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## Contents

	Page
<b>Special articles:</b>	
Cooperative self-help activities among the unemployed.....	449
Barter and exchange movement in Utah.....	451
Unemployed Citizens' League of Denver, Colo.....	461
Barter and exchange activities among unemployed in Cheyenne, Wyo.....	470
The Midwest Exchange, Ohio.....	473
Cooperative Production Units, Dayton, Ohio.....	480
Emergency Exchange Association (Inc.), New York City.....	486
Nyack, N. Y., Trading Post.....	494
Emergency Exchange Association of Pennsylvania.....	495
The Unemployed Citizens' League of Philadelphia.....	495
<b>Employment conditions:</b>	
Dismissal-compensation plans.....	496
California—Report of State Unemployment Commission.....	498
Netherlands—Care for young unemployed workers in Amsterdam....	499
<b>Industrial and labor conditions:</b>	
Growth of sweatshop conditions during the depression.....	500
The 5-day week in the Government Printing Office.....	502
Pennsylvania—Industrial home work in 1931.....	503
Hawaii—Race and sex of employees of sugar plantations, June, 1932..	506
Virgin Islands—Economic and social conditions, 1931-32.....	506
France—Appointment of governmental committee on family allow- ances.....	508
Nova Scotia—Establishment of a department of labor.....	509
<b>Productivity of labor and industry:</b>	
Labor productivity in the bituminous-coal industry, 1931.....	510
Progress and limitations of farm mechanization in the United States...	511
<b>Safety codes:</b>	
New Safety code for floor and wall openings, railings, and toe boards..	519
Revised safety code for foundry workers.....	519
<b>Industrial accidents:</b>	
Accident experience in the iron and steel industry to the end of 1931...	520
<b>Health and industrial hygiene:</b>	
Final report of Committee on the Costs of Medical Care.....	535
<b>Labor laws and court decisions:</b>	
Interstate conference on labor laws.....	537
Massachusetts—Prevailing wage rate law declared unconstitutional...	541
<b>Workmen's compensation:</b>	
Massachusetts—State workmen's compensation law applicable to injury on Federal property.....	543
District of Columbia— Accidental fall while crossing street held to be compensable injury..	544
Insurance carrier allowed to sue third party for wrongful death of employee.....	546
Recent compensation reports— Missouri.....	547
New Jersey.....	549
<b>Cooperation:</b>	
Stability of cooperative movement during the depression.....	551
Czechoslovakia—Cooperation, 1924 to 1931.....	552
Great Britain—Development of Cooperative Productive Federation...	553
Soviet Union—Progress of workers' productive associations.....	554

<b>Industrial disputes:</b>	Page
Strikes and lockouts in the United States in January, 1933.....	555
Conciliation work of the Department of Labor in January, 1933.....	557
Great Britain—End of more-looms dispute in the cotton textile industry.....	563
<b>Labor turnover:</b>	
Labor turnover in American factories, 1932.....	565
<b>Labor agreements, awards, and decisions:</b>	
Agreements of coal miners—Indiana and Illinois.....	568
Awards and decisions—	
Building trades—San Francisco.....	568
Shoe cutters—Auburn, Me.....	569
Signalmen—Baltimore and Ohio Railroad.....	570
<b>Housing:</b>	
Building operations in principal cities of the United States, January, 1933.....	571
Building operations in principal cities, 1933: Part 1. General summary.....	585
<b>Wages and hours of labor:</b>	
Wages and hours of labor in the Portland cement industry, 1929 and 1932.....	595
Wages and hours of labor in rayon and other synthetic yarn manufacturing, 1932.....	607
Wage-rate changes in American industries.....	612
Wage changes reported by trade-unions and municipalities since November, 1932.....	615
Farm wage and labor situation, January 1, 1933.....	617
Hourly wages on Federal-aid highway projects, 1922 to 1932.....	619
Alaska—Wages and labor conditions, 1931-32.....	620
Wyoming—Wages and hours, 1932.....	620
France—Wages in 1932.....	624
Norway—Wages in 1932.....	644
Japan—Wages in Tokyo, November, 1932.....	649
<b>Trend of employment:</b>	
Summary for January, 1933.....	650
Employment in selected manufacturing industries in January, 1933..	651
Employment in nonmanufacturing industries in January, 1933.....	662
Average man-hours worked and average hourly earnings.....	664
Employment in building construction in January, 1933.....	667
Employment in the executive civil service of the United States, January, 1933.....	669
Employment on Class I steam railroads in the United States.....	670
Trend of employment in January, 1933, by States.....	671
Employment and pay roll in January, 1933, in cities of over 500,000 population.....	678
Unemployment in foreign countries.....	679
<b>Retail prices:</b>	
Retail prices of food in January, 1933.....	684
Retail prices of coal in January, 1933.....	692
<b>Wholesale prices:</b>	
Index numbers of wholesale prices, 1913 to January, 1933.....	695
Wholesale prices in the United States and in foreign countries.....	700
<b>Immigration and emigration:</b>	
Statistics of immigration for December, 1932.....	703
Occupational trends in immigration to the United States, 1928 to 1932.....	704
<b>Publications relating to labor:</b>	
Official—United States.....	708
Official—Foreign countries.....	710
Unofficial.....	713

## This Issue in Brief

*The growth of the movement for cooperative self-help among unemployed workers* constitutes one of the most interesting developments of the present depression. Such activities are now being carried on in a large number of communities, all being based on the general principle of the exchange of goods and services, but differing very considerably in their details of operation. The Bureau of Labor Statistics is now making a field survey of the subject, and presents reports for a number of communities, beginning on page 449 of this issue.

*Accident rates for the iron and steel industry for 1931 show very little change from the 1930 rates.* The frequency rate advanced from 18.78 in 1930 to 18.81 in 1931, while the severity rate declined from 2.39 in 1930 to 2.37 in 1931. Compared with earlier years, however, there has been a remarkable decrease in accidents in this industry, the frequency rate having been 82.06 in 1907 and the severity rate 6.90. Page 520.

*The second interstate conference on labor laws was held at Boston, Mass., on January 27 and 28, 1933.* At the call of Gov. Joseph B. Ely approximately 30 representatives from 8 industrial States and the United States Department of Labor met to discuss the specific recommendations of the first conference which was held at Harrisburg, Pa., in 1931. The conference confined the discussions at the second conference to hours of labor for women and minors, minimum wages, and public employment offices. Recommendations on each of these subjects were made by the committees at the closing session. Page 537.

*Sweatshop conditions are reappearing in sections from which it was thought they had been effectively banished.* Low wages, illegally long hours, employment of young workers in defiance of legal restrictions, insanitary working conditions, and fraud and evasions in the matter of paying wages have been reported from various parts of the country. Methods of handling the problems from the point of view of child welfare were discussed at a recent conference in Washington. Page 500.

*A recent study of dismissal-wage plans shows that such plans have had a rapid growth since the beginning of the depression.* One of the definite tendencies in the plans for the payment of a dismissal wage is the extension of coverage to hourly workers and to those of medium service of from 2 to 10 years. The plans reported on show that there is no agreement regarding the method of payment, although with the increasing emphasis on relief there seems to have been a tendency recently to adopt periodic payments rather than the payment of a lump sum. The development of dismissal-compensation plans has also necessitated consideration of such features as earned vacation rights, contributory pensions, profit-sharing, and stock purchase in fixing the amount of compensation. Page 496.

*The majority report of the committee on the costs of medical care, representing the opinions of 35 members out of the total of 48 persons making up the committee, recommended that medical service should*

be furnished largely by organized groups of physicians, dentists, nurses, and other associated personnel. In addition to the organization of such groups, preferably around a hospital, for the provision of complete home, office, and hospital care, it was also recommended that the costs of medical care should be placed on a group-payment basis through the use of insurance or taxation or a combination of these two methods. Separate opinions were filed by two minority groups who disagreed with some of the conclusions reached by the majority members. Page 535.

*Output per man per day in bituminous-coal mines increased from 5.06 tons in 1930 to 5.30 tons in 1931, or by almost 5 per cent, according to statistics recently published by the United States Bureau of Mines. This increase occurred in a year when working time, average number of men employed, and production declined considerably. Page 510.*

*Hourly wages of male workers in the Portland cement industry averaged 40.1 cents in 1932, according to a survey by the Bureau of Labor Statistics of wages and hours of labor in 103 representative plants having 13,677 wage earners. The rates ranged from 28.5 cents for laborers in the coal mill to 55.1 cents for shovel operators in the quarry. Actual weekly earnings averaged \$18.39, while full-time weekly earnings at the hourly rate specified would have been \$23.70. These figures represent reductions in the general averages since the bureau's last previous survey for this industry in 1929 of 11.7 cents per hour, \$10.94 in actual earnings per week, and \$7.79 in full-time weekly earnings. The hours actually worked in 1932 averaged 45.8 per week against 56.7 in 1929; full-time working hours would have averaged 59.1 in 1932 and 60.8 in 1929. Only 68 of the 13,677 workers were females. Page 595.*

*Wage rates per hour in the manufacture of rayon and other synthetic yarn in 1932 averaged 35.9 cents as compared with 44.1 cents in 1930, and actual weekly earnings averaged \$16.64 as compared with \$19.76 in 1930. Earnings for a full-time week would have averaged \$17.30 in 1932 and \$22.14 in 1930. Female workers received much less than male workers, averaging only 28.3 cents per hour and \$12.55 per week as against 40.8 cents per hour and \$19.51 per week for males. Average actual working hours for male and female workers combined increased from 44.8 in 1930 to 46.4 in 1932, although full-time working hours would have shown a decrease of 2.0 hours—from 50.2 to 48.2. These and other details from a survey by the Bureau of Labor Statistics of wages and hours of labor in the synthetic yarn industry, covering 20 establishments with 25,326 wage earners, are given on page 607.*

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**Cooperative Self-Help Activities Among the Unemployed**

**T**HE Bureau of Labor Statistics is engaged in a field survey of the cooperative self-help activities of the unemployed now being carried on in various communities in the United States. The results of this survey to date are presented in the following pages. It is planned to publish similar reports for other communities in the next issue of the Monthly Labor Review.

Information from newspapers, journals, and other sources indicates that a very large number of these self-help activities are now in operation, and that new ones are being started almost daily. Many which have been given considerable publicity have been found, upon investigation, to have proceeded little beyond the stage of organization. Others, however, have developed into enterprises of real significance, and still others, no doubt, are carrying on valuable work without their existence having come to the attention of persons at a distance.

Because of restricted resources, the bureau could not attempt a completely comprehensive survey. It was necessary to make a selection of the field to be covered, and in doing this it was felt that the most profitable procedure would be to cover those undertakings which were known to have been in existence for a sufficient period of time to have developed certain positive results, and, in addition, to make more or less extensive inquiry in a few large centers regarding undertakings either in operation or in immediate contemplation, even though these were, at the time of inquiry, of quite limited scope.

It was also felt by the bureau that, in view of the present demand for first-hand information on the subject of self-help activities among the unemployed, it was more important that the reports for the individual communities should be quickly available than that they should be exhaustive. In most communities, indeed, the activities being carried on are of such an emergency nature, are subject to such constant change, and often are so loosely organized that scientific analysis is not practicable at this time. However, the movement is of such intense interest, and first-hand information so limited, that a general picture of what is being done in a considerable number of places may be not only of general interest, but also of immediate service to groups of persons contemplating the establishment of self-help organizations.

The undertakings here termed, for lack of a better phrase, cooperative self-help activities of the unemployed, are not entirely uniform

and have been designated locally by many terms—such as emergency exchanges, mutual exchanges, productive units, and barter and scrip plans. They are alike, however, in their general objective, which is to create a livelihood for groups of unemployed persons through the exchange of services and goods. In some cases, productive enterprises, such as the baking of bread, is undertaken. In a number of cases also the use of scrip has been developed as a partial substitute at least for money. In general, however, the various undertakings have developed more or less spontaneously as local measures to meet conditions of serious emergency, and, as a result, have followed no uniform program or procedure. On the contrary, those which have been in existence for any considerable time have necessarily followed a “trial and error” method, meeting as best they could the inevitable difficulties and problems as they arose, and trying new policies and methods when the old ones failed.



## Barter and Exchange Movement in Utah

THE present barter and exchange movement in Utah began in the summer of 1931 when Benjamin Stringham, coming to Salt Lake City from Idaho, brought with him several truck loads of potatoes and conceived the idea of the exchange of surplus products. His surplus of potatoes he began to barter for the surpluses of others, first with a barber out of work three-fourths of his time and therefore having a "surplus" of haircuts, as it were, then with an increasing number of others who became interested in the idea—farmers, shoemakers, cleaners, painters, mechanics, etc. By the beginning of 1932 the idea had spread to such an extent that the group took steps to legalize the procedure, incorporating as the Natural Development Association<sup>1</sup> on January 27, 1932. The business began to grow rapidly and the occupations and professions represented grew more and more diversified.

This diversification, however, entailed an increasingly complex system of bookkeeping. In order to obviate this the association, in July, 1932, introduced a system of scrip, issuing "vallar"<sup>2</sup> books in denominations of \$5, \$10, \$15, \$20, and \$25. This scrip is not in any sense money, as that term is commonly understood. It is a non-transferable medium of exchange which entitles the holder to its exact value in any services or goods the association offers. It is destroyed after it has made one round trip from the association to the holder and back to the association again. Thus, say, a floor sander who is sent by the association to sand a floor requiring two days' work, at the rate of \$5 a day, would receive as his pay a \$10 vallar book.<sup>3</sup> He may spend \$4 of it immediately at the association store, in which case coupons to that amount are detached and, the round trip for that much of it having thus been completed, are later destroyed. Suppose for the remainder of the amount he has dental work done by a dentist on the association's exchange list; in that case the cooperating dentist tears off the coupons and may turn them in for goods or services at the store or may retain them until he has accumulated a sufficient amount to entitle him to a book of scrip which the association will issue and which he may then use to purchase supplies or the services of others.

With the adoption of the scrip system, the business grew fast. From a turnover of \$57.20 in January, 1932, it increased to \$20,000 in July, and to \$72,000 in October (the peak month).

The fact that the working people of the vicinity had been on short rations was amply demonstrated by the fact that the association could hardly obtain supplies fast enough. Goods would barely be unloaded at the back door before they were sold and were being carried out the front door by the customers. In two months the association sold 180 tons of onions and 110 tons of carrots and during this time it was handling 7 tons of potatoes a day. Such was the demand for meat (which at that time was being bought direct from the farmers and slaughtered) that, on days when meat was available at the store, the

<sup>1</sup> Popularly known as the N. D. A.

<sup>2</sup> Coined from the words "value" and "dollar."

<sup>3</sup> In practice the attempt is made to make part payment in cash; see p. 457

queues of customers reached down the street half the length of the block. In fact the business grew almost beyond the ability of the management to control it. It was a case of running before learning to walk, and it is now recognized that during this time a number of mistakes were made, from the effects of which the organization is only now beginning to recover.

One mistake was that of operating with a view to giving jobs to as many people as possible, with the result that the overhead expense was excessive. Also, in the haste entailed by the rapid expansion of the business many mistakes of judgment were made in the types of persons hired, with the result that there were losses by theft, sabotage, etc. Again, no specific salaries were set, each person being allowed to draw what supplies he wanted, and it later developed that this did not work well.

Several ill-advised manufacturing enterprises were undertaken, most of which resulted in losses of one sort or another. Among these were the financing of a small independent oil refiner, only to find all avenues of supply of crude oil closed; the acquisition of a part interest in a coal mine, which because of poor equipment and the low grade of the coal, has not produced the results hoped for, though it is possible some returns will be obtained eventually; and the starting of a tannery which, because of the lack of proper equipment and chemicals, was never successful in turning out leather of uniform quality. It was planned to use the leather to make shoes, and a few pairs were actually made. Since the proper shoe machinery was lacking, however, most of the work was done by hand, and since the hand process required a longer time than if the shoes had been made by machine, the cost of the labor time involved raised the price of the finished products considerably above the amount for which shoes could be bought from private dealers. The only advantage was that the hand-made shoes could be purchased entirely for scrip, and were therefore accessible to the member who had scrip but no cash. The tannery has since been used mainly for the manufacture of harness and heavy work gloves, but is now practically inoperative, due to the fact that during the extreme cold weather it has been impossible to heat the building sufficiently to dry the hides. It was planned to make soap of the tallow from the sheepskins used in the tannery. By a mistake of judgment, however, the soap factory was located some 20 miles away from the tannery, and the cost of handling and transportation more than counterbalanced any saving that could otherwise have been made from the manufacture by the association of its own soap; the project was therefore given up.

The building department has, from all accounts, been an unqualified success, furnishing a considerable proportion of the jobs supplied to the members. Using the labor furnished to it through the labor department, the building department has constructed five service stations, and a \$60,000 house of hewn logs for a physician who is on the exchange list and who has from the first been a strong supporter of the association, and done remodeling work on a number of apartment houses, and a large number of smaller jobs. Although some of these jobs have been on an all-scrip basis, for the most part the work has been done for part cash.



Two canneries were operated during the canning season; these handled about 2 tons of fruits and vegetables, turning out about 1,800 quarts a day. All but about 200 cans of these have already been sold. The association expects to repeat the canning process next year, making certain improvements as the result of last year's experience.

The stores are now (February, 1933) suffering from a shortage of supplies, especially of vegetables. Due to the severe cold and unusual amount of snow the farmers have been afraid to open their storage pits, and the normal flow of supplies therefore has not been coming into market. The association plans to prevent a recurrence of such a situation next year by building its own cellar for root vegetables. It plans to build one capable of holding 500 tons of vegetables, erecting it on ground bought with scrip.

Some cutting of fuel wood on shares was done in 1932 and the association expects to continue and expand the work this year, on a scale sufficient to produce enough wood to last through the winter. It will also continue the harvesting of crops on shares. No planting or farming will be undertaken by the association, as it takes the position that there are too many producers now and that it would be preferable to assist the experienced farmers already in the field.

Early in 1933 a reorganization of the Salt Lake City organization was effected, and the commercial part of the association's activities in Salt Lake City was made a separate unit, distinct from the headquarters office of the association. A new manager was appointed, the number of employees was cut to considerably less than half, and those remaining were put on a definite salary basis (payable in scrip).

This unit now operates a vegetable and meat market; a barber and beauty shop; a shoe-shining stand; a shoe-repair section; a general store including in its wares articles made by some of the woman members (quilts, cushions, knitted articles, etc.), a limited line of dresses, coats, etc., rubber footwear, hardware, and a limited line of electrical appliances; a dressmaking department; a furniture department; and a laundry, tailoring, and dry-cleaning department. In the same building are the offices of the labor and building departments of the Salt Lake City unit and the scrip clearing house for all of the units of the association. In other buildings several blocks away are the furniture-repair department; the printing office from which is issued the association paper, the *N. D. A. Progressive Independent*, a 4-page weekly established in December, 1931; and the lunch room. The lunch room is still under the control of the headquarters office, but will be taken over shortly by the Salt Lake City unit. It has served as many as 463 meals at one noon period, but is now serving an average of 200.

Due partly to the natural slackening of activities as the harvest season came to an end and winter set in and partly also as a result of the losses due to the mistakes mentioned above, the monthly turnover is considerably less than in the autumn months. However, as a result of better management, although the business amounted to only some \$16,000 in January, 1933, the unit was able to pay off some \$600 of the previous losses, in addition to \$40 in cash orders issued to the employees as a bonus.

The lighter side of existence is not neglected. The association has frequent free entertainments at which use is made of the considerable talent among the membership. Every Thursday night the Salt Lake

City unit has a dance, the admission to which is 50 cents in scrip. This function is in charge of two young men who receive a little for their services; the association also clears something on each. In this way also the young members benefit who could not afford to attend a dance at which cash admission was charged but who can pay in scrip.

### Organization

SEVERAL changes, mainly in the direction of simplification, have been made in the organization since it was established.

As established there was provision for the usual officers and board of directors. There were also a number of departments, each designed to care for a certain function or line of activity; these were the departments of agriculture, building, commerce, contact, education, health, justice, labor, manufacture, mining, and wealth.

It was contemplated that the association should grow, first, by the acquisition of new individual members and, second, by the formation of new branches or units, and during the period of rapid expansion, units were established in a number of places in Utah and in Idaho. Three of these have since been closed, but there are still 13 units in operation outside of Salt Lake City, as follows: American Fork, Brigham, Delta, Lehi, Logan, Ogden, and Price (all in Utah); Idaho Falls, Pocatello, Preston, and Twin Falls (all in Idaho); Phoenix, Ariz.; and Oakland, Calif. As a result of the reorganization already spoken of the commercial part of the business in Salt Lake City is now being operated as unit No. 12.

Although there is not as yet any great amount of exchange of products carried on as between units, there is nevertheless some; for instance, the Salt Lake City unit has exchanged furniture, bedding, etc., for the hides and onions of the Delta unit.

There are about 2,000 members (trade and qualified) in the 14 units. As each membership covers the wife and minor children (grown children, if employed, are expected to take out a membership in their own name), the number of persons benefiting through the association is from 8,000 to 10,000.

Each local trading unit is operated on practically an autonomous basis, although under the general supervision of the national, or headquarters, office in Salt Lake City. That office will hereafter be an educational, propaganda, and organization body and will handle all matters affecting the organization as a whole.

The working out of the new basis of operation has just been completed. Hereafter the expenses of the national office will be met by a contribution from each of the local units amounting to 4 per cent on their scrip business and 1 per cent on their cash business.

The Salt Lake City trading unit is now under the control of a general manager. The "departments" contemplated by the original set-up have largely been eliminated in this unit. The departments of labor and building, however, have been retained. The department of manufactures is practically dead, as the manager does not favor the association's undertaking the establishment of manufacturing enterprises, but favors, rather, the bringing into the association of such enterprises as are already going concerns, which have gone through those early vicissitudes that are inevitable, and which have acquired the necessary experience and skill. The results of this policy are already evident

in the recent decision of several manufacturing concerns, one of which manufactures paints and one wall paper, to throw in their lot with the association.

The association is not democratic in character and will not be until January, 1934. The incorporating officers will serve until that time, when a general election will be held and a new set of officers will be selected by the members.

#### Membership

THERE are several classes of memberships. There are "candidates" who, on payment of a filing fee of \$1, are entitled to have their names listed in the occupational file of the association, they agreeing to perform to the best of their ability any work offered by the association. After six months, during which they are considered as being on probation, they become eligible to election as "trade members." There is, however, no certainty of election to trade membership at the end of the six months' period, for the association not only wants only good workers but it endeavors to maintain more or less of a balance among the various occupations and services to be exchanged. In case, however, a candidate is accepted he becomes subject to a fee of \$5 a year, in return for which he receives a preferred status as regards employment through the association and becomes entitled to the trading and exchange benefits.

After six months in the trade-membership class the member is eligible to be received as a "qualified" member. Here again, however, there is no certainty of admission to the group, for the association is endeavoring to build up a qualified membership consisting only of good cooperators and willing workers who meet certain requirements. To be accepted into this group the candidate must pass a physical and mental test and must pledge that, in the event of the failure of the association or its falling into difficulties, he will be liable for the redemption of the outstanding scrip, either in services or in cash, in the amount of \$1,000. Although there are more than 2,000 trade members (all units combined), thus far there are only 28 qualified members.

The association is building up this special inner group with the idea of the eventual formation of an ideal society, each member of which will be prepared to make considerable personal sacrifices for the good of the group. The group will have collective responsibility for all of the members, looking after them in illness and in old age, and carrying this oversight to the family in case of death.

As the organization has no capital stock, the value back of the scrip lies in the capacity of the association to deliver in services or in goods the value represented on the face of the scrip. This, as noted, is guaranteed by the individual liability of the "qualified" members.

#### Employees

THERE are on the pay roll of the Salt Lake City unit 60 employees (including the manager), of whom 42 are men and 18 are women. None of these, including the manager, receives more than \$25 per week paid in scrip. As the association establishes itself on a more and more stable basis, however, it is intended that the staff shall receive greater remuneration. On several occasions, when the condition of the funds has warranted, each employee has received in

addition to his monthly pay an order entitling him to \$2 worth of certain goods or services (such as meat, or barber or beauty service) for which cash is necessary. In this way the organization gave the employees the advantage of cash purchasing power, while keeping the funds in the association.

### Skills and Services Available for Exchange

THE following are some of the occupations listed among the "trade members" (i. e., those accepted for preference as regards calls for services received through the association):

Accountant.	Embroiderer.	Pipe fitter.
Acetylene cutter.	Engineer (electrical and steam).	Plumber.
Architect.	Farmer.	Printer.
Athletic instructor.	Fire inspector.	Radio-repair man.
Baker.	Floor finisher.	Rancher.
Barber.	Foot specialist.	Research worker.
Beauty operator.	Freight checker.	Salesman.
Blacksmith.	Funeral director.	Seamstress.
Boiler maker.	Geologist.	Sheet-metal worker.
Bookkeeper.	Grocer.	Shoe-repair man.
Bricklayer.	Houseworker, general.	Sign writer.
Brickmaker.	Interior decorator.	Solicitor.
Butcher.	Janitor.	Steam-shovel operator.
Cabinetmaker.	Journalist.	Stenographer.
Canner.	Laborer.	Stonemason.
Carpenter.	Landscape gardener.	Surveyor.
Cement worker.	Laundry worker.	Tailor.
Chauffeur.	Lecturer.	Tanner.
Chef.	Locksmith.	Teacher (school, dramatic, voice, etc.).
Chemist.	Machinist.	Telephone operator.
Chiropractor.	Marble setter.	Temple worker.
Clerical worker.	Masseuse.	Tinner.
Clerk.	Milliner.	Truck driver.
Confectioner.	Miner.	Typist.
Contractor.	Musician.	Waitress.
Cook.	Nurse (practical, registered, etc.).	Warehouseman.
Dairyman.	Office workers.	Watchman.
Dentist.	Optometrist.	Weather-strip mechanic.
Dishwasher.	Painter.	Welder (electric and acetylene).
Draftsman.	Paper hanger.	Window trimmer.
Dressmaker.		
Electrician.		

Altogether the labor department has listed 132 occupations available for exchange among the males in the trade membership group and 40 among the women. There are many additional occupations among those whose applications are on file as "candidates."

As already stated, the organization tries to maintain some sort of relationship or balance as between occupations admitted, to keep from having too many of any one. Thus there are 23 carpenters in membership, but 59 whose applications are on file; 11 farmer members and 44 applicants; 11 laborers and 141 applicants; 3 painters and 45 applicants; 11 truck drivers and 59 applicants; 3 nurses and 20 applicants; 7 seamstresses and 35 applicants, etc.

There is also a considerable number of local firms and professional people who will accept the scrip of the Natural Development Association in payment for services or goods. Some of these will accept scrip in full payment, others in part payment, the remainder being

paid in cash. In some cases scrip is accepted in payment for labor performed, but if materials are required, such as parts needed in automobile repair work, these must be paid for in cash. The latest exchange list of this character of the Salt Lake City unit includes 72 different services. Thus members who patronize the persons and firms on this list can use their scrip to pay their house rent, have their automobiles repaired, take a business course, take dancing lessons, or French, or music, or swimming, have their rugs cleaned, shoes shined, have new dresses made or old ones mended or made over, etc.

In the stores of the association, for all scrip or for part scrip and part cash, the association offers the members vegetables, meat, a limited line of hardware, furniture, clothing, and rubber footwear, and barber and beauty service, shoe-repair and shoe-shining service, laundry and cleaning service, tailor service, dressmaking service, and furniture-repair service.

Health service of almost any kind is obtainable for scrip. On its exchange list the association has 8 physicians and surgeons, 3 dentists, 3 chiropractors, 1 foot specialist, 1 optometrist, 1 naturopath, 6 nurses, 1 druggist, 2 masseuses, and 2 pharmacists. A large number of surgical operations have been paid for with scrip.

In many cases landlords are accepting rent payments in vollar scrip, and the existence of the association has been a boon to a considerable number of local firms which have become involved in financial difficulties. Thus, the association has made an arrangement with a local dairyman, who was on the verge of bankruptcy because of the falling off in his cash customers, by which he delivers milk to association members on a half-scrip, half-cash basis. In this way both dealer and consumers are benefited. Another instance of the same kind was an arrangement with a local music company by which the latter turned over to the association 50 pianos and \$1,000 worth of radios, taking payment in scrip; this scrip it used in part payment of its employees' wages, paying them \$5 each in scrip per week. Lacking this sale it would have had to dismiss some of its workers. The association, on its part, had no difficulty in selling the musical instruments. It sold them for all scrip and all had been disposed of within a month. A local shoe dealer, closing out his business, is disposing of his stock through the association on the basis of half cash, half scrip.

#### Basis of Evaluation of Exchange of Services and Goods

THE original intention was to operate entirely on the scrip basis and this was done for a while, but this was found not to be feasible in all cases. The association needed cash for the payment of such bills as electric current, telephone, gasoline, and certain staple commodities not obtainable for scrip. The patrons, on the other hand, needed cash for their own similar bills and for such things as car fare, rent (if the landlord was unwilling to take scrip), etc.

The person who enters the association's stores therefore finds many articles for which part cash must be paid. Meat, for which the association has to pay cash, sells for half cash and half vollar; a hair cut cost 25 cents scrip and 10 cents cash; a shoe shine cost 2 cents cash and 7 cents scrip. Vegetables are sold on the full scrip basis.

Comparison of the prices at the N. D. A. produce store with those at other stores in the neighborhood showed that in most instances the



meat prices at the former were one or two cents higher, though on one or two cuts they were considerably lower. Bacon, for some reason, was very much higher at the N. D. A. (Meats, as stated, sell at half cash, half scrip.) On vegetables, which sell for all scrip, the prices were either the same or a cent or two lower.

The use of the scrip seems to have a definite psychological effect on the holder. The advertising man would say it "lowers sales resistance." Although some of the stock on hand in the general store seems obsolescent, the manager has no fear as to his ability to dispose of it. He is of the opinion that there is nothing that people won't buy if they can buy it for scrip. This effect was described in a different way by one of the barbers employed in the barber and beauty department, who said that one felt generous with scrip. "If I have money I feel like hanging on to it, but if, say, some nice cabbage comes in that I can buy for all scrip, I look at my coupons and I think, 'Oh, pshaw, it's only scrip anyway; I'll take some home to the neighbors.'"

There are those who feel that by the very degree in which cash is required in the transaction, to that degree the usefulness of the association to the members is lessened. They feel that the farther the association gets from the strictly scrip (exchange) basis the farther it gets from the original purpose—that of operating in a channel in which money refuses to flow, among people with service to give and surpluses of goods but no cash. The manager is convinced, however, that until the association is able to make contact, on the scrip basis, for all the things required in the daily life of the members, some cash funds are essential and these can be obtained only in the way the association is now utilizing.

Although, as seen, the N. D. A. prices do vary somewhat from those current in the neighborhood, it is the policy of the association to carry on its transactions on the basis of current prices. The operating expenses of the trading units are met from the margin between wholesale and retail prices and from the 10 per cent exacted as the commission on all days' work furnished through the organization.

All requests for labor, whether from outside patrons or from other departments of the association are handled through the labor department. Here are on file the names of all persons whose services are available, the card of each showing whether he is a trade member or merely a candidate, his regular and any subsidiary occupations, what tools or equipment he has, his age (as an indication of his physical ability), the number of dependents (as showing his need), his skill rating (this on the basis of previous performance), and his address and telephone number. The labor supervisor, on receipt of an order for labor, has therefore immediately available a list of names of persons qualified for the work. In making the selection from this list he takes into consideration first the man's qualifications and then his need (as shown by the number of dependents).

The labor supervisor makes no attempt to set a wage scale. Each man states the rate for which he will work. There is one unfortunate effect of this policy: It has the tendency to set the men in an occupational group to bidding against each other, lowering their rates in the attempt to get work. This the supervisor admits, adding that many employers from whom requests for labor are received are not slow to take advantage of the fact.

On all of the jobs thus handled by the labor department the attempt is made to obtain part of the pay in cash, to enable the worker to meet his obligations for which cash must be paid. On the total of the transaction (scrip plus cash) the association takes 10 per cent as its commission as employment agency.

Employment Supplied to Members

DURING the first 11 months of 1932, the association reported it had furnished 50,306 days of work for the cooperating members, which at a value of \$3 per day meant an income of \$150,918.

The peak of activity occurred during October, 1932, during which month 5,912 man-days of employment were furnished through the Salt Lake City unit of the association. Of these, 803 days were classified as skilled labor and the remainder as unskilled. The following statement, compiled from weekly reports of the Salt Lake City labor department shows the amount of employment supplied through this department in specified weeks during the period from October 23 to December 10, 1932:

DAYS OF EMPLOYMENT SUPPLIED TO MEMBERS THROUGH LABOR DEPARTMENT, OCTOBER 23 TO DECEMBER 10, 1932

Week ending—	Number of days' work supplied—		Total
	Directly	Indirectly	
Oct. 29, 1932 .....	1,199	235	1,434
Nov. 5, 1932 .....	2,348		2,348
Nov. 12, 1932 .....	1,000	201	1,201
Nov. 26, 1932 .....	1,005	111	1,116
Dec. 3, 1932 .....	1,122	276	1,398
Dec. 10, 1932 .....	1,049	286	1,335
Total .....	7,723	1,109	8,832

At present there is comparatively little activity in this department, the orders for labor being mainly for clean-up and repair work on dwellings and for domestic service. During the period February 2 to 18, 1933, jobs of varying duration were furnished to 160 persons, distributed according to occupations as follows:

Carpenters .....	51
Carpenters' helpers .....	33
Paper hangers .....	31
Truckers .....	12
Plumbers .....	2
General houseworkers (domestic services) .....	4
Salesmen .....	3
Common laborers .....	24
Total .....	160

The labor supervisor is not content with simply receiving the orders which come in; he goes after any that may be available. At the time of the agent's visit he was working on a bid for a building renovation and remodeling job which he said would, if obtained by the association, involve some employment for 300 men.

## Relation with Public and Other Organizations

THE Natural Development Association is designed to serve those who still have some resources and are still more or less self-sustaining. Unlike the somewhat similar undertakings in other communities, it carries on no solicitation of commodities or funds from the public. Its operations are on a purely business basis.

It has had no particular assistance or encouragement from public officials, relief agencies, or organized business. On the contrary it has met with considerable opposition, although a few merchants accept the association's scrip.

FEBRUARY 20, 1933.



## Unemployed Citizens' League of Denver, Colo.

**T**HE Unemployed Citizens' League of Denver describes itself as "an association of the unemployed for self-help and cooperative action." It was the outcome of a series of meetings in Denver, called by a group of men headed by a local architect and a hydraulic engineer, and which began on June 23, 1932. While the meetings were poorly advertised and the group was hard put to it to find meeting places, since the schools and many of the churches were closed for the summer, some of the owners of mortuaries in the city turned them over for meeting places, and in these not altogether cheerful surroundings the league was born.

Once started, the idea spread rapidly. By September the workers who had joined the league and their families numbered nearly 34,000. Twenty-five local groups were organized throughout the city and the organization began the task of providing for its membership.

The officers were handicapped at the very start by a lack of everything with which to work. Even stationery was lacking. The league had not then and has not now a sufficient supply of membership cards. It was overwhelmed with needy, though willing, members and had to organize its activities even before it could perfect its own organization.

### Activities of League

*Food.*—Food was the first concern. The usual procedure was to find a farmer with crops which he had no facilities, in either labor or cash, for harvesting. The league would agree to dig his potatoes, pick the peas, onions, etc., for a specified proportion of the crop. In this way the farmer's labor problem was solved, the surplus crop went through a channel which cash sales could not have effected anyway, since the league members' purchasing power was practically nonexistent, and the farmer had a better market for the remainder of his produce.

The league's farm crews worked all during the late summer and fall, gathering crops on shares, the work being carried on up to the time the vegetables froze in the ground during the December cold snap. From July to December the league harvested and brought into Denver three or four tons of vegetables a day—potatoes, tomatoes, cabbages, peas, beans, onions, carrots, etc.—the goods thus obtained being divided among the various locals in proportion to their membership. Some 2,000 tons of food were thus salvaged.

The league was fortunate in obtaining for about two months the use of a fully equipped baking plant. The organization had skilled bakers in its membership, supplies of flour were obtained from the Red Cross, and such other necessities as sugar, salt, yeast, etc., were secured from the Citizens' Unemployment Committee, a local semi-official relief organization. During this period the bakery turned out 500 loaves a day. Then the owner of the bakery found a rent-paying tenant and the league project had to be abandoned.

The league opened up a number of kitchens, the largest number in operation at any time being nine. Six are being run at the present

time. At these kitchens meals are served to the single members, to the children of school age, and to such families as choose to take their meals there. Generally, however, families prefer to have their meals at home. In such cases they may obtain their food supplies at the distributing point of the local.

The food obtained in the harvesting operations of 1932 was insufficient to last through the winter, and the league has placed boxes in the markets throughout the city to receive edible but not salable goods—dented canned foodstuffs, wilted but usable vegetables, trimmings from meat, etc. Men detailed for the purpose make regular collections.

Occasionally food donations of considerable size are received. Thus a local packing plant at one time gave the organization 2,000 pounds of meat, and at another time a beef animal which, when killed and dressed, gave 318 pounds of meat. Certain local dealers also make more or less regular contributions of skimmed milk and buttermilk.

*Housing.*—The housing problem, a most perplexing one at times, has been met in the following way: The league would find a property empty and out of repair and approach the owner with the proposal that if he would furnish the necessary materials, paint, etc., the league would repair the place in return for a lease for a specified period. In some cases the league has itself furnished some of the materials, having obtained them as its share in a wrecking job undertaken by the organization. (The membership includes a cost estimator, skilled wreckers, and building-trades workers of all kinds.) The league on its part agrees to leave the premises in a good state of repair at the expiration of the lease.

The organization has recently finished renovating a block of 17 apartments, receiving in return the title to occupancy until October, 1933. It has now in hand the redecorating of a group of stores, in return for which it is to obtain two years' tenancy in a near-by 5-room house.

Altogether between 175 and 200 families have been provided with living quarters. Until just recently the league has been able to find shelter for all of its evicted families. During the past 30 days, however, evictions have been so numerous that the housing supervisor is sceptical of his ability to provide housing for all who need it. He states that it is easy to find plenty of empty houses which the landlords would be glad to have repaired; the stumbling block is the provision of the paper, paint, and other materials necessary to do the job. Many of the owners are themselves unable to incur the small outlay necessary for this purpose. The housing supervisor states that, counting the cost of materials (but not, of course, of the labor) housing has been obtained for an average of \$8 per family per year.

The league hopes to obtain a small grant from the mayor's committee to enable it to buy the necessary supplies for its housing work. It feels that it is entitled to a certain amount of assistance, since if it were unable to find quarters for the evicted members the local relief authorities would have to, at a cost of probably not less than \$10 per family per month. The mayor's committee has already advanced funds for electricity and some fuel for the tenants in the league's renovated houses, and special arrangements have been made with the municipal water plant to insure that the water will not be cut off.

A building formerly used as a sanitarium has been turned over for the use of the league by its owner, and 22 families are being housed there. The place is tax free, as a nonprofit institution, and if the tenants can pay even a little the owner will sell it to the league for a nominal sum.

*Fuel.*—The fuel question is another to which league officials have given much thought. The provision of cordwood has up to the present been comparatively simple. The league has maintained a wood camp, at some distance from Denver, from which many hundred cords of fuel wood have been brought to the city. Several men are still being maintained there, but the food problem becomes more acute every day and it is only a question of time until the league will have to close down the camp. The members of the league have been able to supplement the camp wood supply from other sources, so that this fuel is still fairly plentiful in amount.

The coal problem is more difficult. The Rocky Mountain Fuel Co. offered the league the use of one of its mines, and this seemed to be the solution of the problem. The company specified, however, that certain working conditions must be met and that workmen must be covered by compensation insurance. The latter stipulation the league was unable to meet, for it lacked the funds. The league has had the opportunity to take over other mine properties also, but has been unable to do so because all required a certain amount of cash—for equipment, insurance, royalties, etc.—which the league did not have. The coal itself could not be sold on the open market for cash, as that was always prohibited in the agreement.

*Clothing.*—At one time 80 women were engaged in 18 league sewing rooms, cleaning, mending, and otherwise overhauling garments for the members. Many articles of clothing were made from cloth furnished by the Red Cross. As the weather became more severe, however, this work has had to be discontinued, because the supply of fuel had to be conserved for the members' living quarters.

Very many pairs of old shoes have been given to the league, which it has not been able to use, for all needed repairing and while the league membership includes shoemakers the organization has lacked funds for the purchase of repair materials.

*Labor and transportation.*—This is one of the most important departments of the league. The supervisor of this department has as his duty the furnishing of workers in the requisite number and having the requisite skill for the various jobs being carried out by the league. He must furnish them transportation to and from the work and must also furnish truck facilities for all purposes. This supervisor must be in touch with the various locals constantly, in order that he may be informed as to the supply of labor available.

During the busy season each league member (unless fortunate enough to have paid employment) is required to report at his local office every day, for any job on which he may be needed.

In estimating for jobs other than those on which the league is working simply for the material (as in the wrecking of buildings to obtain lumber, bricks, etc.), labor time is figured at the union rate.

The league has had as many as 80 trucks in use at one time. In some cases the trucks were donated, while in other cases their part-time use was obtained in return for repair work done on them. The league has also been assisted by an officer of the National Guard

who loaned them some of the trucks and other equipment of that organization.

The procuring of gasoline and oil has always been a problem, as cash is necessary for their purchase. Funds for this purpose have been obtained by giving benefit boxing matches, concerts, dances, etc., and through occasional donations. The league has recently placed a card at filling stations located at strategic points throughout the city, inviting donations of gasoline from patrons of these stations. This practice was inaugurated too recently to judge of its results but already some 100 gallons have been received.

*Education, recreation, health, etc.*—Although the main energies of the league have been bent toward the procurement of the necessaries, such as food, heat, clothing, and shelter, the amenities have not been neglected. Each local holds a weekly meeting at which there is always some entertainment feature. Up to the first of the year music was invariably an important part of the program. There are many studios of music in Denver and these were glad to allow their pupils to exhibit their talent. The city office has built up a list of performers from which it can usually supply talent to any local desiring it. There is among the membership, also, a good deal of local ability of which use is made. In most cases the entertainments have been given in the local groups, but two city-wide affairs have also been given. Two additional city-wide concerts are planned—one for late in February and one at the end of April—to be given by the Denver Philharmonic Orchestra.

It has been the policy since the New Year, to include in the weekly program short talks on economic subjects and in explanation of what the league is doing and why. The league made some attempt at formal classes in economics—utilizing the services of the school teachers in its membership—for some of the young people. These, while popular, lacked continuity, first, because the instructors were on the public-school supply lists and were subject to call at any time, so that their presence at the league classes could not be depended on; and second, because the league's need, during the busy season, for the services of everyone of any ability at all, was so great that the pupils were liable to be pressed into service.

The league is now making preparations to open a medical clinic at the city headquarters. Certain local physicians have agreed to give a certain number of hours' work each, and will treat free all patients sent to them through the city office.

#### Form of Organization

DENVER was the first place in Colorado to form an unemployed citizens' league, but its example was followed by 11 other localities in the State: Boulder, Canon City, Center, Colorado Springs, Florence, Fruita, Grand Junction, Longmont, Niwot, Penrose, and Pueblo. Late in 1932 a State organization was formed, incorporated as a non-profit association under the laws of Colorado, and of this organization the Denver league is now a branch.

The State executive estimates that there are altogether some 45,000 persons (members and families) connected with the league, of whom about 30,000 (9,000 families) are in the Denver branch.

There has as yet been little connection between the various branches, due to distance, transportation difficulties, and weather

conditions. The Denver officials, however, being in the capital, have been able to render considerable service to the other city branches in legislative matters.

Under the form of organization adopted, each city branch has its own chairman elected by the membership. This chairman then appoints from the membership a supervisor charged with the management of each line of activity. Under the present scheme there is a supervisor for each of the following: Clothing, food, fuel, health, housing, labor and transportation, publicity, recreation, solicitation, utilities, and wrecking of buildings. Each branch also has its own secretary and treasurer.

In case of a city of such size as to make a city-wide membership unwieldy, the by-laws provide for the chartering of locals, each patterned on the plan of the city organization—with local chairman, secretary, and treasurer, and with supervisors appointed by the local chairman. The locals obtain city representation through a city executive committee composed of the local chairmen and one representative elected by each local.

There are also in each local what are known as "block representatives," chosen by the chairman, each of whom acts as sort of general agent for the block or section in which he lives, assisting in relief investigations, collecting donated foods, clothing, etc., and issuing requisitions for supplies to the members in his block.

The State organization consists of: (1) A board of seven trustees elected by the membership for a term of three years, the terms being so arranged that one-third are elected every third year; (2) a chairman of the board elected by and from the trustees; (3) an executive, a secretary, and a treasurer elected by the trustees, but not necessarily from their own number; (4) supervisors in the lines of activity carried on by the league, appointed by the State executive but subject to approval and removal by the board of trustees; and (5) an advisory committee consisting of representatives selected by the executive committee in each city branch—one representative for each place of less than 100,000 population, and in larger centers an additional representative for every additional 100,000 population.

Local membership meetings are held once a week, and once a week also the local chairmen meet with the city officers.

Any person wholly or partially unemployed is eligible for membership in the league, merely pledging himself to give his services when and as required. There are no fees required and no salaries are paid.

#### Field of Membership

IN THE city of Denver there are many industrial employments, and in the environs there are also other lines of activity, such as mining, farming, lumbering, etc., each with its complement of workers. The result is that the membership of the Denver branch represents a pretty fair cross section of the wage-earning population, besides a few in professional lines.



The following list, which is not a complete one, gives an idea of the occupations represented in the Denver membership:

Architect.	Drain layer.	Musician.
Artist.	Druggist.	Painter (house, landscape, sign, auto).
Armature winder.	Electrical engineer.	Paper hanger.
Auto painter.	Electrician.	Plumber.
Auto mechanic.	Farm worker.	Pressman, printing.
Baker.	Foundryman.	Printer.
Barber.	Furnace man.	Quarry worker.
Bell boy.	Gardener.	Rigger.
Blacksmith.	Granite cutter.	Salesman.
Boiler maker.	Grocery clerk.	School-teacher.
Bricklayer.	Harness maker.	Shingler.
Broom maker.	Hod carrier.	Steam fitter.
Butcher.	Horseshoer.	Steel worker.
Cabinetmaker.	Hotel maid.	Stone cutter.
Cable splicer.	Hotel manager.	Switchman.
Carpenter.	Iron worker.	Tailor.
Carriage-body maker.	Janitor.	Telegrapher.
Cement worker.	Jeweler, manufacturing.	Telephone lineman.
Cigar maker.	Laborer.	Tile setter.
Clay worker.	Landscape gardener.	Truck driver.
Cleaner and presser.	Leather worker.	Upholsterer.
Clerical worker.	Life-insurance executive.	Vegetable warehouseman.
Cobbler.	Lumberjack.	Vest maker.
Cook.	Meat cutter.	Waiter.
Cooper.	Mechanic.	Watchman.
Dairy hand.	Millwright.	Welder.
Detective.	Miner (coal and metal).	
Dishwasher.	Molder.	
Draftsman.	Music teacher.	

The officers of the league include a former architect, a railroad tool and die maker (foreman), a former Methodist minister, the former South American representative of a railroad system, a photographer, and a Quaker minister. The chairman of one of the locals is a chiropractor who needs no help himself but is interested in what the league is doing.

#### Basis of Operation

THE Denver organization started out with the idea of operating on the basis now used in some of the other Colorado branches—notably at Boulder, and in Cheyenne, Wyoming—of crediting each member with the hours of labor performed and allowing him to draw supplies against that credit. It was found, however, that the organization was in practice unable to keep all of the able-bodied and available members at work continuously. Those who were willing to work but who could not be utilized were as much in need as those whose services were being used, and the league felt that it must fill those needs in so far as it was able. In practice, therefore, the distribution of supplies has been carried out on the need basis.

Each member, on joining, states his age, marital condition, number of dependents, occupation, and period of residence in Denver. He is graded (A to E) as to physical condition, ability, and personality. This card is placed on file at the office of his local, so that the chairman and supervisors have at hand information as to the occupations available to them for the work to be done.

Each member obligates himself to perform whatever work he is called upon to do, it being understood that a minimum of two days' work will be given per week. As a matter of practice many of the workers, especially those in responsible positions, give their full time

to the league. No one, as stated, receives any salary, though all may draw on the league for necessaries. In response to an inquiry as to whether there had been any complaint that some were asked to perform more than their share of the work, the State executive said that there had not, that on the contrary most of the members, being otherwise idle, were glad to be occupied, even though they received no specific credit in labor hours on the books.

A member who fails or refuses to perform any task set is penalized by the revocation of the card which entitles him to supplies at the local distributing point.

A needy member requiring articles such as clothing, furniture, or other supplies not on hand in his local obtains from his chairman a requisition which he presents at the city office, where his needs are met if possible. There are no individual accounts, except that a record is kept on the books to show what became of the goods issued.

### Present Situation and Problems

At present there is comparatively little being done through the city office. The wood camp is still being operated to some extent, but there is of course nothing to be done in the way of harvesting during the winter.

There is, however, more or less activity in the local groups. Thus one of the locals is cutting some soft coal at a strip mine, owned by a railroad, some distance from the city.

Six of the locals are still running their kitchens, and altogether about 250 people are being thus fed daily. The cooks in all of these are men whose regular occupation is that of cook; the helpers are mainly women.

Also the sawing and splitting of wood for fuel goes on regularly. In most places a saw has been attached to the motor of an automobile to cut the wood into lengths. Following is a typical item in the league paper from one of the locals: "We have cut 8 trees this week to make 24 face cords of wood and still have approximately 256 face cords in our yard; 591 men have worked a total of 4,721 hours this week."

One local is housed in what was formerly a Negro church. This is the oldest and one of the largest locals, and the main portion of the church, in which the pews and pipe organ still remain, makes an excellent meeting place. The one drawback is that heating it in cold weather takes more fuel than the local feels that it can afford. The old Sunday-school room is to be fitted up as a recreation room for the young people.

At another local, housed in a vacant store building, the women, at the time of the agent's visits, were busy preparing the vegetables for the next meal, while in the front end of the building several men were practising dance music on a battered piano, in preparation for the next local entertainment. This local always has a dance on Wednesday night. Any member who has given three days' work to the organization during the week is admitted free. A man who has been lucky enough to obtain paid employment for at least three days during the week is expected to pay the regular admission price—15 cents. In this way the gasoline fund is enriched by from \$1.50 to \$2 per week.

The food problem has been eased considerably since January 1 through public help. Denver obtained a loan from the Reconstruction Finance Corporation, and league officials took a survey of the

membership and obtained funds for food from this source for those who were in need. Otherwise the league would have been unable to keep all of its members from starvation by its own efforts.

The league is now engaged in a house-to-house census of the unemployed. In this census the enumerators are obtaining, for each person out of employment, the usual occupation; how long he has been out of work; if working part time, number of days worked during week; number of dependents; whether owning or purchasing home; and a list of the items needed by the family (gas, fuel, food, clothes, etc.). This should be a valuable contribution to the public's knowledge of the real situation in Denver. The league is handicapped by the fact that it has nothing to offer the enumerators in return for their work. It can not even offer hot lunches unless the worker happens to be in the neighborhood of one of the league kitchens. The work is being carried on under the direction of a woman who is a college graduate with some experience in social work.

The league officials are, in the present lull, enabled to take stock of the results of their first season's experience. The effect of one lesson of the past season is already evident in the inauguration of the short talks on the work and aims of the league. Also, late in December, 1932, the league, having obtained some old printing equipment and having compositors and pressmen in its membership, inaugurated a weekly newspaper of four pages, through the medium of which the membership can be kept informed of developments. The paper is called "Dawn," since according to the subtitle, "the darkest hour is just before the dawn." It is necessary that the members know and understand not only what the league is trying to do, but the obstacles met, since an uninformed membership is a suspicious membership. Again, considerable education in mutual action is needed. These people are receiving training in practical cooperation, but they are as yet only imperfectly trained and in some cases it is stated that they have been unable to resist the impulse to further their own interests at the expense of the whole group. Of 25 local groups formed, 6 have broken away from the parent group, usually because of some immediate advantage.

One member who has been active in league work is of the opinion that the various supervisors should be elected by the membership instead of being appointed by the local chairman and by the city executive. He thinks that the appointive system is apt to lead to dissatisfaction on the part of the members and to the suspicion of cliques in the management. Regular meetings of the local supervisors with the city supervisor in their line would also tend, he thinks, to efficiency and to the creation of experts. Under the present system the local supervisors never meet with each other; their local chairman represents them at city meetings.

In theory all contracts for work, all collections, etc., are handled through the city office. In practice a number of locals have undertaken work on their own account, leading to duplication of effort and to some annoyance on the part of the townspeople. The city office plans a much stricter supervision of work this coming year.

The league has as yet had no need of any medium of exchange, such as scrip, since it has not undertaken any barter operations. Should it do so, however, something of the sort would be necessary. With this in mind the State executive approached the State attorney general



on the subject. Although there is a State law forbidding the use of scrip, the attorney general, after some consideration of the subject, gave it as his opinion that the law was not intended to cover use such as the league had in mind.

Many plans are being made for the coming season. The league officials hope to obtain the use of many vacant lots for gardens for its members. They hope that the league can raise as well as harvest crops this year. As regards the housing question, one of the officials (who owns 10 acres of land at the edge of town) is working on a plan by which he hopes to be able to erect apartments there on the cooperative plan, the men doing the construction work receiving half their pay in the apartment itself. The league is also negotiating with a metal-mining company to take 1,000 league members for work in its mines.

Some of the league members have become so convinced of the value of cooperative effort that they are planning on starting a cooperative colony in the western part of the State. It is planned that the first group will depart from Denver about April first.

#### Relations with Other Organizations and Movements

THE league maintains amicable relations with organized labor, through the Colorado Federation of Labor. Many of the league's members are former unionists who were no longer able to keep up their dues.

With regard to the league's relations with the farmers, the league states its position thus:

It has been stated that it seems, as far as the program of the league is concerned, that the farmers have no part in it except to donate surplus food products. We do not feel that this is true. If the farmer requires labor of any sort to do work on his place the league is in a position to furnish it. If he needs clothing, fuel, building material, trucking, the league has these things to exchange with him. Above all it offers him the association of a group whose problems are identical with his own.

The league is, as far as politics is concerned, nonpartisan. Political discussions are rigidly excluded from its meetings. One of the most emphatic warnings given to the members is: "Above all, avoid political affiliations. You are building up a relief organization which is dependent for its success on the good will of all political groups, and nothing will wreck it quicker than to permit it to become the scene of factional political strife."

The league has no party affiliations. It has, however, a political program. With the cooperation of the organized labor movement of Colorado it has succeeded in having introduced into the present session of the legislature 11 bills which constitute the major part of its program. One of these provides that the State shall "sponsor a cooperative [society] whereby surplus raw materials, surplus productive facilities and surplus man power are utilized to enable the unemployed to produce for themselves."

The league has been successful in its efforts to obtain representation on the mayor's committee for the relief of unemployment and is now working for representation on the governor's committee.

FEBRUARY 12, 1933.

## Barter and Exchange Activities Among Unemployed in Cheyenne, Wyo.

THE Unemployed Citizens' League of Cheyenne, Wyo., was formed early in the autumn of 1932. It started off under very favorable auspices. Within the first few weeks of its formation its program and purposes received the indorsement of the Laramie County Credit Exchange, the city council of Cheyenne and the Cheyenne Chamber of Commerce, and an advisory committee of three local business men was formed to assist the organization.

