—		
		May 1941	June 1940		May 1941	June 1940	
Total, all reporting cities.....	\$65, 364, 116	-36. 4	-2. 0	\$37, 458, 312	+2. 1	+5. 1	64, 385, 709
500,000 and over.....	18, 190, 728	-14. 3	-28. 4	11, 983, 161	+23. 6	-5. 5	22, 367, 825
100,000 and under 500,000.....	18, 540, 806	-32. 1	-12. 2	8, 982, 216	-15. 5	+7. 7	15, 620, 164
50,000 and under 100,000.....	8, 710, 270	-70. 2	+66. 7	4, 188, 535	-10. 1	-7. 9	7, 277, 998
25,000 and under 50,000.....	7, 881, 673	-8. 4	+12. 2	5, 815, 327	+34. 4	+32. 1	6, 790, 026
10,000 and under 25,000.....	7, 449, 851	-34. 1	+52. 8	3, 852, 890	-19. 8	+8. 4	7, 205, 680
5,000 and under 10,000.....	2, 541, 069	-7. 5	+43. 9	1, 580, 807	+14. 3	+34. 1	2, 861, 857
2,500 and under 5,000.....	1, 394, 960	-21. 4	+53. 2	807, 912	-8. 6	+17. 4	1, 571, 507
1,000 and under 2,500.....	654, 759	+10. 8	+67. 1	247, 464	-23. 2	+5. 0	690, 652

The permit valuation and number of new dwelling units provided, by type of dwelling and size of city, in the 2,114 identical cities reporting for May and June 1941 are given in table 6.

The information on building permits issued is based on reports received by the Bureau of Labor Statistics from 2,114 identical cities having a population of 1,000 and over.

The information is collected by the Bureau of Labor Statistics from local building officials, except in the States of Illinois, Massachusetts, New Jersey, and Pennsylvania, where the State departments of labor

collect and forward the information to the Bureau. In New York and North Carolina the information from the smaller cities is collected by the Bureau of Labor Statistics from local building officials and the information from the larger cities is collected and forwarded to the Bureau by the State departments of labor. The permit valuations shown in this report are estimates made by prospective builders on applying for permits to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are included in the Bureau's tabulation. The data collected by the Bureau of Labor Statistics show, in addition to private and municipal construction, the value of buildings for which contracts were awarded by the Federal and State Governments in the cities included in the report. For June 1941 the value of these buildings amounted to \$37,394,000, for May 1941 to \$57,190,000, and for June 1940 to \$32,688,000.

TABLE 6.—Number and Permit Valuation of New Dwelling Units in 2,114 Identical Cities, June 1941, by Size of City and Type of Dwelling

Size of city	Permit valuation of house-keeping dwellings			Number of families provided for in—							
	June 1941	May 1941	Per-centage change	All types		1-family dwellings		2-family dwellings <sup>1</sup>		Multifam-ily dwell-ings <sup>2</sup>	
				June 1941	May 1941	June 1941	May 1941	June 1941	May 1941	June 1941	May 1941
	Total, all reporting cities.....	\$144,979,642	\$134,195,685	+8.0	38,098	35,850	26,577	26,413	2,280	2,192	9,241
500,000 and over.....	43,139,008	35,698,553	+20.8	10,996	9,549	5,371	4,931	694	776	4,931	3,842
100,000 and under	29,925,611	28,454,172	+5.2	8,304	7,871	5,983	5,806	521	569	1,800	1,496
50,000 and under	15,886,062	16,863,812	-5.8	4,464	4,792	3,285	3,762	364	313	815	717
25,000 and under	17,650,482	17,198,669	+2.6	4,649	4,566	3,684	3,869	289	187	676	510
10,000 and under	20,287,883	19,080,483	+6.3	5,217	4,922	4,562	4,209	241	230	414	483
5,000 and under 10,000	10,894,324	10,096,858	+7.9	2,717	2,415	2,040	2,195	105	63	572	157
2,500 and under 5,000	5,118,532	4,719,464	+8.4	1,244	1,227	1,183	1,168	39	33	22	26
1,000 and under 2,500	2,077,740	2,083,674	-0.3	507	508	469	473	27	21	11	14

<sup>1</sup> Includes 1- and 2-family dwellings with stores.

<sup>2</sup> Includes multifamily dwellings with stores.

### Construction From Public Funds

The value of contracts awarded and force-account work started during June 1941, May 1941, and June 1940 on construction projects financed wholly or partially from various Federal funds is shown in table 7.

TABLE 7.—Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed From Federal Funds, May and June 1941 and June 1940<sup>1</sup>

Federal agency	Contracts awarded and force-account work started		
	June 1941	May 1941 <sup>2</sup>	May 1940 <sup>2</sup>
Total.....	\$493, 073, 728	\$386, 489, 681	\$435, 537, 925
Public Works Administration:			
Federal.....	0	0	455, 552
Non-Federal:			
NIRA.....	0	0	71, 273
ERAA.....	0	838, 530	299, 452
P.W.A.A., 1938.....	0	0	3, 223, 888
Federal agency projects under the WPA.....	105, 000	18, 412	311, 123
Regular Federal appropriations.....	474, 127, 548	370, 690, 528	424, 382, 558
United States Housing Authority.....	18, 841, 270	14, 942, 211	6, 794, 079

<sup>1</sup> Preliminary, subject to revision.<sup>2</sup> Revised.

The value of public-building and highway construction awards financed wholly from appropriations from State funds, as reported by the various State governments for June 1941, May 1941, and June 1940 is shown in the following statement:

	<i>Public buildings</i>	<i>Highway construction</i>
June 1941.....	\$710, 585	\$12, 878, 214
May 1941.....	1, 403, 526	13, 156, 634
June 1940.....	5, 990, 124	12, 595, 487

## *Retail Prices*

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### FOOD PRICES IN JUNE 1941

THE average cost of food at retail rose by 3.7 percent between May 13 and June 17, representing a more rapid and widespread advance than any since September 1939, immediately following the outbreak of war. The rise in food prices, which has been continuous since last November, has brought food costs in American cities up 10.4 percent in 7 months. These costs are now 13.3 percent above the comparatively low level of August 1939, but are still slightly below their peak in 1937. The mid-June level was 5.9 percent above the 5-year average 1935-39. Preliminary data for the last half of June indicate a continuation of this upward trend.

Price rises from May to June 1941 affected all groups of foods and were reported from all parts of the country. Advances were particularly marked on pork and lamb, lard and other shortening, eggs, apples, onions, and potatoes. Substantial increases also occurred for cheese, evaporated milk, navy beans, and certain canned goods. For the most part these advances are attributable to increased consumer demand and continued large Government purchases, together with some speculative buying. They reflect earlier and generally larger wholesale price increases. Seasonal factors and short supplies have played only a minor role in the recent rise in food costs, and have mainly affected fresh fruits and vegetables.

#### *Details by Commodity Groups*

Prices of wheat flour rose 2.7 percent between May 13 and June 17, continuing a slow advance that has been almost uninterrupted since September 1940. The mid-June level of flour prices was 2.7 percent above that of a year ago. Bread prices have begun to reflect the rise in flour prices. White bread was higher in 5 cities and showed an average advance of 1.3 percent between May and June, although it is still 2.5 percent under the comparatively high June 1940 price. Except for soda crackers, which rose 2.1 percent during the last month, prices for other bakery products remained unchanged or declined slightly between May and June. Cereal and bakery products as a whole were less affected by the general price advance than any other group of foods.

Among the meats, pork and lamb showed the greatest increases during the month. Pork and lamb chops each rose 9.1 percent, and cured pork products increased by 3 to 5 percent. Pork prices have been increasing rapidly since the beginning of the year and were 25 percent higher in June 1941 than in December 1940. Beef prices as a whole showed no change as compared with last month. There was a decline of 1 percent for rib roast and an advance of 1 percent for round steak. Roasting chickens declined slightly during the month, and prices of fresh and frozen fish remained unchanged. Canned salmon prices rose nearly 2 percent between mid-May and mid-June to a point considerably higher than for any month since January 1935, when it was first included in the Bureau's price studies.

Prices of dairy products rose 1.9 percent above the level of mid-May, reflecting advances for all foods included in the group. Butter prices were 1.9 percent higher in June than a month ago, and 25 percent above the level of June 1940. The increase in retail prices followed speculative advances on the produce exchanges, due in part to the poor condition of pasturage in certain areas in May and early June as well as to large purchases. Cheese and evaporated milk likewise rose in price during the month, the former by 4 percent and the latter by 5.5 percent. These advances reflect increased purchases by the Government and by individual consumers. Cheese is now 13.4 percent and evaporated milk 11.6 percent higher than last year. Delivered prices of fresh milk rose 1 cent per quart between May and June in four cities, and one-half cent in one city. For all cities combined, fresh milk prices were increased 1.6 percent during the month, to a point approximately 6 percent above the level of June 1940.

Prices of eggs showed a sharp rise (10.7 percent) between May 13 and June 17. While there is usually some increase in egg prices at this season of the year, the advance during the past month was greater than the normal seasonal rise. In June 1941 egg prices were 34 percent higher than a year earlier.

Costs of fresh fruits and vegetables as a whole rose 10 percent between mid-May and mid-June. Potatoes and onions continued the sharp advances recorded last month, the price of potatoes rising by almost one-third (31.8 percent) and onions by an even greater amount (41.5 percent). The advance for potatoes was partly seasonal in character, and partly due to a late crop resulting from the drought. The rise in onion prices was counter to the usual seasonal movement and resulted from unfavorable weather in the areas producing onions for June markets. Onion prices have now reached the highest point in many years. Apples, oranges, and sweetpotatoes advanced seasonally during the month, apples by 14 percent, oranges by 2 percent,

and sweetpotatoes by nearly 4 percent. A 4-percent drop in banana prices was greater than the usual decline at this time of year. Prices of green beans, cabbage, and spinach were considerably lower as larger supplies became available with the advancing summer season. Fresh fruits and vegetables as a group are less than 1 percent above their price level for June 1940, although on individual items there are wide differences between this year and last. Prices of bananas, green beans, cabbage, onions, and spinach are from 14 to 33 percent above the June 1940 level, while for apples, oranges, carrots, and lettuce current prices are substantially lower than they were a year ago.

Canned fruits and vegetables likewise advanced between mid-May and mid-June, the increases over the month amounting to nearly 3 percent for peaches and corn, and to about 2 percent for tomatoes. Navy beans rose 5.8 percent and were 10.6 percent higher in June than a year earlier. The recent increases in navy-bean prices largely reflect the effect of Government purchases for export.

Prices for coffee, tea, and sugar rose during the month, continuing earlier advances, and reflecting the trend in wholesale markets. The tight shipping situation has added to the domestic cost of each of these commodities.

Fats and oils maintained the upward trend that has been pronounced in the last few months and rose 5.1 percent between mid-May and mid-June, in response to continued increases in wholesale markets. Lard was 8.4 percent higher than in May and shortening in cartons advanced 10.2 percent. Government purchases have been a large factor in the recent advances in lard prices. In spite of the rapid rise in recent months, fats and oils as a group are still 8 percent below the average of the 5 years 1935-39, while lard prices are more than 16 percent below that average.

Indexes of retail costs of food for June, May, and April 1941, and for selected months in 1940, 1939, and 1929 are shown in table 1. This table make it possible to compare the present and recent levels of food costs with the levels of a year ago, those prevailing immediately before the outbreak of the war, and those for June of the last pre-depression year.

Among the 54 foods included in the index, prices of 41 were higher in June 1941 than in May, prices of 8 were lower, and for 5 there was no change. As compared with June 1940, prices for June 1941 were higher for 41 foods and lower for 13.

Average prices of each of 63 foods for 51 cities combined are shown in table 2 for June and May 1941 and June 1940.

TABLE 1.—Indexes of Retail Costs of Food in 51 Large Cities Combined,<sup>1</sup> by Commodity Groups, June, May, and April 1941, June 1940, August 1939, and June 1929

[1935-39=100]

Commodity group	1941			1940	1939	1929
	June 17 <sup>2</sup>	May 13	Apr. 15	June 18	Aug. 15	June 15
All foods.....	105.9	102.1	100.6	98.3	93.5	131.3
Cereals and bakery products.....	95.9	<sup>3</sup> 95.4	95.2	97.7	93.4	107.1
Meats.....	106.8	104.2	103.5	96.0	95.7	129.4
Beef and veal.....	107.2	107.0	108.7	100.7	99.6	( <sup>4</sup> )
Pork.....	100.9	95.1	92.1	77.3	88.0	( <sup>4</sup> )
Lamb.....	113.6	104.7	99.8	108.6	98.8	( <sup>4</sup> )
Chickens.....	105.7	106.0	103.8	104.2	94.6	( <sup>4</sup> )
Fish, fresh and canned.....	118.5	117.2	120.0	110.3	99.6	( <sup>4</sup> )
Dairy products.....	109.8	107.7	106.3	98.2	93.1	129.0
Eggs.....	104.4	94.3	92.0	77.9	90.7	121.8
Fruits and vegetables.....	112.1	103.5	100.6	110.6	92.4	168.6
Fresh.....	116.4	105.8	102.5	115.7	92.8	173.1
Canned.....	96.2	94.2	93.1	92.7	91.6	126.0
Dried.....	105.1	102.7	100.0	100.9	90.3	168.9
Beverages.....	98.7	96.1	95.0	92.8	94.9	165.5
Fats and oils.....	92.5	88.0	85.1	82.0	84.5	127.5
Sugar.....	107.4	106.9	104.6	97.3	95.6	110.8

<sup>1</sup> Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.

<sup>2</sup> Preliminary.

<sup>3</sup> Revised.

<sup>4</sup> Not available.

TABLE 2.—Average Retail Prices of 63 Foods in 51 Large Cities Combined, June and May 1941 and June 1940

Article	1941		1940
	June 17 <sup>1</sup>	May 13	June 18
Cereals and bakery products:			
Cereals:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Flour, wheat.....10 pounds.....	45.1	43.9	43.9
Macaroni.....          ".....	13.8	13.8	14.1
Wheat cereal <sup>2</sup> .....28-ounce package.....	23.4	23.4	23.7
Corn flakes.....8-ounce package.....	7.0	7.1	7.2
Corn meal.....          ".....	4.3	4.3	4.2
Rice <sup>2</sup> .....              ".....	8.7	8.5	7.9
Rolled oats <sup>2</sup> .....          ".....	7.1	7.1	7.2
Bakery products:			
Bread, white.....          ".....	7.9	7.8	8.1
Bread, whole wheat.....          ".....	8.7	8.8	9.0
Bread, rye.....              ".....	9.0	9.0	9.5
Vanilla cookies.....          ".....	25.5	<sup>3</sup> 25.5	25.0
Soda crackers.....          ".....	14.8	14.5	15.1
Meats:			
Beef:			
Round steak.....          ".....	38.0	37.6	36.1
Rib roast.....              ".....	30.1	30.4	28.5
Chuck roast.....          ".....	24.2	24.1	22.7
Veal: Cutlets.....          ".....	45.8	45.3	42.2
Pork:			
Chops.....              ".....	34.8	31.9	26.7
Bacon, sliced.....          ".....	34.4	33.4	26.1
Ham, sliced <sup>2</sup> .....          ".....	49.4	47.8	42.9
Ham, whole.....          ".....	30.5	29.2	23.8
Salt pork.....              ".....	19.0	18.4	13.7
Lamb:			
Leg.....              ".....	31.7	29.4	30.2
Rib chops.....          ".....	40.5	37.2	39.2
Poultry: Roasting chickens.....          ".....	33.8	33.9	33.4
Fish:			
Fresh, frozen.....          ".....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Salmon, pink.....16-ounce can.....	17.1	16.8	15.7
Salmon, red <sup>2</sup> .....          ".....	28.1	27.6	25.7

See footnotes at end of table.



TABLE 2.—Average Retail Prices of 63 Foods in 51 Large Cities Combined, June and May 1941 and June 1940—Continued

Article	1941		1940
	June 17 <sup>1</sup>	May 13	June 18
Meats—Continued.			
Dairy products:			
Butter..... pound.....	Cents 42.0	Cents 41.2	Cents 33.6
Cheese..... do.....	28.7	27.6	25.3
Milk, fresh (delivered)..... quart.....	13.1	13.0	12.5
Milk, fresh (store)..... do.....	12.0	11.9	11.3
Milk, fresh (delivered and store) <sup>2</sup> ..... do.....	12.7	12.6	12.1
Milk, evaporated..... 14½-ounce can.....	7.7	7.3	6.9
Eggs..... dozen.....	36.9	33.3	27.5
Fruits and vegetables:			
Fresh:			
Apples..... pound.....	6.5	5.7	7.2
Bananas..... do.....	7.3	7.6	6.4
Oranges..... dozen.....	28.9	28.3	33.2
Beans, green..... pound.....	10.5	12.7	8.7
Cabbage..... do.....	4.3	4.5	3.6
Carrots..... bunch.....	5.9	5.9	7.2
Lettuce..... head.....	10.2	9.8	10.6
Onions..... pound.....	9.2	6.5	6.9
Potatoes..... 15 pounds.....	45.2	34.3	44.6
Spinach..... pound.....	5.9	6.3	5.0
Sweetpotatoes..... do.....	5.8	5.6	5.7
Canned:			
Peaches..... No. 2½ can.....	17.5	17.0	17.2
Pineapple..... do.....	21.2	21.1	20.9
Beans, green <sup>2</sup> ..... No. 2 can.....	10.7	10.5	10.0
Corn..... do.....	11.4	11.1	10.5
Peas..... do.....	13.6	13.5	13.7
Tomatoes..... do.....	8.9	8.7	8.5
Dried:			
Prunes..... pound.....	9.7	9.6	9.8
Navy beans..... do.....	7.3	6.9	6.6
Beverages:			
Coffee..... do.....	22.9	22.2	21.3
Tea..... ¼ pound.....	18.0	17.8	17.5
Cocoa <sup>2</sup> ..... 8-ounce can.....	9.1	9.1	9.1
Fats and oils:			
Lard..... pound.....	12.9	11.9	9.2
Shortening, other than lard:			
In cartons..... do.....	14.1	12.8	11.8
In other containers..... do.....	19.9	19.1	19.2
Salad dressing..... pint.....	20.9	20.4	20.8
Oleomargarine..... pound.....	16.4	16.0	16.0
Peanut butter..... do.....	17.9	17.8	18.1
Sugar and sweets:			
Sugar..... 10 pounds.....	57.7	57.4	52.3
Corn sirup <sup>2</sup> ..... 24-ounce can.....	13.7	13.7	13.5
Molasses <sup>2</sup> ..... 18-ounce can.....	13.4	13.4	13.4

<sup>1</sup> Preliminary.<sup>2</sup> Not included in index.<sup>3</sup> Revised.<sup>4</sup> Composite prices not computed.

### Details by Regions and Cities

Average costs of food at retail advanced between May 13 and June 17 in all of the 51 cities included in the index. Advances of more than 5 percent were shown for 5 cities: Detroit, 6.3 percent; Louisville, 5.7 percent; Birmingham, 5.4 percent; Milwaukee, 5.3 percent; and Richmond, 5.2 percent. In all of these cities sharp increases were reported for potatoes, onions, pork, lamb, lard, navy beans, and eggs. In Detroit fresh milk prices also increased. Cities showing the smallest increases (under 2 percent) were Washington, D. C., Dallas, Houston, Little Rock, and Seattle. Compared with a year ago, food costs are now higher by 10 percent or more in 14 cities, by

5 to 10 percent in 35 cities, and by less than 5 percent in only 2 cities.

Indexes of food costs by cities are presented in table 3 for June and May 1941 and June 1940.