The league grew rapidly. At the beginning of September, 1932, it had 150 members; by the end of the month this number had risen to 265. Shortly before the end of 1932 there were some 300 members, with nearly 1,500 dependents.

Appeals for donations of clothing, fuel, and foodstuffs were made through the local newspapers, which gave prominence to the items.

The league scoured the country round about in Wyoming and Colorado for crops that might be harvested on the share basis. The league had nothing to offer but the labor of its members. Farmers in the country near by had good crops but in many cases could not afford to hire labor to harvest them. The share-harvest plan promised foodstuffs for league members and a harvested crop for the farmer. In this way many tons of potatoes, cabbage, tomatoes, onions, etc., were obtained and were hauled into Cheyenne on trucks donated by the National Guard. Gasoline was a difficult problem, for cash was necessary for this, but a number of citizens donated 50 or 100 gallons each and that problem was met for a while.

The excess vegetables were canned by the wives of the members, the jars and containers being obtained through an appeal to the housewives of the city. Many barrels of sauerkraut were made and preserves and pickles were put up. In this way some 3,700 jars of foodstuffs were obtained for use during the winter of 1932-33.

Fruit, which is not grown in this section, was obtained by doing loading and unloading jobs for the railroads in exchange for a portion of the fruit handled. Some coal was obtained in the same way. Some fuel wood was cut in a camp at a considerable distance to the northwest of the city, but the labor and transportation difficulties involved were so great as to make the continuance of this inadvisable. However, the site of the new Federal building needed to be cleared; the league got this job to do and the trees removed became the property of the league. Indeed, from one source or another enough wood was obtained to meet current needs.

The furniture received through donations was repaired and issued to families needing it. Stoves were a particular necessity as winter came on. A special appeal was issued for these, the secretary of the league pointing out that during the summer (before the league had come into existence) many families had been forced to sell their stoves, along with their other household belongings, in order to buy food. The donated supply of stoves being insufficient, the league members manufactured many pieces of heating apparatus from large

oil cans given by the oil companies. The stoves so made are not beautiful but they are very effective for the purpose for which they were intended.

Things went very well for the first few months. Gradually, however, a new group of members, who it is alleged were irresponsible, obtained considerable influence in the organization. The charge is made that one of these, a "field man" whose job it was to make contacts for possible jobs for the league to undertake, began to make exchanges and sales of products, diverting the money to his own use. Being inexperienced in business matters and the accounting not being of the best, the league, before it realized the situation, had become involved, through these transactions, to the extent of \$700. A Colorado farmer, who had sold the "field man" a carload of cabbage and had waited in vain for his pay, obtained an attachment on all the goods owned by the league—including all the food which had been canned for the winter—thus paralyzing the league's activities.

The offending persons were expelled from the organization, but no action could be obtained against them in court, the court holding that the league was a copartnership, and that the agent was therefore acting in the capacity of a partner. Thereupon, the league took steps to incorporate and the papers were obtained February 6, 1933. The attachment was finally lifted February 11, and the league, having been in a state of inactivity during the whole month of January, was free to begin operations again. Beginning over, however, may prove much more difficult than the first start, for the league lost the major part of its members during the time of trouble, besides forfeiting much of the local good will. In addition, it has the \$700 indebtedness which it must pay off at the rate of \$5 per week.

However, there is a small nucleus of old members and during the first five days after the articles of incorporation were obtained 58 persons signed the membership pledge. Certain provisions have been adopted which it is expected will prevent the occurrence of a similar situation in the future. The new by-laws provide for the election of nine directors who will choose the officers from the membership. These directors and officers will be responsible directly to the membership and will be subject to recall vote on petition of 20 per cent of the membership. No debt in excess of \$15 may be contracted without a vote by the entire board of directors, and at no time may the entire indebtedness of the organization exceed \$1 per member.

To be eligible to membership the applicant must be at least 18 years of age (or if less than that, must be the support of his family), must be a resident of Cheyenne for at least three months, and must either be a citizen of the United States or have declared his intention of becoming one. Each member signs a pledge to perform to the best of his ability any work he may be called upon to do, and in the event of his obtaining paid employment outside the league activities to turn over to it 1 per cent of his earnings.

#### Basis of Operation

EACH article or commodity—clothing, furniture, food, etc.—whether donated or secured by the labor of league members, is valued and its value invoiced on the books. Similar account is kept of all articles disbursed, so that the league secretary-treasurer knows just what is

the value of the possessions of the organization at any given time. His books are always open to the inspection of the members.

It was said by a member of the advisory board that at one time the league had in its possession assets valued at some \$6,300.

As each new member comes in he registers his name, former or regular occupation, age, number of dependents, and needs in the matter of food, fuel, clothing, furniture, etc. An account is kept by the league for each member, one side of his card showing the number of labor hours credited to him (valued at 50 cents per hour) and the other side showing the value of supplies drawn by him. Technically, each member is supposed to draw out supplies only up to the amount of his credits. As a matter of practice, however, if a new member comes in whose family needs food, fuel, clothing, etc., immediately, what he needs is issued to him and he is allowed to pay for it later in labor time. If he refuses or fails to work it out, he is automatically suspended until he signifies his intention of fulfilling his obligation.

Hereafter, as already noted, each member who obtains paid employment for any considerable time outside the league is pledged to pay into the league 1 per cent of his earnings. During the time he is employed he forfeits his right to draw supplies from the organization, except that he has the option of continuance of supplies on payment of 15 per cent of his earnings. On short-time individual jobs half the earnings go to the league and half to the individual member.

#### Projects Carried on

MENTION has already been made of the harvesting of crops, canning of vegetables, cutting of wood, etc., done by the league. Many gallons of milk donated by local dealers or worked for by the league are distributed daily. Barrels have been placed in the various stores in the city, to receive wilted but not spoiled vegetables and fruits, unsalable canned stuff, meat trimmings, etc., as well as any articles which the customers may donate; collections are made regularly.

A kitchen is being operated, feeding from 10 to 25 persons per day, most of these being the members working at the league's wood yard, cutting fire wood.

The many shoes donated to the league necessitated some sort of arrangement by which they could be repaired. To this end the league made an agreement with a local cobbler, by which he repairs the shoes, furnishing also the materials necessary therefor, in return for labor of various sorts rendered by the league.

Most of the commodities which come into the hands of the league come from donations and from the barter-and-exchange activities. A certain amount of money is necessary, however, and this has been raised in various ways. Sale of candy has brought in some money and at present the public sale of a pop-corn confection is bringing in a small but increasing amount of cash.

There have been no complicated processes of exchange in the activities of this group, such as have been carried out by some of the "exchanges" started at various places in the Middle West and no collateral activities have been undertaken. Up to this time the whole energies of the league have been devoted to obtaining, by the simple expedient of work, those necessities of which there is a direct and primary need on the part of the membership.

FEBRUARY 15, 1933.

## The Midwest Exchange, Ohio

THE Midwest Exchange, with headquarters at Yellow Springs, Ohio, is the result of an effort to provide a definitely planned, carefully controlled, and nonprofit-making but self-supporting business mechanism for the purpose of enabling existing business and relief agencies to function with a minimum of money. It is, therefore, for the most part, an indirect attack on the problem of unemployment, based on the idea of a resumption of the interrupted flow of goods and services by means of barter, through the exchange as a clearing house, by a large variety of business units, mainly producers and wholesalers. This article describes the origin of the exchange, its nature as a mechanism of business, its activities, and the principal difficulties it has encountered.

The main purposes of the Yellow Springs Exchange, which is a branch of the Midwest Exchange, are to help the local community to pay for work and to carry on retail trade with a minimum of cash, the members of the community bartering their goods and services through the exchange; and to furnish the community a variety of nonlocal goods available for scrip issued for local goods.

The president of the Midwest Exchange is Dr. Arthur E. Morgan, president of Antioch College and head of an engineering firm. Among his associates are a member of the faculty of Antioch College, a business man of Dayton, another business man of Springfield, and a Dayton attorney. The interest of Antioch College in the exchange is more than academic. This is because of the distinctive nature of the school's work-and-study plan for students. Recent conditions have made difficult the finding of employment for students in carrying out the work-and-study plan. In addition, Antioch College has developed certain auxiliary institutions. Among these are the Antioch Press, the Antioch Industrial Research Institute, the Antioch Bronze Foundry, and the Antioch Bookplate Co., the last named privately owned but in a sense an offshoot of Antioch College. The college, therefore, has extensive resources in the nature of equipment, the services of specialists, and the labor of students. Because of recent business conditions these resources have been to a large extent unused, and the college proposes to barter them for things needed by it and by the community. In addition to these considerations there is the general interest of President Morgan and the college in community problems.

### Organization and Membership

THE Midwest Exchange was organized in August, 1932, but much preliminary work delayed its active functioning. In form the exchange is a stockholding corporation with 100 shares of common stock at \$10 per share, held by a small group. By-laws forbid dividends or profits to stockholders beyond 6 per cent or a total of \$60 for the shares outstanding. It is not organized for profit, the corpo-



rate form being assumed for convenience and efficiency. Directors are elected by the stockholders, and members are selected by the directors. The membership fee of \$25 is payable in cash or in goods credited to the exchange. The representation of members is provided for in the form of an executive committee to be chosen by the members, the committee to have access to all records and inventories of the exchange. So far, the members have not exercised this right.

In February, 1933, there were only 20 regular members, a much smaller number than is called for by the plan. Among the members are Antioch College and its associated groups, providing the services of student workers and of skilled engineers and technicians, and the facilities of general and specialized print shops, of an art foundry, and of the Institute of Industrial Research. Other members include a wholesale grocery and a wholesale plumbing supply house. The other units are establishments for producing dairy products, nursery stock, canned goods, bread, tea, spices, cosmetics, candy, soap, books, malleable iron, furniture, iron window frames, silos and certain types of farm equipment, asbestos roofing and related products, kitchen utensils, broomcorn brooms and brushes, and paint and varnish.

There are associate members, including private manufacturers, workers' cooperatives, colleges, and relief organizations and exchanges in a wide area. In the case of associate members, credit is more restricted and preference in filling orders is accorded the regular members.

Another member of the Midwest Exchange is the Yellow Springs Exchange. This has been the most active and successful member. It is essentially a retail organization for handling individual and group problems of the Yellow Springs community. A full development of the plan of the Midwest Exchange would call for similar organizations in other communities. The Dayton Mutual Exchange has cooperated with the larger organization but is not a regular member.

High standards for membership in the Midwest Exchange were proposed and so far as practicable have been enforced, but difficulties have been encountered in securing a wide variety of types of members.

#### Methods of Financing the Midwest Exchange

In addition to the issuing of the 100 shares of common stock at \$10 each, already mentioned, the exchange has the corporate right to issue preferred stock at 6 per cent interest, subject to retirement at will of the exchange, but no preferred stock has been issued.

The plan of organization provides for operating income. Whether the exchange handles goods as does an ordinary jobber or wholesale merchant or merely acts as agent or salesman, the customary profits and commissions can be claimed. Goods are usually shipped directly from one member to another, only the clearing-house bookkeeping being handled by the exchange. When the exchange acts as an employment agency, it charges a commission up to 10 per cent of the first month's income. The volume of employment handled has been almost negligible. If operating income should exceed the total cost of the exchange, including amortization, reserves, and the various other items of cost in an ordinary business institution, the excess will be used to improve the service or to reduce the cost to members.

Operating income has been much below the costs. Monetary donations in an appreciable amount have been received. A considerable

part of managerial service has been without compensation. The use of some of its equipment is also in the nature of a subsidy. The possibility of dispensing with subsidies and of making the exchange self-supporting depends on a large increase in the amount of business handled.

#### Relations Between Members

THE relations between members of the exchange are indicated in a measure by the discussion of the financing of the exchange. These methods are adaptations of ordinary business procedures. The essential difference lies in the fact that transactions are handled with a minimum of cash, or its customary equivalents, by clearing-house accounting, which must be supplemented by a minimum margin of credits. Briefly, the two essentials of carrying on relations between members in the interchange of goods are, first, an exchange of credits; and second, the making of purchases and sales through the medium of the exchange.

In connection with the exchange of credit, each member agrees to accept and fill orders approved by the exchange to the extent of approximately \$1,000, whether or not it has placed orders with the exchange. The exchange in turn extends to each member credits available for placing orders. These credits vary in amount, depending on the capacity of the member to fill orders and on the nature of its product, as salability or stapleness. Staple groceries, for example, command a relatively large amount of credit because the exchange can quickly dispose of such goods. Any credit extended to a member gives that member the privilege of placing orders, to the extent of the credit, beyond the value of goods the member may have sold through the exchange. This has created a problem of liquidating certain credits by means of cash because of the lack of appropriate goods available from members who have made purchases on credit. With the extension of the number and variety of units represented in the exchange, this difficulty may be overcome. The basis of the exchange of credit is mutual confidence, which depends in turn on a careful choice of members and on the efficiency and trustworthiness of the members and of the management of the exchange.

In reference to the second essential in the carrying on of relations between members, the balancing of purchases and sales, the terms refer primarily not to transactions for cash but to transactions through the medium of the exchange as a clearing house. Except for sales involving cash and for sales based on the limited amount of credit extended to each member, his purchases should be balanced by his sales, and he need not sell more than he buys, nor can he buy more than he sells. The exchange may, of course, be used as a medium for transactions involving part payment or total payment in cash.

The development of a balanced, self-sufficing economy within the limits of the exchange requires a much more varied and extensive membership and a great increase in the proportion of the business of members handled by the exchange. Attempts are being made to expand business and to develop a more satisfactorily balanced economy through associate members.

The relations between members are subject to what is called the "rule of equitable exchange." Members agree to allow each other

the prices allowed to the most favored cash customers for transactions of like nature, as to volume, quality, time of delivery, etc., unless a different agreement is reached by the parties to a particular transaction.

In the interchange of services, a different set of problems must be met. The possibilities of arranging compensation for labor without the use of money seem extensive, but the results have been disappointing. An example of such activities on the part of the exchange is the case of the part-time employment of two students of Antioch College by a spice manufacturer. The manufacturer paid the students in the form of scrip of the Yellow Springs Exchange. For the scrip he sent spices to a wholesale grocery, which in turn sent groceries to the Yellow Springs Exchange. The students paid their tuition to the college with the scrip received from their employer. The college in turn paid certain of its obligations in scrip redeemable in goods at the Yellow Springs Exchange. So far, the direct effects of such arrangements on the volume of employment have been very small.

#### The Yellow Springs Exchange

THE Yellow Springs Exchange was organized as a branch of the Midwest Exchange, and it is governed by the same board of directors. It buys local goods in exchange for scrip; receives goods for sale locally from the Midwest Exchange; buys goods for cash; sells goods for scrip or cash; and arranges, on a commission basis, for the direct barter of goods and services in the community.

The Yellow Springs Exchange is financed substantially as is the Midwest Exchange. Plans were projected for a selected membership, each member paying a fee of \$2, but these plans were not extensively carried out. The exchange charges a commission for arranging the barter or interchange of goods and services. Its chief source of income, other than subsidies, consists of the mark-up in the price of goods from the wholesale prices paid in scrip to the prevailing retail prices, in accordance with customary business methods. If operating revenue should exceed costs, the excess would go to the improvement and extension of service.

As an employment agency, the activities of the exchange have been disappointing, if not negligible. This is due, in part, to a misunderstanding of the commission charged as a necessary means of paying operating expenses. But probably the main cause has been the fact that there are few opportunities for work, as most people are doing their own work and are feeling the need for goods more than for labor.

The chief activities of the Yellow Springs Exchange are in connection with the operation of the exchange store. The store was opened early in the fall of 1932. An early handicap was a severe local drought, which limited the possibilities for bartering local products. The inventory of goods owned (excluding goods on consignment) has been increased to about \$1,200. The monthly turnover has exceeded \$1,200, including a large proportion of sales for cash. The types of goods include staple and green groceries, dairy products, dry goods, shoes, furniture, gift and art goods, tires, and an interesting list of miscellaneous articles, mostly second-hand goods. There has been a consistent increase in the variety of goods. The exchange has secured many of its goods from local producers, including farmers,



manufacturers, and a "production unit" organized among the unemployed of Yellow Springs. More than half of its inventory consists of goods of the usual types purchased for cash. A small proportion of goods handled is acquired through the Midwest Exchange on a barter basis.

The activities for which the exchange was primarily intended are illustrated by the case of the students employed by the spice manufacturer and referred to above. Another instance is the case of a farmer who furnished 600 bushels of potatoes to the exchange. Some of these were sold locally and the rest were sent to a near-by organization for relieving unemployment in return for clothing and paint. The Yellow Springs Exchange sold the potatoes, clothing, and paint, and paid the farmer in scrip, redeemable in goods. Still another case is that of an exchange of printing by a Yellow Springs firm for canned goods produced by a member of the Midwest Exchange. Canned goods of value equivalent to the printing were sent to the Yellow Springs Exchange, which issued scrip to the local printing company. The printer paid his force for the extra time in scrip, redeemable in goods at the store. It was believed that the opportunities for such exchanges would be numerous, but the number of actual instances has proved to be disappointing.

#### The Use of Scrip

THE Midwest Exchange has used no scrip of its own. In transactions involving the Yellow Springs Exchange, where retail trade is carried on, the scrip of the latter exchange is sometimes used. In other phases of transactions of the Midwest Exchange, bookkeeping has sufficed, due to the size and the relatively small number of transactions.

The Yellow Springs Exchange scrip reads as follows: "The Yellow Springs Exchange agrees to supply the bearer on demand in return for this exchange credit \_\_\_\_\_ (amount) in goods or services on hand at its headquarters at Yellow Springs, Ohio, or at any branch exchange." Each item of scrip bears the printed signatures of the president and the treasurer of the exchange, and gives the date of expiration, which is not less than one year from date of issue. The exchange issues scrip in denominations of 10 cents, 25 cents, 50 cents, \$1, and \$5. It is safeguarded against counterfeiting by being printed in colors on parchment bond by a process worked out by a local firm.

The scrip is issued almost exclusively for goods bought at wholesale prices. There have been a few sales for cash to collectors. Small amounts are issued to employees in part payment for services, but the amounts thus issued are covered by an equivalent amount of goods bought for cash and added to the inventory. Similarly, in other cases where scrip is issued in payment for services, as in the case previously described, of students employed by a spice manufacturer, the scrip which was issued to the manufacturer to pay the students was ultimately covered by goods furnished to the exchange.

The amount outstanding late in February, 1933, was about \$1,150. The inventory of goods owned was about \$1,200 at wholesale cost and not above market prices. The extent to which the scrip circulates in the community as a medium of exchange before being returned to the exchange for redemption in goods is not ascertainable. There are no regular agreements but there is a limited circulation, as

for example, in part payment for rent, professional services, etc., and there is apparently no discount.

### The Midwest Exchange and the National Exchange Movement

EARLY in 1933, Doctor Morgan, the president of the Midwest Exchange, addressed a letter to about 280 barter units throughout the country. In this letter he stated four reasons for proposing regional and national organization of the exchange movement: (1) To check abuses and exploitation by outside promoters and by exchanges which are incompetent or lacking in good faith; (2) to develop and apply sound methods in the use of scrip; (3) to present a solid front against opposing interests and hostile legislation; and (4) to enlarge the scope and variety of goods and services interchanged. He explained in some detail eight principles or methods of operation, which he proposed for the guidance of the internal activities of exchanges and of their relations to the community at large. He suggested a general correspondence for the purpose of arriving at a basis of agreement, this to be followed by tentative regional organizations culminating in a national organization.

The responses to this letter are said to have been widely favorable. As a result, the Midwest Exchange offered to serve, pending national organization, as an informal clearing house (1) for correspondence and information and (2) for the actual interchange of goods. For the latter purpose the Midwest Exchange presented an extensive list of goods and services available for exchange from its regular and associate members, and it also offered the use of the mechanism of business planned for the Midwest Exchange and already functioning in some measure among its members.

In taking these steps the Midwest Exchange recognized the fact that different exchanges have been organized for different purposes, but its larger plan is based on the assumption of important common grounds justifying concerted action. It recognized that some exchanges propose merely to strengthen or possibly to salvage the present business structure. Others hope to serve as transitional organizations. Probably most of them have not looked far beyond the immediate problem of affording unemployment relief, as largely as possible in the form of self-help, with a minimum of money. But all exchanges having a valid reason for existence are interested in such problems as self-help, the relief of unemployment and want, efficient and successful management, and protection from internal abuses and exploitation and from external opposition.

### Principal Difficulties

THERE are several difficulties which have been encountered and which explain the small volume of exchange activities. (1) Members are slow to fill orders at prevailing cost prices or below-cost prices except from regular customers to maintain good will and help meet fixed costs. (2) Members are slow to buy through the exchange, due to reluctance to disturb existing relations of various kinds, and their purchases are mainly limited to materials they find it necessary to purchase in any event, and this tends to defeat the main purpose of the exchange, namely, to create new business. (3) The prevailing

market prices of goods produced by members do not bear the same ratio to cost of production. Market prices of basic materials, for example, such as coal and farm products, are lower in relation to cost of production than prices of manufactured goods. Equality of advantages is therefore difficult to maintain. Methods are being considered for making transactions on a different basis of value. (4) The immediate cash claims on many goods (for example, on gasoline and coal) are so large, in the form of transportation, taxes, labor, etc., as to limit seriously the interchange of goods on a barter basis. (5) Probably the most serious difficulty is the fact that traditional procedure and the dominant motive of business for cash profit can be modified only by direct necessity and by competent, trustworthy, and inspiring leadership.

The Midwest Exchange is still in the formative stage, but it has a carefully planned program, which has been tested by experience, and a determined leadership that commands respect and confidence. It is an interesting experiment, and there is reason to believe that it may prove significant in helping to break the jam in the flow of goods and services and thereby in helping to relieve the unemployment situation in a fundamental manner.

FEBRUARY 25, 1933.

## Cooperative Production Units, Dayton, Ohio<sup>1</sup>

THE first production unit in Dayton seems to have emerged from discussions carried on by the character building division of the Council of Social Agencies of that city, in May, 1932.<sup>2</sup>

The discussions of this group revolved around the problem created by the fact that people could no longer meet their needs by means of money because money for the workers depends on employment. The group then considered the possibility of helping the unemployed to produce for their own needs. To proceed on the basis of the individual production of essentials was obviously impossible, but the question was raised as to the practicability of organizing groups of perhaps 40 or 50 families, and in this way developing a pool of needs, resources, and responsibilities. The committee decided to make an experiment.

The first group to be organized was in a section of the city occupied largely by Negroes and known as Tin Town (now Home View). Nearly a thousand dollars a month in the form of direct relief had gone into the neighborhood. In July the group got under way with such activities as sewing, gardening, soap making, and rabbit raising.

By the first of August, 1932, there were six units in process of organization. By early September the Dayton Association of Cooperative Production Units was organized, with a weekly meeting of a council of representatives. By the middle of October most of the units had long waiting lists and requests for organization of new groups were more numerous than could be met. By February, 1933, there were 10 units containing a total of about 700 families.

### How Units Are Started

WHEREVER there is sufficient interest and reasonable prospect of success, an organization meeting is held. At this meeting a representative of the Council of Social Agencies is present. Since the units have organized an association, a representative of the association is also present when a new group is being formed. At the first meeting a survey of the skills, resources, and needs is undertaken. The list of resources includes the number of persons in each family who are able to work, the kind of work they are able to do, and the amount of employment, if any. Material resources such as vacant rooms, sewing machines, land, etc., are also listed. The essential household items connected with food, clothing, and shelter are listed, with information regarding such items as the family possesses and such items as it needs.

After the census of the resources and needs has been completed, a meeting is called to form a permanent organization. Membership is voluntary and the types of members are limited only by such circum-

<sup>1</sup> The Dayton Mutual Exchange is also a self-help organization, but it is made the subject of a separate report because its approach to the problem of self-help is by emphasis, not on group production activities but on providing arrangements (including a building and a local medium of exchange in the form of receipts for goods and labor) for enabling people to exchange their products without money.

<sup>2</sup> An account of these discussions and of the early steps in the development of the plan is contained in an article by Dr. Elizabeth Nutting, prominently connected with the movement, in *The Survey*, December 15, 1932, pp. 682-684.

stances as location and capacity to get along together. The different units have somewhat different rules as to the duties of members, but there is a specified amount of work per day assigned each member on unit projects or on outside work, if such work is available through the unit, the wages received going not to the individual but to the group. Members, in return, are provided with food, clothing, and shelter within the limits of the group's resources. Each group also attempts as far as possible to provide professional services, recreation, and some form of educational opportunity. Distribution is primarily on the basis of needs, the neediest members of the group being taken care of, not in proportion to their contributions to the group, but according to the urgency of their need. One of the units requires three days' work per week. Pay for any additional work secured not by the group but by an individual member goes to the member.

At the time the group forms a permanent organization, various officers and committees are chosen and steps are taken to secure initial financial aid, which is usually in the form of advances from the Community Chest through the Council of Social Agencies.

#### Government

THE internal organization of a production unit is as follows: The group selects a general manager and an executive committee from among its own members. The executive committee in turn appoints chairmen of the various committees in charge of group projects. There is also ordinarily an elected needs committee, with authority to make distribution to members, and a complaints committee. A book-keeper is responsible for keeping simple but exact records. There is evidence that this form of organization is functioning in a satisfactory and reasonably efficient manner.

The relations between units are handled by a units council representing the association of units. This council is made up of two regularly elected delegates from each unit. The close relation of the several units to the relief agencies is apparent from the fact that the units were sponsored by the Council of Social Agencies. A representative of this council is chairman of the council of the association of units. The Council of Social Agencies also maintains a central service bureau for assisting the units in various ways. This bureau is particularly helpful in aiding the units in the development and maintenance of efficient and uniform methods of bookkeeping. The essentials consist simply of keeping adequate records of goods received and disposed of and of the contributions made by each member to the group, together with the goods or services distributed to each member. In this manner the necessity for a medium of exchange is avoided. In addition, the Council of Social Agencies has appointed a committee of citizens for the purpose of interpreting the movement to the community and of securing a revolving fund. These external relations of the units naturally involve a degree of control of their policy, a control more or less unintentionally exerted.

#### Cooperative Activities of a Production Group

THE projects undertaken by the various units have varied widely, some of them being merely temporary expedients. A recent statement issued by a representative of the Council of Social Agencies



includes the following commodities among those being produced: Flour, meal, baked and canned goods, meat, poultry, dairy products, looms, spinning wheels, cloth, shirts, dresses, underwear, overcoats, suits, shoes, bedding, furniture, soap, cordwood, lumber, and buildings, when necessary, to house their activities. Among some of the units professional services, especially by trained nurses, are now available. Doctors and other professional people have cooperated either as members or in return for work or goods furnished them by production units.

The economic activities have been supplemented increasingly by the development of group social and cultural life. To some extent the productive work of the groups, such as sewing, canning, etc., is connected with social activities. Gymnasium classes have been organized, sports have been carried on, young people's meetings combining discussion and recreation have been arranged for, and considerable progress has been made in the direction of dramatic and musical activities. The values of these activities are very great. A community of interests and of work forms a natural basis for associations and friendships, and for the most effective form of self-government. With many members of the groups, making a living apparently becomes "a way of life."

#### Interchange of Goods and Labor

THE various production groups have carried on an effective interchange of goods and labor. According to an earlier arrangement, the city furnished raw materials and the units paid for them by returning to the city a portion of the finished goods. Later this arrangement was supplanted by an advance of funds by the Council of Social Agencies for the purchase of materials for use by the units, and the city in turn purchased surplus finished goods from the units. The goods secured in this way by the city are used by its relief agencies.

The units have also carried on extensive interchange among themselves and with outsiders. A few instances will suffice to illustrate the trend of developments. One unit secured the right to pull turnips from a suburban garden. It secured 27 bushels, part of which it traded to another unit for soap. The soap was used to wash wool, which was picked and carded and made into comforts for sale to the city. Comforts have been exchanged for candy and toys from the Dayton Mutual Exchange, and other barter arrangements have been entered into with this organization.

Various other bartering arrangements have enabled the units to secure cordwood, hogs, shoe-repairing machinery, cabinet-making machinery, apples, and canned goods. In return for electrical work a member of one of the units was paid in five acres of cabbage. The cabbages in turn were reduced to kraut and in part exchanged for other commodities. One of the units has made arrangements for some of its members to spray and prune orchards in return for fruit. In the meantime they are to receive special training in preparation for this work. These are a few illustrations of the wide variety of arrangements for barter of labor and goods within the units, and between them and outsiders.

### Securing Essentials Not Obtainable Through Barter

THE most important essentials not obtainable in adequate measure through barter are certain raw materials, machinery, and equipment; some consumption goods such as salt and sugar; some professional services; and rents. To meet the most urgent needs, advances have been made through the Council of Social Agencies. Some cash has been available from the sale of goods. A unit bakery has sold bread to the city relief store (flour having been secured in part from the Red Cross). Shirts, comforts, etc., have also been sold to the city. One of the units secured a small amount of money from the sale of cordwood cut by some of its members from a suburban tract. Another unit is hoping to realize some cash revenue from the sale of maple sugar which its members have arranged to make by arrangement with the owner of a tract containing extensive maple groves. Some slight monetary income is available from handicrafts along the lines of novelties and ornaments. Some labor for money wages has been obtainable for members by their groups, and the wages thus received have added to the cash resources of the units. Members of one unit, for example, cut down a tree for which they received \$10, and this enabled their unit to buy a barber's outfit.

The most difficult problem is the payment of rents. The problem of group headquarters is manageable. One unit, for instance, secured the use of a vacant factory in return for repairs and upkeep. A similar arrangement with the city enabled another unit to use a park building. One of the units is building its own house. Payment of rents on dwellings of members is, however, a much more difficult problem. Some progress toward its solution has been made by cooperative action. A member of one of the units, for example, undertook to repair a number of houses for a landlord in return for rent concessions by the landlord to fellow members of the group. The difficulty of the problem of rents has been a prominent factor in what may almost be described as a back-to-the-land movement.

### Efforts and Proposals to Develop Rural Contacts

THE production units were organized too late in the season of 1932 for establishing extensive rural contacts. The earlier units undertook gardening operations on unused town lots. Instances of the urge countryward are the raising of rabbits, a barter arrangement for 60 hogs, the pulling of 27 bushels of turnips, the cutting of large quantities of cordwood, the tapping of maple trees, the arrangement for spraying and pruning fruit trees, and the plans for cultivating considerable tracts of land in the vicinity of Dayton, the members of the units continuing to live in town.

One proposal for attempting to solve the problem has been a plan for self-sufficing homesteads. The details are variable, but a typical arrangement would consist of 30 families on about 160 acres. There would be three acres per family, individually owned and managed, and the rest of the tract would consist of woodland for the use of the 30 families, common pasture, and areas for grinding grain, carrying on village industries, games, etc. The families would put up their own buildings, do their own planting, etc., using local materials as far as possible. Food, clothing, furniture, and nearly all essentials would be made by the homesteaders. The leisure time of the members of the



unit would be used for wage work in town when available. The purchase price of the land and money for necessary materials, tools, seeds, and other items requiring cash would be provided by loans, perhaps from the sale of mortgage bonds, the loans to be secured by liens on the property and by pledges by the homesteaders to use cash earnings from wage labor to repay the loan.

This proposal is a radical departure from the basis of operating the present production units, each of which pools its labor, its resources, and its responsibilities.

An alternate proposal involves no radical departure from the essential principle of group cooperation, responsibility, and interchange worked out by the existing units. It is, in fact, merely an extension and development of the plan now in successful operation.

Urban units would be retained and expanded as resources are available. Each unit would remain as nearly self-sufficing as practicable, but would be encouraged to specialize in producing a surplus along the lines of the skills and resources of its members. One unit, for example, as at present, might operate a bakery; another, as already planned, a shoe factory; and still others would work along lines of additional surpluses best adapted to urban production. Among these there would be included, if possible, a professional unit.

Rural units would be developed on the same principles of pooling of resources and labor, and of responsibility, both external in meeting outside obligations and internal in caring for the needs of the group. Each group would produce its own equipment and subsistence as far as possible, but would devote its surplus resources and labor to specialized group production of a surplus for interchange or sale. The nature of the specialization would be determined by the available resources, especially the quality of the land. One unit, for example, might specialize in raising corn, wheat, and hogs; another in dairying; and another in growing fruits and vegetables. The skills required for specialization would determine in part the choice of units for membership, and would afford a natural bond of union among the members.

For making use of surpluses, the present plan of the production units for the cooperative interchange of group surpluses would be extended to include the rural units. Such an agreement would increase the degree of self-sufficiency of each unit, would enlarge the range of available goods and services, and would promote economic security by a cooperative interchange of surpluses which would be independent of general monetary and industrial disturbances.

If local aid or governmental assistance to cooperative activities could be secured, both plans might be tried, adapting them to varying types of unemployment.

#### Overcoming Difficulties

THE solution of the problem of leadership at Dayton has been attributable to a combination of qualities among the leaders back of the movement. These qualities include training in social problems, practical experience, and above all a spirit of give and take, and a willingness to experiment along democratic lines.

There has been a measurably successful solution of the problem of getting necessary money to organize the units because of a frank recognition of the alternatives of putting all available money into a mere sink hole of direct relief, and of using part of the available funds

for cooperative self-help. The success of the movement would seem to counsel the adoption of an even bolder policy in this regard. This is particularly true because private loans advanced to finance such projects as the proposed rural units would encumber the self-help activities with liens on future earnings, and discourage members by a burden of debt.

The problem of group self-help as applied to goods and services not produced by a particular unit has been particularly difficult. But considerable success has attended the policies of the Dayton groups. These policies are being extended and developed to include: (1) Work for wages or barter at prevailing rates; (2) sale or barter of surplus goods at prevailing prices; and (3) the development of complementary units in the association, each specializing in the production of a surplus for which the skills and resources of the group are adapted.

In any significant movement there must be frictions and conflicting views. The Dayton production units have succeeded to a remarkable degree in avoiding serious complications of this nature. Internally there has been tactful guidance, but the main dependence in securing harmonious action within the units has been the encouragement of democratic group spirit. This has found expression in self-government and in group social life and good will based on the most elemental foundation of common action in meeting individual and group needs. The external relations of the groups, especially with local merchants and trade-unions, have been based on the avoidance of cut-rate prices and competitive sale of goods as far as possible, and of cut-rate wages, excessive hours, and competition except on the basis of prevailing terms in the labor market. The urgency of the problems confronting the groups has led to an imperfect application of these guiding principles. Another factor contributing to the reduction of frictions seems to have been the avoidance by the sponsors of action such as would kill the democratic spirit of group initiative and pooling of group resources and responsibilities. The groups themselves seem generally to have avoided isms and arguments and to have worked together for the results agreed to be desirable.

Not the least of the problems, however, has been that of agreeing on the purpose in view. The alternatives were to organize the groups merely as temporary expedients to meet the most urgent needs resulting from the depression, and to look upon group organization and activity not merely as a mode of getting a living but as an instrument for evolving a more secure and more satisfactory way of life, socially and culturally as well as economically. Choice was made of the second alternative.

FEBRUARY 21, 1933.

## Emergency Exchange Association (Inc.), New York City

THE Emergency Exchange Association was incorporated under the membership association law of New York State on October 29, 1932. Its purposes, as stated in the charter, are: "To aid the unemployed and the needy by stimulating and directing cooperative effort and by the creation of an agency or agencies whereby such individuals may exchange their labor and products of their labor for other services or products; to provide for the production or acquisition and for the distribution of food, clothing, shelter, and other necessities for the unemployed and to acquire and provide material, equipment, places of work, and other facilities therefor; to supervise the interrelation of such enterprises; to acquire, hold, and administer moneys and real and personal property for the conduct of these enterprises; to promote the organization of health, recreational, and cultural activities and make provision for facilities therefor; to conduct and supervise the study of economic trends; to promote the organization of associations for the conduct of similar enterprises in other parts of the country; to initiate and conduct any other researches or programs necessary for the development of these enterprises."

The immediate purpose of the Emergency Exchange Association is to promote self-help among the unemployed of the Nation, by fostering the establishment of small barter units within the limits of natural residential communities, and also by setting up an effective clearing house for exchange of information about units already formed.

### History of Organization

For several months preceding incorporation two groups of men and women had been working on a plan of organization along similar lines but quite independently of each other. One group was organized by John D. Farnham of the Bureau of Social Hygiene. Some of his associates were Leland Olds, assistant to the chairman of the New York Power Authority; Langdon Post, assemblyman from the tenth district of Manhattan; Stuart Chase; and Henry S. Person, managing director of the Taylor Society. Together they worked out a comprehensive plan for barter among the unemployed as a pattern for a national barter system. The second group was formed by Jacob Baker, an industrial engineer; Barrow Lyons, a newspaper man; and a committee made up of officials in a number of national engineering societies. At a meeting in May the two groups joined forces. During the summer of 1932 the two original groups added to their numbers John Carmody, president of the Society of Industrial Engineers and editor of *Factory and Industrial Management*; Arthur S. Holden, of the Architects' Emergency Committee and chairman of the Urban League; Edna Lonigan, former chief statistician of New York State Labor Department; James Myers, industrial secretary of social service commission of the Federal Council of Churches; George D. Olds, jr., president of the Associated Grocery Manufacturers of America; and several others.

During the summer, while the plan was being formulated, the heads of relief and social agencies of both the city and the State, and the

directors of a number of foundations whose purposes were akin to those of the group, had been consulted. They were very much interested in the idea and urged that at least one "clinical experiment" be established in New York City. Some of the agencies and foundations contributed to the work; the Heckscher Foundation, through Mr. and Mrs. August Heckscher, gave 4 offices rent free in the Vanderbilt Concourse Building, 52 Vanderbilt Avenue; the Community Councils of the City of New York, in addition to moral support, donated the services of a stenographer and gave free use of a mimeographing machine; the Emergency Work Bureau, established by the Emergency Unemployment Relief Committee, gave the services of 2 stenographers and subsequently assigned 10 of its men to act as field organizers; the Bureau of Social Hygiene granted Mr. Farnham leave of absence to work full time on the project; and the Architects' Emergency Committee donated the services of 2 stenographers.

#### Organizing Local Exchanges

WITH this support, the association decided to start a barter unit, or as it is called, a "local mutual exchange," in at least one neighborhood in New York City. In the meantime, Gordon Mitchell, of Inwood, New York, had been canvassing some eight square blocks of that neighborhood for unemployed people and had listed several hundreds by trade. The list showed a wide variety of skills and most of the people were not recipients of relief. These facts made Inwood seem a good location for the demonstration which the association had been urged to make, and it was decided to cooperate with Mr. Mitchell in starting the Inwood Mutual Exchange.

In organizing the unemployed of Inwood and in obtaining the cooperation of local merchants, the method used was a house-to-house and store-to-store canvass. The canvassers would knock on a door, ask whether anyone in the family were unemployed, and if so, whether such person would be interested in joining a group of other unemployed people to find work which might be paid for without money. After a little experience, scarcely any attempt was made to explain the operation of the plan to every individual. Instead, the canvasser, after listing names and trades, invited such persons to attend a meeting at which the whole idea was to be fully discussed. The meeting in Inwood took place on November 26 in a high-school auditorium. Approximately 350 of the unemployed canvassed attended and displayed interest in the project.

Coincidentally with the canvassing for members, Mr. Mitchell and the steering committee, composed of about a dozen of the most interested unemployed members, had been interviewing local merchants and professional people. They were asked to cooperate with the projected association of unemployed workers, representing many trades, by giving jobs which they could not afford to pay for in cash. About 10 of the 50 people interviewed agreed to give the proposition serious consideration, but only 3 attended a special meeting to which Mr. Mitchell invited them.

The history of the Inwood Mutual Exchange is given hereafter (see p. 490). Because the Emergency Exchange Association was unable to raise adequate funds to furnish Inwood with any capital at the start, the local was forced to confine its activities largely to the community

itself. With the exception of an apple deal with New Hope, Pa., barter has been carried on only with local merchants and professional people.

The procedure in organizing other locals in New York City has been very similar to that of Inwood. The Emergency Exchange Association has supplied field organizers, headquarters, light, heat, and telephone service, and has financed a few barter deals requiring some cash outlay. Up to February 11, 1933, the association had started five other locals: Greenwich Village Mutual Exchange, 3 Greenwich Avenue; Harlem Mutual Exchange, 111 West One hundred and thirty-fifth Street; Astoria Mutual Exchange, Ditmars Avenue; Washington Heights Mutual Exchange, which thus far has used the Inwood headquarters; and Yorkville Mutual Exchange, which is in the early stages of canvassing the unemployed.

### Functions and Activities of the Emergency Exchange Association

THE principal object of the Emergency Exchange Association is to spread the idea of self-help among the unemployed and to organize mutual exchange units within New York City and the immediate vicinity. For this purpose the association has been divided into four major departments: (1) Public relations; (2) organization; (3) research; and (4) treasury.

The public relations department handles all the publicity for the association and its locals. It answers all inquiries about self-help, barter, and the use of exchange tokens and scrip. About 20 of such requests for information are received daily and come from all parts of the country. Those who are seriously interested in organizing mutual exchanges in their own locality are advised to organize first a sponsoring committee of the most prominent men of their communities, so that sufficient funds will be available to meet at least the incidental expenses of organizing. When such a committee is formed it is given a recommended procedure for organizing the unemployed. It is the policy of the association to discourage the issue of exchange tokens until such time as the number and the complexity of barter deals make a book credit system too complicated.

Sometimes it is possible for a representative of the association to attend personally the organization meeting of such projected mutual exchanges. For instance, Mr. Farnham went to Syracuse, N. Y., early in January and materially assisted Doctor Mosher in starting the Syracuse Mutual Exchange. At the time of the present survey there were 17 such exchanges either already organized or in the process of organization: Syracuse, Albany, Rochester, and New Rochelle in New York; Philadelphia and New Hope in Pennsylvania; Boston; Baltimore; and nine in New Jersey, including Newark.

The second function of the public relations department is to raise the necessary funds to meet the association's overhead and if possible to supply the locals with the initial capital funds. Money is raised by means of three kinds of membership in the association: Regular, \$5 a year; supporting, \$5 a month; and sustaining, \$10 a month. From the 240 memberships and 40 contributions of varying amounts the association raised by February 11 a total of \$5,515.02; its disbursements to that date were \$4,764.73.



These totals do not include the value of contributions and services or goods. In addition to office space, stenographic work, and organizing time, mentioned elsewhere, the association has been loaned the use of a car or a truck, as well as a quantity of office equipment by the Hale Desk Co., the Community Councils, and the Spelman Foundation. Approximately \$100 worth of clothes in good repair has been donated for distribution to locals as part of their initial funds. The New York Telephone Co. has allowed a 25 per cent discount on the association's telephone bill.

The organizing department is responsible for the actual organization of local mutual exchanges, the selection of field organizers, their training, and the general supervision of their work. In addition, it is responsible for the general policy of the association and its relations to established locals, and for the specific details relating to their operations. It is also in charge of the preparation and the issue of token money. In January, \$100,000 worth of tokens were printed in nonnegotiable form to be held by the association until needed by the locals. Thus far only the Inwood Mutual Exchange has issued tokens, of which about \$80 worth are in circulation. The denominations of these tokens correspond with the United States currency, namely: 5 cents, 10 cents, 25 cents, 50 cents, \$1, \$5, and \$10.

The organization department has also devised a series of card forms to be used by all local mutual exchanges. The unemployed membership card of the individual locals contains space for the following information: Full name, address, phone number, chief occupation, other experience, length of residence in locality, union affiliation, two places of previous employment, tools or other equipment possessed, present income, and source of sustenance (relief or other). In addition, each member is required to sign a pledge which is printed on the membership registration card and reads as follows:

I wish to become a member of the ----- Mutual Exchange. I agree to abide by its rules and by-laws. I agree to give my labor in exchange for goods and services that I receive under the direction of the exchange. I agree to pay dues as determined from time to time by the executive committee of the exchange. These dues are not to exceed 12 per cent of my earnings on work supplied through the exchange, or when not employed, one half day's work, or its equivalent in exchange tokens. I understand that the exchange is a mutual enterprise, not an employer and makes no guarantee beyond a fair share of goods and services available as a result of the labor of its members.

During the first three months the organization department made sporadic surveys of the possibility of exchanging city-made commodities for farm produce, either directly with the farmer or through a wholesaler. At the same time it also canvassed landlords, mortgagees, and rent agents for jobs that the members of the local exchanges might do in return for rent credit. The need for such work increased so rapidly that a research department was set up in January. In addition to carrying on and enlarging the scope of the real-estate investigation, the work of exploration for sources of food has been expanded to reach central and western New York State, Connecticut, Long Island, and New Jersey. The purpose of these investigations is to determine (1) if farmers' associations will consider bartering part of their present or future crops; (2) the kind of produce they will be willing to barter and in what volume; and (3) what goods they may want in exchange for the produce. The procedure is to begin investigation as near New York City as possible and gradually to extend outward as far as transportation charges will justify.

### The Mutual Exchange System

THE Mutual Exchange System as contemplated by the Emergency Exchange Association was to be a federation of all the local mutual exchanges. At present it is composed of four locals operating in New York City. Its board of directors has two representatives from each local and seven representatives from the Emergency Exchange Association.

The Mutual Exchange System was incorporated as a membership association under the New York State law in January, 1933. Except for the fact that the exchange tokens have been issued in the name of this organization it has had very little activity. Even its by-laws and final form of organization have not yet been adopted.

#### The Inwood Mutual Exchange

THE Inwood Mutual Exchange first opened its offices a few days after Thanksgiving, 1932, in a vacant store the use of which was given to the exchange rent free through the generosity of the Kempner Realty Corporation. As already noted, the idea originated with Gordon Mitchell, an unemployed worker, who personally canvassed the local area of seven blocks and secured 800 names of unemployed men and women. His object was to organize some sort of self-help among the unemployed, but not being familiar with barter operations he went to several organizations and foundations to secure information and advice on methods of organization. Thus he came in contact with the recently organized Emergency Exchange Association of which the Inwood Mutual Exchange has become the first operating local.

An apple deal with New Hope, Pa., was the first barter job of this exchange. Three carpenters supplied by the exchange built a 1-room apartment on the Thomas Marshall farm. In exchange for this work the farmer delivered 134 bushels of apples, which were valued at \$1 a bushel. Some additional work done by a mason, a carpenter, a carpenter's helper, and a painter on the same farm brought an additional 64 bushels of apples to the exchange. Some of the apples were sold for cash; some were placed with the local merchants in return for credit given to the exchange; and the balance was made into jelly, which was also placed with local merchants in exchange for credit. The workers have not yet been entirely paid for the New Hope job, but they received their full value in tokens which were issued by the exchange. One man got a pair of pants, another a pair of shoes, and all of them bought groceries from the merchants where the mutual exchange established its credit.

The second job was for a dentist who wanted some plumbing done in his office, valued at \$12. The mutual exchange received the dentist's note for that amount, which will be canceled through dental work for members of the exchange.

Additional work by a carpenter, a typist, a delivery boy, and an electrician, netted the exchange an additional credit of about \$25. The most recent job was that of building some fruit stands by two carpenters and a painter, who were paid \$18 in tokens for their labor.

There have also been a few direct barter jobs. Barter has been growing spontaneously in the city for the last year and a half, particularly in exchanging rent for services. Two such jobs have been

arranged by the exchange. A handy man gives two half days each week or a total of four days a month in exchange for an apartment, which has been valued at about \$20 a month. A painter did some odd painting jobs in exchange for free rent.

The exchange issues token money only for the value of the actual work done by the members of the exchange. The tokens are secured by the individual notes of the merchants or professional people for whom the work is done. In agreeing to deal with the exchange the merchants simultaneously agree to accept the tokens of the exchange at least to the amount of the value of work done in each case. The merchants are at liberty to collect these tokens to the amount of the notes outstanding with the exchange and then redeem their notes with the tokens. This process automatically completes the barter deal and reduces the quantity of token money in circulation.

The Inwood Mutual Exchange has now a total registration membership of 280 workers. These are classified by occupations, which indicate that the average member is capable of carrying on 2.6 kinds of jobs. The exchange is seriously handicapped by a complete lack of capital. This not only keeps it from extending its activity into the manufacturing field but also seriously affects its barter work. It is said that the merchants and the membership have not yet become barter conscious, and that it will require a considerable amount of training through regular weekly meetings and conferences to educate them to the idea of barter as an effective method of self-help. The exchange is planning, when more capital is available, to organize a store operated on a basis similar to a woman's exchange, where any of its members who can make anything, such as home cooking, fancy work, knitting, or metal work, can place their products with the exchange for barter for the commodities needed. The exchange is also trying to work out a plan whereby it can supply some of its skilled workers in the garment and shoe industries with facilities and raw materials for making new products which can be used for bartering with other organizations of the same character.

#### The Greenwich Village Mutual Exchange

THE Greenwich Village Mutual Exchange was started January 7, 1933, by an official organizer of the Emergency Exchange Association. Free office space was secured in an empty store. A house-to-house canvass of the unemployed in the district between Fourteenth and Houston Streets and between University Street and the Hudson River revealed more than 1,000 unemployed men and women. A meeting was called at one of the schools, which was attended by about 300 workers. On February 14 the local had 414 men and women who had signed the official registration card. A canvass among the merchants and professional people resulted in 57 signatories to deal with the exchange on a barter basis. Small informal meetings with the unemployed have now taken the place of large general meetings, both of course aiming to educate the membership to the idea of self-help through barter without the use of money.

The six volunteer workers, among whom there are a trained architect, a bookkeeper, and an artist, contribute their time free. Office furniture was borrowed with the assistance of Mrs. Simkhovitch, of the Greenwich House. Membership cards, stationery, phone service,

and incidental expenses are provided by the Emergency Exchange Association.

No tokens have been issued so far, but plans have been completed to use the same kind of tokens which are now circulating at the Inwood Mutual Exchange. The work done thus far is carried on by a system of credit bookkeeping, and altogether about \$170 worth of exchanges have been transacted to date. The jobs carried out or about to be finished are:

1. Request for night elevator operator (contracted for, but not yet filled).
2. Maid service for home (filled).
3. Partition built for multigraphing concern, \$96, to be paid by multigraphing work.
4. Upholstery job, \$10, to be paid partly in cash and partly in goods.
5. Janitor service—rent free and some cash.
6. Thirty dozen eggs bartered for engraving job.
7. Dentist services, \$50, to be paid in meals and with a suit of clothes.

Several other jobs have been partly settled, with prospects of rapidly increasing operation, especially in the field of exchanging services for goods, including some cash transactions. The exchange has also been quite effective in placing members on jobs, the following jobs having been filled: Window washer, masseur, sign maker, two handy men, dictaphone operator, cook, painter, part-time typing, and four part-time ushers.

The problem of manufacturing has been discussed, but temporarily postponed, awaiting growth and further developments.

#### The Harlem Mutual Exchange (Colored)

THE Harlem Local was started by an official organizer of the Emergency Exchange Association, a woman, who is the only white person in the local. Operations began in the middle of December by a canvass of the unemployed in the district between One hundred and tenth and One hundred and fifty-fifth Streets and between Morning-side Drive and Park Avenue, or nearly the entire section of the city known as the Harlem district. The canvass has not yet been completed. The colored canvassers are supplied free by the Emergency Work Bureau of the city. The secretarial help is also supplied from the same source. The organizer and the office manager are volunteers working gratis but getting their incidental expenses from the Emergency Exchange Association, which also supplies the stationery, registration cards, phone service, etc. The office is located in a store, for which no rent is paid, through the generosity of the St. Phillips Realty Co.

The exchange had on February 14, 404 registered unemployed men and women who had signed the official application cards, thus expressing their willingness to work for the exchange. With the exception of the barter of one washing machine for chickens and eggs, no transactions of either direct barter of commodities or of services have as yet been completed, although several merchants and professional groups have signed with the exchange and expressed their willingness to accept tokens to the amounts of from \$2 to \$5 per week. Among these are 2 tailors, 2 grocers, 1 butcher, 1 barber, 3 dentists, and 1 doctor. No scrip has been issued but plans are in preparation to use the same kind of money as that issued by the Inwood Mutual Exchange.

Regular weekly meetings are held by the local at the public library auditorium next door for the purpose of educating the membership and the community to the barter idea of self-help and to the use of scrip. The office is open all day and a considerable number of visitors are given personal instructions and urged to register. Some of the most prominent members of the community have been put on the board of directors, and the assistance of the churches, the Y. M. C. A. and the Y. W. C. A. has been solicited to insure a favorable response from the community.

With this background it is hoped that considerable barter of goods and services or goods for services will soon be started. The exchange has no intention, for the present at least, of entering the manufacturing field. It is optimistic, however, as regards its work with landlords and hopes to effect a number of exchanges of services to be paid in rent.

FEBRUARY 14, 1933.



## Nyack, N. Y., Trading Post

THE barter market of Nyack, N. Y., was planned and organized by Mrs. Wharton Clay with the advice of Ralph Borsodi of Suffern, N. Y., where a similar market was once carried out by Mr. Borsodi himself.

The first Nyack market took place a week before Christmas at the home of Mrs. Clay, which is centrally located on Nyack's main street. It was attended by a large number of neighbors who brought chickens, geese, eggs, preserves, cabbage, apples, comforters, rugs, antique pieces of furniture, several items of clothing, and sundries, of a total value of several hundred dollars. No scrip or tokens were used, and the crude barter proved clumsy and rather complicated. The second and last market took place the Saturday before New Year's. The town had a firemen's parade and the market attendance was considerably larger, but the volume of actual barter transacted was much less than in the first market.

Recently Mrs. Clay organized a permanent service and barter center under the name of the Nyack Trading Post. The center is open for several hours every afternoon. For every commodity or amount of work done through the trading post the office issues a credit token which entitles the holder to exchange it for any other commodity or service of equal value available through the exchange. A charge of 5 per cent of the value is deducted to cover the incidental expenses of operating the trading post and of printing the tokens.

Several local storekeepers have promised to accept these credit tokens to the amount of about \$5 a month and to cash in at the trading post for other commodities or work. Not very many transactions have been carried out thus far. The wife of an insurance agent needed some work done on her teeth; a dentist needed to have his house decorated; the trading post secured the house decorators and by a triple deal arranged to have the dentist's house decorated and the teeth of the insurance agent's wife fixed.

A man owned five lots in the suburbs. He needed a well dug at his home. Through the trading post the well digger got the suburban lots on which he is now building a home for his family.

A deal is in prospect to demolish some of the recently burned up and condemned houses in the city in exchange for the use of the salvaged lumber and bricks, which in turn are to be used for the building of houses for families of workers recently evicted from their homes or who are about to be evicted for the nonpayment of rent.

The Nyack project is operated on a comparatively small scale and is being carried on chiefly through the personal efforts of Mrs. Clay. She is hoping, however, that in time the trading post will become self-sustaining and managed entirely by the registered membership from among the unemployed. It received much publicity from the local and New York newspapers and the community seems to be favorably disposed toward it.

FEBRUARY 14, 1933.

## Emergency Exchange Association of Pennsylvania

**T**HE Pennsylvania Emergency Exchange resulted from a series of meetings conducted by the Frankford Industrial Relations Committee organized by the Frankford Ministerial Association under the leadership of Mr. Myers, industrial secretary of the Federal Council of Churches. The organizing meeting took place on January 26, 1933, when a steering committee was appointed to elect a board of directors for the prospective exchange. Temporary headquarters were established in the library of St. Barnabas Church at Third and Dauphin Streets.

On Monday, February 13, the first Philadelphia local emergency exchange was opened in temporary headquarters at 2035 West Lawrence Street, with the help of a number of volunteer workers who began at once the registration of membership. On the first day of opening, a barter exchange through which a radio fixer got a suit of clothes from a tailor in exchange for some work done on his radio was executed. This received considerable publicity from the newspapers and the office was crowded with workers who came to register and deal with the exchange. The local and its parent organization, the Emergency Exchange Association of Pennsylvania, are confronted with serious difficulties because of the total lack of resources.

FEBRUARY 17, 1933.

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## The Unemployed Citizens League of Philadelphia

**T**HE Unemployed Citizens League of Philadelphia is not primarily a barter organization. It was organized in May, 1932, "to promote unemployment insurance, old-age pensions, minimum-wage laws for women and children, to stop evictions of unemployed workers from their homes, to stop the practice of shutting off gas and electricity in these homes, and to secure legislative action in favor of the working class." It was sponsored by the hosiery workers and carpet weavers' unions and by a group of unemployed workers in the district. Office space was given by the carpet workers' union free and the Unemployed Citizens League started its existence with 12 members which now reach a total of more than 2,000. Because of its size the league is about to open a branch office at 315-317 West Lehigh Street.

The principal work of the league consists in feeding from 800 to 1,000 families of unemployed each week. The food donated by merchants is collected and conveyed to headquarters on three trucks owned by the league. It also gathers wood donated by farmers and distributes it to the workers who participate in cutting the wood. Sometimes some of the food and the wood is bartered for gasoline for the trucks. The league has also a tentative plan of placing some of its unemployed on farms to raise vegetables for the league. It plans to feed and take care of the men on the farm during the entire period they are to remain there, and it will be the sole owner and distributor of the crop raised. It is stated that since May, 1932, 500 cases of evictions have been stopped by the league and that not a single case has been lost.

FEBRUARY 18, 1933.

# EMPLOYMENT CONDITIONS

## Dismissal-Compensation Plans <sup>1</sup>

A STUDY of dismissal-wage plans recently completed by the industrial relations section of Princeton University supplements a general survey <sup>2</sup> of company plans published in 1931 by the same group. The study included personal visits to 80 companies in 27 cities. In most cases these firms operate several plants, factories, or stores and normally have in their employ over 1,400,000 workers. The industries covered included automobiles, chain stores, chemicals, clothing, department stores, electrical equipment, food and packing, machinery and tools, oil, paper, public utilities, publishers, rubber, steel, and a miscellaneous group of industries. The report summarizes briefly some of the more definitely formulated dismissal-compensation plans and shows the trends in the development of these plans.

Dismissal-compensation plans have had a rapid growth since the beginning of the depression and it is stated that more than 150 dismissal-wage plans have come to the attention of the industrial-relations section. In addition to these better-known plans it is said there are probably many other plans, either formal or informal, in companies which at some time have made dismissal payments. Although in 1921 and the following years certain companies made such payments to salaried employees, it was not until the full effects of the present depression were felt that many companies felt the necessity of taking definite steps toward providing compensation for employees in all departments. More than half the companies visited in connection with the present study are said to have instituted their plans during the past two years. In comparison with other features of industrial-relations programs the dismissal-compensation plans are said to have been least subject to curtailment or discontinuance, due probably to their comparatively recent adoption and the great need for assistance among employees on account of the depression. Only 3 of the 80 plans have been discontinued, none of which were very definitely formulated, while several companies having informal plans have felt that because of the depression it was necessary to curtail payments somewhat, and 3 of the more formal plans have reduced the amount of payments to some classes of workers.

One of the definite tendencies in plans for the payment of a dismissal wage is the extension of coverage to hourly workers and to those of medium service of from 2 to 10 years. However, 3 or 4 companies with very low service requirements have found it necessary to raise their lower limits from 1 to 5 years. While special provisions

<sup>1</sup> Princeton University. Industrial Relations Section. Dismissal-compensation plans in 80 companies. Preliminary report. Princeton, 1932.

<sup>2</sup> See Monthly Labor Review, October, 1931, pp. 179-184.

for older workers are made in comparatively few of the plans, consideration is being given in many instances to the introduction of differentials which favor the older employees by taking into account the various factors of wages, service, and age.

The plans show that there continues to be no agreement regarding the method of payment. Lump-sum payments seemed formerly to be most favored, but recently, owing to the increasing emphasis on relief, periodic payments have been adopted in a number of instances. Of 60 companies reporting on this point, 35 paid the dismissal compensation in a lump sum, 3 paid a lump sum with a few periodic payments, 6 made both lump-sum and periodic payments, 3 made periodic payments with a few lump sums, and 13 paid entirely through periodic installments.

The dismissal-compensation plans were generally initiated without reference to other industrial-relations policies, but as the plans have developed it has been found necessary to take into consideration such features as earned vacation rights, contributory pensions, profit sharing, and stock purchase, and as a result many dismissed employees have received considerable sums of money.

In general these plans are financed from general company funds, being charged directly to wages or against the general or production expense of the operating unit. Of 40 companies reporting on this point, 29 charged the dismissal wage to wages, production cost, or other costs of the department or unit, 1 to the office responsible for hiring, 1 to general expense, and 9 to special dismissal accounts or funds.

As many of the dismissal-compensation plans have been adopted by corporations with operations scattered over a wide area it has been necessary in many cases to centralize control of these payments in the main office. Through this policy in some instances the longer-service men receive greater consideration in the matter of transfers.

The present depression has necessitated the consideration in many companies of dismissal payments for laid-off men who may be rehired when business improves. This type of payment borders rather closely on unemployment benefits, since it stretches the definition of dismissal compensation to include employees laid off indefinitely as well as those who are permanently dismissed. As a result of the rehiring of men several companies have adjusted their plans so as to make special provisions for those rehired. In one instance the company allows the employee to keep his service record but does not promise to rehire him at the same rank, while another company allows the employee to repay the dismissal payments over a period of time and thus regain his full service credits, or by not repaying the money to start as a new employee. Still another company allows the old service record but in case of a second lay-off the employee is entitled only to the difference in amount of compensation between the payment at his present total service and the amount already received.

## Report of California State Unemployment Commission <sup>1</sup>

THE final report of the unemployment commission of California, which was appointed in August, 1931, was made public in November, 1932. The commission was directed to study the extent of unemployment and methods of relief and also the nature and the causes of unemployment, with a view to the recommendation of measures designed to meet the problems connected with this and future depressions.

The final report, in addition to recommending an appropriation for emergency unemployment relief, advocated the enactment of an emergency measure, to be effective until July 1, 1935, to provide for spreading the available work by means of a 5-day week and 6-hour day on all public works, whether done directly by the State or by contract; also, the adoption of the 5-day working week in the conduct of all State business so far as practicable, in order that employment might be given to as many employees as possible. It was further recommended that the law creating the department of industrial relations should be amended to provide that the department should, either upon its own initiative or upon the request of employers or employees within any industry, call a public hearing to determine whether there is need for the establishment of a shorter work week within that industry. Following the public hearing, the department would then either make a recommendation to all employers within the industry as to what number of hours per week or per day should be worked, or recommend other reasonable methods of spreading work.

The principal measure advocated by the commission, however, was the enactment of a law providing for a system of compulsory unemployment reserves and compensation, to be administered by the State, and to be supported by contributions from employers and employees. This measure received the most widespread approval of the various suggestions for dealing with the problem of unemployment which were offered at the public hearings, as of the 78 persons who testified regarding this subject, 70 favored some form of unemployment insurance, while only 5 were opposed and 3 expressed doubts as to the merits of such a plan.

The law recommended is similar to the Wisconsin unemployment insurance law, with the important exception that it provides for contributions by employees, while the Wisconsin law provides for contributions by the employers alone. The plan calls for the establishment of an unemployment reserve by each employer for his own plant for the payment of benefits to his own employees, although provision is made for the voluntary pooling of the reserves of plants in the same industry. It was the opinion of the commission that the separate unemployment reserve plan furnishes a financial incentive to employers to regularize employment within their own establishments.

The proposed plan provides for contributions to the unemployment reserve fund at the rate of approximately 2 per cent of the pay roll until there is an accumulation of \$50 per employee. When the accumulated reserve per employee reaches or exceeds that amount, the rate of contributions to the fund is reduced to 1 per cent of the pay

<sup>1</sup> California State Unemployment Commission. Report and recommendations. San Francisco, 1932.



roll, until a maximum of \$75 per employee is reached, when contributions cease.

According to the plan the total contribution to the unemployment reserve fund per employee would be \$2.20 for each \$100 of pay roll, of which the employer would contribute \$1.50 and the employee 70 cents. Of this amount, 20 cents would be allocated to administration costs. Although the State would not contribute to the reserve funds, it is proposed, in order to insure the impartial administration of the law, that the law should be administered by the State, through the department of industrial relations.

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### Care for Young Unemployed Workers in Amsterdam, Netherlands

THE Amsterdam branch of the Central Committee for Youthful Unemployed has recently published a résumé of its activities in providing occupation for the idle youths of the city.<sup>1</sup> The committee aims at keeping youthful unemployed persons engaged, the principal purpose being to provide useful work for them. Accordingly the skilled individuals among them are placed in training schools in order to complete their training, while for those who have never learned a trade a special building has been provided where they may find opportunity to do useful work though of minor importance, such as repairing furniture for families of the unemployed who are unable to pay for repair work. Those who do not care for either the regular training schools or this special work are not "forced" to work, but are induced to join sporting organizations in the hope that in the healthful surroundings opportunity will be found to enlist their interest in the training courses.

After a year's action the committee has reached 4,000 of the 7,000 to 8,000 young unemployed persons in Amsterdam, and efforts are being made to reach all of them.

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<sup>1</sup> Report by Mr. Charles L. Hoover, United States consul general, Amsterdam, Jan. 3, 1933.

# INDUSTRIAL AND LABOR CONDITIONS

## Growth of Sweatshop Conditions During the Depression

**S**Ocial workers and officials of State labor departments are reporting from different parts of the country the reappearance and rapid growth of conditions in industry which it was thought had been definitely abolished by law and public opinion. Illegally long hours, low pay, violation of protective labor legislation, and direct cheating of employees are among the conditions reported as appearing in certain industries in which children and young workers are employed in large numbers. No locality has a monopoly of such conditions, but naturally they are most frequently reported from the industrial States; according to one authority, however, conditions have worsened also in the beet fields of the West, an industry in which it was noted some years ago that agriculture had taken on many of the aspects of factory work. (See *Monthly Labor Review*, March, 1930, p. 62.) The deterioration in conditions was stressed at a conference on "Present day child labor problems," held in Washington, D. C., in December, 1932.<sup>1</sup>

Frances Perkins and Joseph M. Tone, commissioners of labor of New York and Connecticut, respectively; Beatrice McConnell of the Pennsylvania Department of Labor; Edward F. McGrady of the American Federation of Labor, Courtenay Dinwiddie of the National Child Labor Committee, and others, testified to the appearance of a new variation of the old sweatshop, with unbelievably low wages and long hours for children as well as adults. A relentless pressure on labor standards was pictured.

### Changes in Number of Young Workers

CONCURRENTLY with the general decrease in employment there has been in certain industries an increase in the number of workers aged 16 and 17. Census figures show that while in general the number of youthful workers declined between 1920 and 1930, a few increases stand out strongly.

In several Southern States the percentage of textile workers of 16 and 17 years showed an increase since 1920; in the clothing industries in certain of the New England and Middle Atlantic States there has occurred a shift from older to younger employees. Thus in the clothing industry of Connecticut and Rhode Island the number of workers of 16 and 17 increased by 123 per cent and 283 per cent, respectively, whereas in New Jersey the increase was 81 per cent; in Pennsylvania, 62 per cent; and in Massachusetts, 52 per cent.

Undoubtedly an increase in workers in this age group might exist together with the maintenance of good conditions and fair wage scales, but there is strong evidence that in many cases hours, wages, and working conditions are all far from satisfactory.

<sup>1</sup> U. S. Children's Bureau. Summary of the conclusions of the Conference on Present Day Child Labor Problems. Dec. 10, 1932. [Mimeographed.]

## Conditions in Various States

In Connecticut the worst conditions seem to have been found in the garment-making industry, in which "runaway shops" are responsible for a serious situation. As early as 1929 the Connecticut Chamber of Commerce noted a movement of factories, not confined to the garment-making trades, from other States to Connecticut to take advantage of the easier labor laws there, the trend being principally from New York State. At that time the movement was looked upon as something to be encouraged. By 1931, however, the influx of responsible establishments had apparently come to an end, and the advent of the runaway shop had come to be recognized as a serious evil, embodying the old-time abuses of the sweatshop. The State deputy commissioner of labor, in an article published in the *Pennsylvania Labor Herald* of November 19, 1932, thus describes its method of operation:

The sweatshop owner, however, still works out of and for New York. From the New York manufacturers he receives shirts, underwear, or dresses all cut, ready for sewing. He brings them to some low-rent loft or abandoned factory in which he has installed a few sewing machines and there hires women and girls at pitifully low wages to do the sewing.

He has no capital invested in raw materials; little in anything. His entire equipment can be moved overnight when he decides to skip town without paying his wages or other bills.

Some of these employers literally pay no wages at all. Under the pretense of shoring learners they get the girls to work for nothing for two or three weeks till they learn the business. At the end of this period the girls are discharged and replaced with another group of deluded learners. The employer thus gets his labor for nothing.

Others, not quite so brazen, pay unmistakably low rates. The girls are lucky if they get \$3 at the end of a hard week and are rolling in wealth if their pay check amounts to \$6.

In addition, sanitary conditions are bad and violations of the hours law frequent, although Connecticut permits a 55-hour week. The State commissioner of labor, speaking before the Washington conference, said:

Employers have been known to punch the time cards of their employees, thus showing a legal number of hours, while the employees, including minors, worked overtime. Cases were found in which children worked 80 hours or more a week.

In Massachusetts attention has been called especially to the situation through the efforts of the State minimum wage commission to enforce the minimum wage law:

An investigation made by the Massachusetts Minimum Wage Commission last spring disclosed that rates as low as 10 cents, and in one case, 5 cents an hour were paid to girl workers in Fall River; hundreds were earning less than \$5 a week. In five plants investigated, manufacturing men's furnishings, women's underwear, house dresses, children's dresses, only five employees earned more than \$15 a week. Of 1,616 employees in 13 plants making women's apparel 71 per cent earned less than \$10 a week, and 97 per cent earned less than \$15 a week. In one of the worst-paid shops hourly rates ranged from 10 cents to 16 cents an hour; the earnings of these workers, if employed for a full week of 48 hours, would range from \$4.80 to \$7.68 a week. Practically all the shops paying these low wages had started business in the town since the beginning of the present depression. Many factories of similar character have been established in other Massachusetts cities during this period. In New Bedford, for instance, it was found that wages paid were even lower than in Fall River, and check ups at later dates revealed that, even after investigation by the minimum wage commission, wages were continuing downward.

Miss Perkins, State industrial commissioner of New York, stressed the fact that "the jobs at present open to boys and girls between 14 and 16 years of age offer practically nothing worth while from the standpoint either of training or earnings."

So far as factory jobs for adolescents are concerned, one of the greatest difficulties is the increase of very low-paid piecework. One order which came to a junior office recently called for girls to "clean" men's pants in a men's clothing shop. During the first few weeks the employer paid a salary of \$7 a week. From then on, however, payment was by the piece, at the rate of one-half cent for each pair of pants cleaned. According to the girls placed on this work, it takes about five minutes to clean a pair of pants. This means an hourly rate of 6 cents. In a 48-hour week, providing work came in steadily, the net earnings would be \$2.88.

From Pennsylvania, Maryland, and New Jersey also came complaints of sweatshop conditions, especially where young workers were concerned. The acute need of the employee for earnings, however small, and the pressure on the employer to cut costs to the bone if he is to survive in the competitive struggle, have brought about a situation in which the enforcement of protective legislation is difficult, while the temptation to disregard it has increased many times. On the other hand, it is suggested, the increased number of complaints about these violations show an increased consciousness on the part of the community of the provisions of the law, and an anxiety that present conditions shall not be allowed to break down the standards built up through years of effort.

The Washington conference, which approached the problem from the child welfare point of view, planned a program for the emergency, calling for an improvement in hour and age regulations for child workers, for a stricter control over the employment of minors in hazardous occupations, and for mandatory minimum wage legislation for minors under 18. To make these improvements effective, it held that bureaus of women and children should be established in State labor departments, or, if they already exist, should be strengthened, and that business firms should be required to register with State labor departments to facilitate inspection. Every means should be taken to rouse public opinion, and especially efforts should be put forth to prevent serious impairment of the schools through economy measures, and to make sure that school budgets shall provide the types and amounts of education adapted to the needs of all children.

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### The 5-Day Week in the Government Printing Office <sup>1</sup>

**A**N ACCOUNT of the results of the adoption of the 5-day week in the Government Printing Office is given in the annual report of the Public Printer for the fiscal year ending June 30, 1932, and the last half of the calendar year 1932.

As authorized by the economy act, the 5-day week was put into effect in the Government Printing Office July 2, 1932. From that time until the reconvening of Congress on December 5 the entire office was closed on Saturdays, but with Congress in session it became necessary to rotate the time off for night employees so that an adequate force would be on duty every night except Sunday, and also to

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<sup>1</sup> U. S. Government Printing Office. Annual Report of the Public Printer, 1932. Washington, 1933.

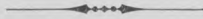
maintain a small day force on Saturdays by the same method. The employees in each work group, therefore, are rotated alphabetically for the Saturday work periods during the period that Congress is in session.

The operation of the 5-day week is said to have been so satisfactory that the Public Printer urgently recommends its continuance in the Government Printing Office, stating that if the 5-day week does not provide a sufficient spread of employment the daily hours of work should be reduced. In this connection the indorsement of the 5-day work week by such organizations as the Chamber of Commerce of the United States, the American Federation of Labor, the various printing-trade unions, the national organizations of the printing trades, and large employers of labor is cited. A recent survey of trade opinions of the public, published in the *American Printer*, is also said to show that "the large majority of important printing executives accept the idea of the 5-day week and believe that its general adoption by the printing industry is not far off."

The 5-day work week as compared with the 5½ or 6 day week is said to have shown a decided improvement in production in the Government Printing Office, and in this connection the Superintendent of Accounts reports:

The production records since the 5-day week was put into effect July 2, 1932, show that in four months the production of ems per day per employee on actual composition increased approximately 5 per cent; that proof-room output of galleys increased about 4 per cent per employee; that output of platemaking divisions increased about 10 per cent per employee; that the ordinary run of presswork increased about 10 per cent per employee; and that in binding division the machine gathering of signatures increased about 7 per cent per employee.

Prior to this year the 4-hour work period on Saturday was low in production, while now the 5-full-day week is giving more per 8 hours of work than did the former 5½-day week give per 8 hours of work. It is difficult to prove this exactly, but our best reading of the records generally seems to show a better output when work period is composed entirely of full days.



### Industrial Home Work in Pennsylvania in 1931

THE Monthly Bulletin issued by the State Department of Labor and Industry of Pennsylvania gives, in its number for November, 1932, some figures concerning industrial home work in that State in 1931, showing that the depression had had little effect in reducing its extent, but had quite noticeably increased the tendency toward violations of the laws regulating the employment of women and children in such work. In September, 1931, there were 1,156 licensed employers distributing work to 10,006 home workers, the corresponding figures for September, 1930, having been 1,202 and 10,772. This was a decrease of only 766, or 7 per cent, in the number of home workers and was accompanied by an increase in the number of employers who were giving out work to 25 or more workers, "a situation which suggests that home work is tending to become even more firmly entrenched in certain industries."

#### Violations of Legal Restrictions

IN ENFORCING the regulations for industrial home work the bureau of women and children each year visits homes of licensed home workers, especially those in which violations are most likely to be



found. The number of violations found in 1930 and 1931 is shown below:

VIOLETIONS OF CHILD LABOR AND WOMAN'S LAW IN INDUSTRIAL HOME WORK  
IN 1930 AND 1931

Year	Number of homes visited	Homes showing violations of—			
		Child labor law		Woman's law	
		Number	Per cent	Number	Per cent
1930.....	2, 205	221	10. 0	83	3. 8
1931.....	3, 105	585	18. 8	554	17. 8

While in no industry was the problem of child labor violations negligible, it was most acute in the men's clothing industry, where violations of the law were found in 24 per cent of the homes investigated; in the tag industry, where children were illegally employed in 26 per cent of the homes; and in a group of miscellaneous industries, where 40 per cent of the homes had violations.

It is a significant commentary on the effect of the depression on child workers that this marked increase in child labor violations has come at a time when, with unemployed older persons in the family available to assist with the work, it might have been supposed that children would be working less frequently than in previous years.

#### Hours and Earnings in Home Work

It is always difficult to fix accurately the number of hours spent in home work, but among the chief home workers visited in the last half of 1931 the median weekly hours were 31, as compared with 28 in 1928, when a similar analysis of hours and earnings was made by the bureau. The median of the weekly hours reported varied from 24 in art needlework to 35 in the men's clothing industry. In general the work was done mainly by one person, usually the mother, and this situation had not been altered by the depression. Children were often called upon to help, but for the most part those who had been gainfully employed in other occupations, even though out of work, did not engage in the work.

Relatively little home work was done by unemployed persons in the families visited. Only one out of every six unemployed wage earners in the home-working families did any industrial home work.

The median earnings of families and the median hourly rates of the chief home workers both showed a reduction as compared with the corresponding figures for 1928, but the amount of the decrease differed. The median home-work earnings for the family group dropped from \$4.70 a week in 1928 to \$3.60 in 1931, a decrease of 23.4 per cent, while the median hourly earnings of the chief home worker fell from 16 to 12 cents, a decrease of 25 per cent.

The effect of the depression in reducing hourly earnings for home work by 25 per cent since 1928 was much greater than its effect on factory wage rates. The hourly earnings for all wage earners in manufacturing in 1931 were but 4.2 per cent lower in the last half of 1931 than they were in 1928, according to the statistics of the Pennsylvania Department of Labor and Industry on employment and earnings.

### Unemployment and Family Earnings

IN 355, or 28.5 per cent, of the families visited, all members who were normally wage earners were wholly unemployed, except as they engaged in the home work; in exactly the same number of families, all wage earners were on part time; in 11.9 per cent some wage earners were on part time and others wholly unemployed; in 14.2 per cent part of the wage earners were on full time; and in 16.9 per cent all wage earners were on full time. Unemployment was more frequent in this group of families than in the general working population.

The proportion of unemployed wage earners in home-working families was twice as high as the proportion of unemployed persons in all Philadelphia families, comparing the figures for the Philadelphia home-working families with figures from a study on unemployment in Philadelphia made by the University of Pennsylvania. There were 47 per cent of the normally employed wage earners in the home-working families visited who were totally unemployed, compared with 28 per cent who were unemployed among all Philadelphia wage earners according to an estimate for the last six months of 1931.

This situation is natural, in view of the number of families who took up home work because of the loss of employment of one or more of their members.

The family earnings were low, the median weekly income from all sources, exclusive of the returns from home work, being, for half of the 311 families reporting on this point, \$15.73 or less. Ninety-five per cent of the families visited in 1931 reported that their incomes, exclusive of home-work earnings, had been reduced since January, 1930, through unemployment, underemployment, or reduced wage rates. "Two-thirds of the chief wage earners in the families who had jobs were reported to have had one or more cuts in wage rates since the beginning of 1930."

### Conclusion

UNDER the pressure of the prevailing hard times, the bureau finds, conditions in home work have grown worse and the process of deterioration is likely to continue unless closer supervision can be secured.

The problems of industrial home work have been aggravated by the depressed business conditions of 1931. Violations of the child labor law have nearly doubled and violations of the woman's law have quadrupled. Many employers, rushed to fill orders, have in turn pressed their home workers into violations of the labor laws. Workers, many of them living in poverty whether from unemployment, low earnings or both, often put their children at the tasks or themselves worked overtime in order to keep their employer's favor and to earn a few cents. Employers and workers alike have grown careless of labor standards and have ignored the fact that, in their attempts to keep going at any price, all tend to be reduced to the same low standard from which each would escape.

The growing prevalence of violation of the labor laws in industrial home work in the face of persistent study and effort to enforce legal standards of employment for industrial home workers is testimony to the inherent difficulties of enforcing such standards where continuous supervision over workers is lacking. While undoubtedly there is room for improvement in the supervision which employers can give to home workers, it is seriously questioned whether it is possible for employers to have home work done under really controlled conditions.

## Race and Sex of Employees of Hawaiian Sugar Plantations, June, 1932

**A**N ANALYSIS of the personnel, by race and sex, of 38 plantations of the Hawaiian Sugar Planters' Association is given below for June, 1932. The figures are taken from the annual report of the Governor of Hawaii for the fiscal year ending June 30, 1932.

RACE AND SEX OF EMPLOYEES ON PAY ROLLS OF 38 HAWAIIAN SUGAR PLANTATIONS IN JUNE, 1932

Race and sex	American citizens	Noncitizens	Total
<b>Men:</b>			
Anglo Saxon.....	793	107	900
Chinese.....	77	629	706
Filipino.....	54	34,861	34,915
Hawaiian.....	615		615
Japanese.....	2,448	6,947	9,395
Korean.....	19	423	442
Portuguese.....	1,674	348	2,022
Puerto Rican.....	629	168	797
Spanish.....	39	51	90
All other.....	36	29	65
Total.....	6,384	43,563	49,947
<b>Women:</b>			
Japanese.....	258	989	1,247
All others.....	141	92	233
Total.....	399	1,081	1,480
<b>Minors:</b>			
Regular—			
Males.....	753	20	773
Females.....	38		38
School.....	2,740	14	2,754
Total.....	3,531	34	3,565
Grand total.....	10,314	44,678	54,992

## Economic and Social Conditions in Virgin Islands, 1931-32

**T**HE great economic depression has, of course, had its effects in the Virgin Islands. In the annual report of the governor for the fiscal year 1931-32 it is pointed out that the prosperity of these islands has depended almost entirely on the St. Croix sugar production and the St. Thomas harbor activities. According to the same publication, shipping and bunkering in St. Thomas have decreased substantially. Sugar production, however, in St. Croix in 1931-32 was 250 per cent of the production for the preceding year, with a consequent improvement in the employment situation in that industry. At the same time the prices for sugar were so low that the expansion in output represented a loss to the producer.

In St. Thomas there has been a decline in both business and employment, not only as a result of the slump in shipping activities but because of the reduction in purchasing power as the outcome of the withdrawal of the naval activities in the summer of 1931. In the calendar year 1931 the St. Thomas income tax assessments amounted to only \$3,000; in 1930 such assessments totaled \$15,000.

An understanding of the problems of the Virgin Islands, the governor points out, depends upon keeping in mind their small size and their combined population of only 22,012, of whom 78.3 per cent

are Negroes; 12.4 per cent, mixed races; 9.1 per cent, white; and 0.2 per cent, other colored. The following are the only three islands that have a considerable population:

	Population
St. John (20 square miles).....	765
St. Thomas (28 square miles).....	9, 834
St. Croix (84 square miles).....	11, 413

The St. Croix Cattle Cooperative, which was organized in 1931, has continued to make weekly shipments to Puerto Rico. The St. Thomas Handcraft Cooperative has increased its sales, extended its list of products, and expanded its markets in the United States. The St. John Charcoal Cooperative has also made progress, renewing its contracts for monthly deliveries for the year and increasing its sales.

The Arcola Rug Co. was organized in connection with a New York City manufacturing establishment and takes all the products of the island factory, where employment is promised for some 500 persons.

A sugar engineer of New York City came to the Virgin Islands to study the possibilities of operating the closed-down Bethlehem sugar factory and cultivating the Bethlehem sugar lands in St. Croix, which have been idle for over two years. At the time of the preparation of the governor's report for 1931-32 progress was being made in the plans for putting this project into effect.

The organization of a vegetable growers' association in St. Croix is reported. A sales agreement has already been signed by this association and a New York commission firm for marketing the early crop, which will arrive in New York three months before the Florida vegetables are available. Approximately 500 acres of vegetables were being planted, the governor states.

A committee composed of the Secretary of the Treasury, the Secretary of the Interior, and the governor is formulating plans for a new bank to take the place of the National Bank of the Danish West Indies, which will close when its charter expires June 20, 1934.

In an effort to improve the business conditions of the islands, correspondence and personal interviews were had with various steamship lines operating in the Caribbean and with groups and individuals interested in visiting or settling in the islands.

In the face of much difficulty the homestead scheme, with many changes, was pushed through, and it was thought, the governor states, that the homesteaders would probably very soon be on the land. The people are manifesting eagerness to acquire homes for themselves and to provide greater opportunities for their children. "The need for small farm ownership in the Virgin Islands is readily evidenced by the fact that 90 per cent of the cultivatable land is owned by 1 per cent of the families, and that out of 5,871 people engaged in agricultural pursuits, only 273 are actually farm owners, according to the 1930 census."

Under the homesteading scheme the land is subdivided into plots small enough to be cultivated by a single family. Such subdivisions are to be developed under the immediate supervision of trained agriculturists and are expected to provide vegetables and fruits for the use of the family and for neighborhood sale, and pasturage for milch goats or cows. Some of the land will be used for pay crops such as cotton, cane, or other marketable produce.

In 1931-32 experiments with food gardens for the unemployed were tried in St. Thomas, acreages of land being obtained at both the eastern and western extremities of the town of St. Thomas. Approximately 100 jobless men were assigned from one-quarter to one-half of an acre each. Gratifying results are reported in the great majority of cases. It was planned to carry the work forward this year as an adjunct to the homestead project which was scheduled to be begun in the fall of 1932. This undertaking, together with the successful food gardens in St. Croix, which were started before those in St. Thomas, has tended to improve the unemployment situation.

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### Appointment of French Governmental Committee on Family Allowances

ANOTHER step in the course of making the French family allowance act of March 11, 1932, operative was the appointment of the special family allowances committee, which was provided for in article 74 of that law.<sup>1</sup> This announcement appears in the December, 1932, issue of *The Family Endowment Chronicle*,<sup>2</sup> which also calls attention to the fact that it is the duty of this committee "to give advice on decrees and regulations for the gradual universalization of the family allowance system in accordance with the intentions of the act."

The presiding officer of the committee is to be the Minister of Labor and Social Insurance and the membership includes 4 senators, 8 deputies, 12 representatives of family allowance funds and of industries granting family allowances without the medium of funds, 4 representatives of the agricultural family allowance committee, 4 representatives selected from the *Conseil Supérieur du Travail*, 2 for the employers, and 2 for the workers. The membership also includes representatives of the Ministries of Labor, Agriculture, and Health and of the special population committee.

Employers in occupations which will shortly be subject to the compulsory provisions of the new act and who are not already paying family allowances are busy formulating plans for the organization of funds. The realization that if they do not establish their own funds they will be obliged to affiliate with an existing fund or with one created by the Ministry of Labor is apparently a very strong incentive to voluntary action.

At a conference called by the Association of Merchants and Tradesmen of Nancy and the Department of Meurth and Moselle with a view to creating a voluntary fund, it was explained that as the act would soon be applicable to them it was necessary to set up their fund as soon as practicable and to secure the Minister of Labor's approval of its rules before January 1, 1933. The advantages of constituting their own special fund were pointed out by the officers; only in this way could the association exercise control over the money subscribed by its members and escape entanglements with other businesses less stable in personnel and where the percentage of employees with child dependents was unduly heavy. By holding the

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<sup>1</sup> For digest of act, see *Monthly Labor Review*, April, 1932, p. 796.

<sup>2</sup> Published in London, England.



administration of the fund in its own hands the association would be able to secure for its members a levy "at the lowest possible rate compatible with their obligations under the law." The ultimate scale of family allowances will be fixed by a commission to be appointed for the district by the Minister of Labor.

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### Establishment of a Department of Labor in Nova Scotia

**I**N ACCORDANCE with a law enacted at the last session of the Legislature of Nova Scotia, a department of labor has been established in that Province. The first minister of labor is the Hon. Gordon S. Harrington, premier and minister of public works and mines. Charles J. McDonald, of Glace Bay, chairman of the Dominion legislative board of the Brotherhood of Railroad Trainmen, has been selected as secretary of labor.<sup>1</sup>

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<sup>1</sup> Canada. Department of Labor. Labor Gazette, Ottawa, January, 1933, p. 2.

# PRODUCTIVITY OF LABOR AND INDUSTRY

## Labor Productivity in the Bituminous-Coal Industry, 1931

FOR 1931 an increase in output per man per day in the bituminous-coal industry, accompanied by a decline in working time, employment, and total production, is shown in the preliminary statistics published by the United States Bureau of Mines.<sup>1</sup> In 1931 the output per man per day amounted to 5.30 tons as compared with 5.06 tons in 1930. The following table shows output per man per day in the industry in 1913, 1923, and 1928 to 1931, and also the average days worked and men employed, and total production in these years. Index numbers have been calculated, using the figures for 1913 as the base, or 100.

AVERAGE NUMBER OF DAYS WORKED AND MEN EMPLOYED AND TOTAL AND MAN-HOUR PRODUCTION IN THE BITUMINOUS-COAL INDUSTRY IN SPECIFIED YEARS

Year	Average number of days worked	Average number of men employed	Production (tons)	Output per man per day (tons)
1913.....	232	571,882	478,435,297	3.61
1923.....	179	704,793	564,564,662	4.47
1928.....	203	522,150	500,744,970	4.73
1929.....	219	502,993	534,988,593	4.85
1930.....	187	493,202	467,526,299	5.06
1931.....	160	450,213	382,089,396	5.30
Index numbers (1913=100)				
1913.....	100.0	100.0	100.0	100.0
1923.....	77.2	123.2	118.0	123.8
1928.....	87.5	91.3	104.7	131.0
1929.....	94.4	88.0	111.8	134.3
1930.....	80.6	86.2	97.7	140.2
1931.....	69.0	78.7	79.9	146.8

As between 1913 and 1931 the greatest drop occurred in average number of days worked, the index in the later year being 69.0 as compared with 100.0 in 1913. The employment and production indexes have shrunk to practically the same extent, the respective indexes in 1931 being 78.7 and 79.9, respectively. However, in the years between 1913 and 1931 these two indexes have not been characterized by the same movement, the production indexes, for example, having risen to 104.7 in 1928 and 111.8 in 1929, years when the indexes of employment fell below 100.0 or to 91.3 and 88.0, respectively.

<sup>1</sup> U. S. Department of Commerce, Bureau of Mines, Bituminous Coal Tables, 1931, by F. G. Tryon and L. Mann. Washington, 1932. (Mimeographed.)

In contrast with the other indexes shown in the table the indexes of output per man per day have increased steadily, the increase between 1913 and 1923, or from 100.0 to 123.8, being only slightly greater than that for the period from 1923 to 1931, or from 123.8 to 146.8. Thus output per man per day has increased by almost as much in the eight latest years for which statistics are available (1923-1931) as in the preceding 10-year period (1913-1923). A further significant fact shown in these statistics is that the year-to-year increase in output per man per day has been more rapid in years of depression, i. e., 1930 and 1931, than in the year of more active coal demand, 1929.

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### Progress and Limitations of Farm Mechanization in the United States

THE Monthly Labor Review for October, 1931, carried an article in which the principal data available at that time bearing upon the progress of mechanization in the agricultural industry were summarized, emphasis being placed upon the effects of mechanization upon labor requirements. The chief sources of information for this article were the reports of surveys and investigations made by the United States Department of Agriculture, the Agricultural Extension Service, and the State agricultural colleges. The Yearbook of Agriculture for 1932 (pp. 411-455) contains a series of articles written by experts of the Department of Agriculture, in which the progress of farm mechanization is traced, its more important economic and social effects indicated, and the principal limitations upon further development explained. Following is a brief summary of the facts and conclusions set forth in these articles.

#### General Development of Farm Mechanization and the Present Situation

THE history of American agriculture has been especially characterized by a rapidly increasing utilization of improved tools and implements, beginning with the substitution of the metal for the wooden plow and the invention of the first reaping machines, during the first quarter of the nineteenth century. The outstanding features of this development have been the rapid development of the earlier implements and machines; the devising of larger operating units, including the combining into a single operation of plowing, soil conditioning, and seeding, and of harvesting and threshing; and, more recently, the rapid replacement of animal by mechanical power, the latter process being greatly accelerated by the invention of the internal-combustion engine and the appearance of general-purpose and heavy-duty tractors, equipped with this form of motive power, in the several uses of the farm. The progress of mechanization has been and must continue to be limited by the kind of crop that is to be produced, the nature of the soil, the topography of the land, and the size and contour of the fields. The progress of farm mechanization has been marked throughout by a relative increase in the amount of farm equipment required per acre of land cultivated and by a corresponding or a greater reduction in the man-labor requirement. The net increase in the equipment requirement has, however, been greatly reduced by

the fact that a large number of the animals formerly used in farm operations have been eliminated.

The demand for and the selling price of farm products are also factors limiting farm mechanization, and the most important of all the limiting factors. On the whole, mechanization results in an increased total output. It also results in an increased output per unit of labor applied or of money invested, and therefore in a widening of the profit margin, provided that prices are not reduced in an equal or a greater ratio than the increase in productive efficiency. But mechanization affects both the supply and the demand for farm products—the supply by directly increasing output per unit of land cultivated and per unit of labor applied, and the demand by the substitution of machines, which do not consume farm products, for horses and mules, which do.

The first result of mechanization on a large scale is apt to be a widening of the margin between costs and receipts, but where an additional supply of suitable land is available, this leads immediately to overproduction and lower prices. Unless this is checked by an adaptation of the new set-up to market conditions, it will be followed by a decline in prices that may more than offset the increase in efficiency. In that case, operations must soon, of necessity, be scaled down to conform to market conditions. Thus, forces set in motion by the very process of mechanization may impose an effective check upon its further development.

This is illustrated by what happened to wheat growers between 1920 and 1931. In the semiarid regions of the United States, Canada, Argentina, and Australia, which are especially favorable to large-scale mechanized farming, wheat growing was on the whole profitable up until the 1930–31 season. There was in consequence a rapid expansion in operations, and a large increase in output. The result was that, relative to world requirements, there was a general oversupply of wheat and a consequent fall in prices, until the margin of profits was wiped out.

#### Progress of Mechanization in Separate Areas and in Different Industries

THE progress of farm mechanization has been very unequal in the several geographical areas of the United States. A similar difference is observed as among the principal farm industries—the growing of small grains, the production of corn, the dairy industry, etc. Geographically, there has been most progress in the semiarid regions of the Great Plains, and least in the New England States and in the old South; while as among industries, the greater progress appears in the growing of small grains, and the least in dairying.

#### Farm Mechanization in the Great Plains Region

ALL things considered, the Great Plains region has offered the most favorable opportunities for the carrying on of large-scale, mechanized farming. This region, extending from near the Mexican Gulf to the Canadian border, and covering the greater part of the area included in the States of Texas, Oklahoma, Kansas, Nebraska, Montana, and North Dakota, is characterized by large stretches of level land, low rainfall, and a loose, loamy soil—conditions especially favorable for the operation of large cultivating and harvesting units. Beginning about

1910, before which date farm equipment and methods in this region were comparatively primitive, mechanization has advanced with rapid strides. This advance has been marked by a continuous substitution of tractors for horses and mules and by increases in the size of operating units. The number of tractors in the eight important wheat-producing States increased from practically none in 1909 to 82,000 in 1919. Tractors of this decade were mostly of the large, slow-moving type, crude in construction and costly of operation. By 1919 the number of trucks had increased to 27,000 and the number of automobiles to over 500,000 on the farms of this region. Toward the end of this decade, smaller tractors, pulling 2 and 3 bottom plows, began to be introduced, resulting in a considerable saving in operating costs.

Between 1919 and 1929 the number of tractors on Great Plains farms increased from 82,000 to 274,000, trucks from 27,000 to 100,000, and automobiles from 500,000 to 1,000,000, while the number of horses and mules decreased 13 per cent.

*Effects on labor requirements.*—Before the introduction of mechanical power and of modern machines and implements the farmer of the winter-wheat belt could handle without help, except during the peak periods of planting and harvesting, an average of about 320 acres of crop land, 200 to 220 acres in wheat and the remainder in feed crops. In the spring-wheat belt about the same total acreage could be handled, with 160 acres in wheat, 40 acres in fallow, and the remainder in feed crops. After the installation of large machine units, such as the disk harrow, the duck-foot cultivator, and the combined harvester and thresher, 700 acres could be handled by one man, with some help at harvest time, when the old heavy-type tractor was used, and 1,000 acres when equipped with a lighter, all-purpose machine. When equipped with modern cultivating and harvesting machinery and a modern heavy-duty gasoline tractor, one man, with additional help at harvest time, may take care of as much as 1,600 acres.

Investigations on a number of Kansas farms show a reduction in man-labor requirement from 6.6 man-hours under the old methods to 1.34 under the new.

#### Increased Output per Man in the Corn Belt

CONDITIONS especially favorable to farm mechanization in the Corn Belt of the United States are: Gentle topography, fertile soils, a climate favorable to the growing of a number of different crops, and comparatively large farms. Recent studies of operations in this region show the following results: In plowing, an increase from 4.5 acres per man per day with five horses to 7 acres with a 2-plow tractor and to 11 acres with a 3-plow tractor unit. In double disking, an increase from 14.5 acres to 21.5 and 30 acres respectively; in plank-dragging, from 20 acres with five horses to 37.5 with a tractor. In the operation of a cultipacker 16.5 acres were covered when 5 horses were used, and 23 acres where the tractor was substituted.

In corn planting, the acreage per man has been raised from 14 to 33 acres, and in the cultivation of corn from a minimum of 12 acres per day to a maximum of 40 acres, according to the working width of the implements.

In the harvesting of corn the following changes in man-labor performance are noted: 2 hand huskers, 2.8 acres per day; 2 men with



a 1-row picker, 6.7 acres per day; 2 men with a 2-row picker, 10 acres per day. Where the yield is 50 bushels, the foregoing figures represent, respectively, a quantity output of 70, 167.5, and 250 bushels per day per man.

When all operations involved in the growing of corn are included, the man-labor requirement under the old methods often amounted to as much as 15 hours per acre, while under mechanized conditions many farms require only from 7 to 8 hours. Individual instances show even more striking differences.

Similar increases in man-labor performance are noted where grain is produced by mechanized methods on Corn-Belt farms. In harvesting and threshing oats a crew of 17 men using a stationary thresher applied 5.6 man-hours per acre, while the requirement when a combined harvester-thresher was used was only 3.9 man-hours. It is noted that the census figures show increases of from 15 to 37 per cent in crop acres handled per worker in the Corn Belt, in 1929 as compared with 1909. Other factors besides mechanization were, of course, involved in effecting this increase.

#### Extent of Mechanization in the Corn Belt

THE extent of the progress in mechanization in the Corn Belt is indicated both by the increase in the number of tractors and trucks and in the decrease in the number of horses and mules between 1910 and 1930. The figures showing the decline in the number of horses and mules used on farms during this period are 22.5 per cent for Iowa and 36 per cent for Illinois, which are fairly representative Corn-Belt States. But these declines were due only in part to the introduction of the tractor and the truck. Improvements in general farm technique have been such that there would have been in any case some reduction in the power requirement per acre. The number of horses used per 100 acres of crops cultivated decreased from 6.5 to 4.6 in Iowa and from 6.8 to 4.2 in Illinois during this period. Michigan, where conditions are less favorable for mechanization, shows a decline from 6.6 in 1910 to 4.1 in 1930, while the figures for Missouri are, respectively, 8.1 and 5.3 horses per 100 acres.

The number of tractors used on farms in the principal Corn-Belt States in 1930 were: For Illinois, 70,000; for Iowa, 66,000; and for Ohio, 53,000. This is an average of 63,000 for the three States, as compared with an average of under 20,000 per State for all States, as reported in 1930. Though there was this comparatively large increase in the total number of tractors used in these States, there was in 1930 only one tractor for every three farms in States of maximum corn production, only one to every four farms in Ohio and Indiana, and one to ten in Missouri. Yet this is higher than the average for the entire country, which is one tractor to every seven farms. It is estimated that only one tractor-cultivator to every ten 100-acre farms is used in the Corn Belt, and only one mechanical corn picker.

The utilization of mechanical equipment on Corn-Belt farms varies with the size of the farm. In one section, farmers growing less than 35 acres of corn use tractors for only 11 per cent of the work involved; those growing from 35 to 70 acres perform up to 35 per cent of the work with the tractor; and where over 70 acres of corn per farm is planted 45 per cent of the work is done with the tractor. On 116 farms of this section 75 per cent of the corn was husked from the

standing stalks in 1929, and of this, 70 per cent was husked by hand, 27 per cent by 1-row pickers, and only 3 per cent by 2-row pickers.

### Mechanization in Dairy Farming

THE regions in which dairy farming is carried on in the United States are less favorable to large-scale mechanized operations than either the Great Plains or the Corn Belt, having a shorter growing season and lacking large level fields. On the other hand, milk is a bulky product, and on a large proportion of the dairy farms it must be hauled to market daily. Hence there has been a greater use of trucks than of tractors on dairy farms. In 1930 New York, a leading dairy State, had 37 trucks and 25 tractors for every 100 farms, whereas Illinois had 19 trucks and 32 tractors per 100 farms.

But the relative slowness in mechanized development on dairy farms is due chiefly to the fact that 50 per cent of the total labor requirement on specialized farms is for taking care of the herd, and that the greater part of this labor is of a kind that renders mechanization especially difficult. Milking requires approximately one-half of the work involved in the care of the dairy herd. This one operation, when done by hand, limits to 10 or 12 the number of cows that can be kept per worker. Though few farms have yet reached the maximum efficiency that can be achieved by the use of milking machines, instances in which one man has milked 30 cows are not unusual.

A survey made in Grafton County, N. H., in 1930 shows that during that year 96 farms equipped with milking machines used 130 hours of man labor per cow, or 75 per cent as much as was used on 230 farms that did not have milking machines. The former group averaged 22.8 cows per farm, as compared with 14.8 in the latter group. A later survey, covering parts of New England and Wisconsin, showed that 26 farms using milking machines required only 71 per cent of the man labor per cow that was required on 41 farms where the milking was done by hand. In this case, the average number of cows was 26 for the farms using the machines and 17.7 for the group milking by hand. The difference in the size of the herd will account for a part of the difference in the labor requirement. On the other hand, many of the farms using the milking machines have not yet fully adapted the size of their farms and other factors so as to attain the maximum relative efficiency.

Another way in which labor requirements on dairy farms have been reduced is by the installation of mechanical equipment in the production of feed for the cows, and of supplementary crops grown in connection with dairying operations. A Connecticut survey shows a reduction of 0.65 hour of man labor per ton of hay harvested by the use of mechanical loaders, as compared with hand loading. In a test of silo filling, including 40 farms, 3 of the 40 that used mechanical equipment required only 40 per cent of the man labor that was required by the group as a whole.

The effect of mechanization upon labor requirements in the dairying industry as a whole is indicated by the fact that from 1909 to 1929 crop acres handled per worker increased in nearly all of the dairying States. In Vermont the increase was from 26 in 1909 to 30 in 1929; in New York, from 25 to 31; and in Wisconsin, from 31 to 36 crop acres per worker. But a part of this increase is to be ascribed to factors other than mechanization.

As in the case of Corn-Belt farms, only a small percentage of the dairying industry has thus far been mechanized.

### Farm Mechanization in the South

IN THE South farm mechanization has been retarded by a number of factors, some of which are peculiar to that region while others are the same as have been noted for other geographical areas. The main unfavorable factors peculiar to the South are the character of the labor supply and the prevailing system of cultivation. With an abundance of cheap labor the "cropper" system of cultivation in the growing of cotton has prevailed, under which the plantations are cultivated in small areas, almost entirely by hand and mule power. On the other hand, a scarcity of skilled labor, such as would be necessary if the farms were consolidated and mechanized, tends to discourage attempts at change.

Furthermore, in common with the New England States, and some other of the more mountainous or hilly regions, many of the farms of the old South are made up of small, irregular fields, with a soil and topography that make it necessary to terrace for the prevention of erosion. In the wooded sections stumps in the fields often hinder the use of any but small, mule-drawn implements.

That these factors are not the sole nor, perhaps, the chief impediments to the progress of farm mechanization in the South, is indicated by the fact that, with the exception of rice growing in Arkansas—which is 100 per cent mechanized—even in the level Delta and coast sections the mule remains the prime source of power. The final limiting factors are found in the absence of practicable harvesting machinery and, to a lesser extent, machinery for multiple row planting and cultivation. While multiple-row planters and cultivators are in successful operation in Texas and Oklahoma, and while the sled type of harvester has in this region partly supplanted hand pickers, throughout the greater part of the cotton-growing areas production is limited to the quantity that can be "chopped" and picked by hand with the labor supply available. So long as the grower must keep on the land enough hands to pick the cotton, he will find it economical to have the same hands do the chopping. In the old South the cropper system stands in the way of the combining of the fields, so as to facilitate mechanical cultivation; and the cropper system is in large part bound up with the necessity of picking the cotton by hand. In the Delta region and in other level areas, the large, multiple-row implements that have proved successful in the Southwest could be utilized; and in the hill country hand chopping could be largely eliminated by using a hill-drop planter. But there would still remain the picking, necessitating the retention of practically the present force of unskilled labor. The sugar planter finds himself in much the same position.

There are a number of cotton-picking machines which, according to unbiased observers, are nearing practicability. Cane planters and harvesters have also been invented that have possibilities of success. If within the next few years these machines should prove to be generally practicable, there may be in many sections of the South a development in mechanization comparable to that which has occurred on the wheat farms of the Great Plains.

In the comparatively few instances in which mechanized equipment has been installed on southern farms, results have been achieved comparable with those noted for other regions. A west Texas cotton farmer takes care of 100 acres, with no help except during harvest, whereas the hill-section farmer and his family can handle only from 25 to 40 acres, and the plantation cropper only 15 acres, plus a few acres for feed crops. In the Mississippi Delta, cotton production with mule equipment alone requires an average of 128 hours of man labor per crop acre and 39.3 hours of mule work. Production with tractor equipment, supplemented by mules, requires 90.8 hours of man labor, 5.5 hours of tractor, and 5.3 hours of mule work per crop acre.

#### Electrification of Farms

No other single factor has brought so many comforts and conveniences to the farmer and his family as the use of electrical energy, which is now becoming also an important factor making for greater efficiency in farm production. To-day about 1,000,000 farms are using electricity, supplied either by central stations or by individual plants. Of this number, more than 644,000 have high-line service. This is 10 per cent of all the farms in the country and nearly four times the number served in 1923. The estimated number of independent, or unit, farm plants is between 300,000 and 400,000. Consumption of current has been correspondingly increased. During 1930 farmers bought 1,779,940 kilowatt-hours of electrical energy at a cost of \$46,187,000. This is equivalent to 2,385,000 horsepower-hours.

The popular uses for electricity on the farm are the running of household appliances, such as washing machines, and the operation of water systems. Electrical power is also used for grinding tools, grinding feed, cutting and hoisting silage, and other similar operations. On dairy farms electricity is coming to take the place of hand labor in the running of milking machines, cream separators and churns, milk coolers, and ice machines. It is employed to cool and pasteurize milk, to wash and sterilize milk bottles and milk cans, to cap the bottles, and to solder holes in the cans; to heat water for cleaning the dairy, to run ventilating fans, and to clean out cow stalls.

On poultry farms electricity is used to hatch eggs in incubators, to brood chicks, to heat water, to sprout oats for green feed, and to operate ventilating fans and sprayers. An electric motor runs the feed grinder, cleans the grain, and elevates it into the feed bins. Large fruit farms are using electricity in spraying, fruit cleaning and grading, cider pressing, and refrigeration. The multiplicity and complexity of these operations precludes any present computation of the saving in labor time.

#### Summary of Mechanization Effects

A GENERAL summary of the effects of farm mechanization, with especial reference to reduction in production costs, is given in the 1932 report of the Secretary of Agriculture to the President. The report says:

With modern equipment one man can now handle 160 acres or more in the Corn Belt, as compared with an average of only about 80 acres a few years ago. Two and four row cultivators handle nearly two and four times as much corn as the old 1-row cultivator handled. Two-row mechanical corn pickers, with two men to run them, do as much work as six hand pickers. Duck-foot cultivators and row weeders almost eliminate the necessity for plowing in the summer fallow wheat areas of the West, and increase materially the summer fallow handled by

one man. In the Great Plains a 16-foot combine harvests and threshes 35 to 40 acres of wheat a day. One such harvester can handle 500 acres of grain in 15 days. In 1928 the cost of harvesting an acre in Kansas by the combine was about \$2.20, as compared with \$3.50 for harvesting with a header and thresher, and \$4.40 for harvesting with a binder and thresher. Nearly 66,000 combines were sold in the United States in the period 1927-1930. In Kansas the number of combines increased from 2,796 in 1923 to 16,631 in 1929. Combines are now used in every State in which small grains are of any importance. In the Mississippi Delta, with modern power machinery only 30 to 35 hours of man labor are required to grow an acre of cotton ready to pick, as compared with 80 hours under the old one or two mule system. In haying, one man, with a tractor-drawn mower and a side-delivery rake, covers 25 acres a day, or fifty times the area one man could cut and rake a century ago. If the windrow needs turning, it can be done with a tractor and the side-delivery rake. Production costs are reduced also by the use of better seed and more fertilizer, and by more scientific handling and feeding of livestock. In the Southeastern States yields of both corn and cotton have been greatly increased through the use of winter legumes.

### General Economic and Social Effects of Farm Mechanization

FARM mechanization has tended to increase the size of farms, and, in the case of wheat growing, to shift the industry from the older agricultural sections to the semiarid regions of the West and Northwest. In sections where mechanization has made most progress a tendency towards absentee or semiabsentee wheat farming is noted as a result of the speeding up of operations, the reduced labor requirement, and the removal of livestock from the farms. This may have far-reaching reactions upon educational and other local institutions, as well as upon the business communities that heretofore have supplied the farming sections.

The most important single result of farm mechanization, whether from the economic or the social point of view, is the enforced migration of farmers and farm workers from the rural sections to the industrial centers. It is estimated that during the seven years from 1924 to 1930, more than four million persons left the farms, many of whom must have been in search of jobs, largely as a result of the lowered labor requirements on the farms. Though this movement has been slowed up on account of the depression, there was still in 1930 a considerable net outward movement. There has also been a considerable increase in the return migration from the industrial to the rural sections, which will tend to check mechanization, since most of the new farmers will lack the capital necessary for the purchase of any considerable machine equipment. They will also increase the total output, thus further increasing the surplus that is so important a factor in the limitation of mechanization on the part of the old-established farmers.

There has been a considerable tendency towards large-scale corporate or cooperative farming as a result of mechanization, which has also been checked by depression conditions. Though this movement may be resumed in the future, it is not believed that the family type of farming in the United States will be greatly endangered, since mechanized equipment is being adapted to all kinds of farming and to farms of any size. It appears that the most important direct effect of farm mechanization thus far is that it has enabled the average farm family to handle a larger acreage and to produce a larger crop with less expenditure of energy and with less drudgery. But the future success of every type of farming will depend upon the adjustment of output to market conditions, in order that some part of the gain from mechanization may be realized by the farmer.



## SAFETY CODES

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### New Safety Code for Floor and Wall Openings, Railings, and Toe Boards

AS THE result of extended and careful consideration of available knowledge and experience, a new safety code for floor and wall openings, railings, and toe boards has been developed by a technical committee, national in scope, under the sponsorship of the National Safety Council, and has been approved as an American standard by the American Standards Association.