TABLE 3.—Indexes of the Average Retail Cost of All Foods, by Cities,<sup>1</sup> June and May 1941 and June 1940

[1935-39=100]

Region and city	1941		1940	Region and city	1941		1940
	June 17 <sup>2</sup>	May 13	June 18		June 17 <sup>2</sup>	May 13	June 18
United States.....	105.9	102.1	98.3	West North Central—Continued.			
New England:				St. Louis.....	107.2	102.4	97.5
Boston.....	102.5	99.5	98.9	St. Paul.....	104.3	101.5	97.2
Bridgeport.....	106.6	102.3	98.5	South Atlantic:			
Fall River.....	106.0	102.2	100.3	Atlanta.....	103.4	99.0	93.2
Manchester.....	104.6	101.3	99.8	Baltimore.....	108.7	103.7	98.7
New Haven.....	105.8	101.4	98.6	Charleston, S. C.....	103.4	100.0	95.8
Portland, Maine.....	104.2	100.7	98.4	Jacksonville.....	107.6	103.1	100.2
Providence.....	104.5	101.1	99.5	Norfolk <sup>4</sup> .....	107.0	102.1	94.7
Middle Atlantic:				Richmond.....	102.9	97.8	92.6
Buffalo.....	110.1	106.0	100.1	Savannah.....	108.9	104.7	99.6
Newark.....	106.9	102.7	101.0	Washington, D. C.....	104.8	102.8	98.3
New York.....	106.7	102.3	101.2	East South Central:			
Philadelphia.....	103.3	100.1	95.9	Birmingham.....	103.0	97.7	92.5
Pittsburgh.....	107.3	103.6	98.0	Louisville.....	107.2	101.4	95.2
Rochester.....	108.6	105.0	101.6	Memphis.....	103.3	99.8	92.7
Scranton.....	105.2	102.9	98.3	Mobile.....	106.6	104.2	97.5
East North Central:				West South Central:			
Chicago.....	105.8	101.9	99.6	Dallas.....	97.7	96.4	91.2
Cincinnati.....	105.0	100.9	94.4	Houston.....	106.4	105.0	97.9
Cleveland.....	107.7	103.4	99.0	Little Rock.....	101.9	100.1	95.3
Columbus, Ohio.....	102.9	98.6	94.0	New Orleans.....	108.5	105.2	100.9
Detroit.....	107.0	100.7	98.3	Mountain:			
Indianapolis.....	106.5	103.5	96.6	Butte.....	106.2	103.8	99.0
Milwaukee.....	106.5	101.1	98.1	Denver.....	103.0	99.5	96.2
Peoria.....	108.2	104.0	100.1	Salt Lake City.....	107.2	103.5	101.0
Springfield, Ill.....	105.6	100.8	98.2	Pacific:			
West North Central:				Los Angeles.....	108.0	105.5	97.4
Kansas City.....	101.3	97.9	92.9	Portland, Oreg.....	110.2	106.8	99.8
Minneapolis.....	107.4	103.1	97.9	San Francisco.....	107.1	104.9	96.7
Omaha.....	104.6	101.9	98.3	Seattle.....	109.7	108.0	99.7

<sup>1</sup> Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons rather than place-to-place comparisons.

<sup>2</sup> Preliminary.

<sup>3</sup> Revised.

<sup>4</sup> Includes Portsmouth and Newport News.

## ELECTRICITY AND GAS

### Price Changes Between March and June 1941

RESIDENTIAL rates are secured from 51 cities for electricity and from 50 cities for gas. These rates are used in the computation of monthly bills for blocks of consumption which have been selected as representative of average conditions throughout the country.

Prices of electricity are based upon the monthly use of 25 kilowatt-hours for lighting and small energy-consuming appliances; 100 kilowatt-hours for greater use of lighting and small appliances, and an electric refrigerator; and 250 kilowatt-hours for a still greater use of

lighting, a larger number of small appliances, and both an electric refrigerator and an electric range.

Prices of gas are based upon 10.6 therms for the use of a range; 19.6 therms for range and manual-type water heater; 30.6 therms for range and automatic storage or instantaneous water heater; and 40.6 therms for range, automatic water heater, and gas refrigerator.

Quarterly reports published in March, June, and September show changes for the preceding 3 months. The December report presents prices effective on the 15th of December and a summary of all changes during the year.

#### ELECTRICITY

In most cities there was no change in electricity rates. They decreased between March and June 1941, however, in two cities—Houston and Butte. In Houston the greatest decrease was for the use of about 75 kilowatt-hours per month. Reductions in the average monthly bills amounted to 5.0 percent for 25 kilowatt-hours, 7.5 percent for 100 kilowatt-hours, and 5.5 percent for 250 kilowatt-hours. Butte reported the greatest decrease for small amounts of electricity. Costs were down 10.7 percent for 25 kilowatt-hours, 3.3 percent for 100 kilowatt-hours, and 1.8 percent for 250 kilowatt-hours. In New York City adjustments in rates due to higher costs of coal resulted in advances of about 0.5 percent.

#### GAS

Changes in costs of gas between March and June 1941 occurred in two cities, both of which reflected regular seasonal changes, which have been in effect for several years.

New York City reported the usual summer rate reductions in the boroughs of Manhattan, Bronx, and Queens, under which costs for manufactured gas are substantially decreased for the 6 months May through October, for customers using more than 3,000 cubic feet per month. The cost for 40.6 therms (approximately 7,500 cubic feet) was lowered 20.9 percent. In Cincinnati the mixed manufactured and natural gas provided during the summer months has a lower heating value than that provided in other months of the year. As a result, the cost of gas to Cincinnati consumers rose in June.

# Wholesale Prices

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## WHOLESALE PRICES IN JUNE 1941<sup>1</sup>

THE rapid rise in wholesale commodity prices continued during June. Led by sharp advances in prices for domestic agricultural commodities, the Bureau of Labor Statistics' index rose 2.6 percent to the highest level since September 1937. The all-commodity index for June, 87.1 percent of the 1926 average, is 16 percent above the August 1939 level and nearly 7 percent of this gain has been recorded in the past 3 months. Since January of this year the index has risen about 8 percent and it is about 12½ percent higher than for June 1940.

The index for each group is substantially higher than it was a year ago. Farm products are up 24 percent; foods, 18 percent; textile products, 16 percent; chemicals and allied products, 10 percent; and hides and leather products, fuel and lighting materials, and building materials about 9 percent. Metals and metal products, housefurnishing goods, and miscellaneous commodities are from 4 to 5 percent higher than a year ago. In the past 6 months farm product prices have risen about 14¾ percent and foods and textile products more than 12 percent.

From May to June average wholesale prices of farm products rose 7½ percent; foods, 4½ percent; fuel and lighting materials, 3 percent; textile products and housefurnishing goods, nearly 2 percent; hides and leather products and miscellaneous commodities, 1.3 percent; and metals and metal products, building materials, and chemicals and allied products, less than 1 percent.

Higher prices for domestic agricultural commodities, for crude petroleum, and for certain imported commodities, particularly coffee, cocoa beans, silk, jute, and hemp, largely accounted for an increase of 4.9 percent in the raw materials group index, now 18 percent above a year ago. Semimanufactured commodity prices rose 1.4 percent and manufactured products 1.7 percent in June.

Seasonal advances in prices for fruits and vegetables and marked increases in prices for livestock and poultry, eggs, and cotton contributed largely to the gain of 7.5 percent in the farm products group index. Quotations were also higher for corn, rye, wheat, for cows, steers, hogs, lambs, wethers, live poultry, and for fresh milk, peanuts,

<sup>1</sup> More detailed information on wholesale prices is given in the Wholesale Price pamphlet and will be furnished upon request.

and wool. Lower prices were reported for barley, oats, calves, ewes, hay, hops, and flaxseed. In the past 6 months grains and livestock and poultry have risen 12 percent and cotton has advanced more than 36 percent.

Average wholesale prices for foods rose  $4\frac{1}{2}$  percent during the month due to sharp advances in prices for both fresh and processed fruits and vegetables, meats, and dairy products. Quotations were higher for wheat flour, corn meal, for cured and fresh pork, beef, and for coffee, canned salmon, lard, oleo oil, most vegetable oils, raw sugar, and tea. Prices were lower for rye flour, rice, bananas, mutton, veal, dressed poultry, pepper, granulated sugar, and olive oil.

Rising prices for leather, shoes, and luggage caused the index for the hides and leather products group to advance 1.3 percent in June. The movement in prices for hides and skins varied. Cow and steer hides and goat skins advanced while calf, kip, and sheep skins declined.

The index for textile products increased 1.8 percent to the highest point in over 11 years as a result of higher prices for men's clothing, hosiery, raw silk, silk yarns, woolen and worsted yard goods, for burlap, hemp, jute, and cordage, and for certain cotton goods such as broadcloth, drills, duck, denim, osnaburg, print cloth, percale, sheeting, ticking, tire fabrics, and yarn.

Average wholesale prices of petroleum products were up over 8 percent during June as higher prices were reported for crude oil from most fields, and for fuel oil and gasoline. Coke advanced 1.5 percent and quotations were slightly higher for coal.

The index for the metals and metal products group showed little change, in view of official Government action to prevent further price increases on many basic metals. Advancing prices for bolts, screws, butts, and rivets accounted for the fractional increase in the iron and steel index. Quicksilver and pig tin rose slightly.

Higher prices for brick and most types of lumber, except yellow pine boards, dimension, and timbers, and for paints and paint materials brought the building materials group index up 0.6 percent.

Quotations were higher for fatty acids, acetone, butyl alcohol, chestnut extract, glycerine, logwood extract, phenol, sodium bichromate, and tin tetrachloride, for castor oil, and ergot. Average prices for fertilizer materials declined 1.7 percent because of lower prices for potash. Other fertilizer materials such as fish scrap, tankage, and cottonseed meal advanced. Following their extraordinary rise of nearly 79 percent in the past year, average prices for industrial oils and fats remained unchanged at the May level. Lower prices for copra and tallow were offset by higher prices for coconut, palm, soybean, and sulfur olive oils.

Wholesale prices of furniture advanced about 3 percent during the month and prices were also higher for most furnishings, particularly

bedding, cutlery, floor coverings, sewing machines, and stoves.

In the miscellaneous commodities group, cattle feed prices advanced 8.7 percent and paper and pulp prices were up 1.3 percent. Sharp advances were also reported in prices for soap, cylinder oils, paraffin wax, and matches. Crude rubber declined 8.4 percent during June.

Index numbers for the groups and subgroups of commodities for May and June 1941 and for June 1940 and the percentage changes from a month ago and a year ago are shown in table 1.

TABLE 1.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, June 1941 with Comparisons for May 1941 and June 1940

[1926=100]

Group and subgroup	June 1941	May 1941	Change from a month ago	June 1940	Change from a year ago
			Percent		Percent
<b>All commodities</b> .....	<b>87.1</b>	<b>84.9</b>	<b>+2.6</b>	<b>77.5</b>	<b>+12.4</b>
<b>Farm products</b> .....	82.1	76.4	+7.5	66.2	+24.0
Grains.....	75.9	74.5	+1.9	64.4	+17.9
Livestock and poultry.....	93.0	88.0	+5.7	64.7	+43.7
Other farm products.....	76.6	69.5	+10.2	67.0	+14.3
<b>Foods</b> .....	83.1	79.5	+4.5	70.3	+18.2
Dairy products.....	84.3	81.6	+3.3	72.2	+16.8
Cereal products.....	79.8	78.2	+2.0	77.4	+3.1
Fruits and vegetables.....	73.0	64.0	+14.1	73.9	-1.2
Meats.....	90.8	87.2	+4.1	70.7	+28.4
Other foods.....	79.5	76.9	+3.4	61.3	+29.7
<b>Hides and leather products</b> .....	107.8	106.4	+1.3	99.2	+8.7
Shoes.....	111.7	110.1	+1.5	107.9	+3.5
Hides and skins.....	112.4	110.3	+1.9	81.9	+37.2
Leather.....	97.9	96.9	+1.0	92.4	+6.0
Other leather products.....	102.1	101.7	+4	100.0	+2.1
<b>Textile products</b> .....	84.5	83.0	+1.8	72.6	+16.4
Clothing.....	91.6	90.9	+8	85.3	+7.4
Cotton goods.....	94.6	91.0	+4.0	68.4	+38.3
Hosiery and underwear.....	61.9	61.3	+1.0	61.6	+5
Rayon.....	29.5	29.5	0	29.5	0
Silk.....	51.2	49.1	+4.3	46.1	+11.1
Woolen and worsted goods.....	94.6	94.1	+5	83.7	+13.0
Other textile products.....	94.1	92.0	+2.3	74.0	+27.2
<b>Fuel and lighting materials</b> .....	77.9	75.6	+3.0	71.4	+9.1
Anthracite.....	81.0	80.7	+4	77.1	+5.1
Bituminous coal.....	103.7	102.9	+8	95.7	+8.4
Coke.....	122.2	120.4	+1.5	109.6	+11.5
Electricity.....	(1)	67.7	-----	74.2	-----
Gas.....	81.0	80.1	+1.1	87.4	-7.3
Petroleum and products.....	59.9	55.3	+8.3	50.0	+19.8
<b>Metals and metal products</b> .....	98.3	98.1	+2	94.7	+3.8
Agricultural implements.....	92.4	92.4	0	92.5	-1
Farm machinery.....	93.5	93.5	0	93.6	-1
Iron and steel.....	96.5	96.1	+4	94.3	+2.3
Motor vehicles.....	100.3	100.2	+1	94.8	+5.8
Nonferrous metals.....	84.5	84.4	+1	81.2	+4.1
Plumbing and heating.....	83.1	83.0	+1	80.5	+3.2
<b>Building materials</b> .....	101.0	100.4	+6	92.4	+9.3
Brick and tile.....	92.5	91.9	+7	90.2	+2.5
Cement.....	91.9	91.5	+4	90.6	+1.4
Lumber.....	117.6	116.8	+7	94.8	+24.1
Paint and paint materials.....	90.3	89.3	+1.1	85.2	+6.0
Plumbing and heating.....	83.1	83.0	+1	80.5	+3.2
Structural steel.....	107.3	107.3	0	107.3	0
Other building materials.....	96.9	96.3	+6	93.0	+4.2
<b>Chemicals and allied products</b> .....	83.8	83.6	+2	76.1	+10.1
Chemicals.....	87.2	86.8	+5	85.1	+2.5
Drugs and pharmaceuticals.....	99.9	98.7	+1.2	82.2	+21.5
Fertilizer materials.....	69.9	71.1	-1.7	67.4	+3.7

<sup>1</sup> Data not yet available.

TABLE 1.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, June 1941 with Comparisons for May 1941 and June 1940—Continued

[1926=100]

Group and subgroup	June 1941	May 1941	Change from a month ago	June 1940	Change from a year ago
Chemicals and allied products—Continued.			Percent		Percent
Mixed fertilizers.....	73.8	73.2	+0.8	72.8	+1.4
Oils and fats.....	80.6	80.6	0	45.1	+78.7
Housefurnishing goods.....	93.1	91.4	+1.9	88.5	+5.2
Furnishings.....	99.0	98.0	+1.0	94.9	+4.3
Furniture.....	87.0	84.3	+3.2	81.7	+6.5
Miscellaneous.....	80.6	79.6	+1.3	77.3	+4.3
Automobile tires and tubes.....	58.8	58.8	0	58.2	+1.0
Cattle feed.....	88.9	81.8	+8.7	80.0	+11.1
Paper and pulp.....	98.0	96.7	+1.3	91.7	+6.9
Rubber, crude.....	45.6	49.8	-8.4	46.3	-1.5
Other miscellaneous.....	87.4	85.6	+2.1	83.7	+4.4
Raw materials.....	83.6	79.7	+4.9	70.7	+18.2
Semimanufactured articles.....	87.6	86.4	+1.4	77.9	+12.5
Manufactured products.....	88.6	87.1	+1.7	80.5	+10.1
All commodities other than farm products.....	88.0	86.6	+1.6	79.8	+10.3
All commodities other than farm products and foods.....	88.6	87.4	+1.4	82.2	+7.8

## Index Numbers by Commodity Groups, 1926 to June 1941

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1940, inclusive, and by months from June 1940 to June 1941, inclusive, are shown in table 2.

TABLE 2.—Index Numbers of Wholesale Prices by Groups of Commodities

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	Housefurnishing goods	Miscellaneous	All commodities
By years:											
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933.....	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936.....	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937.....	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938.....	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939.....	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940.....	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
By months:											
1940:											
June.....	66.2	70.3	99.2	72.6	71.4	94.7	92.4	76.1	88.5	77.3	77.5
July.....	66.5	70.3	99.0	72.4	71.1	95.1	192.5	77.0	88.5	77.7	77.7
August.....	65.6	70.1	96.9	72.3	71.1	94.9	193.3	76.7	88.5	76.7	77.4
September.....	66.2	71.5	98.3	72.5	71.0	95.4	195.6	76.8	88.5	76.5	78.0
1941:											
October.....	66.4	71.1	100.4	73.6	71.6	97.3	97.8	76.9	88.6	76.9	78.7
November.....	68.2	72.5	102.3	74.5	71.9	97.6	98.9	77.5	88.6	77.5	79.6
December.....	69.7	73.5	102.3	74.8	71.7	97.6	99.3	77.7	88.9	77.3	80.0
1941:											
January.....	71.6	73.7	102.4	75.2	72.1	97.7	99.6	78.6	89.0	77.1	80.8
February.....	70.3	73.5	101.6	76.4	72.1	97.6	99.3	78.5	89.1	76.9	80.6
March.....	71.6	75.2	102.6	78.4	72.0	97.7	99.5	79.8	89.5	77.6	81.5
April.....	74.4	77.9	103.9	81.0	72.9	97.9	100.1	81.8	90.4	78.6	83.2
May.....	76.4	79.5	106.4	83.0	75.6	98.1	100.4	83.6	91.4	79.6	84.9
June.....	82.1	83.1	107.8	84.5	77.9	98.3	101.0	83.8	93.1	80.6	87.1

<sup>1</sup> Revised.

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was given in Serial No. R. 1251, Wholesale Prices, December and Year 1940.

TABLE 3.—Index Numbers of Wholesale Prices by Special Groups of Commodities

[1926=100]											
Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
<b>By years:</b>					<b>By months—Con. 1940—Con.</b>						
1926.....	100.0	100.0	100.0	100.0	100.0	August.....	69.8	77.0	81.0	79.9	82.0
1929.....	97.5	93.9	94.5	93.3	91.6	September....	70.5	77.6	81.5	80.4	82.3
1932.....	55.1	59.3	70.3	68.3	70.2	October.....	71.4	79.4	82.1	81.3	83.5
1933.....	56.5	65.4	70.5	69.0	71.2	November.....	72.6	80.7	82.6	81.9	84.1
1936.....	79.9	75.9	82.0	80.7	79.6	December.....	73.6	80.7	82.8	82.1	84.1
1937.....	84.8	85.3	87.2	86.2	85.3	1941:					
1938.....	72.0	75.4	82.2	80.6	81.7	January.....	74.6	81.3	83.5	82.7	84.3
1939.....	70.2	77.0	80.4	79.5	81.3	February.....	74.0	81.6	83.5	82.7	84.4
1940.....	71.9	79.1	81.6	80.8	83.0	March.....	75.3	83.4	84.2	83.6	84.9
<b>By months:</b>						April.....	77.5	85.1	85.5	85.0	85.9
1940:						May.....	79.7	86.4	87.1	86.6	87.4
June.....	70.7	77.9	80.5	79.8	82.2	June.....	83.6	87.6	88.6	88.0	88.6
July.....	70.7	77.8	80.9	80.0	82.3						

### Weekly Fluctuations

Weekly fluctuations in the major commodity group classifications during May and June are shown by the index numbers in table 4.

TABLE 4.—Weekly Index Numbers of Wholesale Prices by Commodity Groups, May and June 1941

Commodity group	[1926=100]									
	June 28	June 21	June 14	June 7	May 31	May 24	May 17	May 10	May 3	
All commodities.....	87.7	87.2	86.7	85.9	85.2	85.0	84.6	84.0	83.2	
Farm products.....	84.2	83.0	81.1	79.6	77.3	77.3	76.3	75.1	74.4	
Foods.....	84.3	83.7	82.6	81.5	79.2	79.5	79.7	79.0	78.0	
Hides and leather products.....	108.5	108.2	108.4	107.6	107.8	106.9	106.1	105.3	105.0	
Textile products.....	84.7	84.5	83.8	83.2	83.2	82.9	82.4	81.4	80.9	
Fuel and lighting materials.....	78.7	79.0	78.7	78.3	77.7	76.2	75.6	74.9	74.2	
Metals and metal products.....	98.4	98.3	98.4	98.3	98.2	98.2	98.1	97.9	97.9	
Building materials.....	101.1	101.1	100.9	100.5	100.5	100.5	100.2	100.3	100.3	
Chemicals and allied products.....	84.3	83.8	83.7	83.6	83.9	84.2	83.7	83.1	82.8	
Housefurnishing goods.....	93.8	93.7	93.7	93.3	92.7	92.5	92.3	92.3	91.9	
Miscellaneous.....	80.9	80.3	80.2	79.7	79.7	79.7	79.4	79.0	78.5	
Raw materials.....	84.9	84.1	82.9	81.9	80.4	79.9	79.3	78.4	77.5	
Semimanufactured articles.....	88.0	87.6	87.3	86.9	86.7	86.5	86.4	85.8	85.1	
Manufactured products.....	89.3	89.0	88.7	88.0	87.6	87.5	87.2	86.7	85.9	
All commodities other than farm products.....	88.5	88.2	87.9	87.3	87.0	86.7	86.5	85.9	85.2	
All commodities other than farm products and foods.....	89.1	89.0	88.8	88.4	88.2	87.7	87.3	86.9	86.4	



# *Trend of Employment and Pay Rolls*

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## SUMMARY OF REPORTS FOR JUNE 1941

### *Total Nonagricultural Employment*

APPROXIMATELY 38,383,000 persons were employed in civil non-agricultural occupations in June 1941. This total, which is above all preceding levels, represented an increase of 494,000 workers over May and a gain of 3,383,000 since June 1940. These figures do not include CCC enrollees, workers on WPA or NYA projects, nor the armed forces.

The greater part of the expansion over the month occurred in manufacturing (230,000), particularly in industries primarily devoted to the defense program. Trade establishments showed an increase of 101,000 workers, and all other major groups, to a smaller extent, also showed employment gains. The increase in construction employment was due to a seasonal expansion in privately financed construction which more than offset a slight decrease in Federally financed construction.

All major groups showed substantial employment gains over June 1940. In manufacturing, the gain amounted to 1,951,000 wage earners; in construction, 489,000; in trade, 268,000; Federal, State, and local government service, 307,000; and transportation and public utilities, 202,000.

Emergency employment decreased 32,000 over the month as a result of the following changes: An increase of 78,000 in the military service and decreases of 77,000 on projects operated by the Works Projects Administration, 7,000 on the out-of-school work program of the National Youth Administration, and 26,000 in the Civilian Conservation Corps.

### *Industrial and Business Employment*

Of the 157 manufacturing industries surveyed, 129 reported employment increases and 135 pay-roll gains over the month, most of the increases being larger than seasonal or contraseasonal, as in preceding months. Of the 16 nonmanufacturing industries regularly covered, all but two showed gains in employment and pay rolls. Employment and weekly pay rolls in all manufacturing industries combined advanced contraseasonally in June to the highest levels reached since the beginning of the Bureau's series of indexes. The gains were 2.3 percent or

230,000 wage earners in employment and 5.6 percent or \$15,195,000 in weekly pay rolls. The usual seasonal changes from May to June are decreases of 0.7 percent in employment and 0.8 percent in pay rolls. The gains since June of last year were 24.0 percent in factory employment and 52.9 percent in factory pay rolls, pay rolls having increased more sharply over the year interval than employment because of wage-rate increases, increased hours, and overtime premiums.

For the durable-goods group of manufacturing industries, in which operations have been particularly stimulated by defense activity, employment showed a gain of 2.9 percent over the month and 35.4 percent over the year with corresponding pay-roll increases of 6.6 percent and 71.4 percent. The increases in the nondurable-goods group were smaller, namely 1.8 percent and 13.8 percent in employment and 4.1 percent and 31.2 percent in pay rolls. Strategic defense industries in which employment continued to expand were aircraft, shipbuilding, machine tools, engines, machine-tool accessories, screw-machine products, and abrasives. Other manufacturing industries affected by war-material orders and showing large employment gains were foundry and machine shops; steel; electrical machinery; automobiles; brass, bronze, and copper products; and chemicals. Large employment gains were also shown in many other manufacturing industries, among them being canning, sawmills, cotton goods, furniture, shoes, baking, beverages, meat packing, and tin cans. Substantial decreases in employment, primarily seasonal, were shown for women's clothing, fertilizers, millinery, and book and job printing.

Anthracite mining employment and pay rolls rose contraseasonally by 1.3 percent and 53.3 percent, respectively, reflecting increased production schedules and wage-rate increases. Employment in this industry was slightly below the level of June 1940, but pay rolls were more than 25 percent higher. Bituminous coal mines increased employment and pay rolls by 0.2 percent and 2.5 percent, respectively. These slight gains were lower than the average June increases but were significant nevertheless in view of the very large percentage increases in May which reflected the return to work of miners upon the conclusion of new wage agreements. The pay-roll index of bituminous coal mining (104.5 on the basis of 100 for the base period 1929) was 40 percent above that of June 1940 and was at the highest point since December 1929. Metal mines reported an employment increase of 1.3 percent and a pay-roll gain of 5.0 percent, the pay-roll level being higher than any reached during the last 10 years. Quarries and nonmetallic mines reported seasonal gains of 1.5 percent in employment and 4.5 percent in pay rolls, while crude petroleum production showed corresponding gains of 1.9 percent and 1.1 percent. The telephone and telegraph industry showed an employment increase of 1.7 percent, continuing the series of monthly

employment gains which has been interrupted only once (September 1940) since March of last year. The electric light and power industry also showed an employment increase of 1.7 percent, while street railways and busses reported virtually no change in employment (+0.2 percent).

Wholesale trade employment increased more than seasonally by 1.0 percent with all lines which employed large numbers of workers showing employment increases except farm products in which employment fell seasonally 2.8 percent. Retail trade stores reported a larger-than-seasonal employment gain of 1.6 percent, with most of the retail lines contributing to the expansion. Laundries, and dyeing and cleaning establishments reported employment gains of 3.2 percent and 1.9 percent respectively, the employment levels for these industries being the highest recorded in the past 10 years. Hotels reported a seasonal employment reduction of 1.5 percent, and brokerage firms a decline of 1.0 percent. Insurance firms increased their personnel by 0.2 percent.

Employment in private building construction increased 3.3 percent from May to June, a somewhat larger rise than the average May-June percentage gain (2.3 percent) over the 9-year period 1932-40. The gain from June of last year was 21.6 percent. Increases over the month occurred in 8 of the 9 major geographic divisions, the largest being in the East North Central States and the Mountain States. General building contractors as a group increased employment 4.4 percent and the special trades group, 2.1 percent. Of the 15 special building trades surveyed, 10 reported increased employment, namely ornamental iron contracting, brick and stone masonry, carpentering, plumbing and heating, electrical contracting, tile and terrazzo contracting, roofing and sheet metal work, elevator installation, glazing, excavating, and structural steel erection. The trades showing decreased employment were plastering, painting and decorating, wood flooring, and building insulation.

A preliminary report of the Interstate Commerce Commission for class I steam railroads showed an employment gain of 2.2 percent between May and June, the total number employed in June being 1,156,144. Corresponding pay-roll figures for June were not available when this report was prepared. For May they were \$185,932,877, a gain of \$11,594,453 since April.

*Hours and Earnings.*—The average hours worked per week by manufacturing wage earners were 41.3 in June, a gain of 1.3 percent since May. The corresponding average hourly earnings were 73.8 cents, an increase of 1.8 percent from the preceding month. The average weekly earnings of factory wage earners (both full- and part-time combined) were \$31.84, an increase of 3.1 percent since May. Of the 16 nonmanufacturing industries regularly surveyed, 13 reported increases in average weekly earnings. Of the 14 non-

manufacturing industries for which man-hours are available, 9 showed gains in average hours worked per week and 14 reported increases in average hourly earnings.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, June 1941 (Preliminary figures)*

Industry	Employment			Pay rolls			Average weekly earnings		
	Index, June 1941	Percentage change from—		Index, June 1941	Percentage change from—		Average in June 1941	Percentage change from—	
		May 1941	June 1940		May 1941	June 1940		May 1941	June 1940
All manufacturing industries combined <sup>1</sup> .....	(1923-25 =100) 127.8	+2.3	+24.0	(1923-25 =100) 152.1	+5.6	+52.1	\$31.84	+3.1	+23.3
Class I steam railroads <sup>2</sup> .....	113.3	+2.8	+11.6	(3)	(3)	(3)	(3)	(3)	(3)
Coal mining: Anthracite <sup>4</sup> .....	(1929= 100) 49.2	+1.3	-1.1	(1929= 100) 51.2	+53.3	+26.0	34.20	+51.4	+27.4
Bituminous <sup>4</sup> .....	86.6	+2	+3.4	104.5	+2.5	+41.4	32.08	+2.4	+36.8
Metalliferous mining <sup>5</sup> .....	78.1	+1.3	+11.1	85.6	+5.0	+31.1	34.50	+3.7	+17.9
Quarrying and nonmetallic mining.....	51.7	+1.5	+7.9	55.5	+4.5	+26.5	27.07	+2.9	+17.2
Crude-petroleum production.....	61.6	+1.9	-3.4	59.4	+1.1	+1.0	35.31	-8	+4.6
Public utilities: Telephone and telegraph <sup>6</sup> .....	86.1	+1.7	+10.6	112.1	+1.4	+12.0	731.82	-3	+1.3
Electric light and power <sup>6</sup> .....	93.7	+1.7	+2.8	111.3	+1.6	+6.2	736.28	-1	+3.3
Street railways and buses <sup>8</sup> .....	69.0	+2	+7	75.6	+3.9	+7.2	735.62	+3.7	+6.4
Trade: Wholesale <sup>9</sup> .....	93.1	+1.0	+4.0	87.5	+3.5	+11.6	732.68	+2.5	+7.4
Retail <sup>9</sup> .....	97.6	+1.6	+6.2	94.5	+3.3	+11.4	722.31	+1.7	+4.9
Hotels (year-round) <sup>4 10</sup> .....	94.9	-1.5	+3.1	87.0	-1.0	+6.1	715.84	+5	+2.9
Laundries <sup>4</sup> .....	111.7	+3.2	+9.4	102.3	+3.6	+10.8	19.11	+5	+1.2
Dyeing and cleaning <sup>4</sup> .....	122.9	+1.9	+9.1	98.4	+2.4	+9.9	22.15	+5	+7
Brokerage.....	(3)	-1.0	-16.3	(3)	-6	-14.0	738.75	+4	+2.7
Insurance.....	(3)	+2	+1.2	(3)	+1.6	+4.6	738.08	+1.4	+3.4
Building construction.....	(3)	+3.3	+21.6	(3)	+4.2	+32.5	35.15	+9	+8.9
Water transportation <sup>11</sup> .....	80.3	-1.2	+2.9	(3)	(3)	(3)	(3)	(3)	(3)

<sup>1</sup> Indexes adjusted to preliminary 1939 Census of Manufactures. See table 9 in December 1940 "Employment and Pay Rolls" for comparable series back to January 1919.

<sup>2</sup> Preliminary. Source—Interstate Commerce Commission.

<sup>3</sup> Not available.

<sup>4</sup> Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of "Employment and Pay Rolls." See also table 7 of October 1940 pamphlet for revised figures for anthracite mining, February to September 1940, inclusive.

<sup>5</sup> See table 7 of February 1941 pamphlet for revised figures January 1938 to January 1941.

<sup>6</sup> Retail-trade indexes adjusted to 1935 census and public utility indexes to 1937 census. Not comparable with indexes published in pamphlets prior to January 1940 or in the Monthly Labor Review prior to April 1940. Revised series available upon request.

<sup>7</sup> Average weekly earnings not strictly comparable with figures published in issues of the pamphlet dated earlier than January 1938, or in the Monthly Labor Review dated earlier than April 1938 (except for the January figures appearing in the March issue), as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

<sup>8</sup> Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

<sup>9</sup> Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of the pamphlet or February 1935 and subsequent issues of Monthly Labor Review.

<sup>10</sup> Cash payments only; the additional value of board, room, and tips cannot be computed.

<sup>11</sup> Based on estimates prepared by the United States Maritime Commission.

Wage-rate increases averaging 9.1 percent and affecting 729,280 wage earners were reported by 1,374 manufacturing plants out of a reporting sample of 33,106 plants employing 7,150,772 wage earners. Among the industries in which substantial numbers of workers received pay increases were automobiles, bodies and parts; paper and pulp; shipbuilding; rubber tires and inner tubes; electrical machinery; brass, bronze, and copper products; and rayon and allied products. The

wage-rate changes reported for nonmanufacturing industries affected 49,192 of the approximately 3,000,000 workers covered. About one-third of those affected were in the street railway and bus industry.

As the Bureau's survey does not cover all the establishments in an industry, and furthermore as some firms may have failed to report wage changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Employment and pay-roll indexes and average weekly earnings for June 1941 are given in table 1 for all manufacturing industries combined and selected nonmanufacturing industries, for water transportation, and for class I railroads. Percentage changes over the month and year intervals are also given.

### *Public Employment*

Substantial gains on Federal-aid roads, ship construction, and airports which more than offset a decrease on building construction resulted in a net employment gain of 28,000 in the month ending June 15 on construction projects financed from appropriations to regular Federal agencies. Approximately 616,500 persons were employed on defense projects and 212,500 were engaged in nondefense work. Pay-roll disbursements of \$111,984,000 to the 829,000 persons employed on all projects were \$4,967,000 more than in the month ending May 15.

Contractors on low-rent projects of the United States Housing Authority curtailed employment to the extent of 2,600 in the month ending June 15. Approximately 200 additional building-trades workers were employed on defense housing projects while the number at work on nondefense housing declined 2,800. Pay-roll disbursements of \$4,010,000 to the workers on all types of projects were \$496,000 less than in the preceding month.

Employment on construction projects financed by the Public Works Administration showed little change in the month ending June 15. Wage payments of \$1,187,000 to the 10,000 men employed were \$33,000 less than in May.

The number of men at work on construction projects financed by the Reconstruction Finance Corporation rose to 10,900 in the month ending June 15. Defense construction absorbed the increase of 1,700 over May with employment on nondefense construction remaining at about the same level as in the earlier month. Pay rolls of \$1,522,000 represent an increase of \$261,000 over May.

Preliminary reports show that employment on all relief programs decreased substantially in June. Not since October 1935 has employment on work relief projects operated by the Work Projects Administration been lower than the 1,370,000 persons reported at

work in June. Employment on work relief projects designated as defense projects decreased 14,000 during the month and on nondefense projects the decrease amounted to 63,000. Total pay rolls of \$81,300,000 were \$5,227,000 less than in May. Federal agency projects financed by the Work Projects Administration furnished employment to 40,000 persons in June, a decrease of 14,000 from the preceding month. Wage payments amounted to \$2,093,000.

With the closing of the school year in June, employment on the student-work program of the National Youth Administration decreased 96,000, leaving 368,000 still employed. The number of youths at work on the out-of-school work program fell to 393,000 in June, a decrease of 7,000 from the preceding month. Pay-roll disbursements on the student program totaled \$2,659,000 and on the out-of-school program the amount was \$8,113,000.

TABLE 2.—Summary of Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially From Federal Funds, June 1941 (Preliminary Figures)

Class	Employment			Pay rolls		
	June 1941	May 1941	Percent- age change	June 1941	May 1941	Percent- age change
Federal services:						
Executive <sup>1</sup> .....	1,356,898	1,306,333	+3.9	\$202,744,212	\$198,382,389	+2.2
Judicial.....	2,526	2,517	+4	644,557	642,704	+3
Legislative.....	6,132	6,055	+1.3	1,336,535	1,333,550	+2
Military.....	1,740,058	1,662,428	+4.7	105,021,351	96,262,203	+9.1
Construction projects:						
Financed by regular Federal appropriations.....	829,118	801,095	+3.5	111,984,489	107,017,114	+4.6
Defense.....	616,572	612,108	+7	87,962,520	87,816,703	+2
Other.....	212,546	188,987	+12.5	24,021,969	19,200,411	+25.1
USHA low-rent housing.....	39,000	41,576	-6.2	4,010,000	4,505,728	-11.0
Defense.....	5,082	4,837	+5.1	561,205	534,147	+5.1
Other.....	33,918	36,739	-7.7	3,448,795	3,971,581	-13.2
Financed by PWA <sup>2</sup> .....	9,980	10,209	-2.2	1,187,100	1,219,777	-2.7
Financed by RFC <sup>3</sup> .....	10,935	9,258	+18.1	1,522,123	1,261,547	+20.7
Defense.....	8,572	6,852	+25.1	1,232,888	980,240	+25.8
Other.....	2,363	2,406	-1.8	289,235	281,307	+2.8
Federal agency projects financed by Work Projects Administration:						
Defense.....	40,372	54,174	-25.5	2,093,374	2,711,234	-22.8
Other.....	21,000	22,600	-7.1	1,107,300	1,191,626	-7.1
Other.....	19,372	31,574	-38.6	986,074	1,519,608	-35.1
Projects operated by WPA.....	1,369,728	1,446,994	-5.3	81,300,000	86,527,291	-6.0
Defense.....	400,382	414,187	-3.3	( <sup>4</sup> )	( <sup>4</sup> )	-----
Other.....	969,346	1,032,807	-6.1	( <sup>4</sup> )	( <sup>4</sup> )	-----
National Youth Administration:						
Student-work program.....	367,782	463,978	-20.7	2,658,729	3,400,476	-21.8
Out-of-school work program.....	392,514	399,480	-1.7	8,112,719	8,208,793	-1.2
Civilian Conservation Corps.....	235,024	261,357	-10.1	11,277,971	12,242,700	-7.9

<sup>1</sup> Includes force-account and supervisory and technical employees shown under other classifications to the extent of 187,677 employees and pay-roll disbursements of \$27,548,494 for June 1941, and 177,904 employees and pay-roll disbursements of \$26,841,076 for May 1941.

<sup>2</sup> Data covering PWA projects financed from National Industrial Recovery Act funds, Emergency Relief Appropriation Acts of 1935, 1936, 1937 funds, and Public Works Administration Appropriation Act of 1938 funds are included. These data are not shown under projects financed by the Work Projects Administration. Includes 3,750 wage earners and \$422,100 pay roll for June 1941; 3,354 wage earners and \$374,795 pay roll for May 1941, covering Public Works Administration projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds. Includes 5,900 wage earners and \$732,800 pay roll for June 1941 financed from funds provided by the Public Works Administration Appropriation Act of 1938.

<sup>3</sup> Includes 351 employees and pay-roll disbursements of \$69,073 for June 1941; 348 employees and pay-roll disbursements of \$70,313 for May 1941 on projects financed by the RFC Mortgage Co.

<sup>4</sup> Pay-roll data not available.

The number of persons in camps of the Civilian Conservation Corps declined 26,000 in June. Of the 235,000 persons on the pay roll, 199,700 were enrollees; 1,500, educational advisers; 100, nurses; and 33,700, supervisory and technical employees. Pay-roll disbursements of \$11,278,000 exceeded May disbursements by \$965,000.

Employment in the executive service of the Federal Government continued to expand in June. Approximately 51,000 persons were added to executive service pay rolls during the month. June reports show that the number of men in the armed forces rose to 1,740,000, an increase of 78,000 over the preceding month. Employment in the judicial and legislative services increased slightly.

State-financed road projects showed a seasonal employment increase of 11,000 in June. Of the 186,000 on the pay roll, 65,000 were engaged in the construction of new roads and 121,000 on maintenance. Wage payments of \$15,746,000 were \$1,075,000 greater than in May.

A summary of employment and pay-roll data in the regular Federal services and on projects financed wholly or partially from Federal funds is given in table 2 (p. 530).



## DETAILED REPORTS FOR MAY 1941

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 May 1941, insofar as industrial and business employment is concerned, are reproduced in this section of the Monthly Labor Review.

### *Estimates of Nonagricultural Employment*

THE estimates of "Total civil nonagricultural employment," given on the first line of table 1, represent the total number of persons engaged in gainful work in the United States in nonagricultural industries, excluding military and naval personnel, persons employed on WPA or NYA projects, and enrollees in CCC camps. The series described as "Employees in nonagricultural establishments" also excludes proprietors and firm members, self-employed persons, casual workers, and persons in domestic service. The estimates for "Employees in nonagricultural establishments" are shown separately for each of seven major industry groups. Tables giving figures for each group, by months, for the period from January 1929 to date are available on request.

The figures represent the number of persons working at any time during the week ending nearest the middle of each month. The totals for the United States have been adjusted to conform to the figures shown by the 1930 Census of Occupations for the number of non-agricultural "gainful workers" less the number shown to have been unemployed for 1 week or more at the time of the census. Separate estimates for "employees in nonagricultural establishments" are shown in table 2 for each of the 48 States and the District of Columbia for April and May 1941 and May 1940. Tables showing monthly figures for each State from January 1938 to date are available on request. Because the State figures do not include employees on merchant vessels, and because of certain adjustments in the United States estimates which have not been made on a State basis, the total of the State estimates will not agree exactly with the figures for the United States as a whole.