The purpose of the code is to provide safety for life and limb, and it contains definitions and regulations applying to all places where there is a hazard of persons or material falling through floor or wall openings and from stairways and runways. It applies to temporary or emergency conditions as well as permanent conditions but does not apply to construction work, to which the construction code is applicable, nor to private residences.

It presents minimum requirements recommended for use by employers and building owners, and for adoption and enforcement by administrative authorities.

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### Revised Safety Code for Foundry Workers

THE tentative safety code for the protection of industrial workers in foundries, which was adopted in 1922, has been revised and approved by the American Standards Association as an American standard.

The original code<sup>1</sup> was developed by a technical committee under the sponsorship of the National Founders' Association and the American Foundrymen's Association. It was put into general use by industry, regulatory bodies, and insurance interests, and the revision is based upon the experience obtained through its application.

One of the important new requirements calls for the use of automatic couplers on all new charging buggies or cars, in place of the old link and pin arrangement which has been predominantly in use heretofore. Other prominent changes are the requirement of worm gear or other self-locking device on all lip-pouring ladles handled by crane or trolley and on all ladles of 2,000 pounds capacity or more, and new rules concerning the operation and tapping of cupolas and the construction and use of charging boxes. An appendix has been added, containing safety suggestions, which it was felt would prove helpful to foundry operators, foremen, and workers.

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<sup>1</sup> Published as Bureau of Labor Statistics Bul. No. 336.

# INDUSTRIAL ACCIDENTS

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## Accident Experience in the Iron and Steel Industry to the End of 1931

**A**CCIDENT frequency and severity rates for the iron and steel industry as a whole were substantially the same in 1931 as in 1930, according to the survey just completed by the United States Bureau of Labor Statistics. While the total number of injuries in the industry was 32.3 per cent smaller in 1931 than in 1930, the corresponding reduction in man-hour exposure was 32.4 per cent, so that the frequency rate (per 1,000,000 hours' exposure) was only slightly affected—an increase from 18.78 in 1930 to 18.81 in 1931. The total amount of time loss involved was reduced 33.1 per cent, and consequently the severity rate (per 1,000 hours' exposure) was affected in the opposite manner—a reduction from 2.39 in 1930 to 2.37 in 1931.

While the average rates for the industry as a whole present only minor changes, considerable variation took place in the rates for the individual departments of the industry. Decreases in frequency rates were experienced in 16 of the 31 departments, ranging from 0.32 to 22.38 injuries per 1,000,000 hours' exposure. Crucible furnaces and car wheels stand out prominently, with respective reductions of 22.38 and 19.01 injuries. Increases occurred in the other 15 departments: Foundries, plate mills, puddling mills, sheet mills, unclassified rolling mills, fabricating shops, wire drawing, woven wire fence, nails and staples, hot mills, axle works, yards, electric furnaces, wire springs, and stampings. The increases ranged from 0.04 to 33.49 injuries per 1,000,000 hours' exposure, with the maximum increase for puddling mills, which also showed the highest increase in 1930 over 1929. Severity rates decreased in 13 departments, ranging from 0.09 to 2.17 days lost per 1,000 hours' exposure, and increased in the other 18 departments. The increases were also small, ranging from 0.03 to 2.18 days lost per 1,000 hours' exposure, except for docks and ore yards, which shows an increase of 26.6 days lost.

### Revision of Earlier Data

SINCE publication of the accident experience in the iron and steel industry for 1930 all of the previous data have been checked and revised in accordance with later or additional information. Corrections appear in the present article, and consequently some of the figures differ slightly from those published formerly. All tables cover wage earners only.

The customary presentation of the data is followed in this article, with one exception. Beginning in 1915, coke ovens operated in connection with steel works, and the erection of structural steel by

manufacturing establishments were considered as regular departments of the iron and steel industry, and the accident data for these two operations were included in all tabulations. However, the manufacture of coke, even where the product is subsequently used as fuel for the production of iron and steel, does not properly fall among the regular operations of the iron and steel industry. It is also covered by the studies of the United States Bureau of Mines. The erection of structural steel is properly a construction operation and not a part of the manufacture of iron and steel. Consequently, beginning with this article, it has been decided to omit these two operations from all the general tabulations of the industry, unless otherwise stated. The figures for previous years have been omitted in the general tables, but summary figures for the two operations are shown in Table 3 for the benefit of those interested in them in connection with the iron and steel industry.

The data available for the annual review of the accident experience in the iron and steel industry have for several years been presented in two sections. The first section covers all establishments from which information could be obtained, including the identical establishments in the second section. The number of establishments in this group varies from year to year, with the constant attempt to secure data from establishments which have not reported previously.

The second section covers the experience of a group of identical establishments engaged primarily in the production of fabricated products, sheets, wire and its products, tubes, and miscellaneous steel products. These establishments, which constitute about 30 per cent of the industry, were pioneers in accident-prevention work and have maintained an energetic effort to reduce accident rates.

#### Experience in the Industry as a Whole

THE first industrial-accident data assembled on a large scale by the Bureau of Labor Statistics were in connection with a survey in the iron and steel industry in 1910, at which time information was collected as far back as 1907, where records were available. Through the cooperation of the industry such information has been continuously collected since then and published from time to time.

A remarkable decline has taken place in accident rates for the industry since 1907, the first year for which figures were obtained. In 1907 the workers were killed or injured at the rate of 82.06 for every million man-hours of exposure (frequency rate), and for every thousand man-hours of exposure 6.90 days were lost as a result of accidents (severity rate). In 1931 the frequency rate had been reduced to 18.81 deaths or injuries per 1,000,000 man-hours of exposure, a decrease of 77.1 per cent, and the severity rate to 2.37 days lost per 1,000 man-hours of exposure, a decrease of 65.7 per cent.

The reduction was not uniform in the various departments, but because of lack of detailed data during the early years, the changes from 1907 to 1931 can be determined for only 10 departments. These changes are presented in Table 1, together with the changes for the other departments from the earliest available dates.

TABLE 1.—CHANGES IN FREQUENCY AND SEVERITY RATES SINCE THE FIRST YEAR DATA WERE COLLECTED, BY DEPARTMENT AND YEAR

Department and year	Fre- quency rates (per 1,000,000 hours' ex- posure)	Severity rates (per 1,000 hours' ex- posure)	Department and year	Fre- quency rates (per 1,000,000 hours' ex- posure)	Severity rates (per 1,000 hours' ex- posure)
The industry:			Woven wire fence:		
1907.....	82.06	6.90	1915.....	65.29	1.72
1931.....	18.81	2.37	1931.....	7.67	.32
Blast furnaces:			Nails and staples:		
1907.....	101.32	16.03	1915.....	41.83	3.32
1931.....	15.65	3.42	1931.....	14.93	.37
Bessemer converters:			Hot mills:		
1907.....	134.09	5.35	1923.....	43.45	1.51
1931.....	8.81	1.99	1931.....	13.58	1.39
Open-hearth furnaces:			Cold rolling:		
1907.....	104.45	14.49	1926.....	38.92	1.21
1931.....	13.37	3.69	1931.....	20.60	3.40
Foundries:			Axle works:		
1907.....	64.96	3.46	1915.....	38.39	3.39
1931.....	39.92	3.19	1931.....	45.27	1.86
Bar mills:			Car wheels:		
1915.....	60.33	1.91	1915.....	22.28	.98
1931.....	14.68	2.74	1931.....	53.58	5.37
Heavy rolling mills:			Docks and ore yards:		
1907.....	65.26	4.85	1915.....	26.08	2.41
1931.....	9.38	2.06	1931.....	5.87	35.20
Plate mills:			Electrical departments:		
1907.....	113.64	9.08	1910.....	62.69	4.20
1931.....	14.08	1.75	1931.....	5.74	4.15
Puddling mills:			Mechanical departments:		
1917.....	47.07	1.65	1907.....	84.05	3.96
1931.....	80.97	3.31	1931.....	10.88	3.02
Rod mills:			Power houses:		
1915.....	38.63	1.21	1917.....	16.40	4.40
1931.....	9.01	3.03	1931.....	4.63	1.42
Sheet mills:			Yards:		
1907.....	42.81	4.10	1907.....	66.72	7.50
1931.....	14.35	1.81	1931.....	8.39	3.64
Tube mills:			Crucible furnaces:		
1907.....	96.32	3.12	1930.....	39.21	1.18
1931.....	12.88	1.89	1931.....	16.83	.07
Unclassified rolling mills:			Electric furnaces:		
1910.....	113.74	4.98	1930.....	35.12	3.07
1931.....	18.16	1.69	1931.....	51.78	.90
Fabricating shops:			Wire springs:		
1907.....	94.34	9.50	1930.....	29.91	2.32
1931.....	34.12	2.17	1931.....	32.15	.91
Forge shops:			Stampings:		
1917.....	80.30	4.40	1930.....	23.58	2.02
1931.....	26.91	2.45	1931.....	37.30	3.32
Wire drawing:			Unclassified:		
1910.....	77.53	4.28	1915.....	75.59	2.50
1931.....	13.17	3.33	1931.....	15.63	1.66

Further details are given in the three tables following. Table 2 presents the yearly experience for the industry from 1907 to 1931, consisting of the respective number of full-year workers, with the number of accidents, frequency rates, and severity rates, by extent of disability.

TABLE 2.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1931, BY YEAR AND EXTENT OF DISABILITY

[Frequency rates are based on 1,000,000 hours' exposure, severity rates on 1,000 hours' exposure]

Year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
1907.....	31,740	73	0.76	4.60	121	1.27	1.43	7,620	80.03	0.87	7,814	82.06	6.90
1910.....	202,157	327	.54	3.23	848	1.39	1.03	44,108	72.73	.69	45,283	74.66	4.95
1911.....	231,544	204	.29	1.76	931	1.34	.88	34,676	49.92	.54	35,811	51.55	3.18
1912.....	300,992	348	.38	2.31	1,241	1.37	.97	54,575	60.44	.65	56,164	62.19	3.93
1913.....	319,919	426	.44	2.66	1,200	1.25	.77	55,556	57.89	.62	57,182	59.58	4.05
1914.....	256,299	219	.28	1.71	860	1.12	.74	37,390	48.63	.48	38,469	50.03	2.93
1915.....	113,773	77	.22	1.35	361	1.06	.79	13,102	38.39	.51	13,540	39.67	2.65
1916.....	163,440	144	.29	1.76	719	1.47	1.16	20,254	41.30	.62	21,117	43.06	3.54
1917.....	403,055	485	.40	2.41	1,243	1.03	.92	56,144	46.43	.62	57,872	47.86	3.95
1918.....	463,806	512	.37	2.21	1,236	.89	.86	53,267	38.28	.52	55,015	39.54	3.59
1919.....	367,752	402	.36	2.19	831	.75	.76	40,148	36.39	.50	41,381	37.50	3.45
1920.....	433,428	315	.24	1.45	1,061	.82	.82	48,760	37.50	.51	50,136	38.56	2.78
1921.....	230,753	149	.21	1.29	519	.75	.69	20,929	30.23	.49	21,597	31.19	2.47
1922.....	328,760	220	.23	1.39	875	.89	.79	31,784	32.23	.50	32,888	33.35	2.68
1923.....	424,824	304	.24	1.43	1,167	.92	.87	41,116	32.26	.51	42,587	33.42	2.81
1924.....	380,923	293	.25	1.51	1,108	.95	.89	33,936	29.19	.49	35,337	30.39	2.89
1925.....	434,622	264	.20	1.21	1,074	.82	.81	36,074	27.67	.45	37,412	28.69	2.47
1926.....	424,742	292	.23	1.37	1,175	.92	.81	31,107	24.41	.40	32,574	25.56	2.58
1927.....	384,774	235	.20	1.22	1,012	.88	.77	21,735	18.83	.31	22,982	19.91	2.30
1928.....	406,261	212	.17	1.04	976	.80	.75	23,138	18.98	.36	24,326	19.95	2.15
1929.....	487,879	275	.19	1.13	1,729	1.18	.94	36,096	24.66	.42	38,100	26.03	2.49
1930.....	396,542	217	.18	1.09	1,172	.98	.94	20,956	17.62	.36	22,345	18.78	2.39
1931.....	268,220	153	.19	1.14	795	.99	.86	14,190	17.63	.37	15,138	18.81	2.37

The varying size of the working group from year to year is due, with three exceptions, to changing industrial conditions. Only a few firms were able to supply records for 1907; but as conditions in their establishments were practically typical, such data were included because it clearly indicated a still less satisfactory condition than existed in 1910. In 1915 and 1916 it was not possible to secure complete data.

The frequency rate for all injuries, which declined fairly constantly from 82.06 in 1907 to 19.95 in 1928 but increased again to 26.03 in 1929, dropped to 18.78 in 1930, lower than in any previous year. It advanced to 18.81 in 1931, an increase of only 0.2 per cent over the 1930 rate. The severity rate for all industries reached the lowest level—2.15—in 1928, advanced to 2.49 in 1929, and then dropped to 2.39 in 1930. It declined to 2.37 in 1931, a decrease of 0.8 per cent from the 1930 rate but still above the 1928 level.

Table 3 shows the frequency and severity rates for each of the departments in the industry for each year for which separate data were collected. Rates for coke ovens operated in connection with steel works and for the erection of structural steel by steel manufacturing plants are also shown for the convenience of people who have been using these items.



TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENT AND YEAR

Frequency rates (per 1,000,000 hours' exposure)

Year	Blast furnaces	Bessemer converters	Open-hearth furnaces	Foundries	Bar mills	Heavy rolling mills	Plate mills	Puddling mills	Rod mills	Sheet mills	Tube mills
1907	101.32	134.09	104.45	64.96	-----	65.26	113.64	-----	-----	42.81	96.32
1910	87.80	130.24	106.08	53.30	-----	79.18	64.49	-----	-----	61.07	55.83
1911	52.90	81.93	60.74	50.49	-----	45.47	46.31	-----	-----	41.57	52.01
1912	60.76	99.06	80.38	66.82	-----	50.35	59.80	-----	-----	58.00	43.40
1913	51.53	80.75	72.76	72.83	-----	37.68	46.22	-----	-----	48.90	29.49
1914	50.89	53.39	65.72	66.28	-----	26.81	32.03	-----	-----	47.70	29.74
1915	41.81	54.53	48.02	30.56	60.33	29.38	20.93	-----	38.63	39.57	9.61
1916	41.21	73.30	52.03	41.15	87.44	33.41	32.33	-----	36.77	36.81	13.30
1917	42.47	68.85	51.57	72.90	88.42	30.87	39.03	47.07	49.08	33.96	34.17
1918	36.45	51.46	52.47	58.11	45.34	33.50	50.88	46.34	37.55	18.46	21.19
1919	39.59	44.80	47.42	56.77	50.49	33.77	35.87	29.03	26.52	32.77	21.31
1920	31.19	36.87	37.90	64.19	45.62	27.00	32.94	42.19	31.64	41.90	33.08
1921	25.98	25.39	28.99	60.82	40.62	18.63	23.87	-----	20.96	36.71	20.04
1922	30.83	16.95	33.72	61.55	36.06	18.69	32.75	-----	25.46	41.37	23.51
1923	31.68	21.54	30.26	63.14	38.30	18.59	26.38	58.23	20.67	27.56	18.22
1924	31.19	19.62	30.44	62.37	23.94	21.42	27.21	65.52	15.91	29.71	18.64
1925	24.28	9.24	27.25	65.89	25.27	16.31	22.73	51.74	17.77	32.89	15.89
1926	25.56	14.95	21.12	60.88	17.20	10.58	19.39	44.00	16.74	22.71	16.91
1927	23.11	6.83	17.27	52.38	31.14	10.05	12.43	38.78	11.78	11.99	15.54
1928	21.27	7.80	15.25	45.91	61.14	9.01	14.08	40.32	12.78	21.06	14.19
1929	19.15	3.25	19.08	58.74	20.12	8.88	17.82	34.39	21.12	23.12	18.51
1930	22.28	9.68	14.37	36.41	31.60	11.53	11.93	47.48	9.33	12.87	16.95
1931	15.65	8.81	13.37	39.92	14.68	9.38	14.08	80.97	9.01	14.35	12.88

Year	Unclassified rolling mills	Fabricating shops	Forge shops	Wire drawing	Woven wire fence	Nails and staples	Hot mills	Cold rolling	Axle works	Car wheels	Docks and ore yards
1907	-----	94.34	-----	-----	-----	-----	-----	-----	-----	-----	-----
1910	113.74	150.92	-----	77.53	-----	-----	-----	-----	-----	-----	-----
1911	54.63	57.07	-----	66.64	-----	-----	-----	-----	-----	-----	-----
1912	69.14	80.96	-----	69.81	-----	-----	-----	-----	-----	-----	-----
1913	73.54	82.11	-----	68.05	-----	-----	-----	-----	-----	-----	-----
1914	52.85	67.08	-----	52.06	-----	-----	-----	-----	-----	-----	-----
1915	37.47	42.69	-----	80.33	65.29	41.83	-----	38.39	22.28	26.08	-----
1916	39.26	49.19	-----	65.33	40.67	41.14	-----	15.23	159.85	35.89	-----
1917	51.64	60.41	80.30	42.88	28.37	28.84	-----	37.87	66.10	76.48	-----
1918	36.87	58.60	54.04	27.49	17.85	23.13	-----	87.03	60.38	33.51	-----
1919	40.18	47.83	40.41	25.10	9.98	10.78	-----	36.08	75.14	42.61	-----
1920	45.42	54.27	58.41	33.14	16.40	24.25	-----	44.86	47.74	13.19	-----
1921	41.95	52.19	41.01	20.57	24.96	19.01	-----	17.90	57.36	15.60	-----
1922	42.73	70.77	53.50	21.51	19.85	18.59	-----	7.48	23.59	15.99	-----
1923	37.09	60.31	51.89	21.98	26.61	13.61	43.45	-----	12.92	35.78	11.15
1924	35.03	58.19	84.51	21.76	17.68	14.95	36.93	-----	15.50	43.39	15.68
1925	27.57	18.98	79.68	23.91	27.65	16.27	40.13	-----	4.59	25.77	7.73
1926	22.44	17.82	50.27	15.95	21.76	12.79	65.83	38.92	12.74	14.73	-----
1927	21.54	7.16	24.11	11.26	13.56	8.42	26.39	38.35	(1)	12.68	1.65
1928	23.87	12.95	16.97	10.24	13.03	10.51	28.99	33.20	3.49	3.89	6.24
1929	23.99	25.91	82.15	5.95	10.54	6.05	11.60	30.48	56.43	72.07	8.99
1930	17.46	28.32	36.03	11.37	4.12	8.96	10.16	26.45	35.76	72.59	10.68
1931	18.16	34.12	26.91	13.17	7.67	14.93	13.58	20.60	45.27	53.58	5.87

1 Included under unclassified.

TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENT AND YEAR—Continued

Frequency rates (per 1,000,000 hours' exposure)—Continued

Year	Electrical departments	Mechanical departments	Power houses	Yards	Crucible furnaces	Electric furnaces	Wire springs	Stampings	Unclassified	Coke ovens <sup>2</sup>	Structural steel erection
1907		84.05		66.72					75.59		
1910	62.69	56.34		44.83					62.35		
1911	45.43	57.99		51.00					43.03		
1912	51.77	64.13		60.43					48.75		
1913	43.53	70.96		52.98					52.50		
1914	45.12	60.52		43.24					43.09		
1915	13.61	33.57		37.47					38.34	27.10	110.15
1916	61.36	46.10		42.32					42.52	24.45	87.04
1917	45.83	53.79	16.40	40.36					43.03	27.31	135.23
1918	35.48	36.03	24.60	33.03					37.41	24.73	101.83
1919	36.10	37.85	18.40	36.07					32.74	24.71	97.20
1920	30.62	37.14	12.85	26.61					36.43	20.69	116.17
1921	21.27	23.63	11.23	25.68					29.66	10.86	102.96
1922	15.96	18.97	11.90	23.72					30.83	10.68	80.71
1923	17.57	19.44	10.40	29.43					34.18	16.25	89.18
1924	15.37	20.89	12.56	25.96					26.38	12.35	102.74
1925	13.21	16.54	15.01	34.32					28.66	7.01	71.14
1926	10.33	17.05	6.00	17.31					25.80	9.86	84.41
1927	8.59	12.50	9.08	9.91					21.68	6.98	58.82
1928	6.30	7.77	3.13	8.83					21.78	5.73	61.74
1929	5.90	15.56	5.02	11.45					29.35	6.08	67.20
1930	6.85	13.34	7.99	8.35	39.21	35.12	29.91	23.58	16.74	5.97	63.82
1931	5.74	10.88	4.63	8.39	16.83	51.78	32.15	37.30	15.63	4.24	108.85

Severity rates (per 1,000 hours' exposure)

Year	Blast furnaces	Bessemer converters	Open-hearth furnaces	Foundries	Bar mills	Heavy rolling mills	Plate mills	Puddling mills	Rod mills	Sheet mills	Tube mills
1907	16.03	5.35	14.49	3.46		4.85	9.08			4.10	3.12
1910	9.76	10.44	9.77	2.44		6.55	6.58			4.35	1.70
1911	6.54	4.49	5.37	4.27		3.04	3.88			1.76	1.48
1912	7.23	5.27	8.29	4.29		4.08	3.62			2.59	2.51
1913	7.21	7.05	5.81	3.79		3.01	2.91			2.71	2.70
1914	5.09	4.84	4.50	3.29		3.09	2.62			2.04	2.01
1915	4.54	3.48	4.18	.59	1.91	4.13	1.91		1.21	1.69	1.39
1916	4.60	9.71	4.22	2.93	4.26	3.19	2.53		2.40	2.00	1.00
1917	5.78	9.20	6.37	4.74	4.10	4.44	2.55	1.65	4.77	1.91	2.61
1918	6.17	6.27	7.90	3.14	3.50	3.84	2.98	3.20	4.73	1.04	1.61
1919	7.24	5.68	6.80	2.75	1.64	3.88	2.50	.53	3.50	1.10	1.89
1920	3.96	2.32	4.29	2.28	1.20	1.96	2.54	2.41	1.44	2.68	2.09
1921	3.88	3.15	2.35	2.65	1.60	1.25	1.98		1.03	1.60	1.42
1922	5.13	1.66	3.63	2.67	5.03	2.53	2.05		1.79	2.49	1.60
1923	4.16	2.97	5.18	2.96	1.31	2.11	2.73	2.06	2.22	2.19	1.52
1924	5.58	3.78	4.39	3.04	1.68	3.92	2.04	2.40	1.81	1.71	2.11
1925	4.39	4.64	3.72	3.72	2.18	2.99	3.71	3.73	2.71	1.70	1.70
1926	4.55	7.66	6.20	3.26	1.41	2.01	2.52	3.57	2.70	1.19	1.50
1927	4.51	2.32	4.30	2.91	1.71	2.45	1.89	.88	1.24	.83	1.59
1928	3.38	2.07	3.51	1.86	4.64	1.55	1.51	2.90	2.10	1.77	1.27
1929	2.57	2.92	4.41	3.18	1.66	2.18	2.62	.50	3.99	1.82	1.80
1930	4.99	3.41	3.58	3.04	2.41	2.20	2.55	1.44	3.43	1.33	1.72
1931	3.42	1.99	3.69	3.19	2.74	2.06	1.75	3.31	3.03	1.81	1.89

<sup>2</sup> Only those operated in connection with steel works.

TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENT AND YEAR—Continued

*Severity rates (per 1,000 hours' exposure)—Continued*

Year	Unclassified rolling mills	Fabricating shops	Forge shops	Wire drawing	Woven-wire fence	Nails and staples	Hot mills	Cold rolling	Axle works	Car wheels	Docks and ore yards
1907		9.50									
1910	4.98	5.41		4.28							
1911	3.32	2.37		3.23							
1912	3.33	3.87		3.78							
1913	4.13	3.79		2.73							
1914	2.49	2.92		2.18							
1915	1.79	2.90		3.50	1.72	3.32			3.39	0.98	2.41
1916	2.51	4.39		4.32	3.39	2.39			.13	8.52	38.59
1917	2.09	3.08	4.40	1.99	2.49	3.29			.88	5.91	13.03
1918	2.17	2.58	3.02	2.21	1.21	1.42			5.01	1.69	5.98
1919	2.10	1.45	2.72	1.41	2.29	.62			.71	3.22	10.88
1920	2.92	3.30	1.51	2.50	3.10	.93			.69	1.51	8.30
1921	2.25	2.10	3.89	2.70	1.19	1.98			8.78	4.83	.53
1922	2.62	3.28	5.19	2.13	1.11	2.41			.12	.63	30.08
1923	2.73	2.19	2.61	1.91	1.94	1.97	1.51		.08	2.80	4.12
1924	2.60	2.21	2.71	2.10	1.51	1.22	1.41		4.26	2.91	14.71
1925	1.65	1.69	3.31	1.89	.58	1.81	2.31		.12	1.91	10.63
1926	1.50	2.28	1.09	1.59	.79	.34	4.77	1.21	6.00	2.00	2.89
1927	3.02	1.12	2.79	2.01	1.12	.19	1.01	2.19	(1)	3.92	3.54
1928	2.20	1.45	1.89	2.08	2.31	2.92	.90	1.90	.81	3.50	2.01
1929	2.39	3.30	4.59	1.99	.72	.11	.81	2.88	1.21	2.81	5.91
1930	2.60	2.87	2.68	1.73	2.24	.34	1.01	2.72	1.27	3.19	8.60
1931	1.69	2.17	2.45	3.33	.32	.37	1.39	3.40	1.86	5.37	35.20

Year	Electrical departments	Mechanical departments	Power houses	Yards	Crucible furnaces	Electric furnaces	Wire springs	Stampings	Unclassified	Coke ovens <sup>2</sup>	Structural steel erection
1907		3.96		7.50							
1910	4.20	3.69		6.52							
1911	3.61	3.29		5.00							
1912	5.33	3.79		6.28							
1913	8.71	4.87		6.41							
1914	8.41	3.71		4.52							
1915	3.61	2.09		1.42					2.50	3.31	25.41
1916	8.51	3.20		5.90					3.52	5.50	23.20
1917	9.30	4.40	4.40	6.87					3.00	8.71	26.97
1918	5.69	3.28	5.81	5.81					2.99	5.39	19.61
1919	7.01	3.41	5.71	7.42					2.58	3.70	15.49
1920	2.71	2.61	1.93	3.39					2.70	2.41	25.00
1921	2.23	3.38	1.93	4.46					2.85	1.20	20.26
1922	2.80	2.65	.92	4.77					2.18	1.01	22.08
1923	3.00	3.31	3.44	5.19					2.48	3.00	9.39
1924	4.20	2.72	2.99	3.80					2.76	3.41	25.10
1925	3.90	2.71	2.00	5.30					1.79	2.18	22.40
1926	3.19	2.51	2.22	4.89					2.01	4.41	32.01
1927	4.39	2.10	.32	3.90					2.11	2.09	9.50
1928	4.21	2.20	.70	2.99					2.13	2.11	27.58
1929	3.93	2.71	.49	2.71					2.19	2.34	25.61
1930	2.80	2.76	.38	3.27	1.18	3.07	2.32	2.02	1.75	3.01	17.89
1931	4.15	3.02	1.42	3.64	.07	.90	.91	3.32	1.66	2.78	31.25

<sup>1</sup> Included under unclassified.<sup>2</sup> Only those operated in connection with steel works.

Frequency rates were lower in 1931 than in 1930 in 16 departments and in coke ovens, with decreases ranging from 3.4 per cent for rod mills to 57.1 per cent for crucible furnaces, and higher in 15 departments and in structural steel erection, with increases ranging from less than one-half of 1 per cent for yards to 86.2 per cent for woven wire fence.

Severity rates were lower in 1931 than in 1930 in 13 departments and in coke ovens, with decreases ranging from 5.1 per cent for the unclassified departments to 94.1 per cent for crucible furnaces, and

higher in 18 departments and in structural steel erection, with increases ranging from 3.1 per cent for open-hearth furnaces to 309.3 per cent for docks and ore yards.

It should be noted that percentage increases or decreases do not give any idea of the relations of the departments, and that the rates in the tables must be compared, because they represent the actual conditions existing.

While the exposure for the individual years is of considerable volume it is naturally affected by local and temporary conditions, such as a catastrophic occurrence, so that a more satisfactory picture of the trend in accident rates is presented by combining exposures and accidents for several years. Table 4, which shows a 5-year moving average for the industry as a whole and for specified important departments, from 1907 to 1931, affords a comparison of the relation between these departments and the industry.

TABLE 4.—ACCIDENT RATES FOR THE IRON AND STEEL INDUSTRY AND FOR SPECIFIED IMPORTANT DEPARTMENTS, BY 5-YEAR PERIODS

Period	The industry	Blast furnaces	Bessemer converters	Open-hearth furnaces	Foundries	Heavy rolling mills	Plate mills	Sheet mills
<b>Frequency rates (per 1,000,000 hours' exposure)</b>								
1907-1911.....	69.2	70.69	104.88	83.12	53.17	61.31	69.71	47.92
1908-1912.....	65.1	56.21	101.20	80.52	58.74	56.51	91.08	51.83
1909-1913.....	62.1	61.48	95.70	76.57	63.14	50.98	55.90	51.34
1910-1914.....	59.22	59.16	89.79	76.42	63.59	46.02	49.94	51.02
1911-1915.....	54.85	51.97	77.71	69.28	65.21	39.41	44.66	48.07
1912-1916.....	53.84	50.35	76.13	68.16	67.69	37.26	41.54	47.37
1913-1917.....	49.92	45.63	68.27	60.11	70.12	32.14	36.61	41.32
1914-1918.....	44.28	41.24	60.43	54.05	64.74	31.13	39.81	35.81
1915-1919.....	41.66	38.96	57.66	50.56	62.31	33.95	39.25	32.72
1916-1920.....	41.04	37.72	53.11	47.35	63.18	31.41	38.43	33.72
1917-1921.....	39.67	35.54	46.94	44.85	63.11	29.87	37.58	33.43
1918-1922.....	36.73	34.03	36.98	41.56	60.44	27.63	36.68	35.21
1919-1923.....	35.21	32.74	30.53	36.33	61.76	24.24	31.44	35.75
1920-1924.....	33.83	30.61	24.90	32.82	62.72	21.48	29.33	34.83
1921-1925.....	31.45	28.99	18.32	30.14	63.12	18.61	26.77	33.03
1922-1926.....	30.74	28.65	16.74	28.43	62.79	17.06	25.59	30.40
1923-1927.....	27.79	27.37	14.96	25.57	61.19	15.15	21.33	25.29
1924-1928.....	25.04	18.59	11.97	22.32	57.82	13.05	18.49	23.93
1925-1929.....	24.22	13.05	8.66	20.06	57.19	10.81	16.91	22.82
1926-1930.....	22.27	12.33	8.71	17.57	51.02	9.94	15.28	19.39
1927-1931.....	21.08	10.60	7.06	16.24	47.50	9.76	14.35	18.15
<b>Severity rates (per 1,000 hours' exposure)</b>								
1907-1911.....	5.0	8.55	7.54	7.47	3.16	4.60	5.11	2.83
1908-1912.....	4.3	7.88	6.86	7.32	3.51	4.32	6.18	2.72
1909-1913.....	4.4	7.67	6.74	6.98	3.71	4.01	3.90	2.75
1910-1914.....	3.79	7.04	6.43	6.68	3.65	3.78	3.78	2.58
1911-1915.....	3.49	6.37	5.30	5.98	3.86	3.42	3.14	2.21
1912-1916.....	3.57	6.10	6.18	5.83	3.76	3.46	2.85	2.27
1913-1917.....	3.60	5.75	7.15	5.39	4.01	3.61	2.59	2.10
1914-1918.....	3.49	5.53	6.96	6.14	3.74	3.82	2.61	1.78
1915-1919.....	3.58	6.03	7.01	6.56	3.56	4.14	2.57	1.60
1916-1920.....	3.45	5.67	6.28	6.09	3.23	3.47	2.59	1.82
1917-1921.....	3.32	5.48	5.42	5.82	3.17	3.28	2.53	1.75
1918-1922.....	3.07	5.49	3.95	5.33	2.69	2.85	2.47	1.88
1919-1923.....	2.87	4.98	3.25	4.67	2.66	2.45	2.44	2.09
1920-1924.....	2.76	4.50	2.74	4.16	2.74	2.37	2.35	2.16
1921-1925.....	2.69	4.64	3.24	4.03	3.08	2.64	2.53	1.95
1922-1926.....	2.74	4.72	4.05	4.66	3.16	2.68	2.60	1.82
1923-1927.....	2.62	4.62	4.20	4.78	3.18	2.65	2.54	1.50
1924-1928.....	2.49	3.33	4.18	4.42	2.98	2.51	2.25	1.43
1925-1929.....	2.41	2.24	4.05	4.43	3.02	2.22	2.39	1.48
1926-1930.....	2.39	2.18	3.79	4.43	2.90	2.08	2.23	1.42
1927-1931.....	2.35	1.90	2.60	3.93	2.86	2.09	2.12	1.51

Contrasting the period 1907-1911 with that of 1927-1931, it is seen that the industry as a whole and all departments except foundries present a notable reduction in frequency rates. The decreases were as follows: Blast furnaces from 70.69 to 10.60; Bessemer converters from 104.88 to 7.06; open-hearth furnaces from 83.12 to 16.24; heavy rolling mills from 61.31 to 9.76; plate mills from 69.71 to 14.35; and sheet mills from 47.92 to 18.15. For the industry as a whole the rate declined from 69.20 to 21.08. In foundries, which showed a relatively low rate for the early period (53.17), the rate did not keep pace with that of the other departments. The next six periods show increases, and while the rate declined again it did not drop below the 1907-1911 figure until the 1926-1930 period. A further reduction is shown in the 1927-1931 period to 47.50, but this rate is conspicuous by being more than double the average rate for the entire industry.

Severity rates declined from 1907-1911 to 1927-1931 in the industry as a whole and in all departments. The decreases were as follows: Blast furnaces from 8.55 to 1.90; Bessemer converters from 7.54 to 2.60; open-hearth furnaces from 7.47 to 3.93; heavy rolling mills from 4.60 to 2.09; plate mills from 5.11 to 2.12; and sheet mills from 2.83 to 1.51. As in frequency rates, severity rates for foundries was low during the earliest period (3.16), but did not follow the general trend, and increased in the next six periods, then declined very slowly, and in the 1927-1931 period stands at 2.86, a decline of only 0.3.

The period 1927-1931 shows decreases in frequency rates from the 1926-1930 period for the industry as a whole and for all departments. Decreases in severity rates are shown for the industry as a whole and five of the departments, but small increases are shown for heavy rolling mills and for sheet mills.

#### Experience in the Industry, by States, 1922 to 1931

ACCIDENT frequency and severity rates in the iron and steel industry by individual States, from 1922 to 1931 for 18 States and from 1926 to 1931 for 6 other States, are presented in Table 5. Several States were omitted, to avoid identification of establishments or because the exposure was less than 1,000 full-year workers.

A downward trend in frequency rates is shown by all but two of the States, and severity rates show a reduction in the majority of the States. The declining tendency is more pronounced in those States where accident-prevention activities have existed the longest and have been most extensive. Operations in the industry are, however, not uniform in the various States, and in some States the more hazardous operations predominate.



TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1931, BY STATE AND YEAR

[Frequency rates are based on 1,000,000 hours' exposure, severity rates on 1,000 hours' exposure]

State and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Alabama:													
1922	10,998	10	0.30	1.82	51	1.55	1.17	1,163	35.25	0.48	1,224	37.10	3.47
1923	11,915	7	.20	1.18	78	2.18	1.77	1,348	37.71	.87	1,433	40.09	3.82
1924	13,705	16	.39	2.33	41	1.00	1.06	1,127	27.41	.62	1,184	28.80	4.01
1925	15,244	14	.31	1.84	46	1.00	1.37	608	11.11	.19	568	12.42	3.40
1926	19,857	30	.50	3.02	130	2.18	1.56	1,370	22.95	.39	1,520	25.63	4.97
1927	14,493	12	.28	1.66	77	1.77	1.43	809	18.61	.36	898	20.66	3.45
1928	13,258	16	.40	2.41	76	1.91	1.63	954	23.98	.63	1,046	26.29	4.67
1929	16,162	11	.23	1.36	93	1.92	1.43	1,395	28.76	.45	1,499	30.91	3.24
1930	15,073	12	.27	1.59	89	1.97	2.03	1,246	27.55	.61	1,347	29.79	4.23
1931	10,470	9	.29	1.72	54	1.72	1.79	635	20.21	.39	698	22.22	3.90
California:													
1922	4,013	3	.25	1.50	35	2.91	2.63	711	59.05	.80	749	62.21	4.93
1923	3,113	3	.32	1.93	11	1.18	1.19	597	63.92	.75	611	65.42	3.87
1924	2,901	2	.23	1.38	16	1.84	1.43	522	59.97	1.34	540	62.04	4.15
1925	3,018	1	.11	.66	10	1.11	1.56	278	30.70	.71	289	31.92	2.93
1926	2,908	0	0	0	16	1.89	2.09	825	95.93	1.20	841	97.82	3.29
1927	1,370	0	0	0	4	.97	1.02	225	54.76	.91	229	55.73	1.93
1928	4,660	1	.07	.43	14	1.00	1.07	1,209	86.48	1.14	1,224	87.55	2.64
1929	6,360	7	.37	2.20	39	2.04	2.03	1,221	63.99	1.07	1,267	66.40	5.30
1930	5,351	3	.19	1.12	12	.75	.76	665	41.42	.54	680	42.36	2.42
1931	4,018	2	.17	.99	12	.99	.90	348	28.87	.48	362	30.03	2.37
Colorado:													
1922	3,351	3	.30	1.79	2	.20	.27	367	36.51	.36	372	37.01	2.42
1923	4,164	7	.56	3.36	13	1.04	1.22	462	36.98	.76	482	38.58	5.34
1924	4,269	6	.47	2.81	22	1.72	1.52	452	35.29	.63	480	37.48	4.96
1925	4,243	3	.24	1.41	14	1.10	.93	592	46.50	.78	609	47.84	3.12
1926	4,507	2	.15	.89	13	.96	1.15	668	49.48	.71	683	50.59	2.75
1927	4,074	6	.49	2.95	27	2.21	1.75	474	38.78	.51	507	41.48	5.21
1928	3,439	2	.19	1.16	16	1.55	1.80	502	48.66	.61	520	50.40	3.57
1929	4,764	3	.21	1.26	32	2.24	2.64	506	35.40	.57	541	37.85	4.47
1930	3,283	4	.41	2.44	9	.91	.96	263	26.69	.50	276	28.01	3.90
1931	2,071	2	.32	1.93	6	.97	1.19	137	22.04	.44	145	23.33	3.56
Connecticut:													
1922	3,778	3	.26	1.59	22	1.94	1.38	510	44.99	.67	535	47.19	3.64
1923	5,307	5	.31	1.88	34	2.14	1.58	446	28.01	.27	485	30.46	3.73
1924	5,639	6	.35	2.13	40	2.36	1.31	522	30.85	.43	568	33.56	3.87
1925	7,263	5	.23	1.38	49	2.24	.28	778	35.72	.35	832	38.19	2.01
1926	2,908	1	.13	.68	47	5.40	2.47	366	42.07	.72	414	47.60	3.87
1927	4,458	1	.07	.44	27	1.97	1.58	276	20.09	.34	304	22.13	2.36
1928	5,997	1	.06	.35	15	.88	.74	402	23.48	.28	418	24.42	1.37
1929	7,579	0	0	0	46	2.02	1.63	449	19.75	.30	495	21.77	1.93
1930	5,039	1	.07	.40	27	1.78	1.03	315	20.84	.37	343	22.69	1.80
1931	7,938	1	.04	.25	25	1.05	.69	217	9.11	.16	243	10.20	1.10
Georgia:													
1922	125	1	2.67	16.00	1	2.67	.80	58	154.66	1.43	60	160.00	18.23
1929	1,106	2	.60	3.62	5	1.51	1.57	99	29.84	.43	106	31.95	5.62
1930	946	0	0	0	3	1.06	1.05	27	9.51	.19	30	10.57	1.24
1931	478	0	0	0	0	0	0	14	9.75	.24	14	9.75	.24
Illinois:													
1922	23,926	16	.22	1.34	95	1.32	1.00	2,370	33.02	.44	2,481	34.56	2.78
1923	40,097	39	.32	1.95	171	1.42	1.63	3,753	31.20	.55	3,963	32.94	4.13
1924	38,147	21	.18	1.13	126	1.12	.98	2,934	25.63	.21	3,081	26.93	2.32
1925	35,810	20	.19	1.12	120	1.12	1.32	2,551	23.75	.36	2,691	25.06	2.80
1926	37,574	25	.22	1.33	114	1.01	.82	2,916	25.87	.38	3,055	27.10	2.53
1927	49,576	20	.13	.81	124	.83	.76	1,611	10.83	.19	1,755	11.79	1.76
1928	30,171	14	.15	.93	132	1.46	1.47	1,761	19.46	.42	1,907	21.07	2.82
1929	47,548	16	.11	.67	226	1.58	1.48	3,453	24.21	.35	3,695	25.90	2.50
1930	40,819	28	.23	1.37	209	1.71	1.76	2,194	17.92	.35	2,431	19.86	3.48
1931	21,499	12	.19	1.12	79	1.22	1.16	1,005	15.58	.30	1,096	16.99	2.58
Indiana:													
1922	36,683	18	.16	.98	113	1.03	.95	2,200	20.00	.27	2,331	21.19	2.20
1923	22,887	12	.17	1.05	67	.98	.86	1,746	25.43	.33	1,825	26.58	2.24
1924	34,846	30	.29	1.72	69	.66	.75	1,591	15.22	.28	1,690	16.17	2.75
1925	32,743	25	.25	1.53	86	.88	.73	2,110	21.48	.31	2,221	22.61	2.57
1926	38,735	42	.36	2.17	133	1.14	.98	1,405	12.09	.22	1,580	13.59	3.37
1927	43,120	13	.10	.60	92	.71	.58	1,302	10.07	.19	1,407	10.88	1.37
1928	31,921	13	.14	.81	109	1.14	.89	913	9.53	.18	1,035	10.81	1.88
1929	45,384	28	.21	1.23	152	1.11	.84	1,777	13.05	.25	1,957	14.37	2.32
1930	38,485	9	.08	.47	84	.73	.59	1,075	9.31	.18	1,168	10.12	1.24
1931	22,373	7	.10	.63	72	1.07	1.05	740	11.03	.25	819	12.20	1.93

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1931, BY STATE AND YEAR—Continued

State and year	Number of full-year workers	Death		Permanent disability			Temporary disability			Total			
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Iowa:													
1926	563	0			3	1.77	0.53	179	105.88	1.09	182	107.65	1.62
1927	424	0			1	.78	.24	230	180.71	1.73	231	181.49	1.97
1928	438	0			5	3.80	2.40	129	98.14	1.08	134	101.94	3.48
1929	1,157	0			2	.57	.35	329	94.82	1.01	331	95.39	1.36
1930	706	1	0.47	2.83	3	1.42	1.98	134	63.22	.76	138	65.11	5.57
1931	604	0			2	1.10	.83	189	104.31	1.13	191	105.41	1.96
Kentucky:													
1922	1,396	2	.48	2.87	10	2.39	1.43	477	113.89	1.82	489	116.76	6.12
1923	2,601	5	.64	3.84	18	2.31	4.31	899	115.22	.87	922	118.17	9.02
1924	1,734	1	.19	1.15	9	1.73	1.58	144	27.68	.39	154	29.60	3.12
1925	2,550	13	1.70	10.20	15	1.96	1.83	193	25.23	.39	221	28.89	12.42
1926	3,744	3	.26	1.60	30	2.67	2.57	273	24.37	.25	306	27.30	4.42
1927	4,450	5	.37	2.25	26	1.95	1.62	295	22.10	.35	326	24.42	4.22
1928	4,909	5	.34	2.04	30	2.04	3.10	276	18.74	.28	311	21.12	5.42
1929	5,264	4	.25	1.52	22	1.39	1.49	340	21.53	.34	366	23.17	3.35
1930	3,154	1	.11	.63	7	.74	.68	138	14.57	.22	146	15.42	1.53
1931	2,100	0			4	.64	.29	88	13.97	.18	92	14.61	.47
Maryland:													
1926	1,400	0			7	1.67	1.07	425	101.19	1.34	432	102.86	2.41
1927	10,973	18	.55	3.28	15	.46	.52	1,080	32.81	.58	1,113	33.82	4.38
1928	12,149	8	.22	1.32	17	.47	.85	770	21.13	.38	795	21.82	2.55
1929	12,424	16	.43	2.57	40	1.07	1.33	718	19.26	.46	774	20.76	4.36
1930	11,360	10	.29	1.76	67	1.97	1.54	441	12.94	.37	518	15.20	3.67
1931	8,501	4	.16	.94	21	.82	.78	406	15.92	.34	431	16.90	2.06
Massachusetts:													
1922	5,610	7	.41	2.48	29	1.72	1.64	337	20.03	.53	373	22.16	4.65
1923	5,018	4	.27	1.59	26	1.73	1.08	230	15.28	.57	260	17.28	3.24
1924	7,580	3	.13	.79	22	.97	1.55	246	10.82	.29	271	11.92	2.63
1925	6,645	1	.05	.30	7	.35	.33	126	6.32	.21	134	6.72	.84
1926	7,150	5	.23	1.42	18	.83	.78	247	11.48	.32	270	12.54	2.52
1927	7,230	5	.23	1.38	13	.60	.63	229	10.56	.27	247	11.39	2.28
1928	6,723	2	.10	.59	21	1.04	.81	171	8.47	.22	194	9.61	1.62
1929	8,940	3	.08	.49	38	1.03	.65	623	16.91	.40	664	18.02	1.54
1930	7,267	5	.23	1.38	23	1.05	.61	330	15.13	.39	358	16.41	2.38
1931	5,394	2	.12	.74	17	1.05	.77	284	17.55	.43	303	18.72	1.94
Michigan:													
1922	3,928	6	.51	3.05	16	1.36	1.29	916	77.73	.86	938	79.60	5.20
1923	4,399	11	.83	5.00	19	1.44	1.05	984	74.57	.93	1,014	76.84	6.98
1924	2,457	4	.54	3.26	14	1.90	3.56	583	79.11	.90	601	81.55	7.72
1925	4,869	4	.27	1.64	8	.56	.70	1,093	74.83	.92	1,105	75.66	3.26
1926	5,643	3	.18	1.06	16	.95	.67	1,086	64.15	.89	1,105	65.28	2.62
1927	3,489	2	.19	1.15	10	.96	.51	620	59.23	.79	632	60.38	2.45
1928	3,124	2	.21	1.28	3	.32	.14	758	80.87	.96	763	81.40	2.38
1929	8,683	7	.27	1.61	56	2.15	1.28	1,805	69.27	.85	1,819	71.69	3.74
1930	5,724	1	.06	.35	29	1.69	1.77	896	52.17	.67	926	53.92	2.79
1931	6,107	5	.27	1.64	24	1.31	.68	762	41.59	.59	791	43.17	2.91
Minnesota:													
1926	444	0			0			4	3.00	.03	4	3.00	.03
1927	472	2	1.41	8.47	0			16	11.30	.37	18	12.71	8.84
1928	1,283	2	.52	3.12	4	1.04	1.14	250	64.92	.80	256	66.48	5.06
1929	1,906	2	.35	2.10	10	1.75	.77	300	52.47	.56	312	54.57	3.43
1930	905	0			9	3.32	1.36	168	61.91	.88	177	65.23	2.24
1931	1,187	0			8	2.25	.76	124	34.83	.41	132	37.08	1.17
Missouri:													
1922	4,676	6	.43	2.57	12	.86	1.01	1,632	116.35	1.41	1,650	117.64	4.99
1923	4,255	0			4	.31	.33	903	70.74	.84	907	71.05	1.10
1924	1,284	1	.26	1.56	8	2.08	1.78	266	69.06	.76	275	71.40	4.17
1925	3,662	1	.09	.55	2	.18	.19	294	26.76	.34	297	27.03	1.08
1926	3,215	3	.31	1.86	6	.61	.68	443	46.14	.54	452	47.06	3.08
1927	2,913	1	.11	.69	3	.34	.19	268	30.67	.56	272	31.12	1.44
1928	2,934	1	.11	.68	2	.23	.10	141	16.02	.35	144	16.36	1.13
1929	4,367	5	.38	2.29	27	2.06	2.00	915	69.84	1.00	947	72.28	5.29
1930	3,250	2	.20	1.23	15	1.54	1.74	456	46.77	.69	473	48.51	3.66
1931	2,695	1	.12	.74	15	1.86	1.41	366	45.27	.64	382	47.25	2.79
New Jersey:													
1922	6,597	1	.05	.30	37	1.87	1.20	625	31.58	.55	663	33.50	2.05
1923	7,341	0			47	2.13	2.17	780	35.42	.57	827	37.55	2.74
1924	7,175	0			47	2.18	2.69	772	35.87	.70	819	38.05	3.39
1925	6,923	4	.19	1.16	31	1.49	1.46	769	37.03	.59	804	38.71	3.21
1926	7,896	4	.16	1.01	30	1.26	.92	568	23.96	.37	602	25.38	2.30
1927	7,420	6	.27	1.62	42	1.89	1.68	331	14.87	.30	379	17.03	3.60
1928	7,538	1	.04	.27	48	2.12	1.31	387	17.11	.30	436	19.27	1.88
1929	9,403	1	.04	.21	74	2.62	2.20	1,002	35.51	.59	1,077	38.17	3.00
1930	9,177	3	.11	.65	32	1.16	2.38	428	15.54	.33	463	16.81	3.26
1931	4,933	0			25	1.69	2.09	294	19.86	.39	319	21.55	2.48

## INDUSTRIAL ACCIDENTS

531

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1931, BY STATE AND YEAR—Continued

State and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
New York:													
1922	8,446	11	0.44	2.60	47	1.85	1.82	1,625	64.13	0.99	1,683	66.42	5.41
1923	11,377	9	.26	1.58	65	1.90	1.84	2,141	62.73	.73	2,215	64.89	4.15
1924	6,903	5	.24	1.45	51	2.46	2.03	1,107	53.46	.94	1,163	56.16	4.42
1925	10,372	7	.22	1.35	66	2.12	2.35	2,725	87.58	.89	2,798	89.92	4.59
1926	9,442	7	.24	1.48	43	1.51	.90	1,821	64.34	.95	1,871	66.09	3.33
1927	8,785	5	.19	1.14	45	1.71	1.32	884	33.54	.73	934	35.44	3.19
1928	16,531	14	.28	1.69	57	1.15	1.11	1,250	25.20	.60	1,321	26.63	3.40
1929	17,963	6	.11	.67	84	1.56	1.36	1,553	28.82	.49	1,643	30.49	2.52
1930	16,456	25	.51	3.04	95	1.92	1.73	1,288	26.09	.77	1,408	28.52	5.54
1931	11,497	9	.26	1.57	66	1.91	1.22	675	19.57	.47	750	21.74	3.26
Ohio:													
1922	51,424	42	.27	1.63	125	.81	.66	5,268	34.15	.48	5,435	35.23	2.77
1923	77,979	39	.17	1.00	201	.86	.87	5,763	24.63	.39	6,003	25.66	2.26
1924	75,282	57	.25	1.54	181	.80	.98	5,223	23.13	.36	5,461	24.18	2.88
1925	86,820	33	.13	.76	150	.58	.53	5,059	19.42	.25	5,242	20.13	1.54
1926	92,678	48	.17	1.03	172	.62	.44	5,630	20.25	.24	5,850	21.04	1.71
1927	91,377	37	.13	.81	190	.69	.58	5,313	19.38	.32	5,540	20.20	1.71
1928	65,955	53	.27	1.61	181	.91	.78	5,066	25.60	.46	5,300	26.78	2.85
1929	96,360	40	.13	.83	230	.80	.69	4,972	17.20	.27	5,242	18.13	1.79
1930	66,489	26	.13	.78	144	.42	.60	3,200	16.04	.35	3,370	16.89	1.73
1931	52,132	37	.24	1.42	127	.81	.65	2,669	17.07	.42	2,833	18.12	2.49
Pennsylvania:													
1922	102,186	60	.20	1.17	103	.34	.34	8,364	27.28	.45	8,527	27.82	1.96
1923	140,259	112	.27	1.60	244	.58	.59	12,188	28.97	1.03	12,544	29.82	3.22
1924	154,800	54	.12	.70	244	.53	.34	8,382	18.05	.30	8,680	18.70	1.34
1925	149,089	75	.18	1.01	218	.49	.45	9,527	21.30	.26	9,820	21.97	1.72
1926	196,124	77	.13	.79	204	.34	.09	7,763	13.17	.20	8,044	13.64	1.08
1927	146,595	103	.23	1.41	239	.54	.53	6,727	13.30	.31	7,069	16.07	2.25
1928	147,455	93	.21	1.26	212	.48	.48	6,415	14.50	.31	6,720	15.19	2.05
1929	177,191	67	.13	.76	242	.45	.39	8,415	15.83	.26	8,724	16.41	1.41
1930	142,954	98	.23	1.37	259	.60	.62	6,684	15.59	.34	7,041	16.42	2.33
1931	84,959	49	.19	1.15	170	.67	.69	3,639	14.27	.34	3,858	15.13	2.18
Rhode Island:													
1926	409	0	-----	-----	1	.81	3.26	86	70.08	1.35	87	70.89	4.61
1927	144	0	-----	-----	0	-----	-----	19	43.86	.74	19	43.86	.74
1928	474	0	-----	-----	3	2.11	.63	79	55.54	1.10	82	57.65	1.73
1929	1,566	0	-----	-----	1	.21	.26	108	22.99	.55	109	23.20	.81
1930	641	1	.62	3.12	2	1.04	.55	93	48.38	.84	96	49.94	4.51
1931	856	1	.39	2.34	1	.39	.23	134	52.18	.54	136	52.96	3.11
Tennessee:													
1922	1,543	0	-----	-----	4	.86	1.49	220	47.52	.69	224	48.38	2.18
1923	2,258	9	1.33	7.94	19	2.80	2.26	437	64.50	1.03	465	68.63	11.23
1924	1,503	3	.67	3.99	6	1.33	1.60	77	17.08	.25	86	19.08	5.84
1925	1,256	1	.27	1.59	2	.53	1.67	196	52.02	.69	199	52.82	3.95
1926	1,139	1	.30	1.75	0	-----	-----	32	9.41	.13	33	9.71	1.88
1927	1,354	1	.25	1.48	1	.25	.44	114	28.07	.48	116	28.57	2.40
1928	1,063	0	-----	-----	4	1.25	.85	65	20.38	.43	69	21.63	1.28
1929	1,819	1	.18	1.10	7	1.28	1.45	193	35.38	.91	201	36.84	3.46
1930	1,009	0	-----	-----	2	.66	.20	64	21.15	.33	66	21.81	.53
1931	711	1	.47	2.81	0	-----	-----	62	29.06	.45	63	29.53	3.26
Texas:													
1926	362	0	-----	-----	1	.92	2.76	61	56.13	.79	62	57.05	3.55
1927	166	0	-----	-----	1	2.01	.60	29	58.23	1.04	30	60.24	1.64
1928	24	0	-----	-----	0	-----	-----	2	27.39	.34	2	27.39	.34
1929	679	0	-----	-----	16	7.86	4.27	577	283.42	4.04	593	291.28	8.31
1930	2,367	2	.28	1.69	12	1.69	2.22	277	39.00	.67	291	40.97	4.58
1931	1,089	0	-----	-----	3	.92	.28	135	41.32	.61	138	42.24	.89
Washington:													
1922	534	0	-----	-----	6	3.75	5.99	80	49.95	.59	86	53.70	6.58
1923	800	0	-----	-----	1	.42	.13	77	32.09	.50	78	32.51	.63
1924	603	0	-----	-----	2	1.11	1.49	66	36.50	1.49	68	37.61	2.98
1925	1,256	2	.55	3.31	3	.83	1.27	181	49.89	1.15	186	51.27	5.73
1926	1,348	1	.25	1.48	6	1.05	.96	148	37.00	.48	155	38.30	2.92
1927	763	0	-----	-----	2	.87	1.57	69	30.17	.58	71	31.04	2.15
1928	942	0	-----	-----	2	.71	.48	84	29.71	.57	86	30.42	1.05
1929	678	0	-----	-----	2	.98	.29	122	59.98	1.00	124	60.96	1.29
1930	796	0	-----	-----	3	1.26	.50	131	54.87	.84	134	56.13	-1.34
1931	994	2	.67	4.02	4	1.84	1.38	129	43.26	.91	135	45.27	6.31

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1931, BY STATE AND YEAR—Continued

State and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
West Virginia:													
1922	2,702	2	0.24	1.48	6	0.74	0.84	592	73.06	0.85	600	74.04	3.17
1923	9,336	8	.29	1.71	13	.46	.54	749	26.74	.33	770	27.49	2.58
1924	4,613	7	.51	3.03	18	1.30	1.53	806	58.24	1.70	831	60.05	6.26
1925	7,964	13	.54	3.26	14	.59	.67	537	22.48	.28	564	23.61	4.21
1926	14,124	12	.28	1.70	30	.71	.41	1,306	30.87	.35	1,348	31.86	2.46
1927	12,414	15	.40	2.42	21	.56	.56	1,279	34.34	.56	1,315	35.30	3.54
1928	13,938	8	.19	1.15	39	.93	.83	1,874	44.83	.58	1,921	45.95	2.56
1929	21,760	14	.21	1.29	32	.49	.38	985	15.09	.26	1,031	15.79	1.93
1930	12,311	10	.27	1.63	25	.68	.75	583	15.86	.36	618	16.81	2.74
1931	8,787	7	.27	1.59	28	1.06	.69	332	12.59	.39	367	13.92	2.67
Wisconsin:													
1922	5,441	0			20	1.23	1.39	790	48.40	.73	810	49.63	2.12
1923	4,264	3	.23	1.41	17	1.33	1.23	708	55.34	.78	728	56.90	3.42
1924	8,321	5	.20	1.20	47	1.88	1.57	1,275	51.08	.68	1,327	53.16	3.45
1925	5,189	2	.13	.77	34	2.18	2.11	1,121	72.02	.81	1,157	74.33	3.69
1926	10,481	6	.19	1.14	66	2.10	1.76	1,214	38.66	.55	1,286	40.95	3.45
1927	3,992	4	.33	2.00	26	2.17	1.66	641	53.52	.59	671	56.02	4.25
1928	2,604	0			15	1.92	1.33	595	76.16	.82	610	78.08	2.15
1929	7,353	3	.13	.81	48	2.17	1.76	1,459	66.14	.90	1,510	68.44	3.56
1930	5,412	3	.18	1.11	24	1.48	1.22	667	41.08	.62	694	42.74	2.95
1931	4,378	1	.08	.46	23	1.75	.87	545	41.50	.57	569	43.33	1.90

#### Experience of a Group of Establishments with Extensive Accident-Prevention Work

A DECIDED contrast to the experience of the industry as a whole is presented by the data covering the special group of iron and steel establishments for which separate frequency rates have been published yearly, as these show an increase in frequency rates from 5.3 in 1927 to 7.8 in 1931.