These estimates are based in large part on industrial censuses and on regular reports of employers to the United States Bureau of Labor Statistics and to other Government agencies, such as the Interstate Commerce Commission. Data derived from employers' quarterly reports in connection with "old age and survivors' insurance," and employers' monthly reports in connection with unemployment compensation have been used extensively as a check on estimates derived from other sources, and in some industries they have provided the most reliable information available.

TABLE 1.—*Estimates of Total Nonagricultural Employment, by Major Groups*

[In thousands]

Industry	May 1941 (preliminary)	April 1941	Change, April to May 1941	May 1940	Change, May 1940 to May 1941
Total civil nonagricultural employment <sup>1</sup> .....	38,283	37,676	+607	35,163	+3,120
Employees in nonagricultural establishments <sup>1 2</sup> .....	32,140	31,533	+607	29,020	+3,120
Manufacturing <sup>3</sup> .....	11,537	11,370	+167	9,776	+1,761
Mining.....	875	564	+311	845	+30
Construction.....	1,748	1,775	-27	1,249	+499
Transportation and public utilities.....	3,184	3,113	+71	3,000	+184
Trade.....	6,419	6,463	-44	6,197	+222
Finance, service, and miscellaneous.....	4,325	4,265	+60	4,202	+123
Federal, State and local government:					
Civil employees.....	4,052	3,983	+69	3,751	+301
Military and naval forces <sup>4</sup> .....	1,662	1,546	+116	464	+1,198

<sup>1</sup> Excludes military and naval forces as well as employees on WPA and NYA projects, and enrollees in CCC camps. Includes proprietors, firm members, self-employed persons, casual workers, and domestic servants. Includes allowance for adjustment of factory wage-earner totals to preliminary 1939 Census of Manufactures. (Revised series available on request.)

<sup>2</sup> Excludes all of the groups omitted from "total civil nonagricultural employment" as well as proprietors, firm members, self-employed persons, casual workers, and domestic servants.

<sup>3</sup> Adjusted to preliminary 1939 Census of Manufactures.

<sup>4</sup> Not included in total shown above. Includes members of the National Guard inducted into the Federal service by act of Congress.



TABLE 2.—Estimated Number of Employees in Nonagricultural Establishments, by States

[Excludes proprietors, firm members, self-employed persons, casual workers, domestic workers, the armed forces of the United States, and employees on merchant vessels]

[Numbers in thousands]

Geographic divisions and States	May 1941 (preliminary)	April 1941	Change, April to May 1941		May 1940	Change, May 1940 to May 1941	
			Number	Percentage		Number	Percentage
<b>New England</b> .....	2,844	2,789	+55	-1.9	2,422	+422	-17.4
Maine.....	204	197	+7	+3.4	184	+20	+11.0
New Hampshire.....	142	138	+4	+2.5	124	+18	+14.4
Vermont.....	77	74	+3	+4.1	72	+5	+7.3
Massachusetts.....	1,481	1,457	+24	+1.7	1,265	+216	+17.0
Rhode Island.....	267	264	+3	+1.8	218	+49	+22.1
Connecticut.....	673	659	+14	+2.0	559	+114	+20.4
<b>Middle Atlantic</b> .....	8,251	8,043	+208	-2.6	7,562	+689	+9.1
New York.....	4,069	4,029	+40	+1.0	3,838	+231	+6.0
New Jersey.....	1,210	1,250	-40	-1.6	1,116	+154	+13.8
Pennsylvania.....	2,972	2,764	+208	+5.4	2,608	+364	+11.6
<b>East North Central</b> .....	7,573	7,410	+163	-2.2	6,640	+933	+14.0
Ohio.....	1,982	1,937	+45	+2.3	1,724	+258	+15.0
Indiana.....	903	872	+31	+3.6	749	+154	+20.5
Illinois.....	2,456	2,394	+62	+2.6	2,201	+255	+11.6
Michigan.....	1,540	1,527	+13	+1.8	1,348	+192	+14.2
Wisconsin.....	692	680	+12	+1.7	618	+74	+12.0
<b>West North Central</b> .....	2,491	2,443	+48	-2.0	2,316	+175	+7.6
Minnesota.....	553	539	+14	+2.6	516	+37	+7.2
Iowa.....	421	409	+12	+2.9	396	+25	+6.3
Missouri.....	834	823	+11	+1.3	760	+74	+9.8
North Dakota.....	77	75	+2	+2.9	74	+3	+3.7
South Dakota.....	83	81	+2	+2.8	81	+2	+3.2
Nebraska.....	207	200	+7	+3.8	198	+9	+4.6
Kansas.....	316	316	0	+1.1	291	+25	+8.5
<b>South Atlantic</b> .....	3,864	3,796	+68	-1.8	3,378	+486	+14.4
Delaware.....	78	74	+4	+5.0	70	+8	+12.3
Maryland.....	593	583	+10	+1.8	491	+102	+20.7
District of Columbia.....	397	392	+5	+1.3	334	+63	+19.1
Virginia.....	574	546	+28	+5.2	478	+96	+20.1
West Virginia.....	392	301	+91	+29.9	366	+26	+7.0
North Carolina.....	627	658	-31	-4.7	564	+63	+11.1
South Carolina.....	310	325	-15	-4.3	273	+37	+13.8
Georgia.....	520	524	-4	-1.8	465	+55	+11.9
Florida.....	373	393	-20	-5.1	337	+36	+10.7
<b>East South Central</b> .....	1,454	1,409	+45	-3.2	1,318	+136	+10.3
Kentucky.....	382	350	+32	+9.1	354	+28	+7.9
Tennessee.....	474	479	-5	-1.1	432	+42	+9.8
Alabama.....	405	388	+17	+4.5	354	+51	+14.5
Mississippi.....	193	192	+1	+0.4	178	+15	+8.2
<b>West South Central</b> .....	1,947	1,974	-27	-1.4	1,797	+150	+8.3
Arkansas.....	188	183	+5	+3.0	172	+16	+9.5
Louisiana.....	386	399	-13	-3.5	357	+29	+7.9
Oklahoma.....	297	295	+2	+0.7	285	+12	+4.3
Texas.....	1,076	1,097	-21	-2.0	983	+93	+9.4
<b>Mountain</b> .....	800	778	+22	-2.7	758	+42	+5.4
Montana.....	114	111	+3	+2.2	110	+4	+3.1
Idaho.....	87	85	+2	+1.9	83	+4	+4.6
Wyoming.....	54	53	+1	+1.8	51	+3	+5.8
Colorado.....	231	221	+10	+4.8	214	+17	+7.9
New Mexico.....	72	70	+2	+2.7	72	0	+5.0
Arizona.....	94	94	0	+1.1	89	+5	+5.9
Utah.....	113	110	+3	+2.7	106	+7	+6.1
Nevada.....	35	34	+1	+1.8	33	+2	+4.9
<b>Pacific</b> .....	2,605	2,589	+16	+0.6	2,350	+255	+10.9
Washington.....	457	458	-1	-0.3	411	+46	+11.3
Oregon.....	264	253	+11	+4.7	234	+30	+12.9
California.....	1,884	1,878	+6	+0.3	1,705	+179	+10.5

*Industrial and Business Employment*

Monthly reports on employment and pay rolls are available for 157 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission and those on class I steam railroads are compiled by the Interstate Commerce Commission. They are presented in the foregoing summary.

The indexes of factory employment and pay rolls relate to wage earners only. Those shown in table 3 are based on the 3-year average 1923–25 as 100. For all manufacturing industries combined, the durable-goods group, the nondurable-goods group, and aluminum manufactures, they have been adjusted to preliminary 1939 census figures and for automobiles to the 1933 census. The indexes for all other groups and industries have been adjusted to 1937 census data except for the aircraft industry and the transportation equipment group which have been adjusted on the basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics in August 1940. The over-all manufacturing indexes are computed from reports supplied by representative manufacturing establishments in 90 of the 157 industries surveyed. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries covered.

Indexes for 55 of the 67 manufacturing industries recently added to the monthly survey are shown in table 5. These indexes are based on 1939 as 100.

The indexes for the nonmanufacturing industries are based on the 12-month average for 1929 as 100. Figures for mining, laundries, and dyeing and cleaning, cover wage earners only, but the figures for public utilities, trade, and hotels, relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance, to approximately 80 percent for quarrying and nonmetallic mining, anthracite mining, and public utilities.

The indexes for retail trade have been adjusted to conform in general with the 1935 Census of Retail Distribution and are weighted by lines

of trade. For the public utilities they have been adjusted to the 1937 Census of Electrical Industries, for wholesale trade to the 1933 census, and for coal mining, year-round hotels, laundries, and dyeing and cleaning to the 1935 censuses.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the pay period ending nearest the 15th of the month.

The average weekly earnings shown in table 3 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 not all reporting establishments supply man-hours, average hours worked per week and average hourly earnings are necessarily based on data furnished by a slightly smaller number of reporting firms. As the size and composition of the reporting sample vary somewhat from month to month, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown. The changes from the preceding month, expressed as percentages, are based on identical lists of firms for the 2 months, but the changes from May 1940 are computed from chain indexes based on the month-to-month percentage changes.

#### EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND AVERAGE EARNINGS

The indexes of employment and pay rolls as well as average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries for March, April, and May 1941, where available, are presented in table 3. The March and April figures, where given, may differ in some instance from those previously published because of revisions necessitated primarily by the inclusion of late reports. Indexes of employment and pay rolls are given in table 4 for 55 of the 67 newly added manufacturing industries for the months of March, April, and May 1941. These indexes are based on 1939 as 100 and are available in mimeographed form for the period from January 1939 to January 1941, inclusive.



In table 5 indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for each of 13 nonmanufacturing industries, by months, from May 1940 to May 1941, inclusive. The indexes for all manufacturing industries combined, the durable-goods group, and the nondurable-goods group have been adjusted to preliminary 1939 census figures. Comparable indexes for all available months and years back to January 1919 are given in tables 9, 10, and 11 of the December 1940 issue of the pamphlet, "Employment and Pay Rolls." The chart on page 536 indicates the trend of factory employment and pay rolls from January 1919 to May 1941.

TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

## MANUFACTURING

[Indexes are based on 3-year average, 1923-25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request.]

Industry	Employment index			Pay-roll index			Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941
All manufacturing <sup>2</sup> -----	124.8	122.6	119.9	144.0	134.7	131.2	\$30.69	\$29.15	\$29.11	40.8	40.0	40.4	<i>Cents</i> 72.6	<i>Cents</i> 70.8	<i>Cents</i> 69.7
Durable goods <sup>2</sup> -----	131.2	127.7	123.7	163.0	149.9	144.6	35.51	33.52	33.49	42.5	41.5	42.0	80.6	78.5	76.8
Nondurable goods <sup>2</sup> -----	118.7	117.8	116.3	122.7	117.7	116.3	24.47	23.61	23.63	38.9	38.4	38.8	64.1	62.9	62.4
<i>Durable goods</i>															
Iron and steel and their products, not including machinery-----	132.9	129.4	127.2	160.9	150.9	141.2	35.74	34.39	32.65	41.5	40.8	41.0	85.9	84.1	79.5
Blast furnaces, steel works, and rolling mills . . .	140.4	137.4	135.0	172.5	164.1	149.0	39.05	37.87	34.94	40.4	39.8	40.1	96.8	95.4	87.3
Bolts, nuts, washers, and rivets-----	161.1	154.7	150.5	233.7	212.0	199.4	34.92	32.99	31.87	45.1	44.7	44.0	77.5	73.8	72.4
Cast-iron pipe-----	94.4	92.6	90.5	110.3	104.2	99.2	27.93	27.00	25.22	41.7	41.8	41.5	66.6	64.1	62.8
Cutlery (not including silver and plated cutlery) and edge tools-----	118.5	116.5	113.3	134.3	121.8	123.1	29.67	27.96	28.44	43.2	42.2	42.6	69.6	67.4	67.8
Forgings, iron and steel <sup>3</sup> -----	102.1	99.5	97.3	152.3	140.3	137.7	39.62	37.57	37.94	46.0	45.0	45.7	86.4	83.6	83.1
Hardware-----	116.7	116.6	117.1	141.5	135.7	138.1	29.89	28.64	28.95	42.3	41.4	42.0	70.7	69.3	69.0
Plumbers' supplies <sup>4</sup> -----	102.1	100.8	100.5	104.8	98.4	100.5	29.62	28.18	28.97	40.5	39.4	40.4	73.1	71.6	71.5
Stamped and enameled ware-----	218.0	210.0	207.4	235.0	242.5	240.9	28.51	27.03	27.04	40.5	40.4	40.4	70.2	66.8	66.7
Steam and hot-water heating apparatus and steam fittings-----	112.1	108.9	107.3	128.6	116.8	112.1	34.63	32.28	31.49	44.0	43.6	42.6	78.8	74.1	74.2
Stoves-----	113.4	109.2	103.4	119.3	110.6	102.8	29.66	23.60	28.03	41.2	40.4	40.2	72.1	70.8	69.9
Structural and ornamental metalwork-----	102.3	99.1	97.2	113.8	103.4	97.1	36.13	33.71	32.35	44.0	43.2	42.9	82.5	78.2	75.6
Tin cans and other tinware <sup>5</sup> -----	123.4	109.5	107.1	151.6	127.3	121.8	27.65	26.17	25.53	42.3	41.0	40.1	65.5	64.2	63.9
Tools (not including edge tools, machine tools, files, and saws)-----	135.5	133.2	130.1	171.7	165.5	160.5	32.01	31.57	31.36	46.1	46.4	46.4	70.0	68.1	67.7
Wirework <sup>3</sup> -----	211.1	207.4	209.7	273.0	242.8	256.4	31.37	28.22	29.64	42.7	40.1	41.7	72.9	70.5	71.1

Machinery, not including transportation equipment	182.0	156.2	147.7	217.1	197.6	186.2	37.16	35.16	35.02	45.4	44.7	44.9	81.8	78.8	77.8
Agricultural implements (including tractors)	170.7	168.5	132.6	229.0	229.6	162.0	36.88	37.52	33.54	41.8	43.2	41.0	88.6	87.2	82.0
Cash registers, adding machines, and calculating machines	151.3	151.3	146.3	196.0	191.0	179.4	40.28	39.26	38.25	45.9	45.3	44.3	88.8	87.7	87.3
Electrical machinery, apparatus, and supplies	154.0	147.3	141.5	215.3	192.3	185.9	36.68	34.41	34.46	44.4	44.1	44.3	82.9	78.2	78.0
Engines, turbines, water wheels, and windmills	271.6	257.2	247.6	452.0	372.4	376.4	44.01	38.30	40.20	47.2	43.3	46.1	93.5	88.7	87.3
Foundry and machine-shop products	134.0	130.0	123.6	165.0	152.5	143.6	36.21	34.60	34.39	45.4	44.8	44.7	80.1	77.9	76.9
Machine tools	325.6	316.9	307.1	505.3	472.2	461.9	42.98	41.10	41.49	52.3	51.1	51.9	82.4	80.8	79.9
Radios and phonographs	173.7	158.5	149.1	191.5	165.9	157.2	27.02	25.31	25.79	41.0	39.4	40.2	66.1	64.4	64.3
Textile machinery and parts	101.3	98.9	96.2	124.3	112.1	110.3	33.72	31.32	31.77	40.4	45.0	45.9	72.8	69.7	69.3
Typewriters and parts	143.5	138.3	133.6	189.6	174.5	159.2	32.40	30.93	29.20	45.3	43.8	42.3	71.6	70.6	69.1
Transportation equipment	171.3	166.4	161.2	216.8	191.4	197.2	39.89	36.41	38.80	42.4	39.7	42.3	94.5	92.3	92.0
Aircraft	6,293.8	5,929.2	5,563.7	7,700.9	7,134.4	6,678.3	35.80	35.15	35.02	45.2	45.1	45.2	79.5	78.8	78.3
Automobiles	133.8	132.4	131.5	171.1	147.3	163.1	41.70	36.36	40.61	41.2	37.0	41.4	101.4	98.3	98.2
Cars, electric- and steam-railroad	79.5	73.7	70.9	84.2	73.4	65.6	33.71	31.71	29.42	41.0	39.7	37.7	82.3	79.8	78.0
Locomotives	65.1	59.7	55.8	79.9	71.6	64.0	37.58	36.75	35.17	44.4	45.7	43.3	84.6	80.4	81.2
Shipbuilding	307.1	294.4	272.4	430.2	392.5	365.0	41.09	39.11	39.30	44.0	42.7	44.0	92.6	90.6	89.0
Nonferrous metals and their products	139.9	138.9	137.0	166.3	157.0	155.5	33.14	31.48	31.67	42.8	42.0	42.1	77.0	74.9	74.8
Aluminum manufactures	233.5	231.0	224.1	322.0	290.4	258.4	34.36	31.40	28.74	42.5	41.7	38.1	80.8	75.4	75.5
Brass, bronze, and copper products	184.4	182.5	180.5	245.4	233.6	236.7	37.10	35.70	36.45	44.5	43.8	44.4	83.4	81.6	82.2
Clocks and watches and time-recording devices	115.9	114.2	111.4	143.4	133.6	128.9	27.36	25.83	25.58	42.2	41.2	41.8	64.8	62.7	61.2
Jewelry	104.4	104.4	104.2	97.7	93.7	94.0	25.08	24.07	24.14	40.9	40.3	40.9	60.7	59.4	58.9
Lighting equipment	112.0	113.3	111.9	110.4	105.8	105.4	30.39	28.60	28.83	41.3	39.8	40.5	73.2	71.8	71.1
Silverware and plated ware	82.9	81.5	79.8	90.8	82.0	82.4	31.64	29.07	29.81	45.1	43.2	44.3	70.8	67.9	68.0
Smelting and refining—copper, lead, and zinc	102.5	101.4	100.6	111.4	107.6	105.7	30.84	29.89	29.60	39.3	39.0	39.1	78.1	76.7	75.8
Lumber and allied products	74.8	73.8	72.6	78.0	75.7	72.8	22.56	22.17	21.68	40.1	40.2	39.7	55.6	54.7	54.1
Furniture	100.1	97.6	96.7	102.5	95.2	93.9	24.29	23.22	23.03	41.8	40.8	40.8	55.4	57.0	56.5
Lumber:															
Millwork	70.0	69.7	69.7	62.4	59.3	57.7	24.29	23.36	22.78	42.2	41.1	40.4	57.5	56.6	56.2
Sawmills	65.8	65.2	63.7	66.0	66.4	62.7	20.75	21.03	20.33	38.6	39.7	38.9	53.7	53.0	52.3
Stone, clay, and glass products	95.6	93.0	89.7	97.8	91.1	85.2	27.64	26.50	25.89	38.5	38.0	37.2	71.0	69.5	68.9
Brick, tile, and terra cotta	72.7	69.2	65.4	69.0	62.4	56.1	24.49	23.38	22.30	38.4	38.4	37.4	63.7	60.6	59.4
Cement	78.0	74.2	69.3	85.2	75.5	66.2	30.71	28.72	27.13	40.6	40.3	38.2	75.7	71.3	71.0
Glass	124.0	121.8	119.5	150.3	143.5	140.5	29.53	28.70	28.76	37.8	37.4	37.1	76.9	77.0	77.8
Marble, granite, slate, and other products	46.3	45.3	43.4	38.7	34.6	31.1	29.38	26.80	25.37	39.5	36.9	35.2	75.4	73.5	72.3
Pottery	112.5	113.1	111.2	113.6	111.1	104.6	25.58	24.88	23.90	38.1	37.6	37.4	67.0	66.2	64.1

See footnotes at end of table.

TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries—Continued*

## MANUFACTURING—Continued

[Indexes are based on 3-year averages, 1923-25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941
<i>Nondurable goods</i>															
<b>Textiles and their products</b> .....	112.4	112.1	111.6	110.3	107.0	107.0	\$20.12	\$19.46	\$19.37	37.9	37.3	37.8	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Fabrics.....	105.1	103.7	102.7	109.2	104.1	101.1	20.08	19.30	18.89	38.8	38.3	38.6	53.0	52.4	51.7
Carpets and rugs.....	89.2	87.0	85.5	89.6	81.5	83.1	27.78	25.94	26.86	39.3	37.4	39.0	52.0	50.9	49.4
Cotton goods.....	106.3	104.7	103.6	116.9	113.3	104.8	17.83	17.54	16.39	39.5	39.3	38.8	70.7	69.4	68.9
Cotton small wares.....	102.6	100.8	98.2	114.1	107.4	104.5	21.70	20.73	20.87	41.5	40.2	41.1	45.1	44.6	42.3
Dyeing and finishing textiles.....	141.2	143.3	142.0	133.9	134.7	133.3	23.06	22.78	22.91	38.6	38.7	40.8	52.5	51.6	50.8
Hats, fur-felt.....	79.9	80.7	84.7	74.8	66.9	88.1	25.77	23.00	29.12	33.5	29.4	37.8	59.4	58.4	55.5
Hosiery.....	143.0	141.9	143.8	153.1	155.2	160.5	19.64	19.37	19.80	35.8	35.4	36.2	77.1	75.9	77.1
Knitted underwear.....	76.5	71.4	68.2	71.5	63.9	60.8	19.38	18.53	18.34	38.5	37.3	37.4	54.8	54.7	54.6
Knitted underwear.....	82.3	82.6	80.4	84.6	84.0	81.7	17.21	17.03	17.00	38.0	37.8	38.3	50.0	49.2	49.1
Knitted cloth <sup>2</sup> .....	154.7	141.5	145.6	149.2	132.7	133.0	21.79	21.17	20.57	40.4	40.1	39.6	45.1	44.8	44.2
Silk and rayon goods.....	68.5	68.5	67.2	62.4	60.1	57.5	18.72	18.04	17.55	38.5	37.6	37.8	53.3	52.6	51.7
Woolen and worsted goods.....	106.9	104.3	102.7	113.3	101.5	100.3	24.58	22.44	22.51	39.7	38.7	39.1	48.4	47.8	46.2
Woolen and worsted goods.....	106.9	104.3	102.7	113.3	101.5	100.3	24.58	22.44	22.51	39.7	38.7	39.1	61.6	58.1	57.6
<b>Wearing apparel<sup>3</sup></b> .....	124.0	126.2	127.0	105.7	106.2	112.2	20.24	19.91	20.68	36.2	35.3	36.3	55.0	55.3	56.1
Clothing, men's <sup>4</sup> .....	118.8	117.9	115.9	101.2	98.3	112.2	21.71	21.32	21.90	35.9	35.6	36.2	60.3	60.0	60.1
Clothing, women's <sup>5</sup> .....	165.2	171.9	177.8	131.3	132.3	148.0	21.33	20.53	22.12	36.7	35.0	36.3	54.5	55.0	57.2
Corsets and allied garments.....	118.1	118.1	117.8	136.6	132.5	133.4	19.12	18.65	18.87	38.7	37.5	38.5	48.8	49.2	48.7
Men's furnishings.....	121.8	122.3	122.6	129.9	123.9	129.1	15.88	15.13	15.66	36.4	34.9	36.1	42.8	42.6	42.4
Millinery.....	75.7	87.8	91.0	51.0	75.5	84.6	20.59	26.37	28.50	28.6	32.6	34.9	66.6	69.7	70.0
Shirts and collars.....	131.1	130.0	127.5	129.8	126.3	121.1	15.49	15.20	14.87	37.0	36.4	36.2	42.9	42.6	41.7
<b>Leather and its manufactures</b> .....	95.5	98.0	93.7	91.0	92.3	96.1	22.09	21.87	22.67	37.5	38.0	39.7	59.0	57.9	57.2
Boots and shoes.....	93.0	95.8	90.7	85.7	89.1	94.2	20.89	20.84	21.77	36.9	37.7	39.7	56.7	55.5	54.9
Leather.....	89.6	90.0	89.1	97.6	95.1	94.3	27.29	26.52	26.47	40.1	39.2	39.6	68.1	67.7	67.0
<b>Food and kindred products</b> .....	127.5	123.6	120.3	134.7	125.2	122.4	26.67	25.57	25.74	40.3	39.6	40.0	67.0	65.5	65.5
Baking.....	149.0	146.5	145.0	148.4	140.9	140.0	27.56	26.59	26.66	41.8	41.1	41.6	65.9	64.7	64.1
Beverages.....	233.0	271.5	263.9	362.4	331.4	312.9	36.19	35.67	34.63	40.7	40.1	38.9	89.8	89.8	90.1
Butter.....	109.6	102.3	95.9	97.4	89.9	85.2	23.15	22.96	23.14	45.9	45.3	45.3	49.5	50.0	50.5
Canning and preserving.....	99.9	96.9	80.4	91.1	87.5	75.6	17.44	17.33	17.90	34.3	34.2	34.5	51.7	51.4	52.5
Confectionery.....	81.0	86.4	89.3	83.7	85.8	93.5	19.91	19.17	20.30	37.6	37.1	39.2	54.0	52.5	52.4



Flour.....	76.5	77.4	76.8	75.6	76.4	72.7	26.57	26.59	25.48	42.0	42.5	41.0	62.8	62.3	61.6
Ice cream.....	87.9	78.7	70.8	75.9	69.5	62.5	29.81	30.50	30.21	45.4	45.8	45.2	63.5	64.1	65.2
Slaughtering and meat packing.....	116.8	110.2	110.7	133.1	115.1	114.2	29.55	27.14	26.81	40.5	39.1	39.2	73.1	69.4	68.5
Sugar, beet.....	47.4	43.6	43.2	53.8	48.2	46.0	29.35	28.63	27.56	39.5	37.9	34.6	77.2	78.6	81.9
Sugar refining, cane.....	102.5	102.6	95.7	90.0	92.5	92.3	24.89	25.53	27.32	38.2	39.1	41.5	65.2	65.2	65.8
<b>Tobacco manufactures.....</b>	<b>64.9</b>	<b>63.5</b>	<b>63.3</b>	<b>66.8</b>	<b>58.9</b>	<b>62.7</b>	<b>18.67</b>	<b>16.88</b>	<b>17.99</b>	<b>36.8</b>	<b>33.2</b>	<b>36.1</b>	<b>50.5</b>	<b>50.6</b>	<b>49.7</b>
Chewing and smoking tobacco and snuff.....	52.8	53.5	54.2	66.9	61.6	64.2	20.45	18.50	19.10	36.4	33.7	35.3	56.4	54.9	54.3
Cigars and cigarettes.....	66.4	64.7	64.4	66.7	58.5	62.4	18.33	16.58	17.78	36.9	33.0	36.1	49.9	50.1	49.2
<b>Paper and printing.....</b>	<b>120.8</b>	<b>119.4</b>	<b>118.1</b>	<b>124.9</b>	<b>121.2</b>	<b>120.3</b>	<b>31.15</b>	<b>30.54</b>	<b>30.67</b>	<b>40.0</b>	<b>39.6</b>	<b>39.7</b>	<b>81.1</b>	<b>80.5</b>	<b>80.7</b>
Boxes, paper.....	129.5	126.6	123.0	159.0	150.7	145.0	24.56	23.74	23.54	41.8	40.8	40.8	59.2	58.5	58.2
Paper and pulp.....	122.7	120.3	118.5	145.6	139.1	136.4	29.07	28.31	28.19	43.0	42.6	42.5	67.6	66.6	66.4
Printing and publishing:															
Book and job.....	103.2	102.8	102.1	95.7	93.7	94.9	32.01	31.54	32.08	39.7	39.4	39.8	81.9	81.4	81.7
Newspapers and periodicals.....	117.6	117.1	116.9	114.0	112.4	112.1	39.51	39.01	39.02	36.2	36.0	36.0	106.6	105.7	105.5
<b>Chemical, petroleum, and coal products.....</b>	<b>133.5</b>	<b>134.4</b>	<b>130.7</b>	<b>162.4</b>	<b>156.6</b>	<b>148.1</b>	<b>32.39</b>	<b>30.95</b>	<b>30.36</b>	<b>39.8</b>	<b>39.9</b>	<b>39.1</b>	<b>80.6</b>	<b>77.3</b>	<b>76.6</b>
Petroleum refining.....	122.0	120.5	119.5	146.3	142.4	133.4	37.14	36.64	34.68	37.0	37.0	36.0	100.8	99.5	96.7
Other than petroleum refining.....	136.3	137.7	133.4	167.4	160.9	152.7	30.73	29.07	28.83	40.7	40.7	40.1	74.4	70.7	70.5
Chemicals.....	166.8	162.4	159.3	221.8	208.3	201.7	35.48	34.24	33.93	41.1	40.8	41.0	86.3	83.9	82.9
Cottonseed—oil, cake, and meal.....	70.9	88.6	99.7	65.5	82.7	92.9	14.85	14.95	14.92	40.6	42.4	42.1	35.1	34.4	34.5
Druggists' preparations.....	125.2	122.4	120.9	142.8	137.7	137.7	25.49	25.12	25.62	39.4	39.4	39.9	61.5	61.1	61.6
Explosives.....	(10)	(10)	(10)	(10)	(10)	(10)	37.97	35.66	35.14	42.2	41.0	40.5	90.1	87.1	86.8
Fertilizers.....	127.1	178.7	140.9	127.4	176.9	116.9	17.99	17.48	14.88	38.5	41.9	36.5	46.8	41.7	40.8
Paints and varnishes.....	141.4	137.4	132.9	170.4	157.9	147.4	33.05	31.57	30.46	43.0	41.9	40.8	77.0	75.5	74.9
Rayon and allied products.....	323.5	317.9	312.2	356.2	342.3	332.9	28.16	27.54	27.28	39.5	39.0	38.9	71.2	70.6	70.0
Soap.....	92.2	91.6	90.7	125.7	115.6	114.8	32.13	29.76	29.84	40.7	40.4	40.5	78.9	73.7	73.6
<b>Rubber products.....</b>	<b>106.3</b>	<b>105.0</b>	<b>102.8</b>	<b>129.0</b>	<b>122.8</b>	<b>119.5</b>	<b>32.83</b>	<b>31.74</b>	<b>31.67</b>	<b>40.3</b>	<b>39.4</b>	<b>39.7</b>	<b>81.8</b>	<b>80.4</b>	<b>79.9</b>
Rubber boots and shoes.....	74.9	72.4	68.9	88.3	83.6	80.4	27.11	26.54	26.83	41.2	40.9	41.7	65.8	64.9	64.3
Rubber tires and inner tubes.....	83.2	82.3	80.0	111.6	107.1	102.7	38.96	38.01	37.55	38.6	38.2	37.9	101.1	99.7	99.4
Rubber goods, other.....	181.5	180.4	179.2	207.2	194.8	194.6	27.56	26.11	26.31	41.8	40.4	41.0	66.6	65.4	64.7

See footnotes at end of table.

TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries—Continued*

## NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Industry	Employment index			Pay-roll index			Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941
Coal mining:															
Anthracite <sup>11 12</sup> .....	48.6	48.7	50.2	33.4	24.3	42.4	\$22.59	\$16.43	\$27.79	22.9	18.5	29.9	94.5	92.3	92.7
Bituminous <sup>11</sup> .....	89.9	23.5	91.1	99.2	15.8	93.8	29.63	18.02	27.64	30.2	22.9	31.6	97.3	84.1	88.3
Metalliferous mining <sup>13</sup> .....	78.3	77.2	74.3	81.8	78.6	72.7	32.91	32.08	30.85	41.8	41.2	41.0	79.0	78.2	75.4
Quarrying and nonmetallic mining.....	51.3	48.2	44.2	53.6	47.0	40.3	26.10	24.37	22.85	42.3	40.7	38.9	61.5	60.0	58.9
Crude-petroleum production.....	60.4	60.1	60.2	59.6	57.8	56.1	36.22	35.31	34.25	37.9	38.0	37.3	92.7	90.0	89.3
Public utilities:															
Telephone and telegraph <sup>14 15</sup> .....	84.6	83.2	81.8	109.2	107.1	106.4	31.63	31.55	31.93	39.8	39.8	39.8	79.7	79.6	80.6
Electric light and power <sup>14 15</sup> .....	92.3	91.3	90.3	110.3	107.6	106.1	36.46	35.96	35.82	40.1	39.8	39.3	91.3	90.6	91.4
Street railways and busses <sup>14 15 16</sup> .....	68.9	68.3	68.2	73.0	72.0	72.5	34.49	34.37	34.59	46.5	46.4	46.6	73.2	73.1	73.2
Trade															
Wholesale <sup>14 17</sup> .....	92.3	92.4	91.8	84.6	83.4	82.0	31.88	31.36	31.17	41.3	41.0	40.6	78.2	77.5	77.2
Retail <sup>14 15</sup> .....	96.0	97.8	92.5	91.5	91.7	86.2	21.92	21.56	21.59	42.5	42.5	42.7	56.1	55.0	54.8
Food <sup>15</sup> .....	107.8	107.5	106.1	101.4	100.8	99.1	24.00	23.88	23.83	42.6	43.0	43.1	53.1	52.9	52.9
General merchandising <sup>14 15</sup> .....	103.0	108.7	96.6	95.8	98.6	88.3	18.49	18.13	18.18	38.3	38.7	38.5	47.8	46.1	46.6
Apparel <sup>15</sup> .....	90.8	99.9	83.0	84.8	94.4	76.5	21.67	21.97	21.50	38.1	38.1	38.0	56.9	57.3	55.7
Furniture <sup>15</sup> .....	77.8	76.8	74.2	75.0	71.9	66.3	30.28	29.44	28.36	44.7	44.4	44.1	71.9	70.3	67.0
Automotive <sup>15</sup> .....	91.7	90.7	87.9	99.7	95.8	87.9	32.44	31.52	29.96	47.7	47.6	47.1	68.3	66.4	64.3
Lumber <sup>15</sup> .....	76.6	74.9	72.5	76.5	72.6	69.2	27.94	27.11	26.72	43.0	42.4	42.0	65.7	64.8	64.8
Hotels (year-round) <sup>11 14 18</sup> .....	96.8	95.2	94.2	88.4	87.1	85.7	15.86	15.87	15.67	44.7	45.4	46.0	34.5	34.0	33.7
Laundries <sup>11</sup> .....	108.4	104.9	102.5	98.9	95.8	90.9	18.95	18.98	18.37	43.7	43.8	43.3	43.6	43.4	42.6
Dyeing and cleaning <sup>11</sup> .....	120.7	117.2	104.4	95.6	97.8	77.2	21.77	22.94	20.34	44.7	45.8	42.4	49.7	51.1	49.4
Brokerage <sup>14 19</sup> .....	-6	-8	-1.6	-5	+2	-1.4	38.57	38.54	37.85	(10)	(10)	(10)	(10)	(10)	(10)
Insurance <sup>14 19</sup> .....	+2	+3	+2	+3	+4	+6	37.34	37.34	37.24	(10)	(10)	(10)	(10)	(10)	(10)
Building construction <sup>19</sup> .....	+5.4	+11.1	+2	+8.0	+15.5	+5	34.87	33.96	32.61	35.1	34.4	32.8	99.3	98.9	100.0

<sup>1</sup> Mimeographed sheets giving averages by years 1932 to 1939, inclusive, and by months, January 1938 to August 1940, inclusive, available on request. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms 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.

<sup>2</sup> See tables 9, 10, and 11 in the December 1940 issue of Employment and Pay Rolls for comparable series back to January 1919 for all manufacturing and back to January 1923 for the durable- and nondurable-foods groups.

<sup>3</sup> Because of change in the composition of the reporting sample, hours and earnings are not comparable with those previously published as indicated:

*Forgings.*—Average weekly earnings, average weekly hours, average hourly earnings (comparable February figures \$36.95, 45.0 hours, 82.3 cents).

*Wirework.*—Average weekly earnings, average weekly hours, average hourly earnings (comparable February figures \$29.46, 41.9 hours, 70.4 cents).

*Knitted cloth.*—Average weekly earnings and average hourly earnings (comparable February figures \$20.37 and 51.1 cents).

*Wearing apparel group.*—Average hourly earnings (comparable January and February figures 55.7 and 56.1 cents).

*Women's clothing.*—Average weekly earnings and average weekly hours (comparable January figures \$19.60, 33.4 hours); average hourly earnings (comparable January and February figures 56.7 and 57.8 cents).

<sup>4</sup> Not comparable with previously published figures. See table 7 in the April 1941 issue of Employment and Pay Rolls for revised figures from January 1940 to March 1941.

<sup>5</sup> Revisions in the following industries have been made as indicated:

*Tin cans.*—January and February 1941 average weekly and hourly earnings to \$25.31 and \$24.98; 63.9 and 63.8 cents; January average weekly hours to 39.8; January and February pay-roll indexes to 114.8 and 115.7.

*Transportation group.*—February average hourly earnings to 91.7 cents.

*Men's clothing.*—February average weekly earnings, average weekly hours, average hourly earnings to \$21.43, 35.7 hours, 59.9 cents; February pay-roll index to 96.2.

<sup>6</sup> November and December 1940, January and February 1941 weekly earnings, average weekly hours, and average hourly earnings revised to \$36.35, \$38.20, \$39.16, \$38.56; 43.2,

45.5, 45.4, 45.3 hours; 84.2, 84.1, 86.5, 85.3 cents; employment indexes to 200.5, 210.5, 222.4, 236.3; pay-roll indexes to 274.8, 303.3, 329.9, 345.4. Beginning with January 1941, average weekly earnings and average hourly earnings not comparable with figures given for previous months because of expansion in the reporting sample (comparable December weekly and hourly earnings \$38.04 and 83.8 cents).

<sup>7</sup> Adjusted on basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics for August 1940. Not comparable with previously published indexes from January 1939 to August 1940, inclusive. Comparable figures for this period given in table 9 of the September 1940 issue of Employment and Pay Rolls.

<sup>8</sup> The indexes for "automobiles" have been adjusted to 1933 census figures, but not to later census figures, because of problems involving integrated industries.

<sup>9</sup> See table 8 in March 1941 Employment and Pay Rolls pamphlet for revised figures from January 1935 to February 1941.

<sup>10</sup> Not available.

<sup>11</sup> Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of Employment and Pay Rolls.

<sup>12</sup> See table 7 of October 1940 Employment and Pay Rolls for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in anthracite mining, February 1940 to September 1940, inclusive.

<sup>13</sup> See table 7 of February 1941 issue of "Employment and Pay Rolls, for revised figures for metalliferous mining from January 1938 to January 1941, inclusive.

<sup>14</sup> Average weekly earnings, hourly earnings, and hours not comparable with figures published in pamphlet prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

<sup>15</sup> Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable to indexes published in pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940, with but one exception, retail furniture, which has been revised since publication of July 1940 pamphlet back to January 1936. Comparable series for earlier months available upon request.

<sup>16</sup> Covers street-railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

<sup>17</sup> Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of Employment and Pay Rolls.

<sup>18</sup> Cash payments only; additional value of board, room, and tips not included.