The frequency rates for this group had, with one exception, declined constantly from 1913 to 1927, and it is therefore somewhat surprising that gradual increases have occurred since then. It should, however, be considered that this special group embodies the best practices and the most pronounced success in the efforts to reduce accident rates and that the frequency rate for 1931 for the group is only 7.8 accidents per 1,000,000 hours' exposure, as against 18.8 accidents per 1,000,000 hours' exposure for the industry as a whole.

Table 6 presents the experience of the six companies included in the group, by the principal product of each company and for the entire group, by years from 1913 to 1931.

TABLE 6.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A SELECTED GROUP OF PLANTS, 1913 TO 1931, BY PRODUCT AND YEAR

Year	Fabricated products	Sheets	Wire and its products	Tubes	Miscellaneous steel products		Total
					Group A	Group B	
1913.....	100.3	61.6	59.3	27.2	70.9	41.3	60.3
1914.....	59.0	47.2	46.2	12.5	50.7	27.6	43.5
1915.....	53.5	37.3	52.4	10.8	51.9	23.0	41.5
1916.....	52.1	34.0	48.2	12.4	67.6	28.2	44.4
1917.....	51.3	33.9	32.5	10.2	51.3	20.5	34.5
1918.....	38.2	25.9	18.8	9.1	42.0	31.4	28.8
1919.....	32.8	25.8	12.5	9.1	39.7	23.0	26.3
1920.....	35.3	22.7	12.0	8.9	35.3	18.6	23.1
1921.....	28.4	17.5	7.5	6.1	15.8	12.1	13.2
1922.....	33.8	16.9	7.9	7.1	14.5	10.8	13.1
1923.....	32.6	17.2	7.9	7.0	13.9	9.8	12.8
1924.....	33.4	10.3	6.2	5.1	11.8	7.9	10.2
1925.....	27.4	11.4	4.2	4.0	9.8	3.7	8.2
1926.....	24.3	9.4	3.9	3.6	6.6	3.8	6.8
1927.....	18.0	8.4	3.5	2.5	5.1	2.7	5.3
1928.....	19.7	8.7	4.0	2.3	5.3	2.4	5.6
1929.....	21.4	10.7	3.1	3.0	5.3	3.2	6.2
1930.....	21.3	6.0	5.0	3.8	9.0	7.3	7.7
1931.....	24.0	7.4	4.4	5.0	8.4	7.4	7.8

In order to get a more intimate view of the changes which have occurred in these establishments since the safety movement was inaugurated, it is necessary to consider not only the frequency rates for the various companies but also the changes in the rates for causes of accidents. As shown in Table 7, a notable decline has occurred in the rate of accidents for each of the general-cause groups from 1913 to 1931.

TABLE 7.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) IN A SELECTED GROUP OF PLANTS, 1913 AND 1931, BY CAUSE OF ACCIDENT

Cause of accident	Frequency rates (per 1,000,000 hours' exposure)		Per cent of decrease
	1913	1931	
Machinery.....	7.3	1.7	76.7
Vehicles.....	2.3	.2	91.3
Hot substances.....	5.4	.5	90.7
Falls of persons.....	4.5	1.0	77.8
Falling material, not handled by injured.....	1.2	.1	91.7
Hand tools and handling of objects.....	26.7	3.6	86.5
Miscellaneous.....	12.9	.7	94.6
Total.....	60.3	7.8	87.1

Handling objects was responsible for nearly one-half of the accidents in both 1913 and 1931. During the interval the frequency rate for this cause group dropped from 26.7 to 3.6 accidents for 1,000,000 hours' exposure, a decrease of 86.5 per cent. The decreases for the other cause groups ranged from 76.7 to 94.6 per cent, while the general average reduction in frequency rates was 87.1 per cent.

A more extended analysis of accident causes is presented in Table 8, which gives the frequency rates in detail, by cause, and by year from 1913 to 1931. An analysis of this kind indicates the relative importance of the causes and also helps to determine whether the accident-reduction effort has been successful in all phases of the various processes.



TABLE 8.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A SELECTED GROUP OF IRON AND STEEL PLANTS, 1913 AND 1919 TO 1931, BY YEAR AND CAUSE OF ACCIDENT

Cause of accident	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Machinery.....	7.3	3.3	3.4	1.9	2.3	2.3	2.0	1.6	1.6	1.3	1.3	1.3	1.5	1.7
Other than cranes.....	3.8	1.4	1.5	.9	1.1	1.0	.8	.7	.7	.5	.5	.5	.5	.8
Caught in.....	2.5	.9	1.0	.6	.7	.7	.6	.5	.4	.4	.4	.4	.4	.5
Breaking.....	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	.1
Struck by load.....	1.2	.4	.4	.2	.3	.2	.2	.2	.2	.1	.1	.1	.1	.2
Hoisting apparatus.....	3.5	1.9	1.9	1.0	1.2	1.3	1.2	.9	.9	.8	.8	.8	1.0	.9
Overhead cranes.....	2.8	1.6	1.5	.8	1.0	1.1	1.0	.7	.7	.6	.6	.6	.7	.8
Locomotive cranes.....	.4	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Other.....	.4	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	(1)
Vehicles.....	2.3	1.2	1.1	.5	.4	.6	.5	.3	.3	.2	.2	.2	.2	.2
Hot substances.....	5.4	2.8	2.4	1.2	1.1	1.2	.9	.6	.5	.5	.3	.4	.4	.5
Electricity.....	.5	.2	.3	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	.1
Hot metal.....	3.6	2.0	1.7	.9	.7	.9	.6	.4	.3	.3	.2	.3	.3	.3
Steam, hot water, etc.....	1.3	.6	.4	.2	.3	.2	.2	.1	.1	.1	.1	.1	.1	.1
Falls of persons.....	4.5	2.8	2.5	1.7	1.5	1.4	1.3	1.1	1.0	.7	.7	.8	1.0	1.0
From ladders.....	.3	.2	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	.1
From scaffolds.....	.2	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Into openings.....	.2	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	.1
Slipping or stumbling.....	3.8	2.3	2.1	1.4	1.3	1.1	1.1	.9	.8	.6	.6	.7	.9	.8
Falling material, not handled by injured.....	1.2	.4	.2	.1	.1	.1	.1	.1	.1	(1)	.1	(1)	.1	.1
Hand tools and handling of objects.....	26.7	11.7	10.4	6.5	5.8	5.4	3.8	3.4	2.9	2.0	2.3	2.7	3.6	3.6
Objects dropped in handling.....	11.2	5.0	4.4	2.6	2.6	2.3	1.9	1.6	1.2	.9	.9	1.2	1.9	1.8
Caught between material.....	3.4	1.7	1.3	.7	.6	.7	.5	.4	.3	.2	.3	.3	.7	.7
Hand trucks, etc.....	1.9	.8	.6	.4	.4	.4	.2	.2	.2	.1	.2	.2	.2	.1
Strain in handling.....	2.5	1.4	1.1	.8	.8	.5	.3	.3	.3	.2	.2	.2	.2	.2
Objects flying from tools.....	.2	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	.2
Slivers, sharp edges, etc.....	3.8	1.3	1.5	1.1	.6	.6	.3	.4	.4	.3	.4	.4	.4	.2
Hand tools.....	3.7	1.4	1.4	.8	.7	.8	.6	.5	.5	.3	.3	.4	.4	.6
Miscellaneous.....	12.9	4.1	3.1	1.3	1.9	1.8	1.6	1.1	.4	.6	.7	.8	.8	.7
Asphyxiating.....	.3	.2	.1	.1	(1)	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Objects flying from material, striking body.....	.8	.3	.3	.1	.1	.3	.2	.1	.1	.1	.1	.1	(1)	.1
Objects flying from material, striking eye.....	2.9	1.3	1.1	.5	.4	.2	.3	.2	.1	.1	.1	.2	.2	.1
Heat.....	.9	.1	.1	.1	.1	.1	.1	(1)	(1)	.1	.1	.1	.1	(1)
Other.....	8.0	2.2	1.5	.5	1.3	1.1	1.0	.8	.2	.3	.4	.4	.5	.5
Grand total.....	60.3	26.3	23.1	13.2	13.1	12.8	10.2	8.2	6.8	5.3	5.6	6.2	7.7	7.8

<sup>1</sup> Less than one-tenth of 1 per cent.

# HEALTH AND INDUSTRIAL HYGIENE

## Final Report of Committee on the Costs of Medical Care<sup>1</sup>

**T**HE Committee on the Costs of Medical Care, which was organized in 1927 to study all the aspects of the question of the costs of medical service, has submitted its final report, containing the recommendations of the majority group as well as those of two minority groups and of two members who presented separate personal statements.

The majority report represents the conclusions of 35 members out of the total of 48 persons representing the fields of private practice, public health, medical institutions and special interests, the social sciences, and the general public who composed the committee at the close of its work. The first minority report was made by 8 physicians engaged in private practice and 1 layman, while the second was submitted by the 2 members of the dental profession who were members of the committee.

The recommendations of the committee were as follows:

1. The committee recommends that medical service, both preventive and therapeutic, should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists, and other associated personnel. Such groups should be organized, preferably around a hospital, for rendering complete home, office, and hospital care. The form of organization should encourage the maintenance of high standards and the development or preservation of a personal relation between patient and physician.

2. The committee recommends the extension of all basic public health services—whether provided by governmental or nongovernmental agencies—so that they will be available to the entire population according to its needs. Primarily this extension requires increased financial support for official health departments and full-time trained health officers and members of their staffs whose tenure is dependent only upon professional and administrative competence.

3. The committee recommends that the costs of medical care be placed on a group payment basis, through the use of insurance, through the use of taxation, or through the use of both these methods. This is not meant to preclude the continuation of medical service provided on an individual fee basis for those who prefer the present method. Cash benefits, i. e., compensation for wage loss due to illness, if and when provided, should be separate and distinct from medical services.

4. The committee recommends that the study, evaluation, and coordination of medical service be considered important functions for every State and local community, that agencies be formed to exercise these functions, and that the coordination of rural with urban services receive special attention.

5. The committee makes the following recommendations in the field of professional education: (A) That the training of physicians give increasing emphasis to the teaching of health and the prevention of disease, that more effective efforts be made to provide trained health officers, that the social aspects of medical practice be given greater attention, that specialties be restricted to those specially qualified, and that postgraduate educational opportunities be increased; (B) that dental students be given a broader educational background; (C) that pharmaceutical education place more stress on the pharmacist's responsibilities and opportunities

<sup>1</sup> Committee on the Costs of Medical Care. Final report. Medical care for the American people. The University of Chicago Press, 1932.

for public service; (D) that nursing education be thoroughly remolded to provide well-educated and well-qualified registered nurses; (E) that less thoroughly trained but competent nursing aides and attendants be provided; (F) that adequate training for nurse-midwives be provided; and (G) that opportunities be offered for the systematic training of hospital and clinic administrators.

The group presenting the first minority report was in agreement with many of the conclusions and recommendations of the majority group, but in general protested against the extension of Government competition in the practice of medicine. It recommended that Government practice of medicine should be restricted to the care of the indigent, to the promotion of public health, to the support of the Army and Navy medical departments and certain other Government services, and to the care of veterans suffering from service-connected disabilities and diseases, with the exception of tuberculosis and nervous and mental diseases. In general the group was opposed to the corporate practice of medicine through intermediary agencies as being economically wasteful, opposed to a continued and sustained high quality of medical care, and involving unfair exploitation of the medical profession, while it urged that careful trial be given to methods which can rightly be fitted into our present institutions and agencies without interfering with the fundamentals of medical practice.

The second minority report stated that the two members signing it were in accord with the main position of the majority of the committee in recognizing existing professional and social trends in the practice of medicine which necessitate substantial changes in the manner in which medical service is rendered and paid for. While accepting the fact that an increased amount of medical service should and will be rendered through professional organizations rather than by individual practitioners working independently, the members signing this report stated that they wished strongly to emphasize the necessity of maintaining professional standards and the position of the general practitioner during a period of rapidly changing medical services, which there is no doubt we are facing. It was stated, however, that the attitude of the majority appeared to be unduly critical of the professions and that this attitude had developed a bias in some of the statements of the report. Moreover, it was considered that the community medical center outlined in the report, which was set forth as the ultimate goal of development, is Utopian in concept and in many respects the details are too visionary or problematical to justify inclusion in such a report. It was also considered that voluntary and compulsory sickness insurance should not be regarded as in opposition to each other or as unrelated proposals as the majority report seemed to imply, as compulsory insurance in Europe had been largely patterned after voluntary insurance plans, and that methods developed under voluntary insurance should therefore furnish necessary experience for the United States. These members were in agreement with both the majority and the other minority group in favoring coordination of medical service, and it was stated that with a full knowledge of the inherent evils of the early competitive systems of medical and dental education, it seemed that a national organization formed to study group practice and define its standards would be of great value.

# LABOR LAWS AND COURT DECISIONS

## Interstate Conference on Labor Laws

ON January 27 and 28, 1933, labor officials of nine States met at Boston, Mass., at the call of Gov. Joseph B. Ely for an interstate conference on labor laws. Approximately 30 delegates were present, representing Connecticut, Maryland, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and the United States Department of Labor.

The conference, Governor Ely said, had its origin as a result of a suggestion offered by President-elect Franklin D. Roosevelt, made at a meeting of several governors in Albany in 1931. The first conference was held at Harrisburg, Pa., on June 18 and 19, 1931, at the call of Gov. Gifford Pinchot, to discuss the differences in the labor laws of the various States and to consider the possibility of putting them on a similar basis.<sup>1</sup>

At the opening session, on January 27, 1933, Edwin S. Smith, commissioner of labor and industries of Massachusetts, presided and explained that the conference was called "to consider the possibility of united State action to bring about greater uniformity in the laws governing the hours of employment of women and minors," and to endeavor to work out some means whereby the specific recommendations of the Harrisburg meeting could be effectuated. The recommendations were, Mr. Smith said, "based on the study and experience of experts." "They were not radical," he said, but "were sensible and progressive," and "most important of all they bore the imprint of the conviction, shared I think by most intelligent people, that few factors in this country of ours are more destructive of economic stability than the rivalry between States based on the greater or less liberality which they accord by legislation to their workers."

At the general conference held on the morning of the first day, the speakers included Prof. Felix Frankfurter, Harvard Law School; Miss Amy Hewes, Mount Holyoke College; Miss Frances Perkins, industrial commissioner of New York; Joseph M. Tone, commissioner of labor of Connecticut; Richard M. Neustadt, director of the Philadelphia experimental public employment office; and Henry S. Dennison, of Framingham.

At the conclusion of the morning session, subconference sessions were held by three groups which discussed hours of labor for women and minors, minimum wages, and public employment offices.

The general conference reconvened on Saturday morning, at which time reports and recommendations from the three groups were received. A nation-wide minimum-wage law for women and minors, the establishment of public employment offices throughout the country, and the limiting of hours of labor for women and minors were recommended by the several groups.

The meeting voted to send to the governors of the participating States a copy of the recommendations and also that such recommen-

<sup>1</sup> See Monthly Labor Review, August, 1931, pp. 42-49.

dations be brought to the attention of the State legislatures, State federations of labor, associations of manufacturers, and other appropriate organizations. It was also voted that consideration be given by the governors to the holding of an annual interstate meeting prior to the convening of the legislatures in the various States.

The following recommendations were made by the committees and adopted by the general conference:

#### RECOMMENDATIONS OF COMMITTEES

The standards proposed are essentially the same as those recommended in the last governors' conference in Harrisburg in 1931, yet once again and more insistently than ever before we urge their immediate enactment into legislation.

The developments within this year have brought terrible proof of the inadequacy of our present regulations. Without the adoption of the standards we recommend, employers, particularly under present panic conditions, can not control the competitive pressure that makes them keep their employees at work for injuriously long hours. All the social advance we have attained in the past 25 years is imperiled by the dangerous continuance of such short-sighted and uneconomic exploitation of labor as now, too generally, prevails. There is crying need for action, not only to protect the welfare of our women and children but also to preserve the possibilities of profitable business itself.

While calling at this time only for moderate measures of protection we must face the fact that this fourth winter of depression finds our country still demonstrating a fateful incapacity to throw off its economic ills. We refuse to accept as sound and economic, philosophy that demands, as a basis for improvement, ruthless exploitation of women and children. We assert rather that the future welfare and stability of our social order must rest upon the greater protection of our workers and the further reduction of the working day.

#### LABOR LAWS FOR WOMEN AND MINORS

The committee wishes to report three main divisions of its work:

1. A reconsideration and restatement of the standards adopted at the Harrisburg conference.

2. A program for immediate action on the part of the States represented in this conference and comprising measures especially urgent because of the problems of the depression.

3. A recommendation for a prompt meeting of the governors of these States for the purpose of securing common action for the realization of the recommended program.

Our review of the standards adopted at the Harrisburg conference has led us to recommend to this meeting their readoption with the following changes:

#### LABOR LAWS FOR WOMEN

1. *Minimum standards for hours for the employment of women in industry.*

(a) Not more than eight hours per day.

(b) Not more than 48 hours per week.

(c) Not more than six days per week.

(d) A lunch period of at least 45 minutes.

(e) Hours of work to be continuous with the exception of a lunch period not to exceed one hour.<sup>1</sup>

2. *Night work.*—The elimination of night work in manufacturing and mechanical industries between the hours of 6 p. m. and 6 a. m., except that, upon application, the administrative authority shall have power to grant an extension until 10 p. m. for good and sufficient reason; in mercantile establishments, hotels, and restaurants, between 10 p. m. and 6 a. m.

3. *Prohibited occupations.*—Prohibition of occupation shall not be made on the basis of sex except where scientific research has proved an occupation more hazardous to women than to men.

4. *Seats.*—Suitable and adequate seats with backs shall be provided.

<sup>1</sup> The committee changed the Harrisburg recommendation of the standard lunch period from 30 to 45 minutes. The provision that "not more than 6 continuous hours' work without a rest or lunch period of 30 minutes" was eliminated because an 8-hour workday and a lunch period of 45 minutes had already been approved. Section (e) was newly added by the committee.



5. *Home work.*—The standards applying to work carried on in the factory shall apply also to industrial work done in the home, and a fee of not less than \$25 be required of all employers giving out industrial home work and a subcommittee be appointed to work out a suitable bill covering the intent of the foregoing resolution.

## LABOR LAWS FOR MINORS

The committee reaffirmed the standards adopted at the Harrisburg conference.

THE IMMEDIATE PROGRAM<sup>1</sup>

The period which has elapsed since the Harrisburg conference has made us immeasurably more conscious of the need for the adoption of the whole of the program adopted there. It has also forced us to realize the especial urgency of any measures which would tend to increase purchasing power or increase employment. For this reason, the committee has selected the following measures which it urges every State here represented should adopt as part of a common legislative program of stabilization and standardization:

1. A working week of not more than 48 hours.
2. A working day of not more than eight hours.
3. A working week of not more than six days.
4. Limitation of night work as previously recommended.
5. Application of standards applying to work carried on in factories to industrial home work and a provision that a permit with a fee of not less than \$25 be required of all employers giving out home work.
6. Exclusion of minors under 16 from industry during school hours and under 14 years outside of school hours, with compulsory school-attendance standards amended to meet these requirements.
7. Employment certificates for all minors under 18 years of age, including proof of age, promise of employment, designation of occupation and hours of work, and physical examination by an authorized physician. Proof of age cards for minors 18 to 21.
8. Increased compensation for minors injured while illegally employed.

## MINIMUM WAGE LAW

Thousands and thousands of women and minors in the States represented here are working for a pitifully low wage.

This fact means suffering to them. Not only is this true, but these conditions mean ruin to employers who would like to pay a living wage in competition with these starvation wages. A bottom level to wage cutting must be established to protect the fair-minded employers as well as the women and children.

We therefore recommend a mandatory minimum wage law for women and minors and urge that it be adopted promptly in every State.

We make this recommendation so strongly because we know that any individual employer in our competitive system is placed in an almost helpless situation when his competitors are cutting wages. We also know that for a woman or child worker the alternative to accepting a substandard wage is to join the ranks of the unemployed. This situation forces constantly lower prices and constantly lower purchasing power. We have now had enough experience with low prices to know that they do not necessarily mean any improvement in employment. They usually mean increased unemployment. Unless a bottom level is fixed in competition by minimum wage laws, the downward spiral of low wages, low prices, and lowered purchasing power may possibly continue until unemployment has wrecked the morale and efficiency of our industrial population.

## PUBLIC EMPLOYMENT OFFICES

It is recommended that the attention of the State governments and the National Government be called to the increasing importance, as a mandatory function of the Department of Labor or other appropriate department within each State, of effectively administered public employment services as an essential and orderly mechanism for the normal placement of labor and particularly for the reemployment of labor as the depression lifts.

1. *Functions.*—The functions of a public employment service are:

(a) To assist employers to secure suitable employees and persons seeking employment to secure suitable employment.

<sup>1</sup> The committee urged that the conference call upon the governors of all the States represented promptly to meet in conference in order to devise effective methods for furthering this program in each of the States.

(b) To serve as a labor market for the better maintenance of a balance between the constantly shifting demand for and the mobile supply of qualified workers within the State.

(c) To serve as an authoritative source of information through study and periodic report on the major factors affecting employment within the area.

(d) To study, record, and keep up to date the constantly changing work requirements of the positions in commerce and in industry through careful job analysis in order to improve selection and placement.

(e) To study and develop through experimentation and research improved methods of judging the qualifications and testing the abilities of those seeking work.

(f) To become the coordinating center in each community for the dissemination of factual information of use to private organizations and governmental authorities concerned with the problems of employment, training, retraining, and vocational guidance.

(g) To centralize the placement efforts of governmental and private organizations interested in the guidance of those seeking work for the first time and those who need industrial rehabilitation.

(h) To plan and organize for the additional responsibilities that the development of unemployment reserves on either a voluntary or compulsory basis will inevitably impose.

2. *Requirements.*—(a) To carry out these functions requires the consistent development of standards of administration, properly qualified staffs, well-equipped and suitably located offices with adequate space and appropriations.

(b) To assure the quality of service essential, the staff should be recruited through a well-developed system of civil-service selection on a basis of proper professional qualification with salaries commensurate with the services demanded.

(c) The public employment service must be kept entirely free from all political influence. Advisory committees representing all interests concerned should be set up to safeguard the integrity of the Federal, State, and local units.

3. *Demonstration offices.*—The demonstration offices now located in three States and financed in part out of private funds have proved of such genuine value that it is recommended that the results of their work be brought to the attention of all State services and other agencies interested in employment work.

4. *Relationship to emergency relief programs.*—The public employment service should contribute its experience, skill, energy, and methods to emergency organizations interested in the administration of unemployment relief. However, in making this contribution the real function of the public employment service must never be lost sight of or weakened. The criterion of selection in emergency work relief is primarily need, whereas the criterion of selection through the public employment service is primarily ability. Wherever the public employment service can be of direct aid to emergency organizations administering work relief, its function must be the selection of the workers on the basis of ability after certification of need by the relief agency. To depart from this standard would undermine the confidence of both employers and workers in effective public employment service.

5. *Relationship to public work and institutions.*—The State and the political subdivisions thereof as an employer on public works and in public institutions should engage its workers wherever practicable through the public employment service.

6. *The rôle of the Federal Employment Service.*—It is not the function of the Federal Government to duplicate the services of the States in the field of direct placement. It is the function of the Federal Government to develop a service that will coordinate and provide leadership for State employment services, to serve as a clearing house for accurate and timely statistical information, and to promote standards of efficient administration within and among the States organized in natural regional areas.

It is recommended that there be immediate enactment of legislation by Congress to reorganize the United States Employment Service along these lines with adequate appropriation to carry out its own purpose and also to aid the States over an experimental organization period in the development of their own services.

7. *Private employment agencies.*—The recommendations of the Harrisburg conference are again presented, to the effect—

(a) That the licensing, bonding, and regulation of private fee-charging employment agencies be a function of the State rather than of local governments and that the department of labor or other corresponding or appropriate executive department of the State be responsible for the administration of this function.

(b) That legislation be enacted in each State providing that the operation of fee-charging private employment agencies involves such a definite public interest as to justify public regulation of all their acts.

(c) That the license fee and bond be adequate to prevent exploitation of applicants for employment.

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### Massachusetts Prevailing Wage Rate Law Declared Unconstitutional

THE Massachusetts Supreme Judicial Court has declared unconstitutional the law providing for the payment of the prevailing rate of wages. (*Commonwealth v. Daniel O'Donnell's Sons*, 183 N. E. 839.)

The Massachusetts Supreme Court held that a statute making it a crime for contractors on public works to pay laborers and mechanics "less than the customary and prevailing rate of wages for a day's work in the same trade or occupation in the locality where such public works are under construction" is violative of the due process clause of the fourteenth amendment to the Constitution of the United States.

By the provisions of chapter 377, Acts of 1931, which amended section 26, chapter 149 of the General Laws of 1921, a prevailing wage rate law was established.<sup>1</sup> From the facts in the case, it appears that Daniel O'Donnell's Sons was a general contractor engaged under contract with the State for the construction of a bridge across the Deerfield River between Greenfield and Deerfield. Journeyman carpenters in Greenfield were being paid at the rate of \$1 per hour for a day's wages. These carpenters, however, were employed in the erection of public and private buildings and not on bridges. From the evidence, it appears that the journeyman carpenters employed on the construction of the bridge were engaged chiefly in an inferior grade of carpenter work known as "form building."

There was not a sufficient amount of building going on in Deerfield so that it could be determined what rate of wages was being paid to carpenters doing the type of work that was being performed at the bridge. Three men employed on the bridge were listed as union journeymen, and there was evidence which tended to show that these men by reason of an arrangement consented to work at the rate of 75 cents per hour. The main question presented for consideration by the State supreme court was the constitutionality of the prevailing wage rate statute. The principal provisions, and in fact the most pertinent for consideration in the case, are that—

The wages for a day's work paid to mechanics and teamsters employed in the construction, addition to, or alteration of public works by the Commonwealth or by a county, town, or district, or by persons contracting therewith for such construction, addition to, and alteration of public works \* \* \* shall be not less than the customary and prevailing rate of wages for a day's work in the same trade or occupation in the locality where such public works are under construction or being added to or altered \* \* \*. Any person or contractor who knowingly and willfully violates this section shall be punished by a fine of not more than \$100.

The general contractor relied on the case of *Connally v. General Construction Co.*, 269 U. S. 385, as the controlling authority in its favor.<sup>2</sup>

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<sup>1</sup> Monthly Labor Review, February, 1932, pp. 314, 315.

<sup>2</sup> U. S. Bureau of Labor Statistics Bul. No. 417, p. 139.

The Massachusetts Supreme Court was unable to see any difference in a constitutional sense between the words of the Oklahoma statute and those of the Massachusetts statute. In the Oklahoma case the words "current rate of per diem wages" were held to be indefinite, and therefore in violation of the provisions of the fourteenth amendment to the Constitution of the United States. The words of the Massachusetts statute are that "the customary and prevailing rate of wages for a day's work" shall be paid. In the Massachusetts case the court said there was no evidence for determining the rate of wages in the town at one end of the bridge. The rate of wages paid in the town of Greenfield, the court said, appears to have related not to the work of form building, but to journeyman carpenters employed in the erection of a county building and private building.

These facts, Mr. Chief Justice Rugg said, are as uncertain as those in the Connally case, and likewise the "locality" as the description of the place for ascertaining the standard wages. The court, continuing, said the case of *Connally v. General Construction Co.* had been cited several times by the United States Supreme Court, and since the decision in the Connally case related to a Federal question concerning the effect of the fourteenth amendment to the Constitution, it was binding and must be followed by the State courts.

The court concluded that the necessary result of the Massachusetts prevailing wage rate law was that it violated rights guaranteed to the general contractor by the Constitution of the United States. Therefore, the court said, the law must be declared unconstitutional, and the contractor can not be held liable on the indictment.

The following prevailing wage rate laws have been declared unconstitutional: Arizona—*State v. Jay J. Garfield Building Co.* (3 Pac. (2d) 983), Monthly Labor Review, January, 1932, page 49; Illinois—*Mayhew v. Nelson and Pigott v. Department of Public Works and Buildings* (178 N. E. 921), Monthly Labor Review, March, 1932, page 581; Oklahoma—*Connally v. General Construction Co.* (269 U. S. 385), United States Bureau of Labor Statistics Bulletin No. 417, page 139; Texas—*Christy-Dolph et al. v. Gragg, Commissioner of Labor Statistics of Texas* (59 F. (2d) 766), Monthly Labor Review, September, 1932, page 547. The Supreme Court of California has held, in the case of *Metropolitan Water District v. Whitsett* (10 Pac. (2d) 751), Monthly Labor Review, October, 1932, page 847, that the State prevailing wage rate law was constitutional.

## WORKMEN'S COMPENSATION

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### State Workmen's Compensation Law Applicable to Injury on Federal Property

THE full bench of the Massachusetts Supreme Judicial Court has affirmed a decree of the lower court, holding that an injury received on land of the United States does not render the Massachusetts workmen's compensation act inapplicable. (Lynch's Case, 183 N. E. 834.)

An employee by the name of Charles Lynch was injured while in the employ of the N. P. Severin Co., a general contractor, engaged in the construction of a new post-office building in Boston, Mass. At the time of the accident the employee was at work on land owned by the United States, and while in the course of his employment he had occasion, from time to time, to leave the Federal property. The main contention of the insurer was that since the injury occurred on land belonging to the United States the Federal Government had sole jurisdiction, and that the Industrial Accident Board of Massachusetts was without jurisdiction.

In 1927 (ch. 309, par. 3) the Legislature of Massachusetts amended section 26 of the State workmen's compensation act. By the provisions of this amendment the workmen's compensation act was given extraterritorial force. It is now no longer considered doubtful that anyone who is employed in the State can recover under the workmen's compensation act for an injury which has occurred in another State. The insurer in arguing the case, stated that in addition to the statute being inapplicable, the State, by an act of 1870 (ch. 327, par. 1), gave its consent to the United States for the purchase of the land, but that concurrent jurisdiction was retained for executing civil and criminal processes, and, further, that by article 1, paragraph 8, of the Constitution of the United States, Congress has the power to exercise exclusive legislation over any land required by the Federal Government for building purposes.

The court said it was a fundamental principle of our Government that each State is sovereign in itself and generally has exclusive jurisdiction within its borders. In view of the settled principle as set forth in the amendment of chapter 309, Acts of 1927, that an employee hired in the State may recover under the act for an injury occurring in another State, the court was of the opinion that the same principle should be followed when an injury occurred on Federal land.

The court based its opinion principally upon a Montana case. (*Loney v. Industrial Accident Board*, 87 Mont. 191.) In that case an employee was hired in Montana to work on a road being constructed for the National Forest Service. This road was partly in the State of Montana and partly in Glacier National Park, the latter being a tract of land ceded to the United States by the State of Montana. The injury in this case occurred while the employee was on that section of the road within the boundaries of the national park. The



Montana Supreme Court held that there might be a recovery under the Montana workmen's compensation act. In addition to the Montana case, the Supreme Court of Massachusetts based its opinion upon several other cases.

The Supreme Court of Maine (Saunders' Case, 126 Me. 144) held that an employee who was hired in the State and sent to Canada and was injured while at work could recover under the Maine workmen's compensation law. A case decided by the Supreme Court of Washington (Nickell v. Department of Labor and Industries, 164 Wash. 589) held that a contractor engaged in the construction of a bridge for the Federal Government in a national forest was an independent contractor and subject to the provisions of the State workmen's compensation act. The contractor, the court held, was not a Federal agent engaged in a governmental activity.

A recent decision by the United States Supreme Court was also cited. (Bradford Electric Light Co. (Inc.) v. Clapper, 286 U. S. 145.) The Supreme Court of the United States in this case held that the courts of the State in which an injury occurred to an employee hired in another State was bound to give full faith and credit to the workmen's compensation statute of the State of hiring, which formed part of the contract of hiring and by which the remedy of an injured employee, whether within or without the State, was limited to the recovery of compensation provided by the act.

The Massachusetts Supreme Court, in answering the contention that the Federal Government has taken possession of the field of compensation, stated that there is no Federal workmen's compensation law and since the Government has not taken possession of that particular field there was no basis for the contention as raised by the insurer. The court said that the fact that the injury occurred on land of the United States did not render inapplicable the State workmen's compensation act, and that the law as amended by the act of 1927 covers the contract of the parties.

The decree of the lower court was therefore affirmed.

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### Accidental Fall While Crossing Street Held to be Compensable Injury

WHERE an employee, passing along the street in the course of his employment, sustains an injury due to the risks incident to the street, the accident arises out of and in the course of his employment, according to the Court of Appeals of the District of Columbia, and is compensable under the District of Columbia workmen's compensation act. (New Amsterdam Casualty Co. v. Hoage, Deputy Compensation Commissioner, 60 Washington Law Reporter, 869.)

John Brosnan, jr., an employee of the Washington Post Co., a newspaper publishing company, was serving the company as a solicitor. As he was crossing one of the streets in the city of Washington on November 25, 1930, while engaged in this work, he fell upon the pavement and fractured his skull. This injury caused his death a few days thereafter.

Petition was made for an award of compensation, and at the hearing evidence was offered by witnesses who had seen him as he crossed the street at the time of his injury. They observed "that he suddenly threw his hands up over his head and fell to the ground; that he was not struck by an automobile or other outward force,"

but they were unable to determine what caused him to fall. Evidence was also offered which indicated that he was not intoxicated at the time of the fall, and no form of willful intent upon his part was shown as contributing to the injury. The deputy compensation commissioner found that the fall "was occasioned by a loss of balance due to stumbling, slipping, or sudden dizziness while crossing the street," and he therefore concluded that Brosnan's death was caused by an accidental injury arising out of and in the course of his employment and compensation was therefore awarded.

The New Amsterdam Casualty Co., the insurance carrier, filed a bill in the Supreme Court of the District of Columbia challenging the award and requesting that an injunction be issued restraining the enforcement of the award. The court dismissed the bill and the insurance company appealed the case to the court of appeals, contending that:

Brosnan's fall was not due to any of the hazards of his employment such as a traffic accident, nor even due to the hazard of walking along the street, but was such an injury as could have happened to him wherever he might have been, and that the evidence showed certain derangements of his internal organs which might have caused his fall. Appellant accordingly contends that decedent's fall was "due to some cause within himself," and was not to any extent traceable to his employment; and that the presumption provided for by section 20 (a) of the compensation law does not apply.

The court of appeals did not sustain this view, being of the opinion that Brosnan's employment as a solicitor caused him to go from place to place within the city, and it would be expected "that he might traverse the sidewalks and the streets of the city in the course of his employment. It was therefore the pursuit of Brosnan's employment which placed him in the position in which he suffered the accidental fall resulting in his death." Continuing the court said:

In the early administration of compensation laws the rule was often adopted that injuries occurring upon the public highways due to traffic hazards did not "arise out of" the workman's employment. This rule was founded upon the theory that such hazards are common to the community at large and are not incident to particular employments, and it was held that the compensation acts were not designed to exempt the employee from such risks. This doctrine, however, has since been abandoned. It is now held by the greater weight of the authorities that if an employee in the course of his employment has to pass along the public streets and thereby sustains an accident by reason of the risks incident to the streets, the accident "arises out of" as well as "in the course of" his employment.

A Wisconsin case was relied upon by the court in rendering the decision. (*Schroeder & Ealy Co. v. Industrial Commission of Wisconsin*, 169 Wis. 567.) In that case a salesman, canvassing the city, slipped and fell upon the street, injuring his leg. The exact cause of the fall was not shown, but the court held the injury arose out of and in the course of the employment. The court said that "if it should be held that messengers, delivery men, salesmen, and others, who by the nature of their employment are required to be continually on the streets and highways, are not entitled to compensation for injuries received in the course of their employment, if the injury occur on a street or highway, a large class of worthy applicants would be cut off and the workmen's compensation law emasculated. \* \* \* The fact that others may have been exposed to like risks does not change the character of risk to which the applicant was exposed."

The decision of the lower court affirming the award of compensation was therefore affirmed.

## Insurance Carrier Allowed to Sue Third Party for Wrongful Death of Employee

**H**ENRY ROBERTS, an employee of one Bralove, was killed in the course of his employment in the District of Columbia. The death was alleged to have been caused by the negligence of a third party—Samuel D. Moses. An award of compensation was rendered in favor of the widow, and the employer's insurance carrier, the Aetna Life Insurance Co., was required to make the payments. (Aetna Life Ins. Co. et al. v. Moses, 53 Sup. Ct. 231.)

Suit was brought against Moses in the Supreme Court of the District of Columbia by the Aetna Life Insurance Co. in its own right and also "to the use of" Anna Roberts, the widow, and in the name of Bralove, "to the use of" the insurance company. The suit was brought by the insurance carrier on the theory that the acceptance of compensation operated as an assignment to the employer of the widow's right, as administratrix, to sue Moses for damages for the wrongful death of her husband, and that the insurance carrier succeeded to that right by subrogation when it paid the compensation award. Moses objected to the suit on the ground that the parties were improperly joined in the suit against him, as he claimed the insurance carrier had no interest in the litigation by way of subrogation, since the cause of action for wrongful death was not assignable at common law and no statute vests such a right in the insurer.

The court sustained this objection and rendered a decision in favor of Moses, which was affirmed in the Court of Appeals of the District of Columbia. The insurer thereupon appealed the case to the United States Supreme Court for a final decision.

In delivering the opinion in the case, Mr. Justice Stone reviewed the provisions of the workmen's compensation law covering employers within the District of Columbia.

After providing that compensation payments shall be made if the employee elects to receive such payments rather than sue the third party causing the injury, the act then provides that: "(b) Acceptance of such compensation shall operate as an assignment to the employer of all right of the person entitled to compensation to recover damages against such third person;" also subsection (d) provides that the "employer on account of such assignment may either institute proceedings for the recovery of such damages or may compromise with such third person."

The court pointed out that this right to maintain an action against a third party is not assigned to the employer for his exclusive benefit, for the act also provides that he must hold the sum collected "as a trust fund to pay such compensation as it becomes due and to pay any sum in excess of such compensation to the person entitled to compensation or to the representative." Therefore, this right is given the employer merely for the purpose of reimbursing him for the amount paid as compensation and to prevent a double recovery by the employee. In continuing the discussion of this provision in the act, the court said:

The employer, in the case of the wrongful death of his employee, would take nothing by the assignment which it purports to effect, since the person entitled to the compensation has no right to recover for the death. But section 33 (d) authorizes the employer to institute suit or to compromise the claim, and section 33 (e) (1) (c) and (e) (2) provide that any recovery in excess of the sums required

to reimburse the employer and allow for compensation payable by him is to be paid to the representative of the deceased. Having regard to these provisions and to the general purpose which the act discloses with respect to rights of recovery when the injury does not result in death, we see no escape from the conclusion that the statute contemplates that the employer is to have the same control over the institution of an action for wrongful death, the compromise and settlement of the claim, and the distribution of the proceeds, as he is given in unambiguous language in the case where the injury results only in disability.

Mr. Justice Stone then discussed the question of whether this right to sue could be assigned to the employer, and he concluded that under the provisions of the act "the employer acquires the legal rights of the employee or the personal representative, subject to the qualifications imposed by the common law or the death statute to the extent that they are not inconsistent with the provisions of the compensation act. The compensation act permits him to enforce them in his own name." The court also concluded that the insurance carrier was subrogated to the rights of the employer upon making the compensation payments. Continuing the court said:

The suggestion of the trial court that subrogation is precluded here by the nonassignability, under the death act and the common law, of the administratrix' cause of action for death, is without force. Considerations of policy which may forbid the voluntary assignment of the cause of action are obviously inapplicable to a case where the statute does assign the action to the employer in order to carry out the plan of the compensation act. That plan would be destroyed if the insurance company were denied the right of subrogation; for the consequence would be to permit that double recovery by either the employer or the next of kin entitled to compensation which the statute is careful to avoid, with a resulting increase in the cost of the insurance which the statute requires.

The insurer's right of subrogation does not alter the fact that it is the employer who is directed by the statute to distribute the proceeds of the recovery, in which the insurer has only a partial interest. Accordingly, the employer is the party to bring the action and the only necessary party plaintiff in the case before us. But the insurance company and the widow, both in her own right and as administratrix, are interested in the recovery. Under the common-law practice, the defendant may not complain if the employer indicates their beneficial interests by bringing the action to their use as well as to his own.

The ruling of the lower court that the action could only be brought in the name of the personal representative and not in the name of the employer or insurance carrier was therefore held to be erroneous and the judgment of the lower court was reversed.

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## Recent Compensation Reports

### Missouri

**T**HE fifth annual report of the Missouri Workmen's Compensation Commission, for the calendar year 1931, presents statistics covering the 69,332 accidental injuries to industrial workers during the year, and also the open cases of injuries in previous years on which statistics were not available when the other four reports were published.

Most of the report is devoted to a tabulation of the number of injuries, by industry, for each city and county in the State, with total compensation and medical costs by cities and counties. Other tables show statistics of a general nature for 1931 injuries, compiled from first reports of accident; statistics on all tabulatable and compensable 1931 cases closed by December 31, 1932; number of eye, external back, hernia, and finger injuries by occupation and industry, with total

compensation and medical costs for each group of injuries; and revised yearly figures for compensation and medical costs from January 1, 1927, to December 31, 1931, as of December 31, 1932, by extent of disability.

Figures for 1931, revised to December 31, 1932, show that the injuries for the year consisted of 118 deaths, involving compensation, medical, and burial costs of \$513,284, an average of \$4,349.86 each; 1,585 permanent disability cases, involving compensation and medical costs of \$841,520; 16,794 temporary disability cases, involving compensation and medical costs of \$1,274,157; 9 cases where extent of disability was not reported, involving compensation and medical costs of \$876; 4,719 noncompensable injuries causing disability beyond the day of injury but for less than 3 days, involving medical costs of \$38,377; and 46,107 noncompensable injuries which did not cause disability beyond the day of injury, involving medical costs of \$276,078.

The total value of compensation and medical cost on December 31, 1932, of the 18,506 compensable injuries was \$2,629,837, an average of \$142 per case. The averages per case for the various degrees of disability were \$4,350 for deaths (including burial expenses), \$531 for permanent disabilities, and \$76 for temporary disabilities. Medical costs in the noncompensable cases amounted to an average of \$8 per case for disabilities extending one to three days beyond the day of injury, and \$6 per case where the disability did not exceed the day of injury.

The report shows that in 23,144 tabulatable and compensable cases the average age of the injured was 32.32 years, and the average weekly wage was \$24.25.

Table 1 shows the distribution of injuries, compensation cost, and medical cost for the 69,332 injuries listed for 1931 under revision of December 31, 1932, by extent of disability.

TABLE 1.—COMPENSATION AND MEDICAL COST IN MISSOURI FOR INDUSTRIAL INJURIES INCURRED IN 1931, BY EXTENT OF DISABILITY, REVISED TO DECEMBER 31, 1932

Extent of disability	Number of cases	Benefit value		
		Compensation <sup>1</sup>	Medical aid	Total
Compensable injuries resulting in—				
Death.....	118	\$505,780	\$7,504	\$513,284
Permanent total disability.....	1	7,530	585	8,115
Dismemberment (not permanent total).....	318	150,920	28,696	179,616
Loss of use (not permanent total).....	939	449,580	115,755	565,335
Permanent partial disability (other than dismemberment or loss of use).....	43	28,260	7,432	35,692
Disfigurement.....	284	41,360	11,402	52,762
Temporary disability.....	16,794	765,800	508,357	1,274,157
Extent not reported.....	9	620	256	876
Noncompensable injuries with disability of 1 but less than 3 days.....	4,719	-----	38,377	38,377
Total compensable and tabulatable injuries.....	23,225	1,949,850	718,364	2,668,214
Noncompensable injuries with no disability beyond day of injury.....	46,107	-----	276,078	276,078
Grand total.....	69,332	1,949,850	994,442	2,944,292

<sup>1</sup> Includes burial expense.



## New Jersey

A SERIES of tables, prepared by the Bureau of Statistics and Records of the New Jersey Department of Labor and issued as the industrial accident report of the department, contains detailed statistics of industrial injuries in the State for 1931.

The tables cover a total of 23,208 compensated cases, occurring and closed during the year, consisting of 289 fatal cases, 16 permanent total disability cases, 7,299 permanent partial disability cases, and 15,604 temporary disability cases. Comparison with similar figures for the previous year<sup>1</sup> shows decreases for 1931 of 52 fatal and permanent total disability cases, 1,419 permanent partial disability cases, and 2,904 temporary disability cases. The total number of days lost (weighted for deaths and permanent disability cases and actual for temporary disability cases) was 5,167,375, making the average disability loss per case 223 days in 1931, the same as in 1930. The total compensation cost was \$7,550,591, an average of \$325, and medical aid at a total cost of \$582,895 was reported for 6,904 cases, an average per case of \$84.

A summary of the number of cases and compensation costs is shown in Table 2 by industry and in Table 3 by cause.

TABLE 2.—NUMBER AND COMPENSATION COST OF COMPENSATED CASES IN NEW JERSEY, OCCURRING AND CLOSED DURING 1931, BY INDUSTRY

Industry	Death and permanent total disability		Permanent partial disability		Temporary disability		All cases	
	Number of cases	Compensation	Number of cases	Compensation	Number of cases	Compensation	Number	Compensation
Agriculture.....	10	\$19,328	120	\$81,558	436	\$22,310	566	\$123,196
Clerical and professional service, care and custody of buildings and grounds.....	14	62,291	281	185,406	887	49,271	1,182	296,968
Construction (includes shipbuilding).....	71	455,959	1,747	1,436,830	2,786	231,073	4,604	2,123,862
Manufacturing.....	83	370,279	2,981	1,771,957	5,806	335,691	8,870	2,477,927
Mining, metallurgy, and quarrying.....	21	127,791	218	219,374	201	16,590	440	363,755
Trade.....	16	47,014	604	369,296	1,604	96,135	2,224	512,445
Transportation and public utilities.....	65	313,465	857	643,116	2,388	175,107	3,310	1,131,628
Miscellaneous occupations.....	25	111,367	491	311,034	1,496	98,409	2,012	520,810
Total.....	305	1,507,434	7,299	5,018,571	15,604	1,024,586	23,208	7,550,591

<sup>1</sup> See Monthly Labor Review for April, 1932.

TABLE 3.—NUMBER AND COMPENSATION AND MEDICAL COSTS OF COMPENSATED CASES IN NEW JERSEY, OCCURRING AND CLOSED DURING 1931, BY CAUSE

Cause	Number of cases				Total days' disability (weighted)	Total compensation	Cases reporting medical cost	Total medical cost
	Death and permanent total disability	Permanent partial disability	Temporary disability	Total				
Machinery.....	41	1,372	1,262	2,675	804,879	\$1,159,795	867	\$77,913
Boilers and steam-pressure apparatus.....	2	5	20	27	17,730	26,550	7	736
Explosions, electricity, hot substances, and flames.....	53	173	847	1,073	451,006	552,701	349	65,220
Falls of persons.....	49	1,353	2,864	4,266	1,058,165	1,634,300	1,246	111,503
Falling objects not being handled by injured.....	30	521	690	1,241	425,542	602,251	370	36,319
Objects and tools being handled.....	21	2,367	5,766	8,154	932,780	1,570,313	2,373	143,343
Stepping on or striking against objects.....	2	189	1,234	1,425	97,960	158,002	393	19,447
Vehicles.....	75	690	1,456	2,221	853,048	1,104,935	659	71,565
Poisonous and corrosive substances and occupational diseases.....	14	219	427	660	235,991	351,410	191	17,836
Miscellaneous.....	18	410	1,038	1,466	290,274	390,334	449	39,013
Total.....	305	7,299	15,604	23,208	5,167,375	7,550,591	6,904	582,895

# COOPERATION

## Stability of Cooperative Movement During the Depression

A DISCUSSION of the effects of the depression on the consumers' cooperative movement in various countries is contained in the December, 1932, issue of the Review of International Cooperation (London). The article points out that naturally the cooperative organizations have been affected by the depression, due to unemployment or part-time employment of the industrial members, with a resultant decline in purchasing power, and to the fact that so many of the agricultural members are unable to sell their produce at remunerative prices. Nevertheless the cooperative organizations have "displayed remarkable powers of resistance."

In order to show what has happened several tables are presented, the first of which shows the sales of the cooperative wholesale societies in various countries in 1929, 1930, and 1931, and the index numbers of wholesale prices in those countries in the same years. A second table, based on the foregoing and reproduced below, shows the per cent of rise or fall in the cooperative wholesale business and in the index numbers of prices in 1930 and 1931.

TABLE 1.—PER CENT OF INCREASE OR DECREASE IN SALES OF COOPERATIVE WHOLESALE SOCIETIES AS COMPARED WITH THAT OF WHOLESALE PRICES, IN SPECIFIED COUNTRIES, 1930 AND 1931

Country and organization	Per cent of change in—			
	Sales of cooperative wholesale societies		Wholesale prices	
	1930	1931	1930	1931
Austria: GöC	-3.6	-2.4	-10.0	-6.8
Belgium: F. S. C.	-4.0	-14.3	-12.1	-17.4
Bulgaria: "Napred"	+14.8	-2.9	-19.1	-15.8
Czechoslovakia:				
V. D. P.	-18.9	-2.5	-13.3	-8.4
G. E. C.	+7.1	-1.6	-13.3	-8.4
Denmark: F. D. B.	+1.3	-8.4	-13.3	-12.3
Estonia: E. T. K.	-15.7	-14.0	-12.8	-8.8
Finland:				
O. T. K.	-14.4	-14.0	-8.1	-6.6
S. O. K.	-4.3	-15.8	-8.1	-6.6
France: M. d. G.	+6.2	+5.5	-12.9	-11.0
Germany: G. E. G.	-1.2	-13.5	-8.8	-11.2
Great Britain:				
C. W. S.	-4.5	-4.4	-12.2	-13.3
S. C. W. S.	-3.8	-6.2	-12.2	-13.3
Holland: "Handelskamer"	-5	-3.5	-17.6	-8.5
Hungary: "Hangya"	-7.0	-8.5	-20.7	-1.0
Norway: N. K. L.	+4.4	-1.6	-5.3	-10.9
Poland: Z. S. S.	+2.0	-10.5	-13.3	-14.1
Sweden: K. F.	+1.7	+3.6	-12.9	-9.0
Switzerland: V. S. K.	+3.7	+2.0	-9.9	-13.4
United States:				
Farmers' Union State Exchange, Omaha, Nebr.	+5.0	-28.8	-9.5	-15.3
Central Cooperative Wholesale, Superior, Wis.	+7	-12.9	-9.5	-15.3

<sup>1</sup> Organizations are shown by initials of name.

[This table makes] possible a classification of the organizations under consideration into three groups, according to whether (a) they have recorded increases in turnover notwithstanding the falling price level; (b) their turnovers were falling less rapidly than wholesale prices; or (c) their turnovers were falling more rapidly than the price level. Even when allowance is made for the fact that the wholesale price index with which comparison is made is a general index, it seems safe

to say that the great majority (about two-thirds) of the organizations brought into this comparison have continued to make progress and to expand their trade, in spite of the depression. In the case of three this is self-evident; their modest rises in money turnover mask a very important increase in the quantity of goods handled. But it is also very noticeable that for the great majority of the organizations in the second group, the shrinkage in money turnover is much less than the fall in prices, a fact that can mean nothing else than that larger quantities of commodities were sold.

Table 2, following, shows for 11 cooperative wholesale societies whose sales for the first half of 1932 are known, the amount of increase or decrease as compared with the same period in 1931. In the opinion of the article, these figures "give further ground for confidence because they appear to indicate not merely stability but resilience."