<sup>19</sup> Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

TABLE 4.—Indexes of Employment and Pay Rolls in Fifty-five Additional Manufacturing Industries

[12-month average, 1939=100]

Industry	Employment			Pay rolls		
	May 1941	April 1941	March 1941	May 1941	April 1941	March 1941
<b>Iron and steel group:</b>						
Metal doors and shutters.....	128.8	126.9	125.7	142.7	135.9	136.7
Firearms.....	(1)	(1)	(1)	(1)	(1)	(1)
Screw-machine products.....	183.6	178.3	173.3	246.4	224.4	222.7
Wire drawing.....	137.5	136.7	133.3	169.0	158.4	154.8
Wrought pipe not made in rolling mills.....	156.2	155.7	144.9	201.4	175.7	167.9
Steel barrels, kegs, and drums.....	128.4	117.4	108.1	168.4	147.5	126.7
<b>Machinery group:</b>						
Machine-tool accessories.....	211.2	200.5	190.5	275.7	251.7	235.0
Pumps.....	173.9	165.5	158.0	243.1	218.6	203.9
Refrigerators and refrigerating apparatus.....	156.4	153.7	150.9	194.3	182.7	177.5
Sewing machines.....	125.3	122.3	117.8	178.1	165.4	149.0
Washing machines, wringers, and driers.....	137.5	130.8	125.4	173.0	162.6	145.2
<b>Transportation equipment group:</b>						
Motorcycles, bicycles, and parts.....	158.0	147.3	133.5	182.8	168.3	144.6
<b>Nonferrous metals group:</b>						
Sheet-metal work.....	141.3	142.2	140.1	170.9	161.2	155.3
Smelting and refining of scrap metal.....	138.4	141.2	135.9	163.6	167.5	161.8
<b>Lumber group:</b>						
Caskets and morticians' goods.....	101.0	102.0	102.4	109.4	108.5	110.1
Wood preserving.....	120.2	121.0	117.3	143.5	142.8	137.8
Wood, turned and shaped.....	117.4	117.2	116.3	134.9	130.9	130.7
Wooden boxes, other than cigar.....	121.6	118.3	115.9	149.5	137.7	129.7
Mattresses and bedsprings.....	119.1	116.2	114.5	135.7	127.7	125.7
<b>Stone, clay, and glass products group:</b>						
Abrasive wheels.....	178.1	172.3	164.1	219.8	202.8	181.9
Asbestos products.....	126.8	121.3	115.7	158.3	139.6	138.8
Lime.....	126.3	120.5	111.9	158.5	141.0	120.8
Gypsum.....	118.1	112.2	109.2	135.3	126.6	112.8
Glass products made from purchased glass.....	144.6	134.6	130.0	160.9	143.5	141.2
Wallboard and plaster, except gypsum.....	127.9	122.8	122.2	148.9	137.1	136.5
<b>Textiles:</b>						
Textile bags.....	110.3	110.8	104.3	120.4	119.6	115.1
Cordage and twine.....	129.2	124.6	120.4	161.1	148.1	138.3
Curtains, draperies, and bedspreads.....	101.0	98.2	102.8	115.9	115.0	119.1
Housefurnishings, other.....	143.0	136.0	129.6	159.8	141.3	143.4
Jute goods, except felt.....	120.1	121.5	113.5	151.4	150.7	136.5
Handkerchiefs.....	103.2	101.1	100.3	120.0	112.8	117.1
<b>Leather group:</b>						
Boot and shoe cut stock and findings.....	103.7	103.3	104.8	115.2	111.9	117.5
Leather gloves and mittens.....	135.7	135.7	130.1	172.1	169.4	156.6
Trunks and suitcases.....	142.1	136.4	131.7	138.4	131.6	131.1
<b>Food group:</b>						
Cereal preparations.....	106.4	102.2	100.2	118.9	114.3	107.6
Condensed and evaporated milk.....	119.8	109.6	102.6	134.9	117.7	107.9
Feeds, prepared.....	106.9	105.4	101.3	117.7	113.5	104.6
<b>Paper and printing group:</b>						
Paper bags.....	118.5	115.0	105.5	138.7	129.9	117.6
Envelopes.....	113.8	112.0	111.0	125.3	118.5	116.7
Paper goods, not elsewhere classified.....	118.8	117.7	115.5	129.0	124.7	123.8
Bookbinding.....	106.7	105.9	105.7	119.6	121.5	121.8
Lithographing.....	100.2	98.7	96.6	110.5	107.4	106.1
<b>Chemical, petroleum, and coal products group:</b>						
Ammunition.....	(1)	(1)	(1)	(1)	(1)	(1)
Compressed and liquefied gases.....	138.1	135.7	133.1	180.1	160.9	162.9
Perfumes and cosmetics.....	89.4	92.7	90.3	93.8	94.3	91.0
Coke-oven products.....	120.8	115.8	118.5	141.5	125.6	123.2
Paving materials.....	117.9	97.2	86.4	130.7	102.2	93.7
Roofing materials.....	124.7	121.5	115.9	149.3	136.0	126.1
<b>Miscellaneous group:</b>						
Chemical fire extinguishers.....	240.7	224.4	218.4	330.2	271.0	279.9
Buttons.....	114.8	111.9	111.5	138.2	129.6	127.8
Instruments, professional, scientific, and commercial.....	175.8	169.2	161.0	218.5	203.7	192.9
Optical goods.....	160.1	155.9	149.8	182.5	174.8	165.2
Photographic apparatus.....	115.6	113.6	110.6	135.3	128.9	120.8
Pianos, organs, and parts.....	121.1	123.1	121.5	131.2	129.3	127.0
Toys, games, and playground equipment.....	122.2	106.6	111.4	127.0	108.5	117.0

1Not available.

TABLE 5.—Indexes of Employment and Pay Rolls in Selected Manufacturing<sup>1</sup> and Non-manufacturing<sup>2</sup> Industries, May 1940 Through May 1941

Industry	1940										1941				
	Av.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
<b>Employment</b>															
<i>Manufacturing</i>															
All industries.....	107.5	102.5	103.1	103.2	107.4	111.4	113.8	114.7	116.2	115.5	117.8	119.9	122.6	124.8	
Durable goods <sup>3</sup> .....	104.3	99.2	99.8	98.4	102.4	108.2	112.8	115.5	117.7	118.3	121.0	123.7	127.7	131.2	
Nondurable goods <sup>4</sup> .....	110.6	105.6	106.2	107.8	112.2	114.4	114.8	113.8	114.8	112.7	114.7	116.3	117.8	118.7	
<i>Nonmanufacturing</i>															
Anthracite mining <sup>5</sup> .....	50.7	51.8	49.7	50.5	49.9	49.8	49.4	50.4	50.8	50.3	50.6	50.2	48.7	48.6	
Bituminous-coal mining <sup>5</sup> .....	88.0	85.1	83.8	84.9	86.6	87.7	89.2	89.8	90.1	90.2	90.6	91.1	23.5	89.9	
Metalliferous mining <sup>6</sup> .....	69.9	69.2	70.3	71.0	71.5	72.5	72.6	72.5	72.2	72.5	73.4	74.3	77.2	78.3	
Quarrying and nonmetallic mining.....	45.3	46.9	47.9	48.1	48.5	48.9	48.8	47.2	45.4	41.7	42.4	44.2	48.2	51.3	
Crude-petroleum production.....	62.9	63.3	63.8	63.7	63.6	63.0	62.4	61.3	60.7	60.3	60.4	60.2	60.1	60.4	
Telephone and telegraph.....	77.9	77.3	77.8	78.8	79.0	78.9	79.1	79.2	79.7	80.4	80.9	81.8	83.2	84.6	
Electric light and power <sup>7</sup> .....	91.1	90.6	91.2	92.2	93.0	92.7	92.3	91.8	91.3	90.5	90.1	90.3	91.3	92.3	
Street railways and busses <sup>7</sup> .....	68.5	68.4	68.5	68.4	68.4	68.5	68.7	68.7	68.4	68.3	68.0	68.2	68.3	68.9	
Wholesale trade.....	90.4	88.9	89.6	89.2	90.1	90.9	91.0	91.8	92.5	91.2	91.4	91.8	92.4	92.3	
Retail trade <sup>7</sup> .....	92.3	91.2	91.9	89.1	88.7	92.8	94.3	96.3	108.1	90.5	90.7	92.5	97.8	96.0	
Year-round hotels <sup>5</sup> .....	92.0	93.4	92.0	90.3	90.3	91.6	93.4	92.3	92.6	92.9	93.9	94.2	95.2	96.8	
Laundries <sup>5</sup> .....	99.5	99.1	102.1	102.5	102.8	101.9	100.2	99.7	100.3	101.4	101.1	102.5	104.9	108.4	
Dyeing and cleaning <sup>5</sup> .....	104.7	108.7	112.6	108.2	106.7	110.0	109.4	106.0	103.3	101.0	101.4	104.4	117.2	120.7	
<b>Pay rolls</b>															
All industries.....	105.4	97.8	99.5	98.2	105.5	111.6	116.2	116.4	122.4	120.7	126.8	131.2	134.7	144.0	
Durable goods <sup>3</sup> .....	107.8	98.7	101.4	97.4	106.5	115.1	123.4	125.1	131.7	132.0	139.3	144.6	149.9	163.0	
Nondurable goods <sup>4</sup> .....	102.7	96.8	97.4	99.1	104.4	107.7	108.1	106.6	112.1	108.1	112.9	116.3	117.7	122.7	
<i>Nonmanufacturing</i>															
Anthracite mining <sup>5</sup> .....	38.5	40.0	40.6	36.5	33.1	39.3	32.3	37.6	42.7	38.5	45.2	42.4	24.3	33.4	
Bituminous-coal mining <sup>5</sup> .....	81.2	75.3	73.9	75.2	82.5	83.2	83.6	84.5	91.4	87.8	90.8	93.8	15.8	99.2	
Metalliferous mining <sup>6</sup> .....	66.7	65.7	65.3	63.6	68.5	69.5	71.3	69.8	72.8	70.4	71.8	72.7	78.6	81.8	
Quarrying and nonmetallic mining.....	40.5	42.7	43.9	43.5	45.2	46.2	46.7	42.3	42.4	36.9	38.2	40.3	47.0	53.6	
Crude-petroleum production.....	58.2	58.7	58.8	59.1	59.0	58.2	57.6	56.8	55.9	55.7	57.3	56.1	57.8	59.6	
Telephone and telegraph <sup>7</sup> .....	100.2	98.8	100.0	101.3	100.4	101.8	102.2	103.2	103.5	103.9	104.3	106.4	107.1	109.2	
Electric light and power <sup>7</sup> .....	104.8	104.2	104.8	105.8	108.1	105.8	107.0	106.9	106.0	105.1	105.4	106.1	107.6	110.3	
Street railways and busses <sup>7</sup> .....	70.4	69.2	70.5	70.0	70.4	71.5	70.7	70.3	73.1	70.7	71.0	72.5	72.0	73.0	
Wholesale trade.....	79.0	77.4	78.4	78.3	78.7	81.1	80.2	80.7	83.4	80.5	81.4	82.0	83.4	84.6	
Retail trade <sup>7</sup> .....	84.2	83.4	84.8	82.6	81.5	85.1	85.8	87.1	97.3	83.7	84.6	86.2	91.7	91.5	
Year-round hotels <sup>5</sup> .....	82.4	83.0	82.0	80.5	80.7	81.8	84.2	83.6	84.1	84.1	86.1	85.7	87.1	88.4	
Laundries <sup>5</sup> .....	87.7	88.5	92.4	90.0	90.5	89.9	88.0	87.2	89.2	89.8	89.7	90.9	95.8	98.9	
Dyeing and cleaning <sup>5</sup> .....	78.2	85.4	89.6	80.0	78.9	85.6	82.4	77.8	75.8	73.3	74.4	77.2	97.8	95.6	

<sup>1</sup> 3-year average 1923-25=100—adjusted to preliminary 1939 Census of Manufactures. See tables 9, 10, and 11 of December 1940 Employment and Pay Rolls for comparable figures back to January 1919 for "all manufacturing" and January 1923 for "durable goods" and "nondurable goods."

<sup>2</sup> 12-month average for 1929=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude-petroleum production are in November 1934 and subsequent issues of Employment and Pay Rolls, or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5, 6, and 7.

<sup>3</sup> Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.

<sup>4</sup> Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.

<sup>5</sup> Indexes have been adjusted to the 1935 census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of the pamphlet. See also table 7 of October 1940 pamphlet for revised figures for anthracite mining February 1940 to September 1940.

<sup>6</sup> See table 7 of February 1941 pamphlet for revised indexes January 1933 to January 1941.

<sup>7</sup> Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable with indexes published in Employment and Pay Rolls pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940. Comparable series January 1929 to December 1939 available in mimeographed form.

<sup>8</sup> Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

**INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL  
METROPOLITAN AREAS**

A comparison of employment and pay rolls in April and May 1941 is made in table 6 for 13 metropolitan areas, each of which had a population of 500,000 or over in 1930. Cities within these areas but having a population of 100,000 or over are not included. Footnotes to the table specify which cities are excluded. Data concerning them have been prepared in a supplementary tabulation which is available on request. The figures represent reports from cooperating establishments and cover both full- and part-time workers in the manufacturing and nonmanufacturing industries presented in table 3, with the exception of building construction, and include also miscellaneous industries.

Revisions made in the figures after they have gone to press, chiefly because of late reports by cooperating firms, are incorporated in the supplementary tabulation mentioned above. This supplementary tabulation covers these 13 metropolitan areas as well as other metropolitan areas and cities having a population of 100,000 or more according to the 1930 Census of Population.

**TABLE 6.—Comparison of Employment and Pay Rolls in Identical Establishments  
in April and May 1941, by Principal Metropolitan Areas**

Metropolitan area	Number of establish- ments, May 1941	Number on pay roll, May 1941	Percentage change from April 1941	Amount of pay roll (1 week), May 1941	Percentage change from April 1941
New York <sup>1</sup> .....	13,480	796,781	-0.3	\$24,837,036	+3.3
Chicago <sup>2</sup> .....	4,379	537,482	+2.6	17,025,228	+6.2
Philadelphia <sup>3</sup> .....	2,400	275,729	+1.8	8,604,633	+8.1
Detroit.....	1,146	398,648	+9	16,405,519	+17.9
Los Angeles <sup>4</sup> .....	2,876	243,329	+2.4	7,945,452	+3.9
Cleveland.....	1,311	165,332	+8	5,797,062	+6.4
St. Louis.....	1,370	156,015	+1.7	4,241,534	+3.6
Baltimore.....	1,126	151,545	+3.1	4,650,927	+8.3
Boston <sup>5</sup> .....	2,680	219,788	+1.2	6,430,905	+3.9
Pittsburgh.....	1,251	246,754	+6.8	9,086,333	+12.2
San Francisco <sup>6</sup> .....	1,738	107,310	+3.5	3,543,735	+5.2
Buffalo.....	801	114,384	+2.1	3,842,737	+8.8
Milwaukee.....	979	132,848	+3.0	4,357,640	+6.1

<sup>1</sup> Does not include Elizabeth, Jersey City, Newark, or Paterson, N. J., or Yonkers, N. Y.

<sup>2</sup> Does not include Gary, Ind.

<sup>3</sup> Does not include Camden, N. J.

<sup>4</sup> Does not include Long Beach, Calif.

<sup>5</sup> Does not include Cambridge, Lynn, or Somerville, Mass.

<sup>6</sup> Does not include Oakland, Calif.

**WAGE-RATE CHANGES IN AMERICAN INDUSTRIES**

The following table gives information concerning wage-rate adjustments occurring during the month ending May 15, 1941, as shown by reports received from manufacturing and nonmanufacturing establishments which supply employment data to this Bureau.

As the Bureau's survey does not cover all establishments in an industry, and furthermore, as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

TABLE 7.—Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending May 15, 1941<sup>1 2</sup>

Group and industry	Establishments		Employees		Average percentage change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number having increases	
<b>All manufacturing</b> .....	<b>83,791</b>	<b>19,28</b>	<b>7,104,962</b>	<b>720,956</b>	<b>8.9</b>
<b>Iron and steel group</b> .....	<b>2,550</b>	<b>255</b>	<b>1,025,192</b>	<b>106,048</b>	<b>11.4</b>
Blast furnaces, steel works, and rolling mills.....	339	60	546,417	44,576	10.2
Bolts, nuts, washers, and rivets.....	64	10	17,941	3,202	8.1
Cast-iron pipe.....	69	9	19,327	5,505	9.7
Cutlery (not including silver and plated cutlery) and edge tools.....	115	4	14,759	861	8.2
Forgings, iron and steel.....	98	11	18,304	2,570	12.3
Hardware.....	158	6	53,420	4,055	6.6
Plumbers' supplies.....	112	12	29,015	1,803	10.3
Stamped and enameled ware.....	238	22	51,090	5,411	9.3
Steam and hot-water heating apparatus and steam fittings.....	107	14	39,573	4,214	7.7
Stoves.....	247	22	42,563	3,237	8.3
Structural and ornamental metalwork.....	301	18	34,529	9,057	13.7
Tin cans and other tinware.....	134	10	32,327	3,191	8.6
Tools (not including edge tools, machine tools, files, and saws).....	131	10	19,367	1,774	7.4
Wirework.....	164	16	28,072	5,787	10.9
Metal doors and shutters.....	21	4	4,092	1,435	8.3
Screw-machine products.....	78	7	14,578	1,285	11.7
Wire not made in rolling mills.....	44	9	17,316	2,879	11.2
<b>Machinery group</b> .....	<b>3,867</b>	<b>324</b>	<b>1,144,467</b>	<b>201,279</b>	<b>9.1</b>
Agricultural implements (including tractors).....	110	17	69,930	31,750	5.6
Electrical machinery, apparatus, and supplies.....	596	62	322,906	90,182	11.0
Engines, turbines, water wheels, and windmills.....	68	8	78,497	18,747	6.2
Foundry and machine-shop products.....	2,285	177	363,149	33,198	9.1
Machine tools.....	203	18	92,054	6,297	7.0
Radios and phonographs.....	72	6	50,817	5,773	8.3
Textile machinery and parts.....	127	15	23,123	5,304	10.0
Pumps.....	109	7	24,375	1,231	8.8
Sewing machines.....	9	3	9,365	6,257	8.8
<b>Transportation group</b> .....	<b>773</b>	<b>38</b>	<b>861,752</b>	<b>17,183</b>	<b>7.0</b>
Aircraft.....	96	7	170,973	8,544	4.3
Automobiles.....	400	10	469,162	3,093	9.7
Cars, electric- and steam-railroad.....	74	7	42,160	2,823	10.5
Shipbuilding.....	160	8	156,012	1,846	9.7
<b>Nonferrous group</b> .....	<b>1,091</b>	<b>78</b>	<b>245,228</b>	<b>35,566</b>	<b>8.3</b>
Aluminum manufactures.....	44	5	18,643	8,613	9.9
Brass, bronze, and copper products.....	336	37	96,333	10,453	8.0
Lighting equipment.....	94	6	14,383	475	4.9
Smelting and refining—copper, lead, and zinc.....	53	10	30,027	11,386	8.0
Sheet-metal work.....	129	6	7,197	306	9.1
Smelting and refining of scrap metal.....	27	5	3,237	952	8.4
<b>Lumber group</b> .....	<b>2,646</b>	<b>177</b>	<b>346,887</b>	<b>41,120</b>	<b>7.6</b>
Furniture.....	722	28	109,104	5,186	7.1
Lumber:					
Millwork.....	573	22	38,961	3,063	6.6
Sawmills.....	785	109	142,479	29,468	7.5
Wooden boxes, other than cigar.....	135	6	14,153	568	10.1

See footnotes at end of table.