TABLE 2.—AMOUNT OF SALES OF SPECIFIED WHOLESALE SOCIETIES, FIRST HALF OF 1932, AND INCREASE OR DECREASE AS COMPARED WITH 1931

Country and organization <sup>1</sup>	Monetary unit	Business done, first half of 1932	
		Amount	Increase or decrease as compared with first half of 1931
Belgium: F. S. C. ....	Franc	87,569,255	-6,380,804
Finland:			
O. T. K. ....	Mark	263,000,372	+5,143,397
S. O. K. ....	do	384,141,930	-7,024,658
France: M. d. G. ....	Franc	394,291,372	+9,264,281
Germany: G. E. G. ....	Mark	165,000,000	-41,000,000
Great Britain:			
C. W. S. ....	Pound	39,953,630	-182
S. C. W. S. ....	do	8,161,811	-85,127
Holland: "Handelskamer"	Florin	8,393,055	+40,59
Norway: N. K. L. ....	Krone	14,415,883	+600,69
Sweden: K. F. ....	Krona	72,500,000	+3,300,00
United States: Farmers' Union State Exchange, Omaha, Nebr. ....	Dollar	680,115	-283,61

<sup>1</sup> Organizations are shown by initials of name.

### Cooperation in Czechoslovakia, 1924 to 1931

A RECENT official report<sup>1</sup> from Czechoslovakia contains statistics showing the number of cooperative societies of each type since 1924. These are shown in the following table. The majority of the societies classed under "other" are associations of small tradesmen which in most countries are not regarded as a part of the cooperative movement.

NUMBER OF COOPERATIVE SOCIETIES OF SPECIFIED TYPES IN CZECHOSLOVAKIA, 1924 TO 1931

Year	Consumers' societies	Housing construction societies	Credit societies	Agricultural societies	Other	All types
1924	1,310	1,349	6,151	3,769	1,658	14,237
1925	1,203	1,392	6,334	4,113	1,557	14,599
1926	1,112	1,427	6,458	4,356	1,469	14,822
1927	1,058	1,492	6,579	4,495	1,445	15,069
1928	1,872	1,531	6,790	3,841	1,440	15,474
1929	1,855	1,533	7,032	4,100	1,426	15,946
1930	1,840	1,590	7,335	4,348	1,434	16,547
1931	1,818	1,630	7,611	4,514	1,471	17,044

<sup>1</sup> Czechoslovakia. Office de Statistique. Rapports, XIII<sup>e</sup> année (1932), Série G, No. 69: Mouvement des coopératives en 1931. Prague, 1932.

## Development of Cooperative Productive Federation in Great Britain

**A**N ACCOUNT of the workers' productive societies in Great Britain, federated in the Cooperative Productive Federation, is given in the Review of International Cooperation (London) for December, 1932.

This type of society—the cooperative workshop owned and operated by the workers themselves—has not attained any great importance in the English cooperative movement, being greatly overshadowed by the powerful consumers' cooperative societies. The productive societies have, however, been successful in furnishing employment to a slowly growing number of persons and have formed an interesting object lesson in industrial democracy.

That they have been enabled to hold their ground as well as they have is undoubtedly due in considerable part to the unity achieved through their central organization, the Cooperative Productive Federation, established in 1882. This organization not only serves as a clearing house of necessary information for the societies, but has from time to time added new activities, so that it now furnishes educational and propagandist, joint invoicing, accountancy, and auditing services, and assists its members with technical advice. It issues a number of publications for the benefit of its membership, furnishes speakers for meetings, cooperative courses, etc., and promotes recreational events.

One of the real problems of the workers' productive societies in all countries is that of the marketing of the goods produced. These British societies are fortunate in that the consumers' cooperative movement furnishes a market for the bulk of their product. Close relations are maintained between the two branches of the cooperative movement, each being represented in the councils of the other.

The table following shows the development since 1923 of the societies belonging to the Cooperative Productive Federation.

DEVELOPMENT OF WORKERS' PRODUCTIVE SOCIETIES IN GREAT BRITAIN, 1923 TO 1931

[Conversions into United States currency on basis of £ at par=\$4.8665; average exchange rate for 1931=\$4.53]

Year	Number of societies	Number of members	Share and loan capital		Amount of sales		Net gain		Number of employees
			English currency	United States currency	English currency	United States currency	English currency	United States currency	
1923	44	14,313	£843,391	\$4,104,362	£2,051,987	\$9,985,995	£77,869	\$378,949	5,217
1924	42	14,369	865,727	4,213,060	2,217,963	10,793,717	112,474	547,355	5,584
1925	42	14,261	866,830	4,218,428	2,285,358	11,121,695	107,176	521,572	5,778
1926	41	14,480	893,990	4,350,662	2,257,273	10,985,019	90,596	440,885	5,766
1927	40	14,451	907,866	4,418,130	2,579,093	12,551,156	128,846	627,029	6,058
1928	43	14,990	985,101	4,793,994	2,814,599	13,697,246	139,717	679,933	6,797
1929	45	15,690	1,087,047	5,290,114	2,916,394	14,192,631	150,495	732,384	6,993
1930	43	14,966	1,053,770	5,128,172	2,745,145	13,359,248	138,770	675,324	6,970
1931	43	15,187	1,076,596	5,239,254	2,635,871	12,827,466	127,172	618,883	6,974



## Progress of Workers' Productive Associations in the Soviet Union

AT THE end of 1932 an all-union congress of the workers' productive associations in Russia, known chiefly under the term of "artels,"<sup>1</sup> was held at Moscow.<sup>2</sup>

From the reports made to the congress it appears that the artels were given the task of producing goods to the value of 4,025,000,000 rubles<sup>3</sup> during 1932. By the middle of December, 1932, however, they had passed this goal, having produced goods worth 4,271,000,000 rubles. During the past four years the production of the labor artels has grown fourfold. From October 1, 1928, to the end of 1931 their membership rose from 1,004,000 to 2,353,000.

Cottage industries, that is, small-scale manufacturing industries carried on by the peasants in the rural districts, increased considerably during the last four years. Their operating capital rose from 52,000,000 rubles in 1928 to 448,000,000 rubles at the end of 1932. The organization of production in these industries in the form of labor artels has spread to the boundary regions of the Soviet Union, even as far as Pamir in central Asia.

The Soviet Government has now decreed, under the second 5-year plan, that the entire field of cottage industries, manufacturing as well as in agricultural industries, is to be organized into labor artels in which the producers as artel members would work in common shops and fields. Their total output is to be increased 28.7 per cent, and 71.4 per cent of the goods is to be articles for mass consumption. The membership goal of the labor artels engaged in the cottage industries is set at 3,833,000, and the productivity per member is to be increased 100 per cent. Special efforts are to be directed to the rural districts and are to be carried on in close collaboration with the development of the "giant" collective farms (*kolkhozy*). Each artel is to take care of its own provisions and feeding. Hereafter the "profits" of the artel are not to be divided equally among the workers in the artel, but are to be divided according to the productivity of the various members so that the more efficient workers will receive a larger share. The artels are directed to make every effort to decrease the cost of production and to improve the quality of the goods. Each artel is to train its own apprentices, experts, and managers.

These are the chief requirements for labor artels engaged in the manufacture and production of goods for mass consumption under the second 5-year plan.

<sup>1</sup> See Monthly Labor Review, June, 1932, p. 1345.

<sup>2</sup> Data are from *Izvestia* (official daily of the Soviet Government), Moscow, Dec. 28, 1932, p. 3.

<sup>3</sup> Ruble at par=51.5 cents.

# INDUSTRIAL DISPUTES

## Strikes and Lockouts in the United States in January, 1933

DATA regarding industrial disputes in the United States for January, 1933, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in each year from 1927 to 1931, the number of workers involved and man-days lost for these years and for each of the months, January, 1931, to January, 1933, inclusive, as well as the number of disputes in effect at the end of each month and the number of workers involved. The number of man-days lost as given in the last column of the table, refers to the estimated number of working-days lost by workers involved in disputes which were in progress during the month or year specified.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1931, TO JANUARY, 1933, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS 1927 TO 1931

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost in disputes existing in month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927: Total	734	-----	349,434	-----	37,799,394
1928: Total	629	-----	357,145	-----	31,556,947
1929: Total	903	-----	230,463	-----	9,975,213
1930: Total	653	-----	158,114	-----	2,730,368
1931: Total	894	-----	279,299	-----	6,386,183
1931					
January	57	19	10,150	2,905	181,169
February	52	29	20,473	10,677	223,660
March	49	26	26,453	28,012	476,904
April	73	39	27,135	22,687	770,512
May	115	45	28,000	15,603	400,509
June	90	47	18,795	15,223	511,926
July	73	51	49,434	56,683	612,864
August	79	36	11,019	14,759	1,157,013
September	117	65	36,092	37,427	493,649
October	77	45	34,384	29,380	1,052,095
November	62	39	13,219	13,690	355,818
December	50	21	4,145	1,318	150,064
1932					
January	79	37	11,105	4,648	117,298
February	50	30	31,140	28,691	417,966
March	51	28	31,966	11,660	685,949
April	73	34	17,707	20,066	572,121
May	79	43	43,403	49,232	1,220,202
June	64	38	16,010	23,540	927,996
July	58	37	19,657	32,597	700,985
August	72	35	27,749	27,199	728,201
September	71	31	16,676	6,834	536,262
October	38	17	8,962	1,633	118,869
November	36	13	4,332	1,446	38,716
December <sup>1</sup>	30	15	2,823	1,215	41,001
1933					
January <sup>1</sup>	52	43	14,021	8,210	182,073

<sup>1</sup> Preliminary figures subject to change.

## Occurrence of Disputes

TABLE 2 gives by industrial groups, the number of strikes beginning in November and December, 1932, and January, 1933, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN NOVEMBER AND DECEMBER, 1932, AND JANUARY, 1933

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	November	December	January	November	December	January
Auto, carriage, and wagon workers			3			1,907
Bakers	4	2	1	161	15	30
Building trades	8	8	4	423	168	190
Chauffeurs and teamsters	1	2	1	13	275	50
Clerks, salesmen				600		
Clothing	4	3	21	390	361	5,639
Farm labor	1			200		
Food workers	3	1		1,370	100	
Furniture		1	1		300	15
Hotel and restaurant workers			1			80
Iron and steel			1			80
Laundry workers	1	1		8	80	
Longshoremen, freight handlers	1	1		18	40	
Metal trades	3			240		
Miners	2	6	9	522	1,297	5,577
Motion-picture operators, actors, and theatrical workers	1		1	6		6
Oil refinery and chemical workers	1			40		
Printing and publishing	2			151		
Municipal workers			2			78
Telegraph and telephone workers			1			8
Textiles	2	4	5	130	178	331
Other occupations	1	1	1	60	9	30
Total	36	30	52	4,332	2,823	14,021

## Size and Duration of Disputes

TABLE 3 gives the number of industrial disputes beginning in January, 1933, classified by number of workers and by industrial groups.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN JANUARY, 1933, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIAL GROUPS

Industrial groups	Number of disputes beginning in January, 1933, involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers
Auto, carriage, and wagon workers			1	1	1
Bakers		1			
Building trades	2	1	1		
Chauffeurs and teamsters		1			
Clothing	1	12	6		2
Furniture	1				
Hotel and restaurant workers		1			
Iron and steel		1			
Miners	1	1	6	1	
Motion-picture operators, actors, and theatrical workers		1			
Municipal workers			2		
Telegraph and telephone workers	1				
Textiles	1	2	2		
Other occupations		1			
Total	8	23	16	2	3

In Table 4 is shown the number of industrial disputes ending in January, 1933, by industrial groups and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN JANUARY, 1933, BY INDUSTRIAL GROUPS AND CLASSIFIED DURATION

Industrial group	Classified duration of strikes ending in January, 1933		
	½ month or less	Over ½ and less than 1 month	2 and less than 3 months
Auto, carriage, and wagon workers.....	1		
Bakers.....	2		
Building trades.....	2	1	
Clothing.....	5	1	
Furniture.....	1		
Hotel and restaurant workers.....	1		
Metal trades.....			1
Miners.....	4	1	
Municipal workers.....	1		
Textiles.....	3		
Total.....	20	3	1

### Conciliation Work of the Department of Labor in January, 1933

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 103 labor disputes during January, 1933. These disputes affected a known total of 29,739 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

There were 52 cases involving the law on the prevailing rate of wages. In these cases it is not always possible to show the number involved, due to lack of information as to total number required before completion of construction.

On February 1, 1933, there were 85 labor disputes before the department for settlement. The majority of these were relative to the prevailing rate of wages law.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF JANUARY, 1933

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
<i>Disputes on Government construction</i>								
Rockwell Field, San Diego, Calif.	Controversy	Building workers	Protest labor-only contracts	Adjusted. Labor-only contracts canceled.	1932 Dec. 21	1933 Feb. 4	30	-----
Fort Dupont, Del.	do	Bricklayers	Alleged violation of wage contract.	Adjusted. Rates fixed by Secretary of Labor.	Dec. 30	Feb. 7	25	-----
Fort Benjamin Harrison, Ind.	do	Building workers	Prevailing-wage survey	Pending	Dec. 5		(1)	-----
Post offices:								
Athens, Ala.	do	do	do	Adjusted. Rates fixed satisfactorily.	Nov. 23	Jan. 10	20	40
Beverly Hills, Calif.	do	do	do	Pending	Dec. 21		(1)	-----
South Pasadena, Calif.	do	do	do	do	do		(1)	-----
Alhambra, Calif.	do	do	do	do	do		(1)	-----
Palo Alto, Calif.	do	do	do	do	do		(1)	-----
Merced, Calif.	do	do	do	Adjusted. Board of supervisors of Merced County scale adopted.	do	Jan. 24	20	-----
El Centro, Calif.	do	do	do	Pending	do		(1)	-----
					1933			
Jackson, Mich.	do	do	do	do	Jan. 1		(1)	-----
Portland, Me.	do	Hod carriers	do	do	Jan. 3		(1)	-----
Mount Vernon, Ohio	do	Building workers	do	do	Jan. 1			4
Winona, Miss.	do	Bricklayers and stonemasons.	do	Adjusted. Rate for both crafts fixed at \$1 per hour.	do	Jan. 12	10	-----
Cleveland, Tenn.	do	Bricklayers	Alleged prevailing rate not being paid.	Adjusted. Rate fixed at \$1 per hour.	Jan. 2	Jan. 19	20	-----
Auburn, Ala.	do	do	do	Adjusted. Bricklayers, \$1; carpenters, 70 cents; electricians, 80 cents; laborers, 20 cents per hour.	Jan. 1	Jan. 11	30	35
St. Louis, Mo.	do	Engineers	Prevailing-wage survey	Adjusted. Rates fixed	Jan. 3	Jan. 9	25	-----
Wadesboro, N. C.	do	Building workers	do	Adjusted. Masons and plasterers, 90 cents; carpenters, 62½ cents; laborers, 25 cents per hour.	Jan. 1	Jan. 5	30	50
Flushing, Long Island, N. Y.	do	do	Alleged violation of prevailing rates.	Pending	Jan. 3		20	-----
Jamaica, Long Island, N. Y.	Strike	do	Jurisdiction of certain work	Adjusted. Jurisdiction settled	do	Jan. 16	25	-----
Miami, Fla.	Controversy	Plasterers	Protest rebating of wages	Adjusted. Rebating stopped	Jan. 5	Jan. 5	35	-----
Topeka, Kans.	do	Building workers	do	Pending	Jan. 9		25	-----
Niagara Falls, N. Y.	do	Carpenters	Prevailing-wage survey	do	Jan. 8		(1)	-----



Galion, Ohio	do	Bricklayers	do	Adjusted	Jan. 1		4	
Bucyrus, Ohio	do	do	do	Pending	Jan. 10	Jan. 30	12	
Springfield, Ohio	do	Iron workers	do	do	Jan. 12		(1)	
St. Petersburg, Fla.	do	Electricians	do	do	Jan. 11		(1)	
Clearwater, Fla.	do	Iron erectors and rod men.	do	Adjusted. Rates satisfactorily fixed.	Jan. 3	Jan. 23	75	
Cheraw, S. C.	do	Bricklayers, carpenters, plasterers, and laborers.	do	Adjusted. Bricklayers and plasterers, 90 cents; carpenters, 62½ cents; laborers, 25 cents per hour.	Jan. 1	Jan. 7	15	20
Fort Worth, Tex.	do	Plasterers	Prevailing rates not being paid.	Pending	Jan. 5		(1)	
Bingham Canyon, Utah	do	Plasterers and common laborers.	Prevailing wage for these crafts.	Adjusted. Plasterers, \$10; laborers, \$4 per day.	Jan. 6	Jan. 30	(1)	
Cincinnati, Ohio	do	Millwrights, iron workers, and sheet metal workers.	Jurisdiction	Adjusted. Jurisdiction satisfactorily settled.	Jan. 14	Jan. 17	200	250
Westminster, Md.	do	Bricklayers	Protest discharge of union men and hiring of nonunion men at lower rates.	Adjusted. Rehired union bricklayers at \$1.25 per hour.	Jan. 10	do	7	40
Fort Myers, Fla.	do	Structural-iron workers.	Prevailing-wage survey	Adjusted. Rates fixed	Jan. 17	Jan. 27	(1)	
Glen Cove, N. Y.	Strike	Building workers	Jurisdiction	Adjusted. Jurisdiction satisfactorily settled.	Jan. 3	Jan. 16	28	
Jackson, Tenn.	Controversy	Electrical workers	Prevailing-wage survey	Pending	Jan. 17		50	
Columbia, Miss.	do	Bricklayers and stonemasons.	do	do	Jan. 19		40	
Omaha, Nebr.	do	Carpenters, engineers, and laborers.	do	Adjusted. Carpenters, 80 cents; engineers, \$1.02 and 90 cents; laborers, 25 cents per hour.	Jan. 20	Jan. 30	75	275
Washington, D. C.	do	Steam fitters, engineers, and electricians.	Jurisdiction of electric motor driven welding machine.	Adjusted. Jurisdiction left to international officers. Machine discontinued till later.	do	Jan. 25	15	760
Bryn Mawr, Pa.	do	Demolition workers.	Prevailing-wage survey	Pending	Jan. 26		(1)	
Williamsport, Pa.	do	Iron workers	Dispute over prevailing rate.	do	Jan. 1		4	40
New Kensington, Pa.	do	Painters	Prevailing rate not paid	Adjusted. Prevailing wage paid in full including back pay.	Jan. 14	Jan. 27	2	20
Culpeper, Va.	do	Bricklayers	Prevailing-wage survey	Pending	Jan. 18		30	
St. Johns, Oreg.	Strike	Building workers	Employment of union men and trade rules.	do	Jan. 30		15	
Federal building, Alexandria, La.	Controversy	do	Protest wage scales as posted on job.	Adjusted. Rates fixed and agreed on by contractor and workers' representatives.	Jan. 12	Jan. 31	45	
Veterans' hospital, Togus, Me.	do	do	Outside men employed	Adjusted. Largely local men now employed.	Jan. 26	do	29	
Barracks building, Plattsburg, N. Y.	do	Carpenters and laborers.	Alleged prevailing rates not paid.	Adjusted. Rates approved by agreement of parties.	Jan. 4	do	2	5
Marine hospital, Windmill Point, Mich.	do	Lathers and plasterers.	Subletting for labor only	Pending	Jan. 14		10	
Veterans' hospital, Holabird Quartermaster Depot, Md.	do	Building workers	Prevailing-wage survey	do	Jan. 17		36	

<sup>1</sup> Not reported.

## LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF JANUARY, 1933—Continued

560

MONTHLY LABOR REVIEW

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
<i>Disputes on Government construction—Continued</i>								
Department of Justice Building, Washington, D. C.	Strike.....	Engineers and elevator constructors.	Jurisdiction of the operation of gas engine.	Adjusted. Gas engine replaced by electric winch operated by elevator constructors.	1933 Jan. 1	1933 Jan. 10	25	500
Noncommissioned officers' quarters, Edgewood, Md.	Controversy	Building workers....	Prevailing-wage survey.....	Pending.....	Jan. 19	-----	40	-----
Noncommissioned officers' quarters, Fort Hoyle, Md.	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	-----	40	-----
Amy and Navy hospital, Fort Howard, Md.	.....do.....	.....do.....	.....do.....	.....do.....	Jan. 17	-----	50	-----
Building, Fort Oglethorpe, Ga.	.....do.....	.....do.....	.....do.....	.....do.....	Jan. 18	-----	15	-----
Immigration station, Calexico, Calif.	.....do.....	.....do.....	Objection to posted wage scale.....	.....do.....	.....do.....	-----	(1)	-----
Air base, Sunnyvale, Calif.	.....do.....	Laborers.....	Alleged violation prevailing-wage law.	Unclassified. Work completed....	Jan. 1	Jan. 9	3	-----
Garage buildings, Langley Field, Va.	.....do.....	Bricklayers.....	Asked that local bricklayers be employed.	Adjusted. Agreed to employ local men on 50 of the buildings.	.....do.....	Jan. 13	12	20
Officers' quarters, Langley Field, Va.	.....do.....	.....do.....	Prevailing-wage survey.....	Adjusted. Agreed on prevailing wage.	Jan. 5	Jan. 17	20	-----
Building, Selfridge Field, Mich.	.....do.....	Building workers....	Discussion of application of 30-hour week.	Adjusted. Contractors will restrict work to 30-hour week.	Jan. 28	Feb. 4	100	-----
Do.....	.....do.....	Plumbers, carpenters, electricians, and laborers.	Prevailing-wage discussion.....	Adjusted. Plumbers, \$1.25; carpenters, 80 cents; electricians and engineers, \$1.	Jan. 1	Jan. 26	110	2,300
Building, Fort Logan, Colo.	.....do.....	Building workers....	Rebating of wages.....	Adjusted. Contractor agreed to return wages which had been rebated.	Jan. 12	Jan. 20	30	-----
Immigration station, Douglas, Ariz.	.....do.....	Carpenters.....	Prevailing rate not paid.....	Adjusted. Contractor will pay carpenters \$1 per hour.	.....do.....	.....do.....	9	17
Veterans' hospital, Biloxi, Miss.	.....do.....	Lathers.....	Prevailing-wage discussion.....	Adjusted. Plasterers, \$1.25; lathers, \$1.	Jan. 10	Jan. 24	60	125
Veterans' hospital, Sheridan, Wyo.	.....do.....	Building workers....	.....do.....	Adjusted. Satisfactory settlement of prevailing wage.	Jan. 4	Jan. 19	4	-----
Immigration station, Champlain, N. Y.	.....do.....	.....do.....	.....do.....	Pending.....	Jan. 5	-----	5	-----
Immigration station, Mooers, N. Y.	.....do.....	.....do.....	.....do.....	Adjusted. Rates agreed on.....	.....do.....	Feb. 1	9	-----

Building, Fort Lewis, Wash.	do	Hod carriers and building laborers.	Violation of prevailing-wage law	Pending	do		12	
Coast Guard, Forest Service, and Bureau of Public Roads, Government Island, Calif.	do	Bricklayers	Prevailing-wage investigation	do	do		16	
Marine hospital, New Orleans, La.	do	Building workers	do	Adjusted. Wage rates fixed by Secretary of Labor.	Jan. 1	Jan. 19	60	90
Veterans' hospital, Aspinwall, Pa.	do	Structural-iron workers.	Wages not paid	Adjusted. All wages paid in full.	Jan. 3	Jan. 7	2	
Building, Nashville, Tenn.	do	Building workers	Prevailing wage	Pending	Jan. 16		(1)	
<i>Disputes other than Government construction</i>								
Westbrook Coal Co., Carbondale, Pa.	Strike	Miners	Low wages. Working conditions.	Adjusted. Contract price will be paid.	Jan. 1	Jan. 5	90	
Manhattan Bed Co., Brooklyn, N. Y.	do	Bed makers	Wage cut and nonpayment of wages.	Pending	do		15	
Ferguson Brass Furniture Co., Hoboken, N. J.	do	Furniture makers	Wages cut 20 per cent.	Adjusted. Accepted 20 per cent cut.	Jan. 5	Jan. 9	409	
Iceland Fur Dyeing Corporation, Brooklyn, N. Y.	do	Fur dressers	Wages, hours, and conditions	Adjusted. Allowed as asked.	Jan. 3	Jan. 6	60	5
Building Material Association, Newark, Hoboken, and Jersey City, N. J.	do	Hoisting engineers and teamsters.	Wage cut 20 per cent.	Pending	Jan. 1		200	
Joseph Immerman, New York City.	do	Tailors	Piecework rates	Adjusted. Will reemploy as needed.	Jan. 3	Jan. 10	30	
Perfect Negligee Co., New York City.	do	Cutters	do	Adjusted. Curtailment accepted.	Jan. 9	Jan. 11	27	11
Witt Bros., Lynbrook, Long Island, N. Y.	do	Garment workers	Asked 44-hour week and 25 per cent increase.	Adjusted. Allowed 44-hour week and 12½ per cent increase.	Jan. 10	Jan. 31	76	18
Shrimpers and oystermen, Biloxi, Miss.	Controversy	Shrimpers and oystermen.	Violation of agreement	Adjusted. Satisfactory settlement	do	Jan. 24	2,800	
Jeddo Hyland Coal Co., Hazleton, Pa.	Strike	Miners	Working conditions	Adjusted. Returned to work; grievance taken up through proper channel.	Jan. 16	Jan. 21	4,500	
Allen Squire Shoe Co., Spencer, Mass.	do	Shoe workers	Wage cut and discrimination	Adjusted. Satisfactory settlement; no discrimination.	Jan. 3	Jan. 16	600	
Wrecking old buildings, Cambridge, Mass.	Controversy	Wreckers and laborers.	Wages	Adjusted. Satisfactory settlement.	Jan. 10	do	8	
Taft Junior High School Building, Washington, D. C.	do	Laborers and mechanics.	Wages not paid	Adjusted. Wages paid	Jan. 14	Jan. 17	40	
Jas. Deangelis Coal Co., Simpson, Pa.	Strike	Miners	New company not paying contract price.	Adjusted. Contract price paid and union recognition.	Jan. 13	Jan. 20	200	
Alpho Clothing Co., New Brunswick, N. J.	do	Cutters and pressers.	Wages and conditions	Adjusted. Restoration of 7½ per cent cut allowed. Insurance also allowed.	Jan. 18	Jan. 30	175	525
Pellegrini-Genduse (Inc.), New York City.	Threatened strike.	Bakers	Wages, shorter hours, and recognition of shop committee.	Adjusted. Allowed increase, 8-hour day and recognition.	Jan. 23	Jan. 24	8	
Briggs Manufacturing Co., Detroit, Mich.	Strike	Auto body workers.	Wages	Pending	Jan. 25		6,000	

<sup>1</sup> Not reported.

## LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF JANUARY, 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
<i>Disputes other than Government construction—Continued</i>								
Murray Corporation of America, Detroit, Mich.	Strike.....	Auto body workers..	Wages and sympathy with other strikers.	Pending.....	1933 Jan. 26	1933	2,500	4,000
Metropolitan Electric Manufacturing Co., Long Island City, N. Y.	Controversy	Employees.....	Asked 8-hour day.....	do.....	Jan. 18		30	
Mendoza Fur Dyeing Works, New York City.	Strike.....	Fur workers.....	Wages, hours, and conditions.....	Adjusted. Increases from 5 to 15 per cent; hours reduced 2½ per week.	Jan. 20	Jan. 25	150	10
Steinman Co., New York City....	do.....	Metal workers.....	Readjustment of piecework rates..	Adjusted. Returned; piecework rates satisfactory.	Jan. 26	Jan. 28	26	
Miners, Jermyn, Pa.....	do.....	Miners.....	Contract price not paid.....	Pending.....	Jan. 25		25	
Architectural Stone Co., Arlington Memorial Bridge, D. C.	Controversy	Stonemasons.....	Wages.....	Adjusted. Agreed to pay the amount in controversy.	Jan. 31	Jan. 31	6	26
Lackawanna Steel Erecting Co., Buffalo, N. Y.	Strike.....	Steel workers.....	Wage cuts. Promised bonus not paid.	Adjusted. Returned; bonus paid and conditions satisfactory.	Jan. 30	Feb. 2	60	120
Oriental Theater, Rochester, Pa.	do.....	Employees.....	Threatened wage cut.....	Pending.....	Jan. 22		2	
Delta Mine, Washington County, Pa.	do.....	Miners.....	Low wages.....	Adjusted. Agreed on 30 cents per ton for loading.	Jan. 27	Jan. 27	170	
Centralia Shirt & Blouse Co., Centralia, Pa.	do.....	Shirt and blouse makers.	do.....	Adjusted. Allowed 10 per cent wage increase to 18 workers.	Jan. 17	Jan. 18	18	22
Glenna Shirt Co., Shamokin, Pa.	do.....	Shirt makers	Proposed wage cut.....	Pending.....	Jan. 25		(1)	
Robins Silk Co., Annville, Pa.	do.....	Silk workers	Wage cut.....	do.....	Jan. 14		100	
Hawran Garage Building, Carbondale, Pa.	do.....	Bricklayers	Nonunion bricklayers employed.	do.....	Jan. 26		(1)	
Berge-Kehoe Coal Co., Wilkes-Barre, Pa.	do.....	Miners.....	Working conditions.....	Unclassified. Mine indefinitely closed.	Jan. 8	Jan. 8	400	
Heck Silk Co. (Inc.), East Stroudsburg, Pa.	do.....	Weavers.....	Cut 1 cent per yard.....	Pending.....	Jan. 5		32	18
Total.....							20,392	9,347

<sup>1</sup> Not reported.

## End of More-Looms Dispute in English Cotton Textile Industry<sup>1</sup>

ON December 28, 1932, representatives of the Cotton Spinners' and Manufacturers' Association and of the Weavers' Amalgamation signed an agreement for the working of six looms per weaver, which was to become effective as from the first week in January, 1933. This ends a controversy which has extended over five years, which was directly responsible for the lockout of 1931, and which has figured as a more or less influential factor in most of the disputes which have taken place in the English cotton textile industry for the past four years.

In 1928 the cotton manufacturers in Burnley began experiments to see if the costs of production could not be lowered by increasing the number of looms tended by each weaver to six or even more (four being the standard number at that time), and in 1929 an agreement was made between certain firms and their employees to try the new scheme for a year, at the end of which time, if either party were dissatisfied, the agreement should end and the old system be reinstalled. Wage rates were adjusted to secure the weavers a fair return during the experiment, the speed of the machinery was reduced, and the workers were given help in cleaning machinery, carrying cloth, and the like. At the end of the year the employers considered the experiment a success, but the weavers were dissatisfied and insisted upon dropping it unless certain guaranties as to earnings went with it. The industry was in severe straits and the employers felt that the economies of the more-loom system were indispensable. The employees declared themselves willing to accept it if it were accompanied by a guaranty of a minimum or "fall-back" wage, but maintained that they would not risk giving up their standard price list and accepting a new scale with the possibility that later on production might fall off and they might find themselves called upon to work only four or even two looms at the lower rates established for the 6-loom system. The employers were unwilling to give this guaranty, and after prolonged negotiations undertook to introduce the system against the employees' resistance. This led to the lockout of 1931 (see *Monthly Labor Review*, April, 1931, p. 134), which ended in the employers giving up their attempt. Since then there has been constant agitation over the question of introducing the new system, and toward the end of 1932 the representatives of the two sides came to an agreement which, after much hesitation, was finally accepted by the workers.

The terms of the new agreement are given in the *Manchester Guardian* for December 13, 1932. It is complicated and, for an outsider, difficult of comprehension, but *The Economist* (London) in its issue for December 17, 1932 (p. 1132), gives this summary of its terms:

The draft agreement \* \* \* is too technical to mean anything to the outside world, but \* \* \* is designed to enable a weaver of average ability to earn about 41s.<sup>2</sup> in a 48-hour week on six looms weaving standard cloth. Where conditions at a mill are alleged to be such that average wages fall 10 per cent below this standard, provision is made for a joint investigation and for an increase of wages as agreed upon by the investigators for the time being. The agreement only covers cloths made up to and including five lifts and with not more than 200

<sup>1</sup> Data are from report of Wallace E. Moessner, American vice consul, Manchester, England, Dec. 31, 1932.

<sup>2</sup> 1s. at par=24.33 cents.



threads to the square inch, but provision is made at a weekly wage of 45s., or 10 per cent over normal earnings, whichever is the higher, for experiment, with not more than 6 per cent of looms, upon other cloths. The joint subcommittee is to continue discussions with the object of extending the agreement to other cloths. Where a weaver is employed in the mill with four or less looms running out of six under this system, he is to be entitled to a weekly wage of not less than two-thirds of his normal earnings from six looms, or not less than 28s., whichever is the higher. Provision is made for joint investigation of allegations that employers are working the 4-loom system on 6-loom prices, and for the payment of uniform list prices if the allegations are found to be true. \* \* \* Loom speeds are to be reduced by  $7\frac{1}{2}$  to 10 per cent of the average normal speed on the 4-loom system, and it is provided that the displacement of labor shall be carried out in such a way as to reduce to a minimum the hardship involved.

# LABOR TURNOVER

## Labor Turnover in American Factories, 1932

**B**EGINNING with the first quarter of 1932, the Bureau of Labor Statistics changed the period of presenting labor turnover reports from a monthly to a quarterly basis. The bureau now presents quarterly figures for manufacturing as a whole and for 10 separate manufacturing industries. The index for manufacturing as a whole is compiled from reports mailed to the bureau from representative establishments in approximately 148 census industry classifications, employing over 1,000,000 people. The form of average used for compiling these quarterly turnover rates is the weighted arithmetic mean.

Table 1 shows the average quarterly turnover rates in representative American factories, by quarters, for the years 1931 and 1932. The quarterly rates show the number of changes in the quarter per 100 employees on the pay roll.

TABLE 1.—QUARTERLY TURNOVER RATES IN REPRESENTATIVE FACTORIES IN 148 INDUSTRIES

Period	Separation rates						Total separation rate		Accession rate		Net turnover rate	
	Quit		Discharge		Lay-off							
	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932
First quarter.....	2.43	2.28	0.66	0.58	5.45	8.18	8.54	11.04	9.53	9.65	8.54	9.65
Second quarter.....	3.28	2.15	.81	.49	8.29	12.92	12.38	15.56	8.23	7.80	8.23	7.80
Third quarter.....	3.32	2.10	.71	.45	10.07	10.78	14.10	13.33	9.27	12.55	9.27	12.55
Fourth quarter.....	2.37	1.77	.54	.43	10.65	8.75	13.56	10.95	9.68	10.50	9.68	10.50
Total.....	11.40	8.30	2.72	1.95	34.46	40.63	48.58	50.88	36.71	40.50	35.72	40.50

The annual quit and discharge rates were lower in 1932 than in 1931. The lay-off and accession rates, however, were higher in 1932 than in 1931.

In addition to the quit, discharge, lay-off, and accession rates, the bureau presents the net turnover rate. The net turnover rate means the rate of replacement. It is the number of jobs that are vacated and filled per 100 employees. In a plant that is increasing its force, the net turnover rate is the same as the separation rate, for while more people are hired than are separated from the pay roll, the number hired above those leaving is due to expansion and can not be justly charged to turnover. On the other hand, in a plant that is decreasing its number of employees, the net turnover rate is the same as the accession rate, for while more people are separated from the pay roll than are hired, the excess of separations over accessions is due to a reduction of force and therefore can not be logically charged as a turnover expense.

The net turnover rate for manufacturing as a whole for the year 1932 was 40.5, approximately five points higher than during the year 1931.

Turnover rates have been compiled for eight separate industries for the years 1931 and 1932. Table 2 shows the average quarterly quit, discharge, lay-off, accession, and net turnover rates for automobiles, boots and shoes, cotton manufacturing, foundries and machine shops, furniture, iron and steel, sawmills, and slaughtering and meat packing for the calendar years 1931 and 1932.

TABLE 2.—QUARTERLY AND ANNUAL TURNOVER RATES IN REPRESENTATIVE PLANTS IN EIGHT SPECIFIED INDUSTRIES

Industry and period	Separation rates						Total separation rate		Accession rate		Net turnover rate	
	Quit		Discharge		Lay-off							
	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932
<b>Automobiles:</b>												
First quarter.....	2.46	3.42	0.81	0.91	5.94	12.28	9.21	16.61	15.60	19.39	9.21	16.61
Second quarter.....	3.82	2.65	1.06	.43	14.91	15.77	19.39	18.85	11.69	22.02	11.69	18.85
Third quarter.....	3.08	1.29	.82	.35	24.52	40.61	28.42	42.25	12.52	7.90	12.52	7.90
Fourth quarter.....	2.82	1.51	.90	.73	29.20	15.88	32.92	18.12	33.45	28.04	32.92	18.12
Total.....	12.18	8.87	3.59	2.42	74.17	84.54	89.94	95.83	73.26	77.35	66.34	61.48
<b>Boots and shoes:</b>												
First quarter.....	4.08	3.77	1.17	.99	4.23	4.52	9.48	9.28	15.33	13.93	9.48	9.28
Second quarter.....	5.17	2.59	1.31	.50	5.77	8.81	12.25	11.90	14.45	4.41	12.25	4.41
Third quarter.....	6.75	3.01	1.40	.77	6.14	4.77	14.29	8.55	13.31	16.43	13.31	8.55
Fourth quarter.....	3.13	2.24	.58	.45	12.69	6.17	16.40	8.86	7.15	6.38	7.15	6.38
Total.....	19.13	11.61	4.46	2.71	28.83	24.27	52.42	38.59	50.24	41.15	42.19	28.62
<b>Cotton manufacturing:</b>												
First quarter.....	3.33	3.46	1.11	.92	6.48	7.69	10.92	12.07	11.49	13.48	10.92	12.07
Second quarter.....	4.41	2.56	1.26	.74	7.05	22.02	12.72	25.32	11.78	5.67	11.78	5.67
Third quarter.....	4.69	3.46	1.14	.80	7.75	5.62	13.58	9.88	13.69	31.05	13.58	9.88
Fourth quarter.....	3.83	3.30	1.03	.77	11.32	7.20	16.18	11.27	10.97	13.55	10.97	11.27
Total.....	16.26	12.78	4.54	3.23	32.60	42.53	53.40	58.54	47.93	63.75	47.25	38.89
<b>Foundries and machine shops:</b>												
First quarter.....	1.95	1.24	.69	.39	7.14	9.67	9.78	11.30	9.24	8.69	9.24	8.69
Second quarter.....	2.43	.97	.87	.39	12.64	12.32	15.94	13.68	7.52	5.79	7.52	5.79
Third quarter.....	1.94	.75	.72	.25	11.61	10.23	14.27	11.23	7.88	7.32	7.88	7.32
Fourth quarter.....	1.28	.64	.48	.21	11.99	8.43	13.75	9.28	6.21	6.40	6.21	6.40
Total.....	7.60	3.60	2.76	1.24	43.38	40.65	53.74	45.49	30.85	28.20	30.85	28.20
<b>Furniture:</b>												
First quarter.....	1.92	1.65	.96	.77	13.41	16.40	16.29	18.82	15.57	12.32	15.57	12.32
Second quarter.....	3.06	1.18	1.19	.42	13.83	19.38	18.08	20.98	13.30	10.86	13.30	10.86
Third quarter.....	2.87	1.11	.87	.24	9.81	9.48	13.55	10.83	16.33	20.88	13.55	10.83
Fourth quarter.....	1.90	.60	1.00	.23	13.99	11.19	16.89	12.02	10.46	9.78	10.46	9.78
Total.....	9.75	4.54	4.02	1.66	51.04	56.45	64.81	62.65	55.66	53.84	52.88	43.79
<b>Iron and steel:</b>												
First quarter.....	2.13	1.63	.36	.16	3.99	4.23	6.48	6.02	6.78	4.32	6.48	4.32
Second quarter.....	2.62	1.94	.41	.17	6.68	10.94	9.71	13.05	4.48	3.15	4.48	3.15
Third quarter.....	2.76	1.22	.30	.14	6.06	5.32	9.12	6.68	4.72	3.98	4.72	3.98
Fourth quarter.....	1.96	1.17	.17	.14	4.63	4.62	6.79	5.93	4.20	4.44	4.20	4.44
Total.....	9.47	5.96	1.24	.61	21.36	25.11	32.07	31.68	20.18	15.89	19.88	15.89
<b>Sawmills:</b>												
First quarter.....	4.02	2.31	1.44	1.24	16.56	18.04	22.02	21.59	24.03	19.70	22.02	19.70
Second quarter.....	4.65	2.27	1.29	.98	22.26	20.70	28.20	23.95	21.62	21.22	21.62	21.22
Third quarter.....	4.80	3.49	1.74	.75	19.55	15.77	26.09	20.01	16.31	17.94	16.31	17.94
Fourth quarter.....	2.70	1.79	1.01	1.23	27.30	27.96	31.01	30.98	18.54	16.96	18.54	16.96
Total.....	16.17	9.86	5.48	4.20	85.67	82.47	107.32	96.53	80.50	75.82	78.49	75.82
<b>Slaughtering and meat packing:</b>												
First quarter.....	4.26	3.18	1.65	1.19	17.85	19.81	23.76	24.18	19.53	16.68	19.53	16.68
Second quarter.....	4.12	2.77	1.41	.99	13.01	17.16	18.54	20.92	19.36	20.85	18.54	20.85
Third quarter.....	3.81	2.57	1.23	1.11	13.78	14.77	18.82	18.45	17.14	20.24	17.14	18.45
Fourth.....	3.38	2.12	1.16	.64	15.54	17.42	20.08	20.18	23.77	17.91	20.08	17.91
Total.....	15.57	10.64	5.45	3.93	60.18	69.16	81.20	83.73	79.80	75.68	75.29	73.89

All of the eight industries for which comparable figures are available for both 1932 and 1931 had a lower net turnover rate during 1932 than during the previous year. Comparing 1932 rates with those for 1931, all eight industries showed a lower quit and discharge rate during 1932 than during 1931. The lay-off rate for 1932 was lower than for 1931 in the boot and shoe industry, foundries and machine shops, and sawmills, but higher in the other five industries. The 1932 accession rate was higher than the 1931 accession rate in the automobile and cotton manufacturing industries, but lower in each of the other six industries.

During 1932 cotton manufacturing had the highest quit rate, 12.78, and foundries and machine shops the lowest quit rate, 3.60. The highest discharge rate, 4.20, occurred in the sawmill industry, while the lowest, 0.61, was shown by the iron and steel industry. The highest lay-off rate, 84.54, was registered by the automobile industry, and the lowest, 24.27, by the boot and shoe industry. The highest accession rate, 77.35, occurred in the automobile industry, and the lowest, 15.89, in the iron and steel industry. Sawmills had the highest net turnover rate, 75.82. Iron and steel showed the lowest net turnover rate, 15.89.

Four of the eight industries had a turnover rate of over 50 per cent during the year 1931, and three of the industries had a turnover rate of over 50 per cent in the year 1932.

# LABOR AGREEMENTS, AWARDS, AND DECISIONS

## Agreements of Coal Miners—Indiana and Illinois

**B**ITUMINOUS coal miners in Indiana and Illinois have extended their agreements with the coal operators of their respective States from the expiration dates to and including March 31, 1935.

An agreement between district No. 11, United Mine Workers of America, and the Indiana Coal Operators' Association was signed on September 10, 1932, effective to March 31, 1935. Working conditions are to remain the same as provided in their former agreement, but the basic wage rate is reduced from \$6.10 to \$4.57½ a day.

District No. 12, United Mine Workers of America, and the Illinois Coal Operators' Association entered into an agreement on August 10, 1932, effective to March 31, 1933. This agreement established the \$5 a day basic rate. On December 22, 1932, the coal operators and representatives of District No. 12 signed an agreement extending the present agreement to March 31, 1935, which reads:

Whereas, at the time the wage contract of August 10, 1932, was adopted it was an open question whether the duration thereof should be to and including March 31, 1933, or until a later date; and

Whereas, since August 10, 1932, the operators and mine workers of the adjacent State of Indiana signed a wage contract effective to and including March 31, 1935;

Now, therefore, in view of the similarity in working conditions in Illinois and Indiana, it is hereby agreed between the undersigned that the wage contract of August 10, 1932, be and it is hereby extended in full force and effect to and including March 31, 1935.

## Awards and Decisions

### Building Trades—San Francisco

**O**N November 9, 1932, the impartial wage board for the San Francisco building industry handed down its decision establishing the wage scale for the San Francisco building trades for the year 1933.

The wage scales set by the board to be paid labor in the city and county of San Francisco after January 1, 1933, are, in general, 20 per cent less than the schedule set by the last impartial wage board.

A few of the provisions covering working conditions are as follows:

Five days, consisting of not more than eight hours a day, on Monday to Friday, inclusive, shall constitute a week's work.

Transportation costs in excess of 25 cents each way shall be paid by the contractor.

Traveling time in excess of 1½ hours each way shall be paid for at straight time rates.



Overtime shall be paid as follows: For the first four hours after the first eight hours, time and one-half. All time thereafter shall be paid double time. Saturdays (except laborers), Sundays, and holidays from 12 midnight of the preceding day, shall be paid double time.

Men ordered to report for work, for whom no employment is provided, shall be entitled to two hours' pay.

The report and findings of the board are in part as follows:

Testimony was universal as to the serious effect which the depression has had on the building industry. It is on the mechanic, however, that the depression has fallen most heavily. When it is borne in mind that the value of building construction in San Francisco for the present year will not exceed 20 per cent of the construction for the peak year, the extent of unemployment in the industry as a whole can better be appreciated. It is probably no exaggeration to say that fully 75 per cent of the workers in the building industry are now idle. Were the building trades workers regularly in the employ of the same contractor some plan might be devised which would make possible the rotation of jobs so that the work might be spread among the available mechanics. But the building trades mechanic is employed by one contractor to-day and another to-morrow so that he not only suffers the loss of time growing from the depression itself, but, in addition, suffers from what might be called the normal intermittency of jobs, which is inherent in the industry.

Under these circumstances it is, of course, impossible to compensate men sufficiently to produce adequate annual earnings. For a man working but one day a week it is obviously impossible to set a scale, within reason, which will provide a decent standard of living. All that can be hoped for even under the most favorable circumstances is to set a scale which skilled mechanics will demand and which they generally will receive on the better grade of construction work.

The board heard testimony from a number of witnesses requesting it not only to continue in effect the 5-day week, which was decreed by the last board, but to set a shorter workday. It was urged by them that the establishment of a 6-hour day would tend to decrease unemployment. From its knowledge of the industry, the board believes that much can be accomplished in spreading employment if the problem is intelligently attacked.

The board, however, does desire to bring out that at no time during the hearings was any testimony introduced to the effect that a reduction in wages would tend to stimulate new construction. The best thought of those most closely connected with the industry seems to indicate that it will only be stimulated when it reflects generally improved business conditions.

#### Shoe Cutters—Auburn, Me.

ON AUGUST 17, 1932, application by a representative of certain striking cutters and employees of the Cushman-Hollis Shoe Co. was made to the board of arbitration and conciliation of the State of Maine for an investigation and decision on the merits of a wage dispute pending between the parties. In the application all parties agreed to abide by the decision of the board.

The board met in Auburn, August 22, 1932. It appeared from the testimony that on August 10, 1932, the employer announced a cut of 15 per cent in the pay of the cutters, to take effect on August 12, 1932. Although the employer had verbally agreed to remedy any injustices and to enter into a full discussion of the announced cut, certain of the cutters instituted a strike and walkout. After ineffectual attempts to settle the controversy the application to the board for its decision was made.

The employer testified that no dividends had been paid in the past three years, that overhead had been substantially cut, and that the plant was operating on a slender margin of profit which would be practically wiped out unless the designated wage cut was put into effect. The employees testified that with the previous wage cuts and readjustment of piecework details they were not receiving a wage sufficient to maintain their standard of living.

It was the opinion of the board that the action of the cutters in instituting a strike and walkout was hasty and ill-advised, especially when 1,500 of their fellow employees had accepted wage readjustments without complaint. The board, admitting that the standard of living is essential to the self-respect and well-being of the laboring man, stated that the standards of living vary in fat and lean years, and that there are few persons who have not been obliged to readjust their manner of living.

The decision of the board, rendered August 29, 1932, and accepted by employer and employees, is as follows:

The employer in this case impresses this board as one imbued with the desire to be eminently fair to the workers. In the course of the hearing the workers admitted this. The employer has not seized on present business conditions as an excuse to slash wages indiscriminately but, faced with a 35 per cent reduction in the selling price of his goods, has been driven to reduce its overhead, including wages, in order to meet competition.

Nevertheless, the board believes that the employer can effect further economies in the overhead of its plant and can improve working conditions. In fact, both parties to this controversy, with a praiseworthy spirit, have agreed to make an intensive study of their mutual problems. Under all the circumstances and giving due consideration to all facts, the board is of the opinion that the present wage cut of 15 per cent should be reduced to 9 per cent, and so orders. And it recommends that the splendid spirit evidenced at the hearing be maintained to the end that mutual respect, confidence, and tolerance shall henceforth govern all the relations of these parties.

#### Signalmen—Baltimore & Ohio Railroad

A DISPUTE between the Baltimore & Ohio Railroad Co. and the Brotherhood of Railroad Signalmen was referred to a board of arbitration composed of Earl Stimson, selected by the carrier; D. C. Cone, selected by the employees; and Arthur M. Millard, appointed by the United States Board of Mediation.

The specific question submitted to the board for decision was:

Shall the management furnish and pay the wages of cooks for signal department employees assigned to camp cars?

The decision of the board, November 17, 1932, sustained the contention of the signal employees that the management shall furnish and pay the wages of cooks for signal department employees assigned to camp cars. The award was made effective for the period of one year from date of the award, and thereafter to be subject to 30 days' notice by or to the management.

# HOUSING

## Building Operations in Principal Cities of the United States, January, 1933

THERE was an increase of 39.6 per cent in indicated expenditures for total building operations, comparing reports received by the Bureau of Labor Statistics from 351 identical cities of the United States having a population of 25,000 or over, for the months of December, 1932, and January, 1933.

The cost figures in the following tables apply to the cost of the buildings as estimated by the prospective builder on applying for his permit to build. No land costs are included. Only building operations within the corporate limits of the cities enumerated are shown.

Beginning with the month of January, 1933, the bureau is expanding the scope of its work on this subject to take in all cities in the United States having a population of 10,000 or over. Because similar data are not available for the previous month the newly added cities can not be included in the comparative tables presented below. However, data for the month of January for all these cities are shown in Table 9.

### Comparisons, December, 1932, and January, 1933

TABLE 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 351 identical cities of the United States, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN DECEMBER, 1932, AND JANUARY, 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	December, 1932	January, 1933	Per cent of change	December, 1932	January, 1933	Per cent of change
New England.....	\$606,800	\$585,300	-3.5	\$467,591	\$592,442	+26.7
Middle Atlantic.....	1,436,060	1,310,151	-8.8	5,618,239	10,259,063	+82.6
East North Central.....	438,630	296,260	-32.5	1,469,555	516,507	-64.9
West North Central.....	214,425	148,570	-30.7	161,178	109,807	-31.9
South Atlantic.....	602,829	499,985	-17.1	7,558,423	691,015	-90.9
South Central.....	187,506	380,354	+102.8	700,658	3,022,648	+331.4
Mountain and Pacific.....	893,396	884,075	-1.0	4,753,283	16,942,452	+256.4
Total.....	4,379,646	4,104,695	-6.3	20,728,927	32,133,934	+55.0

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	December, 1932	January, 1933	Per cent of change	December, 1932	January, 1933	Per cent of change	
New England.....	\$909,773	\$689,259	-24.2	\$1,984,164	\$1,867,001	-5.9	52
Middle Atlantic.....	1,869,041	2,449,523	+31.1	8,923,340	14,018,737	+57.1	71
East North Central.....	531,235	1,031,801	+94.2	2,439,420	1,844,568	-24.4	91
West North Central.....	325,126	324,702	-0.1	700,729	583,079	-16.8	25
South Atlantic.....	815,371	702,058	-13.9	8,976,623	1,893,058	-78.9	40
South Central.....	313,312	542,028	+73.0	1,201,476	3,945,030	+228.3	33
Mountain and Pacific.....	809,004	848,707	+4.9	6,455,683	18,675,234	+189.3	39
Total.....	5,572,862	6,588,078	+18.2	30,681,435	42,826,707	+39.6	351

Indicated expenditures for residential buildings decreased 6.3 per cent comparing January, 1933, with December, 1932. Decreases were shown in all geographic divisions except the South Central. Indicated expenditures for new nonresidential buildings increased 55 per cent during this period. Increases were shown in four of the seven geographic divisions. There was an increase of 18.2 per cent in indicated expenditures for additions, alterations, and repairs; four of the seven geographic divisions registering increases in this class of work. In these 351 cities, indicated expenditures for total building operations reached a total of \$42,826,707 during January, 1933.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 351 identical cities of the United States, by geographic divisions.

TABLE 2.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION, IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN DECEMBER, 1932, AND JANUARY, 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	December, 1932	January, 1933	December, 1932	January, 1933	December, 1932	January, 1933	December, 1932	January, 1933
New England.....	102	119	265	239	1,074	1,030	1,441	1,388
Middle Atlantic.....	201	210	610	581	2,676	2,695	3,487	3,486
East North Central.....	95	68	438	395	1,032	1,326	1,565	1,789
West North Central.....	50	47	155	214	328	429	533	690
South Atlantic.....	147	136	280	358	1,541	1,599	1,968	2,093
South Central.....	113	185	231	332	854	1,264	1,198	1,781
Mountain and Pacific.....	268	237	718	683	2,131	2,271	3,117	3,191
Total.....	976	1,002	2,697	2,802	9,636	10,614	13,309	14,418
Per cent of change.....		+2.7		+3.9		+10.1		+8.3

Increases were shown in the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total buildings operations, comparing January reports with December reports in these 351 cities.

Table 3 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the estimated cost of such dwellings for which permits were issued in 351 identical cities, during December, 1932, and January, 1933, by geographic divisions.

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 351 IDENTICAL CITIES IN DECEMBER, 1932, AND JANUARY, 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	December, 1932	January, 1933	December, 1932	January, 1933	December, 1932	January, 1933	December, 1932	January, 1933
New England.....	\$592,300	\$508,300	100	107	\$15,000	\$63,000	4	19
Middle Atlantic.....	850,510	846,767	174	173	133,800	236,384	40	61
East North Central.....	388,630	296,260	94	68	0	0	0	0
West North Central.....	164,425	133,570	49	45	0	15,000	0	4
South Atlantic.....	566,329	479,985	139	130	20,000	11,000	7	7
South Central.....	180,256	326,852	111	173	7,250	27,002	4	16
Mountain and Pacific.....	724,246	640,025	243	213	79,850	80,686	34	32
Total.....	3,466,696	3,231,759	910	909	255,900	433,072	89	139
Per cent of change.....		-6.8		-0.1		+69.2		+56.2

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	December, 1932	January, 1933	December, 1932	January, 1933	December, 1932	January, 1933	December, 1932	January, 1933
New England.....	0	\$14,000	0	6	\$607,300	\$585,300	104	132
Middle Atlantic.....	\$451,750	212,000	146	71	1,436,060	1,295,151	360	305
East North Central.....	0	0	0	0	388,630	296,260	94	68
West North Central.....	0	0	0	0	164,425	148,570	49	49
South Atlantic.....	10,500	9,000	14	10	596,829	499,985	160	147
South Central.....	0	26,560	0	20	187,506	380,354	115	209
Mountain and Pacific.....	89,300	163,364	52	33	893,396	884,075	329	278
Total.....	551,550	424,864	212	140	4,274,146	4,089,695	1,211	1,188
Per cent of change.....		-23.0		-34.0		-4.3		-1.9

Decreases were shown in both the indicated expenditures and the total number of families provided for in 1-family dwellings, multifamily dwellings, and total dwellings. There was, however, a large increase in the number of families provided for in 2-family dwellings, as well as in the indicated expenditures for this class of dwelling.

Table 4 shows the index number of families provided for, the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total building operations.



TABLE 4.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES

[Monthly average, 1929=100]

Month	Families provided for	Estimated cost of—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total building operations
January..... 1930	34.2	29.4	64.3	55.1	46.1
January..... 1931	39.1	30.8	43.4	55.5	38.9
January..... 1932	14.4	10.2	25.0	25.8	18.2
December.....	5.0	3.6	17.3	13.7	10.5
January..... 1933	4.9	3.4	26.8	16.2	14.7

The index numbers of families provided for and of new residential buildings reached a low in January, 1933. The index number for new nonresidential buildings, however, was higher than for any month since May, 1932. The index number for additions, alterations, and repairs was higher than for any month since October, 1932, and the index number for total building operations was higher than for any month since June, 1932.

#### Comparisons of Indicated Expenditures for Public Buildings

TABLE 5 shows the value of contracts awarded for public buildings by the various agencies of the United States Government and by the various State governments, during the months of January and December, 1932, and January, 1933, by geographic divisions.

TABLE 5.—VALUE OF CONTRACTS FOR PUBLIC BUILDINGS AWARDED BY THE UNITED STATES GOVERNMENT AND BY STATE GOVERNMENTS, JANUARY AND DECEMBER, 1932, AND JANUARY, 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	Federal			State		
	January, 1932	December, 1932	January, 1933 <sup>1</sup>	January, 1932	December, 1932	January 1933 <sup>1</sup>
New England.....	\$316,860	\$44,798	\$344,722	0	\$232,381	0
Middle Atlantic.....	1,023,169	1,223,082	9,267,702	\$3,659,785	3,059,844	\$5,195,217
East North Central.....	913,785	386,032	226,856	1,380,877	162,539	50,512
West North Central.....	731,218	9,460	28,693	6,730	7,365	26,057
South Atlantic.....	2,431,659	7,671,476	620,891	669,334	199,714	429,378
South Central.....	611,727	625,242	3,496,849	3,891,569	134,453	334,084
Mountain and Pacific.....	1,058,829	1,745,042	2,602,776	1,289,443	387,551	127,095
Total.....	7,087,247	11,705,122	16,588,489	10,897,738	4,153,847	6,162,343

<sup>1</sup> Subject to revision.

The value of contracts awarded by the Federal Government during January, 1933, was \$16,588,489, an increase of nearly \$5,000,000 as compared with December, 1932, and an increase of over \$9,000,000 as compared with January, 1932.

The value of contracts awarded by the various State governments during January, 1933, was \$6,162,343. This was an increase of over \$2,000,000 as compared with December, 1932, but a decrease of over \$4,000,000 as compared with January, 1932.

Whenever a contract is awarded by either the Federal or a State government in a city having a population of 25,000 or over, the number or cost of such building is included in the tables shown herein.

### Comparisons, January, 1933, with January, 1932

TABLE 6 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 350 identical cities of the United States having a population of 25,000 or over, for the months of January, 1932, and January, 1933, by geographic divisions.

TABLE 6.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 350 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN JANUARY, 1932, AND JANUARY, 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	January, 1932	January, 1933	Per cent of change	January, 1932	January, 1933	Per cent of change
New England.....	\$1,522,500	\$585,300	-61.6	\$1,364,102	\$592,442	-56.6
Middle Atlantic.....	5,287,355	1,310,151	-75.2	11,616,778	10,259,063	-11.7
East North Central.....	1,028,251	296,260	-71.2	3,955,485	516,507	-86.9
West North Central.....	708,590	148,570	-79.0	922,228	109,807	-88.1
South Atlantic.....	1,515,330	435,860	-71.2	3,293,024	689,930	-79.0
South Central.....	842,868	380,354	-54.9	4,983,896	3,022,648	-39.4
Mountain and Pacific.....	2,342,305	884,075	-62.3	2,632,434	16,942,452	+543.6
Total.....	13,247,199	4,040,570	-69.5	28,767,947	32,132,849	+11.7

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	January, 1932	January, 1933	Per cent of change	January, 1932	January, 1933	Per cent of change	
New England.....	\$1,184,436	\$689,259	-41.8	\$4,071,038	\$1,867,001	-54.1	52
Middle Atlantic.....	3,561,043	2,449,523	-31.2	20,465,176	14,018,737	-31.5	71
East North Central.....	1,062,765	1,031,801	-2.9	6,046,501	1,844,568	-69.5	91
West North Central.....	428,188	324,702	-24.2	2,059,006	583,079	-71.7	25
South Atlantic.....	1,112,648	673,220	-39.5	5,921,002	1,799,010	-69.6	39
South Central.....	774,158	542,028	-30.0	6,600,922	3,945,030	-40.2	33
Mountain and Pacific.....	1,388,840	848,707	-38.9	6,363,579	18,675,234	+193.5	39
Total.....	9,512,078	6,559,240	-31.0	51,527,224	42,732,659	-17.1	350

According to reports received from these 350 cities, there were decreases in indicated expenditures for new residential building, for additions, alterations, and repairs, and for total building construction, comparing January, 1933, with January, 1932. Indicated expenditures for new nonresidential buildings, however, increased 11.7 per cent.

Table 7 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 350 identical cities having a population of 25,000 or over, for the months of January, 1932, and January, 1933, by geographic divisions.

TABLE 7.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 350 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JANUARY, 1932, AND JANUARY, 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	January, 1932	January, 1933	January, 1932	January, 1933	January, 1932	January, 1933	January, 1932	January, 1933
New England.....	181	119	332	239	1,074	1,030	1,587	1,388
Middle Atlantic.....	474	210	853	581	3,144	2,695	4,471	3,486
East North Central.....	213	68	774	395	1,542	1,326	2,529	1,789
West North Central.....	170	47	247	214	560	429	977	690
South Atlantic.....	299	120	466	351	2,018	1,548	2,783	2,019
South Central.....	312	185	435	332	1,532	1,264	2,279	1,781
Mountain and Pacific.....	575	237	901	683	2,869	2,271	4,345	3,191
Total.....	2,224	986	4,008	2,795	12,739	10,563	18,971	14,344
Per cent of change.....		-55.7		-30.3		-17.1		-24.4

Decreases were shown in the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations, comparing January, 1933, with January, 1932.

Table 8 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the cost of such dwellings for which permits were issued in 350 identical cities, in January, 1932, and January, 1933, by geographic divisions.

TABLE 8.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 350 IDENTICAL CITIES IN JANUARY, 1932, AND JANUARY, 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	January, 1932	January, 1933	January, 1932	January, 1933	January, 1932	January, 1933	January, 1932	January, 1933
New England.....	\$1,150,000	\$508,300	157	107	\$122,500	\$63,000	34	19
Middle Atlantic.....	1,988,255	846,767	325	173	807,600	236,384	228	61
East North Central.....	932,651	296,260	204	68	40,100	0	12	0
West North Central.....	648,090	133,570	161	45	49,500	15,000	16	4
South Atlantic.....	1,229,370	415,860	285	114	26,835	11,000	10	7
South Central.....	685,708	326,852	282	172	101,160	27,002	47	16
Mountain and Pacific.....	1,885,805	640,025	520	213	214,200	80,686	74	32
Total.....	8,519,879	3,167,634	1,934	892	1,361,895	433,072	421	139
Per cent of change.....		-62.8		-53.9		-68.2		-67.0

TABLE 8.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 350 IDENTICAL CITIES IN JANUARY, 1932, AND JANUARY, 1933, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	January, 1932	January, 1933	January, 1932	January, 1933	January, 1932	January, 1933	January, 1932	January, 1933
New England.....	\$250,000	\$14,000	76	6	\$1,522,500	\$585,300	267	132
Middle Atlantic.....	2,471,500	212,000	799	71	5,267,355	1,295,151	1,352	305
East North Central.....	55,500	0	11	0	1,028,251	296,260	227	68
West North Central.....	11,000	0	4	0	708,590	148,570	181	49
South Atlantic.....	259,125	9,000	84	10	1,515,330	435,860	379	131
South Central.....	56,000	26,500	25	20	842,868	380,354	354	208
Mountain and Pacific.....	242,300	163,364	108	33	2,342,305	884,075	702	278
Total.....	3,345,425	424,864	1,107	140	13,227,199	4,025,570	3,462	1,171
Per cent of change.....		-87.3		-87.4		-69.6		-66.2

Indicated expenditures for all types of dwellings were much lower in January, 1933, than in January, 1932. The number of family-dwelling units provided in each type of dwelling also showed a decrease, comparing these two periods.

#### Details by Cities

TABLE 9 shows the estimated cost of new residential buildings, of new nonresidential buildings, of total building operations, and the number of families provided for in new dwellings in each of the 752 cities having a population of 10,000 or over, for which reports were received in January, 1933.

Beginning with the month of January, 1933, the bureau is expanding the scope of its work on building operations to take in all cities in the United States having a population of 10,000 or over. Beginning with February, 1933, the bureau will therefore show comparisons with the previous month for all cities having a population of 10,000 or over which report to the bureau.

Permits were issued during January, 1933, for the following important building projects: In Binghamton, N. Y., for a State armory to cost over \$200,000; in Austin, Tex., for a junior high-school building to cost over \$325,000; in Sacramento, Calif., for a school building to cost nearly \$300,000; in San Francisco, Calif., for public works to cost over \$12,000,000.

Contracts were awarded by the Supervising Architect of the United States Treasury Department for a Federal court house in the Borough of Manhattan to cost nearly \$6,000,000; for a post office in Beverly Hills, Calif., to cost over \$200,000; for a narcotic farm in Lexington, Ky., to cost over \$2,000,000; for an extension and remodeling the post office in Jersey City, N. J., to cost nearly \$300,000. A contract was awarded by the Bureau of Yards and Docks, Navy Department, for a marine hospital in Philadelphia to cost over \$2,500,000.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JANUARY, 1933

## New England States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
<b>Connecticut:</b>					<b>Massachusetts—</b>				
Ansonia	\$500	\$600	\$3,000	1	Continued.				
Bridgeport	26,500	2,939	34,874	6	Methuen	0	0	0	0
Bristol	0	125	2,635	0	Milton	\$33,500	\$1,050	\$35,950	6
Danbury	0	2,000	3,150	0	Needham	2,000	125	3,742	1
Derby	0	400	400	0	New Bedford	0	1,275	11,425	0
Greenwich	28,000	133,500	169,200	3	Newburyport	0	0	0	0
Hamden	10,500	350	11,790	2	Newton	39,000	3,200	43,725	5
Hartford	0	3,928	18,930	0	North Adams	0	200	1,005	0
Manchester	0	700	2,350	0	Northampton	0	50	1,800	0
Meriden	16,200	8,400	26,340	3	Norwood	0	450	3,809	0
Middletown	0	250	600	0	Peabody	250	350	5,100	1
Milford	0	3,280	18,183	0	Pittsfield	0	0	3,050	0
Naugatuck	3,000	1,020	8,145	1	Plymouth	0	150	450	0
New Britain	0	450	13,803	0	Quincy	30,600	7,180	53,417	6
New Haven	16,000	3,650	49,590	4	Revere	7,000	1,300	19,575	2
Norwalk	29,500	1,800	39,000	7	Salem	0	2,500	10,650	0
Norwich	2,500	11,136	15,466	1	Saugus	1,000	700	2,100	2
Stamford	4,000	460	7,360	1	Somerville	3,500	1,075	12,185	1
Stratford	4,170	1,832	7,933	1	Southbridge	0	0	800	0
Torrington	0	8,330	9,595	0	Springfield	5,000	6,750	32,480	2
Wallingford	0	200	1,050	0	Stoneham	0	400	400	0
Waterbury	1,500	6,500	11,850	1	Swampscott	0	850	2,350	0
West Hartford	8,500	400	21,476	2	Taunton	0	3,915	8,905	0
Willimantic	500	50	550	1	Waltham	0	250	3,850	0
<b>Maine:</b>					Watertown	0	150	1,285	0
Autburn	0	100	1,900	0	Wellesley	60,000	9,880	73,380	4
Biddeford	44,000	5,490	49,490	17	Westfield	0	0	0	0
Lewiston	0	0	0	0	West Springfield	1,200	20	1,303	1
Portland	18,400	200	28,572	4	Winchester	0	200	530	0
Sanford	0	0	0	0	Winthrop	0	0	3,615	0
Westbrook	18,200	7,025	25,225	11	Woburn	3,000	150	3,250	1
<b>Massachusetts:</b>					Worcester	11,000	75,890	115,165	4
Arlington	16,500	0	27,600	4	<b>New Hampshire—</b>				
Attleboro	8,700	420	9,480	2	Berlin	0	0	1,750	0
Belmont	7,000	300	7,855	1	Claremont	10,875	8,535	55,392	7
Beverly	1,000	535	7,235	1	Concord	6,000	1,900	9,300	3
Boston	144,000	33,555	477,766	31	Keene	0	200	2,200	0
Braintree	7,000	830	11,505	2	Manchester	0	2,635	7,472	0
Brockton	0	2,700	19,275	0	<b>Rhode Island:</b>				
Brookline	37,000	1,800	46,815	4	Bristol	12,000	66,800	80,450	5
Cambridge	0	200	9,985	0	Central Falls	9,000	0	9,550	2
Chelsea	4,000	0	6,550	2	Cranston	16,000	5,325	22,550	5
Chicopee	1,500	105	1,605	1	East Providence	4,000	535	9,015	1
Dedham	8,800	950	11,100	2	Newport	7,000	250,121	257,881	2
Easthampton	0	0	2,700	0	North Providence	0	150	450	0
Everett	0	0	430	0	Providence	40,600	7,750	90,550	11
Fall River	0	754	7,474	0	Warwick	5,000	2,800	14,050	2
Fitchburg	0	500	1,545	0	Westerly	2,500	0	2,500	1
Frammingham	0	0	7,350	0	West Warwick	4,000	0	4,000	1
Gardner	0	125	5,575	0	Woonsocket	0	125	1,030	0
Gloucester	5,000	0	9,350	3	<b>Vermont:</b>				
Haverhill	2,000	800	8,575	1	Bennington	4,000	0	4,000	1
Holyoke	0	1,450	5,600	0	Burlington	11,500	0	11,500	2
Lawrence	0	1,200	4,800	0	Rutland	0	5,000	5,000	0
Leominster	0	0	2,815	0	<b>Total</b> .....				
Lowell	0	2,275	3,125	0		855,995	728,385	2,403,964	212
Lynn	4,500	485	24,260	1					
Malden	11,000	3,000	17,950	4					
Marlborough	0	200	1,000	0					
Medford	25,000	525	28,625	6					
Melrose	11,500	625	14,625	2					

## Middle Atlantic States

<b>New Jersey:</b>					<b>New Jersey—</b>				
Asbury Park	\$4,500	\$500	\$6,500	1	Continued.				
Atlantic City	0	11,900	43,876	0	Camden	0	\$1,578	\$4,223	0
Bayonne	10,000	5,000	32,214	4	Carteret	0	8,150	8,150	0
Belleville	0	8,750	10,450	0	Clifton	\$17,000	3,200	23,825	6
Bloomfield	5,000	39,500	44,500	1	Dover	4,800	0	4,800	1
Bridgeton	0	380	545	0	East Orange	0	2,125	9,825	0
Burlington	0	250	4,250	0	Elizabeth	6,000	5,500	17,860	1

1 Applications filed



TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JANUARY, 1933—Continued

## Middle Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
New Jersey—					New York—				
Continued.					Continued.				
Englewood.....	\$3,500	\$500	\$4,460	1	Newburgh.....	\$5,500	\$1,000	\$7,050	1
Garfield.....	0	400	1,750	0	New Rochelle.	8,000	2,380	14,255	1
Hackensack.....	0	4,000	8,555	0	New York				
Harrison.....	0	60	110	0	City—				
Hillside.....	0	1,500	1,500	0	The Bronx <sup>1</sup> .....	375,700	102,300	637,170	72
Hoboken.....	0	0	4,050	0	Brooklyn <sup>1</sup> .....	256,250	215,180	884,733	78
Irvington.....	6,000	1,700	9,860	1	Manhattan <sup>1</sup> .....	0	6,063,400	6,498,659	0
Jersey City.....	57,000	305,034	375,884	4	Queens <sup>1</sup> .....	168,180	177,955	510,939	59
Kearny.....	0	0	175	0	Richmond <sup>1</sup> .....	13,000	40,640	75,305	4
Linden.....	0	525	925	0	Niagara Falls.....	0	600	6,002	0
Long Branch.....	0	375	1,525	0	Olean.....	0	475	475	0
Lyndhurst.....	0	650	650	0	Oneida.....	0	0	4,500	0
Maplewood.....	0	5,900	6,190	0	Ossining.....	0	10,550	13,032	0
Montclair.....	5,000	2,725	12,580	1	Oswego.....	0	0	0	0
Morristown.....	0	11,300	12,563	0	Peekskill.....	0	500	814	0
Newark.....	0	22,450	90,702	0	Plattsburg.....	11,000	950	11,950	3
New Bruns-					Poughkeepsie.	0	0	2,050	0
wick.....	0	0	16,590	0	Rochester.....	0	8,060	61,186	0
Nutley.....	0	1,142	3,442	0	Rockville				
Orange.....	0	0	11,019	0	Center.....	41,000	0	42,800	7
Passaic.....	0	700	18,947	0	Schenectady.....	12,825	3,705	20,796	2
Paterson.....	0	31,240	57,692	0	Syracuse.....	0	3,300	41,300	0
Perth Amboy.....	0	150	1,800	0	Tonawanda.....	0	287	287	0
Phillipsburg.....	0	0	0	0	Troy.....	18,000	0	19,275	3
Plainfield.....	4,850	500	9,018	1	Utica.....	0	550	13,605	0
Rahway.....	3,000	400	4,110	1	Valley Stream.....	0	810	2,860	0
Ridgefield					Watertown.....	0	590	3,845	0
Park.....	3,500	250	3,750	1	White Plains.....	17,500	9,850	33,950	2
Ridgewood.....	2,500	0	7,800	1	Yonkers.....	102,300	15,400	132,850	14
Roselle.....	0	880	2,080	0	Pennsylvania:				
South Orange.....	42,000	0	42,470	2	Abington.....	0	850	1,650	0
South River.....	0	0	0	0	Allentown.....	0	1,300	7,700	0
Summit.....	26,600	250	27,925	4	Berwick.....	700	950	3,150	1
Teaneck.....	16,300	1,025	19,875	2	Bethlehem.....	0	550	1,550	0
Trenton.....	0	630	13,235	0	Braddock.....	0	0	0	0
Union.....	35,700	375	38,525	10	Bradford.....	0	0	180	0
Union City.....	0	0	3,725	0	Bristol.....	0	0	0	0
Weehawken.....	0	0	1,659	0	Butler.....	0	50	50	0
Westfield.....	0	130	770	0	Canonsburg.....	0	0	0	0
West New					Carlisle.....	0	35	240	0
York.....	0	500	4,500	0	Chambers-				
West Orange.....	0	750	2,040	0	burg.....	0	0	0	0
New York:					Charlert.....	0	2,000	2,600	0
Albany.....	60,500	3,700	80,550	6	Chester.....	0	700	700	0
Amsterdam.....	0	1,100	1,100	0	Clairton.....	2,000	100	3,805	1
Auburn.....	2,000	1,900	5,600	1	Connellsville.....	0	1,077	4,077	0
Batavia.....	0	75	375	0	Coraopolis.....	0	0	0	0
Binghamton.....	0	207,993	236,590	0	Donora.....	0	0	0	0
Buffalo.....	30,000	20,990	97,664	3	Du Bois.....	0	0	0	0
Dunkirk.....	0	0	65	0	Easton.....	0	275	4,735	0
Elmira.....	0	4	3,281	0	Ellwood City.....	0	0	0	0
Floral Park.....	0	0	0	0	Erie.....	3,300	2,965	15,160	2
Freeport.....	26,000	2,300	31,900	8	Greensburg.....	0	0	0	0
Fulton.....	2,000	800	2,800	1	Harrisburg.....	12,000	137,200	158,125	1
Glen Cove.....	850	175	1,875	1	Haverford.....	0	105	2,140	0
Glens Falls.....	4,500	375	6,025	1	Hazleton.....	5,204	500	7,924	2
Gloversville.....	6,000	6,300	13,400	1	Homestead.....	0	0	1,000	0
Hempstead.....	4,250	5,047	9,297	2	Jeannette.....	0	0	0	0
Herkimer.....	0	65,400	65,400	0	Johnstown.....	0	7,215	10,840	0
Hornell.....	0	0	0	0	Kingston.....	6,250	3,300	9,750	2
Jamestown.....	0	300	5,290	0	Lancaster.....	0	600	4,600	0
Johnson City.....	0	300	300	0	Latrobe.....	0	0	0	0
Kenmore.....	4,000	200	4,375	2	Lower Merion.....	56,000	15,492	95,734	2
Kingston.....	14,200	7,600	22,445	3	McKeesport.....	4,000	100	10,930	1
Lackawanna.....	0	0	0	0	Mahanoy City.....	0	0	0	0
Lockport.....	0	177	662	0	Meadville.....	15,000	300	20,100	2
Lynbrook.....	8,650	500	10,225	2	Monessen.....	0	0	0	0
Mamaroneck.....	5,000	125	5,125	1	Mount Leba-				
Massena.....	3,500	0	3,500	1	non.....	7,500	12,750	22,850	1
Mount Ver-					Munhall.....	0	200	3,640	0
non.....	4,000	60,000	67,800	1	Nanticoke.....	3,042	0	3,442	1

<sup>1</sup> Applications filed.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JANUARY, 1933—Continued

## Middle Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Pennsylvania—Continued.					Pennsylvania—Continued.				
New Castle.....	0	\$10,035	\$11,535	0	Sharon.....	0	0	0	0
New Kensington.....	0	0	0	0	Steelton.....	0	0	0	0
Norristown.....	0	170	1,950	0	Sunbury.....	0	0	0	0
North Braddock.....	0	0	0	0	Swissvale.....	0	0	0	0
Oil City.....	0	0	175	0	Tamaqua.....	0	0	0	0
Philadelphia.....	\$60,600	2,657,795	3,320,550	20	Uniontown.....	0	0	\$3,100	0
Phoenixville.....	2,000	0	2,000	1	Warren.....	0	0	0	0
Pittsburgh.....	12,200	12,210	65,169	4	Washington.....	0	0	3,250	0
Pittston.....	0	0	0	0	Waynesboro.....	0	0	0	0
Plymouth.....	0	3,500	7,500	0	West Chester.....	0	\$800	1,150	0
Pottstown.....	0	500	900	0	Wilkes-Barre.....	\$6,600	0	17,440	3
Pottsville.....	0	800	1,000	0	Wilkinsburg.....	3,000	450	3,450	1
Reading.....	0	2,800	13,482	0	Williamsport.....	0	992	4,439	0
Scranton.....	1,400	25,550	38,264	1	York.....	0	600	1,755	0
					Total.....	1,658,751	10,431,533	14,644,682	369

## East North Central States

Illinois:					Indiana:				
Alton.....	0	0	\$26,975	0	Bedford.....	0	0	0	0
Aurora.....	0	\$200	1,840	0	Connersville.....	0	0	\$2,772	0
Belleville.....	\$3,000	200	3,200	1	Crawfordsville.....	\$2,300	\$500	8,450	1
Berwyn.....	0	0	0	0	East Chicago.....	0	0	150	0
Bloomington.....	0	0	41,000	0	Elkhart.....	0	2,400	7,325	0
Blue Island.....	0	1,050	1,755	0	Elwood.....	0	0	2,400	0
Brookfield.....	0	0	0	0	Evansville.....	3,500	395	12,028	1
Cairo.....	0	0	500	0	Fort Wayne.....	8,000	700	13,785	1
Calumet.....	0	0	0	0	Gary.....	0	500	1,210	0
Canton.....	0	2,000	2,000	0	Goshen.....	0	0	0	0
Centralia.....	0	53,700	53,700	0	Hammond.....	10,500	225	29,272	2
Champaign.....	8,000	150	12,444	2	Huntington.....	0	0	25	0
Chicago.....	5,100	25,300	312,987	3	Indianapolis.....	1,150	35,800	56,972	2
Cicero.....	0	0	550	0	Kokoma.....	0	0	795	0
Danville.....	0	748	2,898	0	Lafayette.....	2,700	0	3,184	1
Decatur.....	0	215	1,765	0	La Porte.....	2,500	0	3,825	1
East St. Louis.....	2,950	435	10,495	1	Logansport.....	0	50	1,200	0
Elgin.....	0	0	3,967	0	Marion.....	0	0	2,200	0
Elmhurst.....	15,000	0	21,000	1	Michigan City.....	0	0	0	0
Elmwood Park.....	0	0	340	0	Mishawaka.....	0	75	875	0
Evanston.....	0	500	10,000	0	Muncie.....	0	925	2,169	0
Forest Park.....	0	0	200	0	New Castle.....	0	2,000	2,000	0
Freeport.....	0	250	250	0	Richmond.....	0	0	4,900	0
Granite City.....	0	0	0	0	Shelbyville.....	0	0	0	0
Harvey.....	0	0	3,450	0	South Bend.....	0	36,000	38,775	0
Highland Park.....	3,900	150	14,400	2	Terre Haute.....	0	105	6,685	0
Joliet.....	0	0	15,469	0	Vincennes.....	0	5,000	5,230	0
Kankakee.....	0	0	0	0	Whiting.....	0	0	0	0
La Grange.....	0	0	0	0	Michigan:				
Maywood.....	0	0	0	0	Adrian.....	0	300	300	0
Melrose Park.....	0	0	875	0	Ann Arbor.....	6,500	18,550	27,790	2
Moline.....	0	5,070	7,065	0	Battle Creek.....	0	5,800	36,285	0
Mount Vernon.....	0	0	0	0	Bay City.....	0	0	850	0
Oak Park.....	0	1,150	1,150	0	Dearborn.....	0	460	2,660	0
Ottawa.....	0	0	660	0	Detroit.....	44,110	157,816	253,447	12
Park Ridge.....	5,500	0	5,500	1	Escanaba.....	7,000	0	7,000	3
Peoria.....	19,000	6,750	25,750	3	Ferdale.....	0	115	1,915	0
Quincy.....	0	320	7,834	0	Flint.....	0	7,640	13,950	0
Rockford.....	0	3,000	6,650	0	Grand Rapids.....	11,000	38,800	68,060	4
Rock Island.....	0	290	3,675	0	Grosse Pointe Park.....	6,992	200	7,192	1
Springfield.....	4,950	3,497	10,534	2	Hamtramck.....	0	0	0	0
Sterling.....	0	500	530	0	Highland Park.....	0	0	785	0
Streator.....	0	0	0	0	Holland.....	0	0	50	0
Urbana.....	0	0	1,500	0	Iron Mountain.....	0	0	0	0
Waukegan.....	3,000	2,000	5,000	1	Ironwood.....	0	75	925	0
Wilmette.....	0	0	3,100	0	Jackson.....	9,500	1,960	12,035	1
Winnetka.....	4,000	0	7,000	1	Kalamazoo.....	0	3,203	27,201	0

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JANUARY, 1933—Continued

## East North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Michigan—Continued.					Ohio—Contd.				
Lansing.....	0	\$300	\$4,850	0	Mansfield.....	\$6,500	\$290	\$11,373	1
Marquette.....	0	0	500	0	Marietta.....	0	0	200	0
Menominee.....	0	0	0	0	Marion.....	0	250	350	0
Monroe.....	0	450	450	0	Martins Ferry.....	0	0	0	0
Muskegon.....	0	7,000	8,285	0	Massillon.....	0	15	2,215	0
Muskegon Heights.....	0	0	310	0	Middletown.....	0	75	4,180	0
Owosso.....	0	0	0	0	Newark.....	0	160	160	0
Pontiac.....	0	200	2,210	0	Niles.....	0	1,725	3,875	0
River Rouge.....	0	0	0	0	Norwood.....	0	225	6,255	0
Royal Oak.....	0	16,650	17,450	0	Parma.....	1,500	385	2,485	1
Saginaw.....	0	760	3,312	0	Piqua.....	0	0	800	0
Sault Sainte Marie.....	0	0	0	0	Sandusky.....	3,875	80	4,555	2
Traverse City.....	0	75	2,706	0	Shaker Heights.....	45,000	0	45,000	4
Wyandotte.....	0	180	380	0	Springfield.....	0	800	2,350	0
Ypsilanti.....	\$1,000	0	1,000	1	Stuebenville.....	0	1,600	1,800	0
Ohio:					Struthers.....	0	0	0	0
Akron.....	7,100	2,675	18,120	2	Toledo.....	0	3,250	12,530	0
Alliance.....	3,500	15,695	23,070	1	Warren.....	0	290	2,905	0
Ashtabula.....	0	425	2,725	0	Wooster.....	0	0	75	0
Bucyrus.....	0	500	500	0	Xenia.....	5,200	800	9,000	2
Cambridge.....	0	0	0	0	Zanesville.....	0	0	400	0
Campbell.....	0	0	0	0	Wisconsin:				
Canton.....	0	1,050	2,605	0	Beloit.....	37,000	0	37,000	0
Cincinnati.....	82,500	36,172	190,585	13	Cudahy.....	0	0	0	0
Cleveland.....	40,000	8,825	151,600	9	Eau Claire.....	0	500	900	0
Cleveland Heights.....	9,900	350	11,425	2	Fond du Lac.....	0	150	10,550	0
Columbus.....	0	7,500	58,950	0	Green Bay.....	0	0	350	0
Cuyahoga Falls.....	1,600	100	1,725	1	Kenosha.....	0	1,255	2,180	0
Dayton.....	0	5,613	14,906	0	Madison.....	0	100	6,225	0
East Cleveland.....	0	0	1,240	0	Manitowoc.....	0	0	0	0
East Liverpool.....	0	0	0	0	Marinette.....	3,225	29,946	47,886	7
Elyria.....	0	115	1,989	0	Milwaukee.....	10,000	57,645	135,810	2
Findlay.....	0	100	900	0	Oshkosh.....	3,800	175	5,005	1
Garfield Heights.....	0	200	200	0	Racine.....	0	550	1,400	0
Hamilton.....	0	630	1,255	0	Sheboygan.....	0	325	5,336	0
Ironton.....	0	250	850	0	Shorewood.....	0	0	0	0
Lakewood.....	0	360	2,260	0	South Milwaukee.....	12,800	4,810	27,957	7
Lima.....	0	0	6,100	0	Stevens Point.....	0	75	425	0
Lorain.....	0	90	390	0	Superior.....	1,500	75	7,405	1
					Two Rivers.....	0	50	95	6
					Waukesha.....	52,800	19,600	97,085	11
					Wausau.....	0	0	0	0
					West Allis.....	0	0	2,950	0
					Total.....	518,952	658,538	2,329,115	118

## West North Central States

Iowa:					Kansas:				
Ames.....	0	\$100	\$100	0	Atchison.....	\$3,000	0	\$3,000	1
Boone.....	0	550	650	0	Coffeyville.....	0	\$100	1,200	0
Burlington.....	0	300	1,950	0	Dodge City.....	0	0	0	0
Cedar Rapids.....	0	600	36,110	0	Eldorado.....	9,000	1,200	14,305	6
Council Bluffs.....	0	2,112	4,192	0	Emporia.....	0	0	4,700	0
Davenport.....	0	200	7,917	0	Fort Scott.....	0	0	0	0
Des Moines.....	\$1,800	21,590	29,785	2	Hutchinson.....	0	1,050	3,760	0
Dubuque.....	2,500	550	12,899	1	Independence.....	0	0	0	0
Fort Dodge.....	0	600	700	0	Kansas City.....	5,300	2,315	8,315	3
Fort Madison.....	0	0	0	0	Lawrence.....	0	750	950	0
Iowa City.....	6,475	0	6,475	3	Leavenworth.....	3,200	0	15,905	3
Keokuk.....	3,000	200	3,700	1	Manhattan.....	0	0	0	0
Marshalltown.....	0	0	1,685	0	Newton.....	38,825	7,848	73,471	13
Mason City.....	0	0	1,025	0	Pittsburg.....	0	0	0	0
Muscataine.....	0	0	0	0	Salina.....	9,307	2,050	12,457	1
Ottumwa.....	12,500	1,000	13,500	3	Topeka.....	3,000	3,145	8,075	2
Sioux City.....	1,500	1,450	6,200	1	Wichita.....	0	3,185	14,110	0
Waterloo.....	0	75	1,452	0					

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JANUARY, 1933—Continued

## West North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Minnesota:					Missouri—Con.				
Albert Lea.....	0	\$12,800	\$12,800	0	Moberly.....	0	\$3,500	\$5,500	0
Brainerd.....	0	0	0	0	St. Charles.....	0	350	350	0
Duluth.....	0	1,450	12,980	0	St. Joseph.....	0	4,300	28,875	0
Faribault.....	0	0	100	0	St. Louis.....	\$28,000	33,795	124,335	8
Hibbing.....	0	0	500	0	Springfield.....	7,500	2,755	14,605	3
Mankato.....	\$4,363	0	4,516	4	Nebraska:				
Minneapolis.....	25,350	1,775	60,505	7	Beatrice.....	0	0	5,000	0
Rochester.....	2,900	0	3,400	1	Fremont.....	0	0	2,479	0
St. Cloud.....	0	75	1,322	0	Grand Island.....	0	0	500	0
St. Paul.....	17,520	7,860	56,522	4	Hastings.....	0	51,200	51,200	0
South St. Paul.....	19,100	4,865	40,845	8	Lincoln.....	0	700	3,700	0
Winona.....	1,600	200	2,100	1	Omaha.....	24,100	13,500	77,070	7
Missouri:					North Dakota:				
Cape Girardeau.....	0	800	800	0	Bismarck.....	0	0	0	0
Hannibal.....	1,000	325	1,325	1	Fargo.....	1,000	0	2,997	1
Independence.....	0	500	500	0	Grand Forks.....	0	0	0	0
Jefferson City.....	1,450	1,150	9,650	1	Minot.....	0	0	500	0
Joplin.....	0	500	14,000	0	South Dakota:				
Kansas City.....	13,500	5,400	32,450	5	Huron.....	0	0	2,500	0
Maplewood.....	0	450	1,450	0	Mitchell.....	0	0	0	0
					Sioux Falls.....	5,000	200	6,775	2
					Total.....	251,790	199,420	870,739	93

## South Atlantic States

Delaware:					North Carolina—Con.				
Wilmington.....	0	\$16,794	\$30,704	0	Rocky Mount.....	\$10,950	\$5,565	\$31,070	9
District of Columbia:					Shelby.....	0	0	800	0
Washington.....	\$226,150	260,405	584,589	35	Statesville.....	1,215	1,726	35,400	2
Florida:					Thomasville.....	0	0	0	0
Jacksonville.....	13,275	7,365	53,495	11	Wilmington.....	0	1,100	10,800	0
Key West.....	500	0	500	1	Salem.....	2,800	9,165	16,950	1
Miami.....	7,700	14,340	40,639	5	South Carolina:				
Orlando.....	1,565	4,800	19,470	2	Anderson.....	8,750	620	11,895	5
Pensacola.....	64,125	1,085	94,048	16	Charleston.....	1,000	0	27,251	1
St. Petersburg.....	15,000	3,300	23,600	8	Columbia.....	1,950	10,490	14,157	2
Tampa.....	0	4,675	22,499	0	Greenville.....	0	1,485	7,030	0
West Palm Beach.....	4,320	2,755	7,615	1	Greenwood.....	0	300	300	0
Georgia:					Spartanburg.....	0	90	2,918	0
Athens.....	1,775	225	7,327	2	Sumter.....	3,500	0	3,500	1
Atlanta.....	9,600	9,240	46,395	11	Virginia:				
Augusta.....	2,250	1,747	5,863	3	Alexandria.....	37,500	2,465	42,452	7
Brunswick.....	2,200	3,540	7,142	1	Charlottesville.....	10,000	415	14,888	1
Columbus.....	0	2,500	7,650	0	Danville.....	7,007	1,110	8,450	2
Griffin.....	20,700	5,550	26,390	5	Hopewell.....	1,935	10,225	12,740	3
Lagrange.....	14,500	7,800	23,200	4	Lynchburg.....	23,750	150	26,867	8
Rome.....	3,000	3,500	17,700	1	Newport News.....	3,200	369	6,188	1
Savannah.....	1,400	250	2,930	2	Norfolk.....	30,500	22,525	66,387	8
Thomasville.....	31,000	25,555	68,405	27	Petersburg.....	0	450	7,437	0
Maryland:					Portsmouth.....	3,700	175	9,985	2
Baltimore.....	55,000	186,700	492,400	15	Richmond.....	4,800	28,615	53,230	2
Cumberland.....	3,500	0	3,900	1	Roanoke.....	2,200	3,590	7,990	2
Frederick.....	0	0	0	0	Suffolk.....	0	920	1,820	0
Hagerstown.....	0	525	1,275	0	Winchester.....	0	0	0	0
Salisbury.....	1,500	2,675	5,375	1	West Virginia:				
North Carolina:					Bluefield.....	0	300	550	0
Asheville.....	2,100	3,200	15,435	2	Charleston.....	3,500	2,475	8,170	1
Charlotte.....	13,500	26,600	50,291	3	Clarksburg.....	0	30	2,780	0
Concord.....	18,550	20,420	53,568	11	Fairmont.....	0	0	0	0
Durham.....	3,100	47,000	51,075	4	Huntington.....	0	935	7,415	0
Elizabeth City.....	0	0	0	0	Morgantown.....	0	3,500	3,950	0
Fayetteville.....	0	6,175	10,725	0	Moundsville.....	0	0	0	0
Goldsboro.....	0	1,000	1,000	0	Parkersburg.....	0	220	1,385	0
Greensboro.....	0	1,955	35,700	0	Wheeling.....	0	12,450	17,905	0
High Point.....	0	250	3,600	0	Total.....	675,367	803,601	2,292,005	231
Kinston.....	800	9,000	9,800	1					
Raleigh.....	0	1,215	5,040	0					

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JANUARY, 1933—Continued

## South Central States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Alabama:					Oklahoma—				
Anniston.....	0	\$25,240	\$25,240	0	Continued.				
Bessemer.....	0	0	380	0	Oklahoma				
Birmingham.....	\$6,900	1,975	66,834	3	City.....	\$11,000	\$68,925	\$98,405	2
Decatur.....	0	0	0	0	Sapulpa.....	0	0	1,300	0
Dothan.....	10,000	0	10,000	1	Seminole.....	0	0	0	0
Fairfield.....	0	175	439	0	Shawnee.....	0	0	200	0
Gadsden.....	750	5,500	7,655	1	Tulsa.....	3,000	42,105	53,190	1
Mobile.....	6,800	20,891	35,107	10	Tennessee:				
Selma.....	0	500	2,880	0	Chattanooga.....	1,000	14,200	38,522	2
Arkansas:					Jackson.....	0	450	3,450	0
Blytheville.....	3,000	0	3,000	1	Johnson City.....	0	0	0	0
El Dorado.....	0	1,000	2,818	0	Kingsport.....	0	0	0	0
Hot Springs.....	500	6,200	9,200	1	Knoxville.....	8,400	740	12,710	4
Little Rock.....	0	1,868	13,232	0	Memphis.....	7,150	15,730	82,030	6
Kentucky:					Nashville.....	3,450	154,950	185,210	4
Covington.....	0	125	1,440	0	Texas:				
Frankford.....	1,400	0	1,400	1	Amarillo.....	0	11,825	14,291	0
Henderson.....	0	0	0	0	Austin.....	31,050	337,274	379,398	25
Lexington.....	600	2,191,932	2,196,862	2	Beaumont.....	0	1,925	9,078	0
Louisville.....	4,300	1,655	23,955	1	Big Spring.....	0	943	3,299	0
Paducah.....	600	0	1,100	1	Brownwood.....	0	225	225	0
Louisiana:					Dallas.....	56,697	26,078	164,475	51
Baton Rouge.....	0	450	6,015	0	El Paso.....	0	3,224	9,094	0
Lafayette.....	800	0	905	1	Fort Worth.....	11,700	46,375	84,850	14
Monroe.....	0	0	3,325	0	Galveston.....	9,999	1,945	18,530	6
New Orleans.....	17,800	695	118,794	8	Greenville.....	0	5,225	5,225	0
Shreveport.....	2,700	1,205	15,089	5	Harlingen.....	0	0	1,190	0
Mississippi:					Houston.....	175,500	55,600	238,700	40
Clarksdale.....	0	0	100	0	Lubbock.....	0	11,200	14,094	0
Greenwood.....	0	0	0	0	Palestine.....	3,380	750	7,500	3
Gulfport.....	2,500	120,000	122,500	2	Pampa.....	800	10,000	10,800	1
Hattiesburg.....	500	0	500	1	Port Arthur.....	0	200	4,905	0
Jackson.....	0	725	7,388	0	San Angelo.....	0	200	820	0
Meridian.....	0	0	2,785	0	San Antonio.....	17,018	17,556	46,841	18
Wicksburg.....	0	0	2,550	0	Sweetwater.....	530	325	1,405	1
Oklahoma:					Texarkana.....	2,000	0	2,500	2
Ardmore.....	0	0	0	0	Tyler.....	25,595	252,860	280,148	23
Bartlesville.....	5,900	10,625	18,000	2	Waco.....	5,190	1,850	11,070	6
Chickasha.....	0	0	0	0	Wichita Falls.....	0	25	1,945	0
Enid.....	0	400	1,825	0	Total.....	438,009	3,475,166	4,488,218	250
Lawton.....	0	1,300	1,500	0					

## Mountain and Pacific States

Arizona:					California—Con.				
Phoenix.....	\$13,000	\$350	\$22,343	2	Pomona.....	0	0	0	0
Tucson.....	0	802	11,022	0	Riverside.....	\$3,350	\$5,255	\$14,071	3
California:					Sacramento.....	7,750	303,221	320,885	3
Alameda.....	0	1,390	2,280	0	Salinas.....	4,700	2,000	12,558	2
Alhambra.....	6,000	0	10,325	2	San Bernardino.....	0	665	13,106	0
Bakersfield.....	2,000	1,025	10,886	1	San Diego.....	42,300	14,905	89,305	16
Berkeley.....	22,600	20,915	50,139	6	San Francisco.....	207,600	16,077,649	16,376,064	38
Beverly Hills.....	47,400	234,000	286,825	17	San Leandro.....	8,950	300	10,500	3
Brawley.....	0	3,000	3,750	0	San Jose.....	14,800	23,540	56,635	4
Compton.....	0	500	1,290	0	San Mateo.....	0	11,800	11,800	0
Eureka.....	1,450	5,519	9,594	4	Santa Ana.....	0	15,282	15,282	0
Fresno.....	0	9,040	23,142	0	Santa Barbara.....	600	925	9,665	3
Fullerton.....	0	188	1,693	0	Santa Cruz.....	4,500	1,675	7,100	6
Gardena.....	2,000	85	2,560	2	Santa Monica.....	12,300	3,990	19,540	0
Glendale.....	22,000	43,840	68,280	4	Santa Rosa.....	0	0	0	0
Huntington Park.....	5,750	1,000	10,165	2	Stockton.....	0	440	8,193	0
Inglewood.....	2,000	0	9,000	1	South Gate.....	3,500	3,000	10,270	2
Long Beach.....	53,000	54,825	142,190	19	South Pasadena.....	0	5,000	8,300	0
Los Angeles.....	352,175	137,955	704,248	130	Vallejo.....	3,000	250	5,940	1
Modesto.....	2,000	10,388	13,307	1	Whittier.....	0	0	4,439	0
Monrovia.....	0	415	3,255	0	Colorado:				
Oakland.....	23,250	29,201	81,626	9	Boulder.....	0	50	1,050	0
Ontario.....	0	475	1,650	0	Colorado Springs.....	2,500	930	6,750	1
Palo Alto.....	0	10,150	11,150	0					
Pasadena.....	17,000	36,594	77,234	4					



TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JANUARY, 1933—Continued

*Mountain and Pacific States—Continued*

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Colorado—Con.					Oregon—Con.				
Denver.....	\$46,500	\$24,705	\$119,560	10	Medford.....	0	0	\$2,289	0
Fort Collins.....	0	1,650	2,400	0	Portland.....	0	\$11,575	43,990	0
Grand Junction.....	0	165	165	0	Salem.....	0	2,933	8,733	0
Greeley.....	0	50	270	0	Utah:				
Pueblo.....	0	325	3,315	0	Ogden.....	0	0	11,587	0
Trinidad.....	0	2,650	3,250	0	Provo.....	0	0	0	0
Idaho:					Salt Lake City.....	\$2,000	2,635	14,054	1
Boise.....	0	300	1,822	0	Washington:				
Montana:					Aberdeen.....	0	10	1,405	0
Anaconda.....	15,000	110,200	125,200	5	Bellingham.....	1,000	1,760	3,500	1
Billings.....	0	330	510	0	Bremerton.....	12,000	250	21,550	4
Butte.....	0	27,000	27,799	0	Everett.....	950	600	4,100	2
Great Falls.....	4,000	1,050	6,600	1	Longview.....	0	0	200	0
Missoula.....	0	0	2,000	0	Olympia.....	0	75	310	0
Nevada:					Port Angeles.....	0	0	150	0
Reno.....	0	350	1,950	0	Seattle.....	11,200	75,145	237,352	5
New Mexico:					Spokane.....	6,450	1,475	22,223	5
Albuquerque.....	1,000	1,865	12,250	1	Tacoma.....	0	7,395	10,855	0
Roswell.....	0	5,700	6,775	0	Wenatchee.....	0	0	75	0
Santa Fe.....	0	1,250	1,500	0	Yakima.....	1,400	200	2,925	1
Oregon:					Wyoming:				
Astoria.....	1,000	0	4,473	1	Cheyenne.....	0	0	1,125	0
Eugene.....	0	190	815	0					
Klamath Falls.....	0	3,280	3,280	0	Total.....	989,975	17,357,647	19,269,764	324

## Building Operations in Principal Cities, 1932

### Part 1. General Summary

**D**ATA concerning building operations in 360 identical cities having a population of 25,000 or over, for the years 1931 and 1932, are presented in this article.

The cost figures as shown in the following tables include the cost of buildings only; no land costs are included. The costs are as stated by the prospective builder on applying for his permit to build. Reports cover only projects within the corporate limits of the cities enumerated. The States of Illinois, Massachusetts, New York, New Jersey, Pennsylvania, through their departments of labor, are cooperating with the Bureau of Labor Statistics in the collection of these data.

Table 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 360 identical cities of the United States having a population of 25,000 or over, by geographic divisions, for the calendar years 1931 and 1932.

**TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 360 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN 1931 AND 1932, BY GEOGRAPHIC DIVISIONS**

Geographic division	New residential buildings						New nonresidential buildings, estimated cost		
	Estimated cost			Families provided for in new dwellings			1931	1932	Per cent of change
	1931	1932	Per cent of change	1931	1932	Per cent of change			
New England.....	\$37,363,370	\$10,743,285	-71.2	6,949	2,397	-65.5	\$62,341,903	\$18,051,074	-71.0
Middle Atlantic.....	206,976,392	36,176,844	-82.5	45,054	8,478	-81.2	253,393,429	85,719,899	-66.2
East North Central.....	56,261,868	14,277,684	-74.6	11,343	3,154	-72.2	136,123,914	47,042,171	-65.4
West North Central.....	23,915,333	8,868,126	-62.9	6,290	2,516	-60.0	42,888,611	15,680,348	-63.4
South Atlantic.....	41,096,788	13,284,099	-67.7	8,922	3,389	-62.0	51,996,298	69,814,583	+34.3
South Central.....	28,667,767	7,292,285	-74.6	8,948	3,345	-62.6	55,941,692	29,031,337	-48.1
Mountain and Pacific.....	64,295,667	22,292,621	-65.3	18,837	7,238	-61.6	61,894,856	31,913,836	-48.4
Total.....	458,577,185	112,934,944	-75.4	106,343	30,517	-71.3	664,580,708	297,253,248	-55.3

Geographic division	Additions, alterations, and repairs, estimated cost			Total construction, estimated cost			Number of cities
	1931	1932	Per cent of change	1931	1932	Per cent of change	
Middle Atlantic.....	77,886,346	37,333,159	-52.1	538,256,167	159,229,902	-70.4	71
East North Central.....	35,522,765	16,501,943	-53.5	227,908,547	77,821,798	-65.9	96
West North Central.....	11,433,993	6,305,866	-44.8	78,237,937	30,854,340	-60.6	25
South Atlantic.....	22,052,218	13,606,265	-38.3	115,145,304	96,704,947	-16.0	39
South Central.....	11,564,198	7,789,873	-32.6	96,173,657	44,113,495	-54.1	38
Mountain and Pacific.....	24,347,064	14,764,439	-39.4	150,537,587	68,970,896	-54.2	38
Total.....	202,847,503	110,314,292	-45.6	1,326,005,391	520,502,484	-60.7	360

In the 360 cities studied, permits were issued during the year 1932 for building operations to cost \$520,502,484, which is 60.7 per cent less than during 1931.

Decreases were shown in all geographic divisions. Estimated expenditures for new residential buildings decreased 75.4 per cent in these 360 cities, comparing the two periods under discussion. The decrease in the cost of new nonresidential buildings was 55.3 per cent, and in indicated expenditures for additions, alterations, and repairs was 45.6 per cent.

During 1932, 30,517 family-dwelling units were provided in new buildings in these 360 cities, a decrease of 71.3 per cent as compared with 1931.

Table 2 shows the value of contracts awarded for public buildings by the different agencies of the United States Government and by the different State governments for the calendar years 1931 and 1932, by geographic divisions.

TABLE 2.—CONTRACTS FOR PUBLIC BUILDINGS AWARDED BY THE UNITED STATES GOVERNMENT AND BY STATE GOVERNMENTS, FOR THE CALENDAR YEARS 1931 AND 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	Contracts awarded by—			
	Federal Government		State governments	
	1931	1932	1931	1932
	New England.....	\$10,980,717	\$5,089,242	\$10,562,680
Middle Atlantic.....	25,829,946	25,477,478	45,525,601	20,915,986
East North Central.....	24,900,101	18,952,275	8,445,942	6,340,544
West North Central.....	8,322,441	8,794,099	5,489,203	3,733,112
South Atlantic.....	35,889,204	61,422,782	4,415,778	4,312,038
South Central.....	17,425,064	15,880,660	4,617,261	10,902,062
Mountain and Pacific.....	17,755,172	14,224,226	4,876,424	4,446,892
Total.....	141,102,645	149,849,762	83,932,889	53,261,615

During 1932, contracts were awarded by the different agencies of the United States Government for buildings to cost \$149,849,762, an increase of more than \$8,000,000 as compared with the value of Federal contracts awarded during the calendar year 1931. Contracts awarded by the different State governments for building operations totaled \$53,261,615 during 1932, a decrease of more than \$30,000,000 as compared with the previous year.

Whenever a contract is awarded by either the Federal Government or a State government for buildings in a city having a population of 25,000 or over, the value of such contract is included in Tables 1 and 3.

Table 3 shows the estimated cost of new residential buildings, of new nonresidential buildings, of total alterations and repairs, and of total building operations in each of the 360 cities for which reports were received for the calendar years 1931 and 1932.

Reports were received from 53 cities in the New England States, 71 cities in the Middle Atlantic States, 96 cities in the East North Central States, 25 cities in the West North Central States, 39 cities in the South Atlantic States, 38 cities in the South Central States, and 38 cities in the Mountain and Pacific States.

While decreases in indicated expenditures for total building operations were shown in each of these geographic divisions, comparing building permits issued in the two calendar years, there were a number of cities showing increases—for example, Cleveland, Ohio, Washington, D. C., Atlanta, Ga., Norfolk, Va., Chattanooga, Tenn., and Austin, Tex.

TABLE 3.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL CONSTRUCTION, 1931 AND 1932, BY CITIES

*New England States*

State and city	Estimated cost of new residential buildings		Estimated cost of new nonresidential buildings		Estimated cost of total alterations and repairs		Estimated cost of total construction	
	1931	1932	1931	1932	1931	1932	1931	1932
<i>Connecticut</i>								
Bridgeport.....	\$1,723,750	\$506,100	\$570,370	\$577,435	\$459,234	\$165,597	\$2,753,354	\$1,249,132
Bristol.....	221,850	51,277	226,822	27,367	65,838	36,048	514,510	114,692
Greenwich.....	1,191,500	469,900	633,000	362,660	415,260	236,519	2,239,760	1,069,079
Hartford.....	546,100	209,150	2,986,675	1,017,676	1,314,100	841,396	4,846,875	2,068,222
Meriden.....	212,850	137,500	879,343	117,876	113,580	83,598	1,205,773	338,974
New Britain.....	170,700	111,300	678,344	99,575	150,858	106,200	999,902	317,075
New Haven.....	2,729,150	433,100	6,153,846	1,726,525	607,995	289,652	9,490,991	2,449,277
New London.....	294,500	230,400	1,960,873	233,523	70,670	85,282	2,326,043	549,205
Norwalk.....	941,650	418,320	120,108	85,180	382,060	143,940	1,443,818	647,440
Stamford.....	685,700	110,200	150,140	147,915	199,610	156,060	1,035,450	414,175
Torrington.....	135,000	44,000	32,420	37,487	69,156	76,145	236,576	157,632
Waterbury.....	322,700	95,100	656,202	111,783	207,925	102,460	1,186,827	309,343
<i>Maine</i>								
Bangor.....	216,600	87,700	213,387	25,910	35,275	68,689	465,262	182,299
Lewiston.....	158,700	74,900	97,925	49,000	78,950	61,500	335,575	185,400
Portland.....	404,510	212,975	598,581	450,017	251,148	404,490	1,254,239	1,067,482
<i>Massachusetts</i>								
Beverly.....	435,150	118,700	55,662	57,020	147,512	94,850	638,324	270,570
Boston <sup>1</sup> .....	7,462,760	1,552,250	21,454,786	5,264,309	5,050,457	4,878,935	33,968,003	11,695,494
Brockton.....	368,050	94,500	278,864	277,239	183,075	123,436	829,989	495,175
Brookline.....	1,229,500	613,300	506,565	69,785	171,916	655,044	1,907,981	1,338,129
Cambridge.....	1,057,850	160,000	3,201,639	1,277,275	731,746	539,883	4,991,235	1,977,158
Chelsea.....	76,700	30,200	179,375	185,280	137,263	72,006	393,338	287,486
Chicopee.....	106,800	31,900	421,689	32,860	61,825	45,250	590,314	110,010
Everett.....	148,900	24,000	1,189,001	29,945	109,350	67,300	1,447,251	121,245
Fall River.....	28,700	46,850	515,499	235,290	152,906	165,194	697,105	447,334
Fitchburg.....	66,950	65,300	25,361	43,451	169,975	55,954	262,286	164,705
Haverhill.....	45,600	22,700	225,800	48,532	91,289	60,450	362,689	131,682
Holyoke.....	188,000	62,500	401,800	101,375	176,375	73,350	766,175	237,225
Lawrence.....	67,100	23,500	526,523	127,960	298,853	83,078	892,476	234,538
Lowell.....	203,450	57,000	261,280	20,230	162,145	89,427	626,875	166,657
Lynn.....	707,985	98,600	433,320	369,902	379,292	271,513	1,520,597	740,015
Malden.....	602,465	124,400	195,007	15,675	187,137	112,126	984,609	252,201
Medford.....	1,403,500	258,000	719,875	113,250	119,147	89,360	2,242,522	460,610
New Bedford.....	82,500	19,200	210,750	82,625	177,980	92,380	471,230	194,205
Newton.....	3,348,450	845,000	1,193,002	291,320	340,422	204,508	4,881,874	1,340,728
Pittsfield.....	758,250	246,600	481,379	81,062	383,677	99,255	1,623,306	426,917
Quincy.....	891,600	253,486	416,035	246,073	475,285	187,081	1,782,920	686,640
Revere.....	124,500	28,800	53,435	20,185	101,740	139,925	279,675	188,910
Salem.....	389,100	144,200	186,310	482,790	366,813	210,358	942,223	837,348
Somerville.....	197,700	9,700	560,805	417,294	221,260	128,760	979,765	555,574
Springfield.....	798,275	223,500	1,769,350	511,110	380,489	286,646	2,948,114	1,021,106
Taunton.....	45,750	40,855	189,241	233,000	150,636	74,102	385,627	347,957
Waltham.....	433,850	103,750	174,665	88,735	248,248	37,431	856,763	229,162
Watertown.....	603,500	58,500	1,127,590	106,115	109,310	38,465	1,840,400	203,080
Worcester.....	1,301,950	576,500	3,716,175	649,414	573,666	356,893	5,591,791	1,582,807
<i>New Hampshire</i>								
Concord.....	123,500	63,737	28,100	24,837	141,035	35,200	292,635	123,774
Manchester.....	185,450	165,635	333,985	395,266	306,198	155,995	825,633	716,896

<sup>1</sup> Applications filed.