TABLE 7.—Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending May 15, 1941<sup>1 2</sup>—Continued

Group and industry	Establishments		Employees		Average percentage change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number having increases	
<b>Stone group</b> .....	<b>1,615</b>	<b>157</b>	<b>226,398</b>	<b>27,232</b>	<b>10.0</b>
Brick, tile, and terra cotta.....	542	61	46,335	12,015	11.3
Cement.....	134	52	22,857	9,298	10.3
Glass.....	151	4	70,416	1,213	5.6
Marble, granite, slate, and other products.....	252	13	6,362	488	3.9
Pottery.....	134	9	33,359	1,098	7.6
Asbestos products.....	21	3	9,766	666	8.1
Concrete products.....	98	3	2,633	199	9.2
Gypsum.....	26	6	3,291	1,142	7.1
<b>Textiles and their products</b> .....	<b>6,600</b>	<b>324</b>	<b>1,392,612</b>	<b>120,601</b>	<b>9.2</b>
<b>Fabrics group</b> .....	<b>3,569</b>	<b>289</b>	<b>1,050,994</b>	<b>115,291</b>	<b>9.2</b>
Carpets and rugs.....	33	4	28,415	5,081	5.6
Cotton goods.....	815	18	425,067	7,718	8.9
Cotton small wares.....	130	7	14,898	890	7.7
Dyeing and finishing textiles.....	211	9	59,205	1,312	8.4
Hats, fur-felt.....	36	3	6,403	673	11.5
Hosiery.....	315	3	99,947	1,155	5.2
Knitted underwear.....	136	3	40,233	570	6.4
Knitted cloth.....	75	4	7,369	535	7.1
Silk and rayon goods.....	408	17	78,656	1,588	8.6
Woolen and worsted goods.....	418	182	168,737	87,845	9.6
Textile bags.....	54	5	6,562	640	6.7
Cordage and twine.....	57	5	12,230	1,029	8.0
Gloves.....	38	9	6,503	1,681	6.0
<b>Wearing apparel group</b> .....	<b>3,031</b>	<b>35</b>	<b>341,618</b>	<b>5,310</b>	<b>8.4</b>
Clothing, men's.....	1,165	26	153,270	3,603	9.8
Clothing, women's.....	1,209	5	94,269	439	8.3
Shirts and collars.....	269	3	57,302	1,247	4.5
<b>Leather group</b> .....	<b>1,085</b>	<b>60</b>	<b>242,830</b>	<b>15,763</b>	<b>5.7</b>
Boots and shoes.....	508	25	170,017	9,451	5.6
Leather.....	181	27	39,273	4,959	5.6
Boot and shoe cut stock and findings.....	130	3	10,559	557	6.8
<b>Food group</b> .....	<b>5,425</b>	<b>193</b>	<b>463,486</b>	<b>63,243</b>	<b>8.1</b>
Baking.....	1,054	13	83,825	651	9.5
Beverages.....	623	21	42,486	1,034	6.9
Butter.....	319	3	6,146	184	8.6
Confectionery.....	288	10	35,102	2,938	8.2
Ice cream.....	270	4	10,383	149	7.6
Slaughtering and meat packing.....	343	66	120,639	52,625	8.1
Canning and preserving.....	1,034	28	62,381	1,578	10.5
Condensed and evaporated milk.....	111	7	6,860	239	9.8
Feeds, prepared.....	101	6	3,802	215	7.7
<b>Tobacco group</b> .....	<b>231</b>	<b>3</b>	<b>70,452</b>	<b>637</b>	<b>9.6</b>
Cigars and cigarettes.....	188	3	59,374	637	9.6
<b>Paper group</b> .....	<b>4,058</b>	<b>105</b>	<b>405,324</b>	<b>18,536</b>	<b>7.9</b>
Boxes, paper.....	670	17	47,662	1,269	10.4
Paper and pulp.....	450	42	143,216	12,564	7.0
Printing and publishing:					
Book and job.....	1,632	19	85,343	1,387	12.6
Newspapers and periodicals.....	733	10	64,180	621	3.9
Envelopes.....	62	10	7,010	2,006	10.0
Paper goods, not elsewhere classified.....	139	5	21,979	209	8.6
<b>Chemical group</b> .....	<b>2,303</b>	<b>154</b>	<b>347,171</b>	<b>56,157</b>	<b>7.4</b>
Chemicals.....	239	34	73,687	20,540	7.1
Druggists' preparations.....	92	3	13,090	118	4.0
Explosives.....	34	16	8,009	6,597	8.5
Fertilizers.....	319	7	16,639	1,100	11.2
Paints and varnishes.....	531	27	25,967	2,022	8.3
Petroleum refining.....	182	23	73,241	9,585	5.3
Rayon and allied products.....	30	3	51,305	5,481	5.2
Soap.....	87	12	17,012	5,001	9.0
Grease and tallow.....	23	4	593	116	8.0
Coke-oven products.....	20	3	7,426	634	16.5

See footnotes at end of table.



TABLE 7.—Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending May 15, 1941<sup>1 2</sup>—Continued

Group and industry	Establishments		Employees		Average percentage change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number having increases	
Rubber group.....	260	8	135,971	3,546	7.8
Rubber goods, other.....	208	6	51,360	1,953	7.8
Miscellaneous.....	1,287	54	197,192	14,065	8.2
Instruments—professional, scientific, and commercial.....	63	5	23,526	1,841	8.8
Mattresses and bedsprings.....	190	3	11,662	202	11.6
Photographic apparatus.....	46	3	6,624	392	6.4
Surgical and orthopedic appliances.....	48	4	8,987	2,528	5.4
Fabricated plastic and wood-pulp products.....	73	9	19,150	2,017	10.5
All nonmanufacturing (except building construction)	*94,110	1,844	*3,064,500	349,121	15.6
Anthracite mining.....	*90	44	*58,500	58,500	7.5
Bituminous-coal mining.....	*1,110	( <sup>3</sup> )	*254,900	( <sup>3</sup> )	( <sup>3</sup> )
Metalliferous mining.....	*390	27	*72,900	6,327	8.1
Quarrying and nonmetallic mining.....	*1,120	39	*38,800	2,593	10.0
Crude-petroleum production.....	*480	25	*39,300	2,754	5.1
Natural gas.....	*600	52	*25,000	2,510	9.9
Electric light and power.....	*2,870	37	*249,100	5,275	5.0
Street railways and busses.....	*350	31	*130,600	5,415	4.6
Wholesale trade.....	*15,140	402	*347,200	5,147	6.8
Retail trade.....	*53,840	645	*1,100,400	3,488	7.7
Hotels.....	*2,020	8	*151,600	270	11.1
Laundries.....	*1,340	7	*85,200	364	9.8
Dyeing and cleaning.....	*890	5	*20,200	50	9.3
Insurance.....	*2,700	32	*125,400	806	2.9

<sup>1</sup> Figures are not given for some industries to avoid disclosure of information concerning individual establishments. They are, however, included where practicable in "all manufacturing," in "all nonmanufacturing," and in the various industry groups.

<sup>2</sup> No decreases reported.

<sup>3</sup> It is estimated that nearly 400,000 bituminous-coal miners received wage-rate increases averaging approximately 18 percent.

\*Approximate—based on previous month's sample.

# Recent Publications of Labor Interest

AUGUST 1941

## Conciliation and Arbitration

- Avoiding strikes.* Washington, Bureau of National Affairs, Inc., 1941. 16 pp.  
A study of clauses in 25 collective-bargaining agreements designed to prevent work stoppages and providing for arbitration.
- Strike doctors.* (In *Fortune*, New York, June 1941, pp. 82, 83, et seq.)  
Deals with the work of the United States Conciliation Service and other Federal agencies in settling labor disputes.
- Labor in the defense crisis.* By T. R. Carskadon. New York, Public Affairs Committee, Inc., 1941. 31 pp., charts. (Public affairs pamphlet No. 58.)  
The author sees a danger in prohibiting strikes and recommends voluntary machinery.
- The use of arbitration in the Argentine Republic.* By Henry Paine Crawford. (In *Boston University Law Review*, Boston, November 1940, pp. 685-675.)  
A documented account of the use of arbitration in Argentina, with a section on arbitration in salary and wage disputes.
- The effect of the war on labor arbitration in Europe.* By I. Bessling. (In *Arbitration Journal*, vol. 5, No. 2, New York, 1941, pp. 169-177.)

## Consumer Problems

- Consumer education for life problems: Proceedings of Third National Conference on Consumer Education held at Stephens College, Columbia, Mo., April 7-9, 1941.* Columbia, Mo., Stephens College, Institute for Consumer Education, 1941. 201 pp., illus.  
The topics of this conference included criteria for evaluating consumer-education materials, various consumer-education subjects (such as consumer education of adult groups of various income levels, activity programs for consumer education, consumer education and the cooperative movement, etc.); and consumer education and protection by Federal agencies.
- Consumer standards.* By Samuel P. Kaidanovsky and Alice L. Edwards. Washington, Government Printing Office, 1941. 433 pp., pasters. (U. S. Temporary National Economic Committee, Investigation of concentration of economic power, Monograph No. 24.)  
Lists and describes the standardization, inspection, and labeling activities of the various Federal agencies, describes those of private agencies and of the independent purchasing and testing laboratories, shows how standardization is affected by State legislation, and describes the commodity information available to consumers.
- Handbook for consumer representatives of State and local defense councils or local consumer interest committees.* Washington, U. S. Office for Emergency Management, 1941. 27 pp., map. (Consumer division bull. No. 12.)  
Describes the functions and activities of a consumer representative, how to organize a fair-rent committee, methods of cooperation with regional Federal advisory councils, etc.

EDITOR'S NOTE.—The Bureau of Labor Statistics does not distribute the publications to which reference is made in this list, except those issued by the Bureau itself. For all others, please write to the respective publishing agencies mentioned.

*A bibliography of books on consumption, 1930-1940.* Washington, N. J., Consumers' Research, Inc., October 1940. 20 pp.; mimeographed.

Among the "supplementary books of direct consumer interest" are those dealing with consumer credit, consumers' cooperation, and living levels and their cost.

### Cooperative Movement

*Introduction to the cooperative movement.* Edited by Andrew J. Kress. New York, Harper & Brothers, 1941. 370 pp.

This book consists mainly of a collection of quotations from books and reports on various phases of the cooperative movement. These excerpts give the different steps in the history of the movement, as well as more recent analyses. Other topics are: Organized religion and the consumers' cooperatives; Cooperation and medicine; Appraisal of the strengths and weaknesses of the consumers' cooperatives; Social philosophy of the movement. Farmers' marketing cooperatives and credit cooperatives are also covered. Separate sections are devoted to the international cooperative movement and to present-day statistics of the cooperative movement in all its phases. Other features are lists of references for additional reading and a directory of contributors whose works are quoted.

*The Federal income tax in relation to consumer cooperatives.* By Joseph O'Meara, Jr. (In *Illinois Law Review*, Chicago, May 1941, pp. 60-82.)

The author examines the court decisions in regard to incorporated and unincorporated enterprises and Federal taxation of such bodies, and discusses the peculiar status of consumers' cooperatives in that the savings made by the operation of the business are returned to the members. Thus, such savings are not in reality income in the sense that the net profits of private business are income. Consumers' cooperatives as such have no exemption from Federal income tax. In the opinion of the author, "the taxation of consumer cooperative associations has proceeded on an erroneous assumption deriving from *Eisner v. Macomber*. Contrary to that assumption, so long as these nonprofit, mutual-benefit undertakings confine themselves to their proper functions they have no income under the sixteenth amendment and cannot validly be required to pay an income tax."

*European cooperatives and the war.* Washington, U. S. Bureau of Labor Statistics, 1941. 16 pp. (Serial No. R. 1289, reprint from April 1941 *Monthly Labor Review*.)

*Development of cooperatives in Latin America.* Washington, U. S. Bureau of Labor Statistics, 1941. 8 pp. (Serial No. R. 1295, reprint from April 1941 *Monthly Labor Review*.)

*Credit union, North America.* By Roy F. Bergengren. Kingsport, Tenn., Southern Publishers, Inc. [1940]. 390 pp., illus.

In addition to describing credit unions—cooperative credit associations—their history, organization, and operation, the author gives directions as to accounting procedure, and how to organize a credit union, typical bylaws, and the principal provisions of credit-union laws of the United States and Canada.

*Annual report of [Massachusetts] Commissioner of Banks, for year ending December 31, 1940, part IV, relating to credit unions.* Boston, 1941. 202 pp.

Data from this report will be given in the Bureau of Labor Statistics' annual report on operations of State and Federal credit unions, soon to be published.

### Cost and Standards of Living

*Money disbursements of employed wage earners and clerical workers in twelve cities of the South, 1934-36.* By Faith M. Williams, Alice C. Hanson, Genevieve B. Wimsatt. Washington, U. S. Bureau of Labor Statistics, 1941. 700 pp., charts. (Bull. No. 640.)

*Spending and savings of wage earners and clerical workers in large cities.* By Alice C. Hanson and Jerome Cornfield. Washington, U. S. Bureau of Labor Statistics, 1941. 16 pp. (Serial No. R. 1303, reprint from July 1941 *Monthly Labor Review*.)

*Organization of a fair rent committee; Fair rent committee.* Washington, U. S. Office for Emergency Management, Office of Price Administration and Civilian Supply, 1941. 3 and 4 pp.; processed. (Bulls. 1 and 2.)

Bulletin No. 1 outlines the organization and functions of a fair-rent committee to stabilize local rents; Bulletin No. 2 explains the procedure for operation of local fair-rent committees.

*Want in the midst of plenty: The genesis of the food-stamp plan.* By Ray Harvey. Washington, American Council on Public Affairs, [1941?]. 35 pp.

*Living conditions of workers in Puerto Rico.* By Alice C. Hanson. Washington, U. S. Bureau of Labor Statistics, 1941. 25 pp. (Serial No. R. 1294, reprint from April 1941 Monthly Labor Review.)

*Costo de vida [Bolivia].* By R. Pomeranz. (In Boletín del Despacho de Previsión Social del Ministerio del Trabajo y Previsión Social, La Paz, June 1940, pp. 120-153.)

A critical analysis of the method used by the Bolivian General Statistical Office in computing a cost-of-living index for Bolivia, with a tentative index based on a questionnaire prepared in the Ministry of Labor and Social Welfare, and retail prices and indexes for September 1939 and March 1940.

*Family income and expenditure in Canada, 1937-1938: A study of urban wage-earner families, including data on physical attributes.* Ottawa, Dominion Bureau of Statistics, 1941. 210 pp., charts.

The purpose of the survey, the findings of which are published in this report, was to collect satisfactory budgetary data to be used in constructing wage-earner family budgets and cost-of-living index numbers; to secure data on food purchases for nutritional analysis for use in connection with studies organized by the Canadian Council on Nutrition; and to furnish some material for marketing studies and for international comparisons of living standards. Some of the results of this investigation were published in the September 1939 Monthly Labor Review.

### *Economic and Social Problems*

*America's economic strength.* By C. J. Hitch. London, Oxford University Press, 1941. 114 pp., map, charts, illus.

One of the Oxford University Press series of pamphlets on "The World Today." The author makes use of standard American statistical materials for analyzing the economic position of the United States, with special reference to our national defense policy on the assumption of nonparticipation in the war, but gives some attention to the possible effect of our entry into the war on aid to Great Britain.

*Deficit spending and the national income.* By Henry Hilgard Villard. New York, Farrar & Rinehart, Inc., 1941. 429 pp., bibliography.

The first part of the volume discusses the business cycle. The second part is a summary of theoretical discussions of deficit spending for the purpose of preventing or limiting the effects of depressions. The third part is an account of recent public policies in the field of public expenditures designed to increase net income. The author's conclusion is favorable to the policy of deficit spending.

*Governmental marketing barriers.* (In Law and Contemporary Problems, Vol. VIII, No. 2, Durham, N. C., 1941, pp. 207-414.)

Several phases of the problem of interstate trade barriers are discussed. A general statement is contributed by the chairman of the Federal Interdepartmental Committee on Interstate Trade Barriers (Washington). One of the contributions deals with marketing barriers under national defense. The barriers most extensively discussed are those established by State legislatures and by municipalities. There is a concluding article on internal marketing barriers in Europe, as illustrated by the experience of pre-Hitler Austria.

*Residential real estate.* By David L. Wickens. New York, National Bureau of Economic Research, Inc., 1941. xxii, 305 pp., charts. (Publication No. 38.)

The economic position of residential real estate is shown in terms of values, rents, family incomes, financing, and construction, together with estimates for all real estate.

*Social doctrine in action.* A personal history, by John A. Ryan. New York, Harper & Bros., 1941. 297 pp.

This volume deals for the most part with the author's economic beliefs and activities. The book was written in the hope that it would be helpful to students of the social sciences, social workers, labor leaders, clergymen, and other groups having an interest in social problems.

### Education and Training

*Defense job training: A condensed guide to programs authorized by Congress to train persons for work in defense industries and in the armed services.* Washington, U. S. Office of Education, 1941. Chart.

*Training industrial workers.* London, National Institute of Industry Psychology, 1940. 12 pp.

Certain systematic and scientific methods of training which have been developed as a result of the need for rapid training of workers arising from the war are described.

*She's off to work: A guide to successful earning and living.* By Gulielma Fell Alsop and Mary Frances McBride. New York, Vanguard Press, 1941. 276 pp.

The purpose of the volume is to show the girl starting out to make her living in a large city, the advantageous attitudes toward her work, her employer, her friends and herself. The book is based largely on first-hand contacts with girls.

*Vocational guidance for boys—a program for schools and social agencies.* By Robert C. Cole. New York and London, Harper & Brothers, 1941. 252 pp.

Presents some of the more important and practical methods and techniques which the author has found helpful in his 11 years of experience in guidance activities.

*Competência profissional, base da organização de classe.* (In *Economia*, São Paulo, May 1941, pp. 53-60; illus.)

An account of vocational education in the Brazilian State of São Paulo and the plan of education to be carried out by the technical vocational school which is being established this year by the State Government.

*Patterns of workers' education: The story of the Bryn Mawr Summer School.* By Florence Hemley Schneider. Washington, American Council on Public Affairs, 1941. 158 pp.

The study covers the development of a pioneer school for woman workers and the significance of this school in the general workers' education movement. In addition to a summary of the historical trends in this movement, the methods of selection of the student body at the Bryn Mawr school and the summer program of studies and activities are described, and the activities of former students within their own communities in three cities selected for special study are analyzed.

*Democratic education.* Suggestions for education and national defense by the Progressive Education Association. Washington, American Council on Public Affairs, 1940. 22 pp.

Policies which should be followed in education during and after the present world crises are discussed in this pamphlet.

### Employment and Unemployment

*Community employment problems under defense.* A memorandum for the Council for Democracy (285 Madison Avenue, New York City). Washington, American Council on Public Affairs, 1941. 23 pp.

*Rearmament and work relief.* By Buel W. Patch. Washington, Editorial Research Reports, 1013 Thirteenth Street NW, 1941. 14 pp. (Vol. 1, 1941, No. 19.)

Discusses the effects of the defense boom on unemployment, factors tending to retard the rate of reemployment, the effort being made to secure an adequate supply of skilled labor, and the extent to which the defense program may be extended to reduce the relief load.

*Analysis and report on a survey of the Albany labor market.* Prepared by Work Projects Administration of New York State. Albany, N. Y., [City Comptroller], 1941. 335 pp., charts.

The survey covered the activities of residents of Albany, N. Y., during the week of May 7 to 13, 1939, and shows the proportion of residents constituting the labor market, and the work status of those who were in the labor market. The study showed that since Albany is a capital city and therefore influenced by the employment of one-sixth of its workers by the government, unemployment was not so severe as in cities more typically industrial in character.

*Court decisions on teacher tenure reported in 1940.* Washington, National Education Association of the United States, Committee on Tenure, April 1941. 31 pp.

### Family Allowances

*The case for family allowances.* By Eleanor F. Rathbone. Harmondsworth, England, and New York, Penguin Books, 1940. 118 pp.

The purpose of this book, the author explains, is to raise the question whether society at the present time makes to the family quite a just return for what it gets from the family—namely, a return in material commodities.

*Family allowances.* By C. E. A. Bedwell. (In *Journal of Comparative Legislation and International Law*, London, November, 1940, pp. 199–202.)

Reviews some developments in the movement for family allowances.

*Family allowances.* Aylesbury, England, The Lancet, Ltd., [1940?]. 32 pp., diagrams, illus.

According to this pamphlet there is nothing revolutionary about the family-allowance principle. In England actual family allowances are provided through income-tax rebates, in unemployment benefits, and in the new workmen's compensation legislation. In some areas rent rebates based on the size of the family are granted.

### Health and Industrial Hygiene

*America organizes medicine.* By Michael M. Davis. New York, Harper & Brothers, 1941. 335 pp., bibliography.

The author reviews developments in the field of public health in recent years, and discusses existing plans for meeting the cost of medical and hospital care, and methods of handling these problems.

*Health of the Nation.* New York, American Association of Adult Education, 1941. 19 pp. (Defense digest No. 11.)

Material for study groups on health conditions.

*Outlines of industrial medical practice.* By Howard E. Collier, M. D. London, Edward Arnold & Co., 1940. 440 pp., bibliography.

Deals with the executive and advisory duties of industrial physicians and includes sections on industrial psychology, industrial medicine, etc.

*American Public Health Association yearbook, 1940–41.* New York, American Public Health Association, 1941. 148 pp. (Supplement to *American Journal of Public Health*, March 1941.)

The yearbook contains a section on industrial hygiene which includes a report on skin irritants and one on ventilation and atmospheric pollution.

*Health hazards of occupational environments—a guide for industry, labor, the medical profession and public health personnel.* Springfield, Illinois Department of Public Health, [1941?]. 46 pp. (Educational health circular No. 154.)

The specific hazards discussed in the bulletin are ventilation and abnormalities of temperature and humidity, illumination, fatigue, industrial dusts, solvents and gases, industrial dermatitis, heavy-metal poisoning, and compressed-air work.

*Seats for workers in factories.* London, Ministry of Labor and National Service, 1940. 39 pp., diagrams, illus. (Welfare pamphlet No. 6.)

Shows the importance of proper seating and the seat designs that make for good seating.

### Housing and Construction Activities

*Defense housing policies and progress.* By Theodore A. Veenstra. Washington, U. S. Bureau of Labor Statistics, 1941. 18 pp. (Serial No. R. 1304, reprint from May 1941 *Monthly Labor Review*.)

*Homes for defense—a statement of function.* Washington, U. S. Office for Emergency Management, Division of Defense Housing Coordination, 1941. 33 pp.

Describes the work of the Defense Housing Coordinator's office and explains how the various governmental housing agencies fit into the program.

*New dwelling units in nonfarm areas during 1940.* Washington, U. S. Bureau of Labor Statistics, 1941. 9 pp. (Serial No. R. 1293, reprint from April 1941 Monthly Labor Review.)

*Seventh annual report of Federal Housing Administration, for year ending December 31, 1940.* Washington, Federal Housing Administration, 1941. 117 pp., charts.

The different kinds of insurance—property improvement, home mortgage, and rental housing—are treated in separate sections.

*Illness and accidents among persons living under different housing conditions.* By Rollo H. Britten and Isidore Altman. (In Public Health Reports, U. S. Public Health Service, Washington, March 28, 1941, pp. 609-640; charts.)

In spite of the "impossibility of assessing the precise effect of housing conditions," the authors state, "this report has established an important broad association between housing and health. Illness rates were found to be higher in congested households, especially for certain diagnoses, \* \* \* and serious home accidents rose with drop in rental. Essentially, because of the interrelated nature of the indices, this association is to be regarded as one between illness and poor housing generally. What has been demonstrated most clearly is that this excess illness rate, to whatever extent it is due to bad housing itself, occurs in the low-income, poorly housed populations, who are least able to meet the burden of disease."

*The case for construction.* (In Nation's Business, Chamber of Commerce of the United States, Washington, April 1941, pp. 33-64; illus.)

An examination of the reasons for the growth of the American construction industry, together with an interpretation of relevant developments now taking shape in the field of public policy.

### Industrial Accidents and Safety Measures

*Metal-mine accidents in the United States during calendar year 1938.* By William W. Adams and Mary E. Kolhos. Washington, U. S. Bureau of Mines, 1941. 52 pp. (Bull. 435.)

The accident-fatality rate of 0.83 per million man-hours worked in the metal-mining industry in 1938 was lower than in any previous year. The nonfatal injury rate of 67.61 per million man-hours worked was lower than in any other years except those of the 5-year period 1931 to 1935, which were notable for low injury rates. In 1938, accidents in the industry resulted in the death of 156 workers as compared with 219 in 1937, and in nonfatal injury to 12,722, as compared with 18,055 in 1937.

*Accidents in Oklahoma petroleum industry in 1937.* By C. F. McCarroll. Washington, U. S. Bureau of Mines, 1941. 141 pp., charts. (Technical paper 620.)

In 1937 there were 2,195 compensable accidents in the Oklahoma petroleum industry, representing a time loss of 256,303 days, an average of 116.8 per accident. The cost in direct compensation alone was \$675,375.70, an average of \$307.69 per compensable accident. The accidents in the industry in 1937 resulted in 35 deaths.

*Some information on causes and prevention of fires and explosions in petroleum industry.* By G. M. Kintz. Washington, U. S. Bureau of Mines, 1941. 28 pp., diagrams; mimeographed. (Information circular 7150.)

*The causes of everyday accidents in factories.* By T. Porteus and H. G. Winbolt. London, Ministry of Labor and National Service, [1940?]. 31 pp.

Describes the principal hazards and gives the percentage of accidents occurring in each of 15 classifications of accident causes.

*Recommended good safety practices for protection of workers in foundries.* Chicago, American Foundrymen's Association, Industrial Hygiene Codes Committee, 1940. 69 pp.

*Las inspecciones de seguridad [Cuba].* (In Prevención de Accidentes, Consejo Nacional para la Prevención de Accidentes, Habana, December 1940. pp. 16-20; January 1941, pp. 18, 19.)

Deals with safety inspection in Cuba, covering, among other points, qualifications of inspectors and inspection procedure.

### Industrial Relations

*Seniority provisions in union agreements.* Washington, U. S. Bureau of Labor Statistics, 1941. 11 pp. (Serial No. R. 1308, reprint from May 1941 Monthly Labor Review.)

*A study of seniority in collective bargaining agreements.* New York, Bureau of Personnel Administration, 1940. vi, 112 pp.; mimeographed.

Preliminary report on the findings of one phase of the Bureau of Personnel Administration's study of collective-bargaining agreements and methods of conciliation and arbitration. Reports on other subjects covered in the survey are to be issued as completed, in advance of publication of the final report.

*The future of collective bargaining.* By Alexander R. Heron. (In Personnel, New York, May 1941, pp. 225-233.)

*Freedom of assembly and anti-democratic groups.* A memorandum for the Council for Democracy (285 Madison Avenue, New York City). Washington, American Council on Public Affairs, 1940. 27 pp., bibliography.

*Strikes in defense industries.* Washington, Government Printing Office, 1941. 299 pp., chart. (Senate document No. 52, 77th Cong., 1st sess.)

This collection of material was brought together to serve as a basis for the formulation of a policy toward strikes in defense industries. It contains data on extent, duration, severity, and causes of the strikes, summarizes Federal and State legislation pertaining to strikes, describes Federal and State machinery for handling labor disputes, and gives other pertinent data including information on British, French, and German policies and experience in strike situations.

### Industry Reports

*The automobile industry: The coming of age of capitalism's favorite child.* By E. D. Kennedy. New York, Reynal & Hitchcock, 1941. 333 pp.

Historical account of the automobile industry, with emphasis on such topics as competition and monopoly, price and production policies, labor organizations, industrial relations, and the psychological and social effects of the ownership and operation of automobiles.

*The American carpet manufacture—a history and an analysis.* By Arthur H. Cole and Harold F. Williamson. Cambridge, Mass., Harvard University Press, 1941. 281 pp., bibliography, charts, illus. (Harvard economic studies, Vol. LXX.)

The volume is devoted mainly to a general account of the development and recent characteristics of the industry, but 1 of the 12 chapters is devoted specifically to labor. An appendix contains detailed statistical data, mainly historical in nature, and including statistics of employment and wages.

*Annual report of Bituminous Division, Pennsylvania Department of Mines, 1940.* Harrisburg, [1941?]. 52 pp.; mimeographed.

Contains coal-mine statistics, including production, days worked, and number employed, killed, and injured. Information is shown by individual mines.

*Statistics of the communications industry in the United States for year ended December 31, 1939.* Washington, Federal Communications Commission, 1941. 267 pp., charts.

Includes data on number and compensation of employees in the various branches of the communications industry, including radio broadcasting, and on employees killed or injured in connection with operations of telephone, telegraph, cable, and radiotelegraph carriers.

*'Round the world with cotton.* Washington, U. S. Agricultural Adjustment Administration, 1941. 148 pp., bibliography, charts, illus.

A simplified and profusely illustrated account, giving a short history of cotton, a description of the status of the industry throughout the world, and a discussion of the conditions affecting the future of the industry in the United States. It is stated that more Americans depend on cotton for a living than on any other agricultural commodity.

*The status of the labor supply and training activities in the iron and steel industry—a survey and report.* New York, American Iron and Steel Institute, September 1940, 15 pp.; Supplement, March 1941, 20 pp.

The two reports are based on replies to questionnaires sent to selected companies in the industry. In general, it appeared that operations had not been seriously



curtailed by labor shortages but that further increase of operations or proposed extension of plants and capacities had been prevented to some extent.

*The steel industry.* Chicago, National Youth Administration for Illinois, and Indianapolis, National Youth Administration for Indiana, 1941. 76 pp., bibliography, maps, diagrams, illus.; mimeographed.

Contains information on occupations and training, hazards, wages, unions, and employment possibilities.

*Norges bergverksdrift, 1939.* Oslo, Statistisk Sentralbyrå, 1941. 55 pp.

Annual report on the mining industry in Norway in 1939, including data on number of wage earners and salaried employees engaged in mining and their wages. Printed in Swedish with French translations of table of contents and some table heads.

### *Labor and Social Legislation*

*Comparison of Davis-Bacon and Walsh-Healey Acts.* By Arthur Dadian. Washington, U. S. Bureau of Labor Statistics, 1941. 16 pp. (Serial No. R. 1299, reprint from July 1941 Monthly Labor Review.)

*Elenco geral da legislação social Brasileira de 1903 a 1940.* By Pérsio Furquim Rebouças and Júlio Horst Zadrozny. (In *Legislação do Trabalho*, São Paulo, December 1940, pp. 465-499; February 1941, pp. 64-71.)

General index of social and labor legislation in Brazil from 1903 through December 13, 1940.

*The progress of social legislation [in Brazil].* By Waldemar Falcão. (In *Brazil Today*, Brazilian Information Bureau, New York, February 1941, pp. 2-8; illus.)

Excerpts from an address by the Brazilian Minister of Labor, Industry, and Commerce, delivered in 1940, giving the history of social legislation in Brazil from 1930 to 1940, with statistics of the social-insurance structure through 1939, and a list of the 35 legislative enactments referred to by the Minister in his address.

*Labor legislation in Canada, 1940.* Ottawa, Department of Labor, 1941. xiii, 235 pp.

Some of the Dominion legislation in this volume has already been reported on in other issues of the Monthly Labor Review.

*Residence and settlement legislation in Canada.* Ottawa, Canadian Welfare Council, [1941]. 58 pp. (Publication No. 91.)

This pamphlet is concerned primarily with the complexities involved in the social care of persons in the nonresident and migrant groups in Canada, which have resulted from the way in which almost all Canadian social legislation has made eligibility for benefits or care depend upon a fixed and local settlement of a more or less permanent character.

### *Occupations*

*Automotive occupations.* By Burr Leyson. New York. E. P. Dutton & Co., 1941. 190 pp., illus.

As practically every phase of the conveyor system of mass production in the automobile industry is found in the Ford Motor Company's River Rouge plant, the author based his study on that plant as being representative of the industry as a whole. The author's discussion of occupations is interwoven with descriptions of the various processes in the manufacture of automobiles. The concluding chapter outlines the training given in the 3 schools maintained by the Ford Company at the River Rouge plant.

*How to get into aviation on the ground and in the air.* By John B. Walker. New York, Random House, 1940. 126 pp.

Reports on opportunities in aviation; tells how to become a pilot, a mechanic, a radio operator, a traffic man, a steward, a stewardess, or a passenger agent; gives information on salaries and wages paid in aviation, where to get the required training, and how to get a job in this field of work.

*Careers in forestry.* By Charles N. Elliott. Chicago, Science Research Associates, 1941. 48 pp., illus. (Occupational monograph No. 21; American job series.)

While new graduates of forest schools are now confronted with stiff competition, the report states, the employment of forest workers is still on the increase

and will probably continue to expand. The professional rewards are, to many young men, well worth the competitive risks in this particular job market.

*Jobs in rural service.* By Paul W. Chapman. Chicago, Science Research Associates, 1941. 48 pp., illus. (Occupational monograph No. 23; American job series.)

The writer has classified the hundreds of occupations in rural service in the following groups: (1) Agricultural education workers; (2) scientists and technicians; (3) industrial and commercial workers; (4) regulatory service employees; and (5) members of agricultural professions. A chapter is devoted to each of these groups.

*How you can get a better job.* By Willard K. Lasher and Edward A. Richards. Chicago, American Technical Society, 1941. 175 pp.

This popularly written book is based on the foundation fact that ability, hard work, tact, energy, and honesty are among the forces which show the way to promotion. The three parts into which it is divided deal, respectively, with the human element, self-management, and selling yourself. The latter makes suggestions on finding a job, getting adjusted to it, and other points.

### Old-Age Assistance

*Trends in company pension plans.* (In National Industrial Conference Board Management Record, New York, June 1941, pp. 65-71.)

Shows the major changes that have occurred in company pension plans since the Board last made a study in 1939.

*Annual report of Railroad Retirement Board, for fiscal year ended June 30, 1940.* Washington, U. S. Railroad Retirement Board, 1941. 302 pp., charts.

Covers the operations of the unemployment insurance and retirement systems for railroad employees during the fiscal year 1940.

*Fifteenth annual report of Board of Trustees on employees' retirement system of Territory of Hawaii, as of June 30, 1940.* Honolulu, 1941. 63 pp.

Includes the report of the actuary on valuation of assets and liabilities.

*Twentieth report of Comptroller on operation of New York State Employees' Retirement System, together with report of Actuary on twentieth valuation of its assets and liabilities, including an investigation of mortality, service, and compensation experience of members, as of June 30, 1940.* Albany, Comptroller's Office, 1941. 80 pp. (Legislative document, 1941, No. 44.)

*Police relief and pension funds in State of Washington.* Seattle. University of Washington, Bureau of Governmental Research, 1941. 16 pp.; mimeographed. (Report No. 46.)

The report analyzes the principal provisions of the Washington law relating to police relief and pension funds, describes the operation of the funds, and gives statistics for 7 cities of the first class in the State.

### Prices and Price Control

*Methods of procuring and computing wholesale price statistics.* Prepared by Ernestine Wilke. Washington, U. S. Bureau of Labor Statistics, 1941. 27 pp.; processed.

Part of a manual, being issued in sections, in which the statistical methods of the Bureau of Labor Statistics are described in detail. The sections covering strikes and union scales of wages and hours of labor are also available.

*Prices in Canada and other countries, 1940.* Ottawa, Department of Labor, 1941. 28 pp. (Supplement to The Labor Gazette, March 1941.)

Gives data for the Dominion on the movement of retail prices and cost of living, the cost-of-living index, food index numbers for certain cities, and wholesale prices, 1940. Index numbers of prices in Great Britain, Eire, South Africa, Australia, New Zealand, Bombay, and the United States.

*Banco de México, S. A.: Decimanovena asamblea general ordinaria de accionistas.* México, D. F., Banco de México, S. A., 1941. 87 pp., charts.

This report of the nineteenth regular general meeting of the shareholders of the Bank of Mexico includes comparative index numbers of prices in Mexico and the United States, and index numbers of wholesale prices in Mexico and of the cost of food (based on 16 articles) in the city of Mexico, by months, from January 1937 through 1940.

*Economic standards of government price control.* By Donald H. Wallace and others. Washington, Government Printing Office, 1941. xxvii, 514 pp., charts. (U. S. Temporary National Economic Committee investigation of concentration of economic power, monograph No. 32.)

Survey and appraisal of selected instances of public price control. Part I contains a study of State regulation of electric rates in 3 States, and Federal pricing of electricity in the Tennessee Valley; The Federal milk-control program and 5 instances of State milk control are examined in part II, and the price-control provisions of the Bituminous Coal Act of 1937 are analyzed in part III. Part IV contains a summary and an analysis of the material in underlying monographs.

*Price control in Germany—policy and technique.* By Louis Domeratzky.

Washington, U. S. Bureau of Foreign and Domestic Commerce, April 1941. 12 pp. (International reference service, Vol. 1, No. 19.)

Account and interpretation of the price-control policy of the German Government beginning with the World War.

## Wages and Hours of Labor

*Salaries, hours, and working conditions in fire departments of the United States.*

By Gerald M. Whitright. Washington, U. S. Bureau of Labor Statistics, 1941. 17 pp., chart. (Serial No. R. 1301; reprint, with additions, from July 1941 Monthly Labor Review.)

Summary data from a Nation-wide survey, the results of which were made available, by geographic division, in a series of volumes comprising Bureau of Labor Statistics Bulletin No. 684.

*Hourly earnings in converted paper products industry, January 1940.* By H. E.

Riley. Washington, U. S. Bureau of Labor Statistics, 1941. 20 pp. (Serial No. R. 1312, reprint from May 1941 Monthly Labor Review.)

*Commercial minimum wage scales, hours, and working conditions of subordinate unions of International Printing Pressmen and Assistants' Union of North America, June 1, 1941.* Pressmen's Home, Tenn., International Printing Pressmen and Assistants' Union, 1941. 93 pp.

*Methods of wage determination in agriculture.* By M. R. Benedict and R. L. Adams. (In Journal of Farm Economics, Menasha, Wis., February 1941, pp. 71-88; also reprinted.)

Several possible methods of establishing wage rates are described. In view of the difficulties of applying to agriculture the method of collective bargaining widely characteristic of industrial employment, the authors suggest the further development in the United States of wage-board plans somewhat resembling a method extensively used in some other countries, especially in Great Britain.

*Salary standardization—selected references based on practice in public service and private industry.* Los Angeles, Calif., Municipal Reference Library, [1941?]. 14 pp.; mimeographed.

*The wartime wage policy of the Dominion Government.* Kingston, Ontario, Queen's University, School of Commerce and Administration, Industrial Relations Section, 1941. 16 pp. (Bull. No. 5.)

Data on the wartime wage policy of the Canadian Government were published in the Monthly Labor Review for February 1941 (pp. 332-333) and June 1941 (pp. 1391-1393).

## Wartime Conditions and Policies

*A labor policy for the emergency.* By Isador Lubin. (In Proceedings of Academy of Political Science, Vol. XIX, No. 3, New York, May 1941, pp. 311-320.)

*National labor policy and total defense.* By Robert R. Brooks. Washington, D. C., American Council on Public Affairs, [1941]. 15 pp.

Stresses the need for maintaining morale and the principle of voluntary cooperation in labor relations.

*Social case work in national defense.* By Pauline V. Young. New York, Prentice-Hall, Inc., 1941. xxx, 292 pp.

A cultural approach to the problems of enlisted men and their families.

*Labor relations in the United States—Summary of historical events in World War period, 1912-20.* By J. Donald Edwards. Washington, U. S. Bureau of Labor Statistics, 1941. 26 pp.; mimeographed.

*American industry in the war: A report of the War Industries Board (March 1921).*

By Bernard M. Baruch. New York, Prentice-Hall, Inc., 1941. 498 pp.

The report of the War Industries Board of the first World War, the program presented in 1931 by Mr. Baruch for total mobilization of the Nation, and current material on priorities and price fixing, are included.

*We pledged allegiance: A librarian's intimate story of the United States Food Administration.* By Edith Guerrier. Stanford University, Calif., Stanford University Press, 1941. 170 pp. (Hoover Library on War, Revolution, and Peace, miscellaneous publication No. 1.)

*World War I—chronology of important events, August 1914—December 1918.* By Stella Stewart and J. Donald Edwards. Washington, U. S. Bureau of Labor Statistics, 1941. 16 pp.; mimeographed.

*The effect upon the civilian market of wartime control of wool and wool products.* By J. Donald Edwards. Washington, U. S. Bureau of Labor Statistics, 1941. 31 pp.; mimeographed.

One of a series of mimeographed reports on control of prices, etc., during the first World War. Other reports in the series deal with cotton goods; furniture; shoes; beef and pork; milk products; wheat, flour, and bread; vegetable oils; vegetable canning; and tin cans.

*Development of British war labor policy.* By Margaret H. Schoenfeld. Washington, U. S. Bureau of Labor Statistics, 1941. 11 pp. (Serial No. R. 1305, reprint from May 1941 Monthly Labor Review.)

### General Reports

*The State in relation to labor in India.* By V. Shiva Ram. Delhi, 1939. 175 pp. (University of Delhi publication No. 8.)

A series of lectures dealing with the evolution of labor legislation and existing labor problems and their treatment.

*Anuario estadístico de los Estados Unidos Mexicanos, 1939.* México, D. F., Secretaría de la Economía Nacional, Dirección General de Estadística, 1941. 813 pp.

This statistical annual for Mexico includes data on distribution of the population by occupation and sex, at the 1921 and 1930 censuses; housing; labor organizations; industrial accidents; occupational diseases; industrial disputes; unemployment; average hourly wages, by industry and occupation; minimum-wage rates; wholesale and retail prices and price indexes; cost of living; and cooperative societies. The information on most of these topics, with the exception of population, as mentioned, is for 1938 or 1939 and earlier years. Some of the housing figures are for 1940, and the minimum-wage rates set for 1940-41 are given.

*Indisch verslag, 1940: II, Statistisch jaaroverzicht van Nederlandsch-Indië over het jaar 1939.* Batavia, Java, Centraal Kantoor voor de Statistiek, 1940. 549 pp. (In Dutch and English.)

Statistical yearbook containing data on economic and social conditions in the Netherlands Indies, including classification of wage earners according to industry groups and certain occupations, wages of native laborers on estates, unemployment, employment service, public health, cooperative societies, and production.

*Statistical abstract of Palestine, 1940.* Jerusalem, Office of Statistics, 1940. xxii, 184 pp.

Includes data on prices, wages, and labor disputes in 1939 and earlier years, and on industrial accidents in 1938.

*The Tasmanian economy in 1939-40.* By E. Ronald Walker. Hobart, State Finance Committee, 1940. 44 pp., charts.

This pamphlet, the fifth in a series of annual surveys of economic conditions in Tasmania, gives particular attention to the effects of the war on the economic structure.