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TABLE 3.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL CONSTRUCTION, 1931 AND 1932, BY CITIES—Con.

## New England States—Continued

State and city	Estimated cost of new residential buildings		Estimated cost of new nonresidential buildings		Estimated cost of total alterations and repairs		Estimated cost of total construction	
	1931	1932	1931	1932	1931	1932	1931	1932
<i>Rhode Island</i>								
Central Falls.....	\$38, 100	\$4, 200	\$17, 892	\$8, 495	\$45, 465	\$39, 910	\$101, 457	\$52, 605
Cranston.....	1, 008, 800	345, 900	597, 198	192, 130	62, 850	43, 765	1, 668, 848	581, 795
East Providence.....	459, 825	158, 250	372, 051	209, 910	158, 982	99, 009	990, 858	467, 169
Newport.....	205, 900	135, 600	268, 220	83, 810	159, 140	87, 841	633, 260	307, 251
Pawtucket.....	464, 150	125, 500	304, 680	102, 630	192, 870	60, 060	961, 700	288, 190
Providence.....	1, 681, 000	568, 900	3, 620, 519	466, 426	2, 611, 176	1, 153, 391	7, 912, 695	2, 188, 717
Woonsocket.....	66, 500	50, 000	170, 439	18, 640	81, 755	147, 040	318, 694	215, 680
Total, New England.....	37, 363, 370	10, 743, 285	62, 341, 903	18, 051, 074	20, 040, 919	14, 012, 747	119, 746, 192	42, 807, 106
Per cent of change.....		-71.2		-71.0		-30.1		-64.3

## Middle Atlantic States

<i>New Jersey</i>								
Atlantic City...	\$216, 673	\$72, 950	\$130, 327	\$159, 394	\$495, 991	\$592, 366	\$842, 991	\$824, 710
Bayonne.....	35, 500	43, 000	299, 373	37, 875	112, 901	113, 869	447, 774	194, 744
Belleville.....	457, 835	56, 050	63, 672	43, 915	65, 435	31, 468	586, 942	131, 433
Bloomfield.....	1, 010, 500	377, 500	465, 200	100, 100	81, 600	34, 200	1, 557, 300	511, 800
Camden.....	124, 300	35, 925	816, 315	291, 682	189, 525	117, 609	1, 130, 140	445, 216
Clifton.....	911, 500	387, 100	301, 679	110, 440	83, 340	50, 039	1, 296, 519	547, 579
East Orange.....	253, 450	120, 200	726, 656	341, 826	431, 174	202, 800	1, 411, 280	664, 826
Elizabeth.....	628, 000	210, 000	1, 714, 900	140, 500	5, 000	34, 500	2, 347, 900	385, 000
Garfield.....	134, 700	64, 900	33, 360	81, 625	74, 805	34, 875	242, 865	181, 400
Hoboken.....	100, 000	15, 000	239, 810	294, 100	227, 487	176, 599	567, 297	485, 699
Irvington.....	442, 112	135, 800	975, 373	146, 911	331, 607	83, 364	1, 749, 092	366, 075
Jersey City.....	605, 800	377, 300	690, 146	400, 457	694, 832	392, 780	1, 990, 778	1, 170, 537
Kearny.....	267, 300	45, 000	458, 398	323, 715	33, 295	25, 070	758, 993	393, 785
Montclair.....	1, 094, 440	295, 550	146, 246	110, 990	146, 414	151, 878	1, 387, 100	658, 418
Newark.....	1, 701, 300	549, 700	2, 612, 017	3, 869, 519	2, 142, 676	990, 987	6, 455, 993	5, 410, 206
New Brunswick.....	99, 833	10, 000	40, 856	31, 118	266, 843	74, 817	407, 532	115, 935
Orange.....	85, 856	29, 500	119, 268	208, 882	282, 147	112, 736	487, 271	351, 118
Passaic.....	57, 500	70, 800	208, 935	133, 580	337, 730	246, 816	604, 165	451, 196
Paterson.....	417, 750	140, 251	557, 630	600, 068	572, 160	436, 841	1, 547, 540	1, 176, 860
Perth Amboy.....	97, 570	10, 136	48, 674	152, 845	91, 343	58, 056	237, 587	221, 937
Plainfield.....	719, 550	225, 350	375, 711	55, 168	246, 572	80, 433	1, 341, 833	361, 031
Trenton.....	404, 150	118, 300	1, 471, 767	381, 347	544, 944	207, 816	2, 420, 861	707, 463
Union City.....	115, 000	1, 200	733, 698	455, 450	226, 201	167, 496	1, 074, 899	624, 146
West New York.....	36, 800	5, 000	19, 800	5, 850	125, 198	85, 880	181, 798	96, 730
<i>New York</i>								
Albany.....	1, 916, 490	1, 273, 180	3, 279, 082	2, 210, 299	865, 229	412, 186	6, 060, 801	3, 895, 665
Amsterdam.....	100, 200	96, 049	82, 565	52, 712	37, 050	5, 930	219, 815	154, 691
Auburn.....	173, 200	59, 800	2, 860, 801	126, 030	111, 220	78, 527	3, 145, 221	264, 357
Binghamton.....	370, 675	180, 775	108, 008	873, 651	490, 714	429, 167	969, 397	1, 483, 593
Buffalo.....	3, 212, 475	566, 745	5, 102, 529	2, 760, 657	1, 025, 428	739, 253	9, 338, 432	4, 066, 055
Elmira.....	135, 917	59, 085	778, 533	1, 275, 190	185, 096	137, 114	1, 099, 546	1, 471, 389
Jamestown.....	144, 700	80, 750	441, 380	420, 465	153, 689	80, 719	739, 769	581, 934
Kingston.....	232, 400	103, 650	640, 527	314, 319	159, 967	92, 074	1, 032, 894	510, 043
Lockport.....	98, 600	5, 000	105, 122	63, 300	31, 820	8, 817	235, 542	77, 117
Mount Vernon.....	2, 095, 100	223, 300	1, 394, 530	308, 070	329, 247	145, 947	3, 818, 877	677, 317
Newburgh.....	104, 800	72, 000	1, 350, 458	101, 050	81, 187	101, 085	1, 536, 445	274, 135
New Rochelle.....	2, 788, 050	315, 000	641, 121	260, 623	910, 870	139, 677	4, 340, 041	715, 300
New York City.....								
The Bronx <sup>1</sup> .....	35, 937, 452	3, 853, 670	25, 606, 925	2, 172, 880	3, 854, 873	2, 854, 225	65, 399, 250	8, 880, 775
Brooklyn <sup>1</sup> .....	43, 941, 875	6, 335, 750	19, 334, 126	7, 772, 530	12, 258, 442	6, 287, 439	75, 534, 443	20, 395, 719
Manhattan <sup>1</sup> .....	18, 873, 000	2, 400, 000	94, 267, 255	19, 876, 852	24, 230, 812	8, 219, 645	137, 371, 067	30, 496, 497
Queens <sup>1</sup> .....	53, 985, 538	7, 676, 785	15, 352, 899	5, 154, 278	7, 415, 598	3, 150, 873	76, 734, 035	15, 981, 936
Richmond <sup>1</sup> .....	3, 684, 099	739, 085	2, 764, 736	1, 401, 046	1, 356, 455	956, 530	7, 805, 281	3, 096, 661
Niagara Falls.....	707, 290	168, 428	172, 860	423, 034	368, 863	312, 871	1, 249, 013	904, 333
Poughkeepsie.....	484, 000	246, 750	1, 929, 395	28, 710	158, 913	178, 023	2, 572, 308	453, 483
Rochester.....	1, 192, 400	433, 035	4, 227, 737	2, 513, 426	883, 035	610, 604	3, 303, 172	3, 556, 965
Schenectady.....	477, 975	149, 200	433, 055	195, 084	388, 638	254, 661	1, 299, 668	598, 845
Syracuse.....	1, 345, 300	398, 500	4, 007, 180	748, 020	1, 647, 479	451, 137	6, 999, 959	1, 597, 657

<sup>1</sup> Applications filed.



TABLE 3.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL CONSTRUCTION, 1931 AND 1932, BY CITIES—Con.

## Middle Atlantic States—Continued

State and city	Estimated cost of new residential buildings		Estimated cost of new nonresidential buildings		Estimated cost of total alterations and repairs		Estimated cost of total construction	
	1931	1932	1931	1932	1931	1932	1931	1932
<i>New York—Con.</i>								
Troy.....	\$1,236,090	\$384,490	\$682,755	\$222,660	\$282,429	\$115,861	\$2,201,274	\$723,011
Utica.....	425,250	240,560	466,023	99,595	242,963	192,615	1,134,236	532,770
Watertown.....	93,325	76,104	37,030	44,785	135,766	107,133	266,121	228,022
White Plains.....	2,010,369	372,650	4,032,530	152,317	291,261	111,271	6,334,160	636,238
Yonkers.....	6,937,165	1,517,400	2,520,710	625,249	556,040	452,229	10,013,915	2,504,878
<i>Pennsylvania</i>								
Allentown.....	277,200	79,400	427,569	838,717	263,492	174,484	968,261	1,092,601
Altoona.....	129,871	25,800	465,150	71,243	150,355	72,774	745,356	169,817
Bethlehem.....	220,700	133,800	120,375	39,421	101,494	65,313	442,569	238,534
Butler.....	13,100	700	31,650	5,970	33,500	44,863	78,250	51,533
Chester.....	49,000	0	563,275	104,603	69,045	21,590	681,320	126,193
Easton.....	59,167	114,700	58,238	346,620	67,462	44,883	184,867	506,203
Erie.....	888,900	262,095	944,874	166,504	877,274	244,738	2,171,048	673,337
Harrisburg.....	848,958	167,700	631,637	109,879	520,466	417,500	2,001,061	695,079
Hazleton.....	94,718	135,457	348,691	156,378	105,362	118,866	548,771	410,701
Johnstown.....	70,050	23,850	418,460	70,217	116,858	44,850	605,368	138,917
Lancaster.....	106,400	45,500	165,643	234,700	265,780	81,935	537,823	362,135
Lebanon.....	105,500	33,750	31,900	8,300	16,050	4,100	153,450	46,150
McKeesport.....	281,150	20,550	177,878	222,688	172,862	105,763	631,890	349,001
Nanticoke.....	194,550	111,020	46,000	43,600	116,550	60,320	357,100	214,940
New Castle.....	153,250	40,800	47,315	323,615	46,320	12,335	246,885	376,750
Norristown.....	199,295	19,144	440,795	1,117,407	141,888	48,945	781,978	1,185,496
Philadelphia.....	5,298,975	2,145,735	26,006,815	13,358,514	3,959,426	2,358,412	35,265,216	17,862,661
Pittsburgh.....	4,050,735	753,900	12,578,887	7,131,038	2,756,513	1,249,716	19,386,135	9,134,654
Reading.....	383,100	159,000	1,940,422	121,115	448,704	198,074	2,772,226	478,189
Seranton.....	281,924	200,775	587,712	1,577,954	508,014	346,898	1,377,650	2,125,627
Wilkes-Barre.....	171,174	118,315	751,057	470,899	347,805	190,695	1,170,036	779,909
Wilkesburg.....	143,500	35,700	77,040	8,965	126,677	32,911	347,217	77,576
Williamsport.....	73,930	29,100	386,203	472,654	158,422	168,801	618,555	670,555
York.....	260,100	95,800	276,160	43,709	255,743	95,985	792,003	235,494
Total, Middle Atlantic.....	206,976,392	36,176,844	253,393,429	85,719,899	77,886,346	37,333,159	538,256,167	159,229,902
Per cent of change.....		-82.5		-66.2		-52.1		-70.4

## East North Central States

<i>Illinois</i>								
Alton.....	\$160,073	\$37,580	\$151,849	\$36,517	\$167,871	\$90,930	\$479,793	\$165,027
Aurora.....	181,002	40,505	1,032,065	35,910	191,110	54,043	1,404,177	130,458
Belleville.....	283,070	129,300	110,960	25,255	27,580	16,387	421,610	170,942
Berwyn.....	311,400	36,450	94,157	36,839	287,702	26,740	693,259	100,029
Bloomington.....	130,900	51,000	557,700	165,500	24,000	79,000	711,700	295,500
Chicago.....	6,424,930	1,039,500	54,121,650	9,405,731	5,947,276	2,435,574	66,693,556	12,880,605
Cicero.....	155,930	13,500	821,055	35,545	94,568	16,995	1,070,903	66,040
Danville.....	62,600	55,071	58,500	494,292	159,854	53,386	280,954	602,749
Decatur.....	280,600	33,975	427,430	107,567	73,160	37,084	781,190	172,626
East St. Louis.....	366,204	101,600	584,884	106,450	101,375	64,088	1,052,463	272,138
Elgin.....	228,940	75,700	236,015	28,605	146,302	72,831	611,257	177,136
Evanston.....	551,000	298,500	1,928,500	45,700	771,750	445,250	3,251,250	789,540
Granite City.....	14,600	0	49,450	400	2,100	200	66,150	600
Joliet.....	334,800	15,000	357,119	134,400	332,945	157,132	1,024,864	306,532
Maywood.....	118,200	14,800	467,549	139,611	34,818	22,722	620,567	177,133
Moline.....	259,750	60,350	122,689	34,710	124,523	66,549	506,962	161,609
Oak Park.....	331,400	109,400	797,450	383,967	120,433	106,180	1,249,283	599,477
Peoria.....	1,176,780	341,600	931,212	88,858	407,078	153,618	2,515,070	584,576
Quincy.....	64,700	24,900	1,358,505	44,104	23,460	72,762	1,446,665	141,766
Rockford.....	277,700	37,000	70,037	577,416	299,325	117,835	647,062	732,251
Rock Island.....	177,750	71,150	249,229	29,520	166,956	95,326	693,935	195,996
Springfield.....	670,687	186,409	1,147,014	213,351	511,561	314,428	2,329,262	714,188
Waukegan.....	394,000	63,350	243,449	187,122	89,095	34,578	726,544	285,050

TABLE 3.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL CONSTRUCTION, 1931 AND 1932, BY CITIES—Con.

## East North Central States—Continued

State and city	Estimated cost of new residential buildings		Estimated cost of new nonresidential buildings		Estimated cost of total alterations and repairs		Estimated cost of total construction	
	1931	1932	1931	1932	1931	1932	1931	1932
<i>Indiana</i>								
Anderson	\$152,570	\$57,200	\$42,100	\$28,440	\$117,045	\$27,237	\$311,715	\$112,877
East Chicago	11,200	1,000	513,318	55,992	80,436	19,400	604,954	76,392
Elkhart	72,900	35,650	127,698	17,770	90,388	41,154	290,986	94,574
Evansville	366,685	67,450	589,622	301,476	231,243	115,684	1,187,550	484,610
Fort Wayne	739,450	110,290	2,132,909	1,364,923	315,171	147,356	3,187,530	1,622,569
Gary	198,300	19,500	634,120	95,740	150,465	14,525	982,885	129,765
Hammond	155,480	27,300	3,059,498	66,889	99,496	57,469	3,314,474	151,658
Indianapolis	2,006,800	608,460	6,535,572	1,333,911	796,428	603,231	9,338,800	2,545,602
Kokomo	11,500	700	95,744	32,178	138,429	23,616	245,673	56,944
Lafayette	85,100	52,550	275,204	20,500	26,450	11,570	386,754	84,920
Marion	19,380	15,425	51,665	14,190	75,586	42,428	146,631	72,043
Michigan City	76,300	44,100	72,695	20,550	99,673	88,470	248,668	153,120
Mishawaka	23,500	7,250	55,320	11,663	23,395	14,385	102,215	33,298
Muncie	76,300	21,830	262,074	49,543	111,006	57,610	449,434	128,983
Richmond	92,000	21,500	493,800	13,450	60,200	53,150	646,000	88,100
South Bend	216,025	71,350	962,364	320,230	150,226	101,815	1,328,615	493,395
Terre Haute	50,250	29,700	53,492	493,701	123,765	91,485	227,507	614,886
<i>Michigan</i>								
Ann Arbor	516,450	188,950	1,528,735	212,065	268,674	186,525	2,313,859	587,540
Battle Creek	106,200	48,160	573,290	791,245	62,687	62,208	742,177	901,613
Bay City	196,000	74,425	835,165	533,927	587,795	91,014	1,618,960	699,366
Dearborn	1,133,744	167,800	1,050,207	78,291	50,691	123,294	2,234,642	369,385
Detroit	10,569,547	1,882,731	8,739,477	5,223,704	4,126,169	1,633,294	23,435,193	8,739,729
Flint	740,804	36,758	902,197	95,260	322,672	129,523	1,965,673	261,541
Grand Rapids	399,100	94,500	402,150	1,227,630	346,000	190,565	1,147,250	1,512,695
Hamtramck	6,000	0	45,810	8,300	68,975	45,775	120,785	54,075
Highland Park	8,500	8,000	36,135	37,205	72,655	36,278	117,290	81,483
Jackson	94,075	5,100	225,948	335,187	89,557	33,258	409,580	373,545
Kalamazoo	238,000	87,700	684,859	27,218	161,969	86,809	1,084,828	201,727
Lansing	175,975	21,200	801,767	441,370	231,315	60,517	1,209,057	523,807
Muskegon	76,800	12,400	307,002	21,365	64,810	64,629	448,612	98,394
Pontiac	10,000	8,500	261,040	28,013	70,359	39,992	341,399	76,505
Port Huron	99,525	10,400	194,385	145,029	58,675	12,000	352,585	167,429
Saginaw	151,760	55,295	222,962	150,097	110,548	82,212	485,270	287,604
Wyandotte	222,150	42,850	482,031	230,854	66,412	39,552	770,593	313,266
<i>Ohio</i>								
Akron	514,775	258,325	586,205	374,851	837,736	171,139	1,938,716	804,315
Ashtabula	61,850	8,700	100,706	32,150	56,472	19,766	219,028	60,616
Canton	102,250	14,250	359,865	320,303	177,831	43,428	639,946	377,981
Cincinnati	6,691,790	2,369,505	12,521,445	4,562,082	2,253,965	888,138	21,467,200	7,819,725
Cleveland	2,592,700	1,137,500	4,614,674	8,593,365	4,783,700	2,317,150	11,991,074	12,048,015
<i>Cleveland</i>								
Heights	1,142,175	294,630	189,355	104,920	64,150	110,765	1,395,680	510,315
Columbus	1,678,700	289,650	1,156,750	763,600	534,000	814,361	3,369,450	1,867,611
Dayton	746,812	211,575	1,735,663	533,455	142,957	193,794	2,895,432	938,824
East Cleveland	5,000	5,700	730,937	36,291	25,969	15,546	761,906	37,537
Elyria	40,250	21,550	91,525	72,365	54,242	40,753	186,017	134,668
Hamilton	90,900	41,400	283,163	578,696	93,409	83,250	467,472	703,346
Lakewood	469,800	254,000	273,670	110,870	53,954	38,742	797,424	403,612
Lima	9,200	4,000	12,380	19,410	78,714	28,596	100,294	52,006
Lorain	103,925	5,700	137,619	11,165	36,475	10,392	278,019	27,257
Mansfield	450,050	107,500	246,885	218,851	47,511	23,648	744,446	349,999
Marion	3,000	6,200	12,360	38,140	9,038	3,505	24,398	47,845
Massillon	21,060	5,600	331,932	4,817	41,218	11,718	394,210	22,135
Middletown	8,800	4,800	61,089	84,846	51,003	46,454	120,892	136,100
Newark	48,350	36,015	114,250	31,580	14,000	19,965	176,600	87,560
Northwood	153,500	30,600	83,705	55,560	42,060	34,434	279,265	119,994
Portsmouth	3,800	5,750	411,023	16,144	36,636	12,305	451,459	34,199
Springfield	188,650	35,820	885,104	387,088	120,098	21,838	1,193,852	444,746
Steubenville	101,800	14,600	55,565	15,925	45,975	14,145	203,340	44,670
Toledo	612,500	178,175	1,086,314	102,052	596,171	212,857	2,294,985	493,084
Warren	123,675	14,400	101,835	13,065	109,325	50,623	334,835	78,088
Youngstown	362,750	73,433	459,054	428,781	641,907	93,257	1,463,711	595,471
Zanesville	50,125	15,700	274,928	5,940	20,042	102,605	345,095	124,245

TABLE 3.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL CONSTRUCTION, 1931 AND 1932, BY CITIES—Con.

## East North Central States—Continued

State and city	Estimated cost of new residential buildings		Estimated cost of new nonresidential buildings		Estimated cost of total alterations and repairs		Estimated cost of total construction	
	1931	1932	1931	1932	1931	1932	1931	1932
<i>Wisconsin</i>								
Appleton.....	\$397,400	<sup>2</sup> \$228,630	\$726,251	<sup>2</sup> \$71,680	\$259,615	<sup>2</sup> \$60,566	\$1,383,266	<sup>2</sup> \$360,876
Eau Claire.....	194,227	137,597	308,080	49,274	82,739	49,340	585,046	236,211
Fond du Lac.....	144,325	62,800	176,234	22,202	56,177	27,675	376,736	112,677
Green Bay.....	474,600	141,165	289,045	283,167	195,416	107,948	959,061	532,280
Kenosha.....	153,100	22,000	351,565	182,345	141,704	43,595	646,369	247,940
Madison.....	710,300	345,400	384,272	60,820	250,305	202,044	1,344,877	608,264
Milwaukee.....	4,319,900	811,350	5,388,843	2,135,364	2,925,521	1,200,246	12,634,264	4,146,960
Oshkosh.....	150,833	40,975	460,075	24,813	101,427	59,542	712,335	125,330
Racine.....	298,400	77,300	1,288,254	57,255	169,942	70,655	1,756,596	205,210
Sheboygan.....	369,900	104,000	433,561	182,541	307,643	134,495	1,111,104	421,036
Superior.....	76,400	50,375	130,135	153,972	55,611	119,383	262,146	323,730
West Allis.....	340,740	38,850	100,795	117,150	183,846	41,612	625,381	197,612
Total, East North Central.....	56,261,868	14,277,684	136,123,914	47,042,171	35,522,765	16,501,943	227,908,547	77,821,798
Per cent of change.....		-74.6		-65.4		-53.5		-65.9

## West North Central States

<i>Iowa</i>								
Burlington.....	\$65,725	\$11,500	\$126,285	\$190,110	\$53,196	\$16,360	\$245,206	\$217,970
Cedar Rapids.....	470,005	177,675	844,957	73,612	291,460	185,071	1,606,422	436,358
Council Bluffs.....	119,500	53,540	207,100	219,789	113,200	197,294	439,800	470,623
Davenport.....	485,920	148,700	213,732	442,385	552,769	121,109	1,252,421	712,194
Des Moines.....	1,226,595	493,555	1,429,352	1,173,282	376,694	228,290	3,032,641	1,895,127
Dubuque.....	202,977	83,869	119,782	720,631	159,344	78,122	482,103	882,562
Ottumwa.....	243,400	83,100	187,375	584,500	176,900	120,950	607,675	788,550
Sioux City.....	782,950	234,425	516,605	684,020	271,870	222,665	1,571,425	1,141,110
Waterloo.....	446,975	76,000	214,543	131,075	122,075	84,910	783,593	291,985
<i>Kansas</i>								
Hutchinson.....	166,125	61,850	114,823	22,151	45,591	53,925	326,539	137,926
Kansas City.....	262,000	62,450	331,811	183,695	73,361	41,940	667,172	288,085
Topeka.....	341,150	144,575	1,848,335	720,294	115,983	44,341	2,305,468	909,210
Wichita.....	997,780	167,300	1,102,834	864,495	239,594	163,626	2,340,208	1,195,421
<i>Minnesota</i>								
Duluth.....	369,386	124,500	119,715	896,851	459,387	330,939	948,488	1,352,290
Minneapolis.....	4,941,625	1,664,010	5,978,305	4,321,681	1,469,655	1,005,247	12,389,585	6,990,938
St. Paul.....	2,078,910	1,131,414	9,135,567	879,649	1,437,304	784,925	12,651,781	2,795,988
<i>Missouri</i>								
Joplin.....	69,800	9,500	382,303	41,330	77,380	43,616	529,483	94,446
Kansas City.....	1,672,500	593,500	4,920,150	774,950	1,797,850	592,535	8,290,500	1,960,985
St. Joseph.....	108,500	55,500	203,235	112,495	119,568	52,195	431,303	220,190
St. Louis.....	5,512,337	2,116,869	9,096,518	921,371	2,010,954	1,375,378	16,619,809	4,413,618
Springfield.....	231,150	142,600	1,861,605	116,368	189,880	102,344	2,282,635	361,312
<i>Nebraska</i>								
Lincoln.....	642,925	149,250	930,896	76,843	170,915	113,792	1,744,736	339,885
Omaha.....	1,370,675	709,740	1,891,438	1,312,590	652,443	205,973	3,914,556	2,228,303
<i>North Dakota</i>								
Fargo.....	326,160	107,750	64,645	56,583	277,311	108,291	668,116	272,624
<i>South Dakota</i>								
Sioux Falls.....	880,263	265,014	1,046,700	159,598	179,309	32,028	2,106,272	456,640
Total, West North Central.....	23,915,333	8,868,126	42,888,611	15,680,348	11,433,993	6,305,866	78,237,937	30,854,340
Per cent of change.....		-62.9		-63.4		-44.8		-60.6

<sup>2</sup> For 11 months only; data not obtained for December 1932.

TABLE 3.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL CONSTRUCTION, 1931 AND 1932, BY CITIES—Con.

## South Atlantic States

State and city	Estimated cost of new residential buildings		Estimated cost of new nonresidential buildings		Estimated cost of total alterations and repairs		Estimated cost of total construction	
	1931	1932	1931	1932	1931	1932	1931	1932
<i>Delaware</i>								
Wilmington.....	\$1,054,050	\$309,550	\$1,360,212	\$776,252	\$883,125	\$296,666	\$3,297,387	\$1,382,468
<i>District of Columbia</i>								
Washington.....	20,626,489	6,502,000	26,421,864	51,026,359	5,539,798	2,398,943	52,588,151	59,927,302
<i>Florida</i>								
Jacksonville.....	461,550	311,100	739,190	1,569,212	646,660	463,486	1,847,400	2,343,798
Miami.....	604,405	188,035	1,652,848	520,633	839,396	487,861	3,096,649	1,196,529
Orlando.....	22,160	25,360	13,560	22,310	168,115	106,651	203,835	154,321
St. Petersburg.....	373,300	50,900	91,300	1,095,264	212,394	153,100	676,994	1,299,264
Tampa.....	140,975	51,850	270,865	149,108	328,980	213,030	740,820	413,988
<i>Georgia</i>								
Atlanta.....	1,063,185	450,200	1,223,365	2,306,106	1,184,027	763,692	3,470,577	3,519,998
Augusta.....	148,789	74,416	430,767	214,772	152,850	130,747	732,406	419,935
Columbus.....	91,650	65,630	83,604	33,675	97,939	54,927	273,193	154,232
Macon.....	91,725	33,350	86,860	388,748	384,981	163,364	563,566	585,462
Savannah.....	232,600	66,630	46,607	34,940	171,064	53,236	450,271	154,806
<i>Maryland</i>								
Baltimore.....	8,363,000	2,069,000	9,429,600	5,883,980	6,898,199	5,709,864	24,690,799	13,662,844
Cumberland.....	73,535	23,750	191,530	501,471	27,924	35,267	292,989	560,488
Hagerstown.....	121,250	30,650	73,415	58,488	50,885	14,910	245,550	104,048
<i>North Carolina</i>								
Asheville.....	20,700	8,825	61,516	12,544	151,733	74,585	233,949	95,954
Charlotte.....	808,098	295,940	224,495	168,942	285,906	136,820	1,318,499	601,702
Durham.....	203,350	145,160	366,490	430,905	123,240	91,000	693,080	607,065
Greensboro.....	143,659	64,380	766,934	48,956	224,146	96,096	1,134,739	269,432
High Point.....	623,485	52,000	641,850	269,868	47,411	19,340	1,312,746	341,208
Raleigh.....	128,299	36,895	376,568	50,736	148,920	44,700	653,787	132,321
Wilmington.....	177,000	16,500	146,400	25,545	157,950	95,300	481,350	137,345
Winston-Salem.....	233,866	95,000	337,695	189,825	280,926	118,171	852,487	402,996
<i>South Carolina</i>								
Charleston.....	159,363	87,855	124,893	46,767	130,039	108,943	414,295	243,565
Columbia.....	456,623	123,043	1,437,727	351,923	178,237	155,762	2,072,587	630,728
Greenville.....	333,600	59,000	78,900	12,125	79,848	103,150	492,348	174,275
Spartanburg.....	31,750	6,050	332,510	9,390	48,680	31,432	412,440	46,872
<i>Virginia</i>								
Lynchburg.....	410,308	225,584	260,652	621,391	205,610	90,071	876,570	937,046
Newport News.....	173,849	75,550	311,809	134,953	266,013	67,285	751,671	277,788
Norfolk.....	987,168	740,754	255,003	1,964,357	397,852	385,553	1,640,023	3,090,664
Petersburg.....	46,105	14,785	62,153	44,345	28,105	27,983	136,363	87,113
Portsmouth.....	139,945	79,350	38,718	8,273	156,163	80,543	334,826	168,166
Richmond.....	1,039,128	375,650	1,326,479	330,749	688,577	389,552	3,054,184	1,095,951
Roanoke.....	696,825	162,952	320,329	33,137	95,559	60,963	1,112,713	257,052
<i>West Virginia</i>								
Charleston.....	396,074	188,400	319,064	164,267	335,260	138,361	1,050,398	491,028
Clarksburg.....	94,550	31,250	536,690	22,680	120,770	38,796	752,010	92,726
Huntington.....	87,900	34,850	953,564	102,501	54,375	64,243	1,095,839	201,594
Parkersburg.....	49,650	20,350	297,792	76,121	105,707	28,316	453,149	124,787
Wheeling.....	187,330	91,555	302,480	112,965	154,854	113,556	644,664	318,076
Total, South Atlantic.....	41,096,788	13,284,099	51,996,298	69,814,583	22,052,218	13,606,265	115,145,304	96,704,947
Per cent of change.....		-67.7		+34.3		-38.3		-16.0

TABLE 3.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL CONSTRUCTION, 1931 AND 1932, BY CITIES—Con.

## South Central States

State and city	Estimated cost of new residential buildings		Estimated cost of new nonresidential buildings		Estimated cost of total alterations and repairs		Estimated cost of total construction	
	1931	1932	1931	1932	1931	1932	1931	1932
<i>Alabama</i>								
Birmingham.....	\$193,585	\$83,260	\$1,084,787	\$232,209	\$659,125	\$383,585	\$1,937,497	\$699,054
Mobile.....	216,650	70,955	474,538	434,956	190,189	133,185	881,377	639,096
Montgomery.....	517,900	107,700	115,795	928,400	186,055	151,029	819,750	1,187,129
<i>Arkansas</i>								
Little Rock.....	349,355	45,825	2,191,206	201,386	230,214	150,484	2,770,775	397,695
<i>Kentucky</i>								
Ashland.....	5,850	8,000	179,084	57,395	49,925	101,175	234,859	166,570
Covington.....	137,200	20,650	444,060	106,845	179,811	69,199	761,071	196,694
Lexington.....	134,750	132,550	425,532	602,182	132,695	160,315	692,977	895,047
Louisville.....	1,007,800	412,425	3,830,655	1,180,870	746,960	821,759	5,585,415	2,415,504
Newport.....	12,200	10,600	60,800	14,600	43,300	17,340	116,300	42,540
Paducah.....	51,900	6,050	120,830	86,100	5,361	5,800	178,091	97,950
<i>Louisiana</i>								
Baton Rouge.....	402,801	94,384	247,429	439,551	198,796	134,129	849,026	668,064
Monroe.....	90,737	39,050	287,260	273,977	51,545	42,200	429,542	355,227
New Orleans.....	1,017,799	590,183	3,638,780	2,080,365	869,787	735,410	5,526,366	3,405,958
Shreveport.....	250,969	166,967	864,536	42,716	484,764	245,542	1,600,269	455,225
<i>Mississippi</i>								
Jackson.....	319,397	109,122	16,620	623,570	124,517	124,285	460,534	856,977
<i>Oklahoma</i>								
Enid.....	135,570	6,750	113,540	31,360	38,141	27,048	287,251	65,158
Muskogee.....	116,200	7,100	41,575	42,215	14,825	29,900	172,600	79,215
Oklahoma City.....	4,225,975	497,500	14,256,206	6,356,906	536,794	321,541	19,018,975	7,175,947
Okmulgee.....	0	0	5,746	238,955	4,195	4,675	9,941	243,630
Tulsa.....	1,513,409	131,745	2,455,743	244,284	419,476	136,659	4,388,628	512,688
<i>Tennessee</i>								
Chattanooga.....	360,065	64,825	342,988	1,860,730	526,917	259,287	1,229,970	2,184,842
Johnson City.....	27,850	35,400	258,606	9,850	6,175	3,825	292,631	49,075
Knoxville.....	250,460	183,192	665,648	1,169,235	118,459	62,288	1,034,567	1,414,715
Memphis.....	536,510	205,660	1,576,695	888,538	1,221,148	714,870	3,334,353	1,809,168
Nashville.....	838,625	261,825	3,112,815	553,536	451,961	308,145	4,403,401	1,123,506
<i>Texas</i>								
Amarillo.....	562,430	84,915	2,087,578	164,564	70,723	49,478	2,720,731	298,957
Austin.....	1,077,519	497,732	1,077,351	4,796,118	316,511	270,865	2,471,381	5,564,715
Beaumont.....	201,148	25,744	548,916	521,711	270,857	163,692	1,020,921	711,147
Dallas.....	1,948,384	643,877	1,104,464	828,153	1,295,245	749,665	4,348,093	2,321,695
El Paso.....	579,395	84,499	152,661	108,062	216,514	183,907	948,570	376,468
Fort Worth.....	1,766,036	547,495	4,081,812	541,914	497,337	342,347	6,345,185	1,431,756
Galveston.....	366,864	224,150	1,918,058	453,593	257,927	199,291	2,542,849	877,034
Houston.....	7,828,551	1,303,675	3,707,959	1,117,287	326,561	152,010	11,863,071	2,572,982
Port Arthur.....	102,847	7,600	661,210	16,975	140,613	62,134	904,670	86,609
San Angelo.....	81,770	35,125	181,050	138,009	39,915	40,667	302,735	213,801
San Antonio.....	1,181,387	404,545	1,674,897	976,258	415,260	257,129	3,271,544	1,637,932
Waco.....	238,329	115,810	1,389,791	116,584	150,432	94,713	1,778,552	327,107
Wichita Falls.....	19,550	25,600	544,471	551,278	75,168	80,300	639,189	657,078
Total, South Central.....	28,667,767	7,292,285	55,941,692	29,031,337	11,564,198	7,789,873	96,173,657	44,113,495
Per cent of change.....		-74.6		-48.1		-32.6		-54.1



TABLE 3.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL CONSTRUCTION, 1931 AND 1932, BY CITIES—Con.

*Mountain and Pacific States*

State and city	Estimated cost of new residential buildings		Estimated cost of new nonresidential buildings		Estimated cost of total alterations and repairs		Estimated cost of total construction	
	1931	1932	1931	1932	1931	1932	1931	1932
<i>Arizona</i>								
Phoenix.....	\$715,010	\$163,899	\$1,268,679	\$71,151	\$126,046	\$154,916	\$2,109,735	\$389,966
Tucson.....	560,938	129,340	549,593	58,621	370,850	133,212	1,481,381	321,173
<i>California</i>								
Alameda.....	259,100	96,995	249,378	564,634	168,069	173,474	676,547	835,103
Alhambra.....	840,950	241,150	246,475	59,325	63,925	63,150	1,151,350	363,625
Bakersfield.....	268,520	52,490	261,655	126,188	154,744	108,813	684,919	287,491
Berkeley.....	961,312	428,365	595,921	344,839	342,786	323,381	1,900,019	1,096,585
Fresno.....	531,220	163,750	124,587	505,046	351,589	223,880	1,007,396	892,676
Glendale.....	2,339,125	726,690	432,260	446,498	130,160	74,250	2,901,545	1,247,438
Long Beach.....	2,629,400	741,910	1,280,135	1,925,642	562,065	433,045	4,471,600	3,100,597
Los Angeles.....	19,397,887	7,483,197	14,525,977	6,271,712	7,497,821	4,030,718	41,421,685	17,785,627
Oakland.....	2,798,373	961,134	3,420,050	730,097	1,004,922	574,785	7,223,345	2,266,016
Pasadena.....	1,279,059	402,225	2,165,334	405,029	1,015,472	412,399	4,459,865	1,219,653
Riverside.....	261,210	119,051	255,598	173,209	181,574	90,639	698,382	382,899
Sacramento.....	1,553,105	481,502	1,722,894	1,368,116	511,395	489,240	3,787,394	2,338,858
San Bernardino.....	457,659	96,150	66,328	30,750	83,485	65,629	607,472	192,529
San Diego.....	2,342,677	819,114	2,468,511	1,063,632	1,000,268	709,156	5,811,456	2,591,902
San Francisco.....	9,323,885	3,879,583	10,016,377	10,452,957	2,102,172	2,132,552	21,442,434	16,465,992
San Jose.....	773,810	213,695	662,585	822,020	367,023	194,375	1,803,414	1,230,090
Santa Ana.....	405,243	117,825	248,393	139,217	100,408	67,148	754,044	324,190
Santa Barbara.....	712,450	186,374	379,664	84,257	1,083,971	137,491	2,176,085	408,122
Santa Monica.....	1,175,151	363,225	371,475	85,162	78,881	93,443	1,625,527	541,830
Stockton.....	620,663	213,200	914,378	761,101	201,668	161,827	1,736,709	1,136,128
Vallejo.....	123,550	163,883	101,771	384,929	75,815	62,159	301,136	610,971
<i>Colorado</i>								
Colorado Springs.....	98,675	90,440	145,697	34,231	143,591	131,702	387,963	256,373
Denver.....	3,637,300	1,555,450	2,115,421	712,825	1,075,255	732,812	6,827,976	3,000,587
Pueblo.....	80,950	30,100	239,458	40,640	133,308	58,503	453,716	129,243
<i>Montana</i>								
Butte.....	450	0	297,256	37,615	22,622	13,192	320,328	50,807
Great Falls.....	375,750	48,175	506,670	30,055	101,485	47,290	983,905	125,520
<i>New Mexico</i>								
Albuquerque.....	737,709	150,650	1,850,229	403,570	186,462	169,479	2,774,400	723,699
<i>Oregon</i>								
Portland.....	2,548,540	806,880	3,076,553	1,196,235	1,530,622	978,649	7,155,715	2,981,764
Salem.....	173,183	79,199	227,692	56,488	97,882	107,757	498,757	243,444
<i>Utah</i>								
Ogden.....	100,900	33,250	68,820	290,137	81,170	78,995	250,890	402,382
Salt Lake City.....	1,316,738	158,500	1,743,717	171,317	401,165	210,075	3,461,620	539,892
<i>Washington</i>								
Bellingham.....	114,800	39,250	140,160	30,980	103,880	60,475	358,840	130,705
Everett.....	46,200	22,100	26,150	25,935	95,771	54,722	168,121	102,757
Seattle.....	3,486,605	651,045	6,968,010	1,773,347	2,028,877	832,386	12,483,492	3,256,778
Spokane.....	784,050	233,585	971,885	142,674	420,470	189,897	2,176,405	566,156
Tacoma.....	463,500	149,250	1,189,120	93,655	349,395	189,323	2,002,015	432,228
Total, Mountain and Pacific.....	64,295,667	22,292,621	61,894,856	31,913,836	24,347,064	14,764,439	150,537,587	68,970,896
Per cent of change.....		-65.3		-48.4		-39.4		-54.2
<i>Hawaii</i>								
Honolulu.....	\$2,218,734	\$1,164,245	\$1,170,479	\$1,252,188	\$347,526	\$339,186	\$3,736,739	\$2,755,619
Per cent of change.....		-47.5		+7.0		-2.4		-26.3

# WAGES AND HOURS OF LABOR

## Wages and Hours of Labor in the Portland Cement Industry, 1929 and 1932

THIS article summarizes the results of a study of wages and hours of labor of wage earners in the Portland cement industry in the United States, made by the Bureau of Labor Statistics in 1932, and also comparative figures for 1929, which were taken from Bulletin No. 525. Details of the 1932 study will be available later in bulletin form.

The 1932 data used in the compilation of this preliminary report were taken by agents of the bureau directly from the pay rolls and other records of 103 representative Portland cement plants in 28 States for 13,609 males and 68 females, or a total of 13,677 wage earners in the industry. The data for 66 per cent of the 103 establishments covered in 1932 were for a pay period in August, September, or October. In plants in which the length of the pay period was more than one week, data were so taken as to make it possible to compute and present averages for one week for wage earners in all plants.

The wage earners covered in the study in 1932 actually worked an average of 45.7 hours in one week, or 10.9 hours less than in 1929. They earned an average of 40.1 cents per hour in 1932, or 11.6 cents less than in 1929; and an average of \$18.35 in one week in 1932, or \$10.90 less than in 1929.

Hours and Earnings, 1929 and 1932, by Department, Occupation, and Sex

TABLE 1 shows, for 1929 and 1932, average number of days on which wage earners worked in one week, average full-time and actual hours and earnings in one week, average earnings per hour, and the per cent of full time worked in one week, for males and for females in each of the important occupations in the various departments, for a group of miscellaneous wage earners designated as "other employees," for each department as a whole, and also for all wage earners in the industry.

The average number of days worked in one week by males ranged, by occupation, in 1929 from 4.2 for loaders in the cement department to 6.7 for first burners in the clinker department, and in 1932 from 3.6 for loaders in the cement department to 6.6 for coal millers in the coal mill, cooler tenders in the clinker department, and turbine operators in the power department.

Average full-time hours per week of males ranged, by occupation, in 1929 from 54.7 for sack cleaners in the cement department to 71.2 for laborers in the coal mill, and in 1932 from 52.9 for sack cleaners in the cement department to 70.9 for oilers in the power department.

Average hours actually worked in one week by males ranged, by occupation, in 1929 from 39.2 for loaders in the cement department to 67.5 for pumpmen in the power department, and in 1932 from 29.1 for packers (sackers) in the cement department to 57.9 for turbine operators in the power department.

The per cent that average hours actually worked by males in one week was of average full-time hours per week ranged, by occupation, in 1929 from 68.5 for loaders in the cement department to 101.2 for shovel firemen in the quarry, and in 1932 from 52.4 for packers (sackers) in the cement department to 92.7 for oilers in the cement department.

Average earnings per hour of males ranged, by occupation, in 1929 from 36.3 cents for laborers in the coal mill to 87 cents for packers (sackers) in the cement department, and in 1932 from 28.5 cents for laborers in the coal mill to 55.1 cents per hour for shovel operators in the quarry.

Average full-time earnings per week of males ranged, by occupation, in 1929 from \$21.78 for laborers in the shops and miscellaneous departments to \$48.81 for packers (sackers) in the cement department, and in 1932 from \$16.27 for laborers in the quarry to \$31.02 for shovel operators in the quarry.

Average actual earnings in one week of males ranged, by occupation, in 1929 from \$19.77 for laborers in the shops and miscellaneous departments to \$40.74 for shovel operators in the quarry, and in 1932 from \$12.01 for loaders in the cement department to \$27.55 for turbine operators in the power department.

Wage figures are shown in Table 1 for females in only two important occupations and in the group of "other employees," all in the cement department. They worked an average of 5.5 days and 46.6 hours in one week in 1929 and 3.6 days and 27.2 hours in 1932, and earned an average of 38.9 cents per hour and \$18.12 in one week in 1929 and 38.6 cents per hour and \$10.52 in one week in 1932. Their full-time hours per week averaged 52 in 1929 as against 48.6 in 1932 and they actually worked 89.6 per cent of full time in one week in 1929 and 56.0 per cent in 1932, thus showing that they worked 10.4 per cent less than full time in 1929 and 44.0 per cent in 1932.

TABLE 1.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, IN THE PORTLAND CEMENT INDUSTRY, 1929 AND 1932, BY DEPARTMENT, OCCUPATION, AND SEX

Department, occupation, and sex	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
<i>Quarry</i>										
Drillers, male.....	1929	85	544	5.6	56.9	54.0	94.9	\$0.525	\$29.87	\$28.38
	1932	84	379	5.2	55.3	43.8	79.2	.396	21.90	17.36
Blasters, male.....	1929	70	142	5.7	55.9	54.2	89.1	.534	29.85	28.97
	1932	71	116	5.2	54.6	44.2	81.0	.431	23.53	19.06
Shovel operators, male.....	1929	87	250	5.8	57.5	55.8	97.0	.730	41.98	40.74
	1932	88	206	5.2	56.3	45.2	80.3	.551	31.02	24.91
Shovel cranemen, male.....	1929	48	95	5.8	57.1	54.5	95.4	.595	33.97	32.41
	1932	54	89	5.2	55.6	43.5	78.2	.432	24.02	18.78
Shovel firemen, male.....	1929	47	110	6.0	58.7	59.4	101.2	.461	27.06	27.42
	1932	37	65	5.0	58.9	45.6	77.4	.361	21.26	16.44
Locomotive operators, male.....	1929	84	324	5.8	57.3	56.3	98.3	.532	30.48	29.96
	1932	88	239	5.2	55.8	43.8	78.5	.411	22.93	17.99
Locomotive firemen, male.....	1929	24	82	6.0	57.5	56.4	98.1	.471	27.08	26.57
	1932	15	31	4.9	58.5	44.4	75.9	.365	21.35	16.21
Laborers, male.....	1929	91	1,213	5.4	57.4	51.1	89.0	.395	22.67	20.17
	1932	88	573	4.9	55.9	41.6	74.4	.291	16.27	12.09
Other employees, male.....	1929	89	1,239	5.7	58.2	55.7	95.7	.499	29.04	27.81
	1932	84	572	5.1	56.5	42.2	74.7	.398	22.49	16.81
Total.....	1929	95	3,990	5.6	57.6	54.2	94.1	.492	28.34	26.67
	1932	97	2,270	5.1	56.0	43.0	76.8	.389	21.78	16.74
<i>Raw</i>										
Unloaders, mechanical, male.....	1929	53	124	6.0	61.7	60.4	97.9	.506	31.22	30.59
	1932	58	108	5.6	56.2	46.8	83.3	.394	22.14	18.46
Crusher operators, male.....	1929	85	206	5.9	56.9	55.8	98.1	.503	28.62	28.05
	1932	94	175	5.5	58.6	49.0	83.6	.362	21.21	17.72
Conveyor men and elevator men.....	1929	71	309	6.2	66.8	63.8	95.5	.428	28.59	27.28
	1932	71	279	5.8	64.0	50.2	78.4	.323	20.67	16.21
Raw mixer tenders, male.....	1929	36	113	6.3	66.1	62.3	94.3	.479	31.66	29.84
	1932	54	144	5.9	65.1	51.5	79.1	.340	22.13	17.48
Dryer men.....	1929	50	189	6.2	66.3	61.2	92.3	.454	30.10	27.78
	1932	41	125	5.7	63.6	47.4	74.5	.355	22.58	16.85
Raw millers, male:										
Primary.....	1929	95	322	6.3	66.8	62.1	93.0	.503	33.60	31.21
	1932	103	294	6.1	64.5	52.4	81.2	.395	25.48	20.69
Secondary.....	1929	55	208	6.3	64.9	60.0	92.4	.505	32.77	30.31
	1932	35	94	6.2	60.9	50.0	82.1	.386	23.51	19.27
Total, raw millers.....	1929	102	530	6.3	66.0	61.3	92.9	.504	33.26	30.86
	1932	103	388	6.1	63.7	51.8	81.3	.393	25.03	20.35
Oilers, male.....	1929	62	181	6.3	68.6	63.8	93.0	.406	27.85	25.90
	1932	64	138	6.0	63.6	51.5	81.0	.348	22.13	17.94
Laborers, male.....	1929	85	596	6.0	62.7	59.2	94.4	.405	25.39	24.01
	1932	69	232	5.3	60.3	46.1	76.5	.318	19.18	14.63
Other employees, male.....	1929	80	665	6.3	64.6	60.4	93.5	.500	32.30	30.19
	1932	71	361	5.8	63.7	50.1	78.6	.382	24.33	19.11
Total.....	1929	102	2,913	6.2	64.5	60.7	94.1	.464	29.93	28.17
	1932	103	1,950	5.8	62.5	49.7	79.5	.360	22.50	17.90
<i>Coal mill</i>										
Conveyor men and elevator men.....	1929	32	87	6.1	70.4	65.4	92.9	.423	29.78	27.69
	1932	14	37	5.8	57.6	44.9	78.0	.352	20.28	15.78
Dryer men.....	1929	63	186	6.3	66.5	62.9	94.6	.461	30.66	29.00
	1932	48	129	6.2	65.9	50.5	76.6	.355	23.39	17.90
Coal millers, male.....	1929	76	206	6.5	68.3	65.7	96.2	.519	35.45	34.12
	1932	72	184	6.6	65.8	54.2	82.4	.399	26.25	21.65
Laborers, male.....	1929	33	119	6.1	71.2	63.4	89.0	.363	25.85	23.02
	1932	26	62	6.0	67.8	54.4	80.2	.285	19.32	15.52
Other employees, male.....	1929	31	113	6.4	67.6	63.6	94.1	.459	31.03	29.21
	1932	24	69	5.4	61.2	46.3	75.7	.379	23.19	17.56
Total.....	1929	82	711	6.3	68.5	64.2	93.7	.457	31.30	29.35
	1932	72	481	6.2	64.8	51.4	79.3	.366	23.72	18.82

TABLE 1.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, IN THE PORTLAND CEMENT INDUSTRY, 1929 AND 1932 BY DEPARTMENT, OCCUPATION, AND SEX—Continued

Department, occupation, and sex	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
<i>Clinker</i>										
Burners, male:										
First.....	1929	102	322	6.7	64.2	64.0	99.7	\$0.628	\$40.32	\$40.16
	1932	103	386	6.3	62.1	54.3	87.4	.495	30.74	26.84
Second.....	1929	46	220	6.5	65.3	61.8	94.6	.534	34.87	33.03
	1932	20	76	6.2	61.6	48.7	79.1	.409	25.19	19.91
Total burners.....	1929	102	542	6.6	64.6	63.1	97.7	.591	38.18	37.27
	1932	103	462	6.3	62.1	53.4	86.0	.482	29.93	25.70
Cooler tenders, male.....	1929	25	57	6.4	69.3	65.7	94.8	.456	31.60	29.95
	1932	33	100	6.6	68.0	55.6	81.8	.347	23.60	19.27
Gypsum mixers, male.....	1929	31	104	6.2	65.7	62.7	95.4	.456	29.96	28.58
	1932	44	108	5.9	65.8	50.6	76.9	.346	22.77	17.50
Conveyor men and elevator men.....	1929	65	229	6.3	69.4	64.0	92.2	.437	30.33	27.96
	1932	63	201	6.1	64.6	51.7	80.0	.338	21.83	17.45
Clinker millers, male.....	1929	93	396	6.2	66.3	61.9	93.4	.498	33.02	30.82
	1932	86	303	6.2	66.0	53.5	81.1	.380	25.08	20.34
Oilers, male.....	1929	75	262	6.6	69.4	67.1	96.7	.449	31.16	30.16
	1932	79	230	6.1	65.1	53.0	81.4	.355	23.11	18.82
Laborers, male.....	1929	67	315	6.1	67.2	58.5	87.1	.422	28.36	24.66
	1932	67	193	5.6	62.9	46.8	74.4	.307	19.31	14.39
Other employees, male.....	1929	85	701	6.4	67.7	64.5	95.3	.497	33.65	32.05
	1932	82	469	6.0	63.8	51.3	80.4	.391	24.95	20.05
Total.....	1929	102	2,606	6.4	67.1	63.3	94.3	.495	33.21	31.32
	1932	103	2,066	6.1	64.2	52.1	81.2	.389	24.97	20.27
<i>Cement</i>										
Conveyor men and elevator men.....	1929	55	136	5.7	57.9	54.5	94.1	.437	25.30	23.80
	1932	72	157	5.4	55.8	44.6	79.9	.363	20.26	16.18
Packers (sackers), male.....	1929	96	1,249	5.3	56.1	44.8	79.9	.370	48.81	38.97
	1932	97	863	4.5	55.5	29.1	52.4	.518	28.75	15.10
Loaders, male.....	1929	25	148	4.2	57.2	39.2	68.5	.560	32.03	21.95
	1932	32	330	3.6	55.3	29.3	53.0	.410	22.67	12.01
Sack sorters, male.....	1929	52	194	5.6	57.1	51.9	90.9	.411	23.47	21.31
	1932	45	135	4.9	54.6	40.3	73.8	.335	18.29	13.52
Sack sorters, female.....	1929	10	39	5.3	53.8	46.1	85.7	.328	17.65	15.12
	1932	6	23	3.0	48.0	21.5	44.8	.411	19.73	8.85
Sack cleaners, male.....	1929	40	101	5.4	54.7	48.4	88.5	.425	23.25	20.58
	1932	34	57	5.1	52.9	41.0	77.5	.364	19.26	14.91
Sack cleaners, female.....	1929	3	14	5.3	51.4	44.6	86.8	.425	21.85	18.93
Sack tiers, male.....	1929	65	130	5.3	55.2	47.1	85.3	.495	27.32	23.32
	1932	49	75	4.6	54.3	36.1	66.5	.383	20.80	13.83
Sack tiers, female.....	1929	3	7	5.7	48.9	46.6	95.3	.493	24.11	22.98
	1932	4	14	3.6	49.7	26.9	54.1	.391	19.43	10.54
Oilers, male.....	1929	17	22	5.9	56.9	53.4	93.8	.466	26.52	24.89
	1932	18	27	6.0	55.1	51.1	92.7	.390	21.49	19.93
Laborers, male.....	1929	86	716	5.3	57.3	50.0	87.3	.415	23.78	20.75
	1932	65	342	4.7	54.1	38.2	70.6	.326	17.64	12.45
Other employees, male.....	1929	93	627	5.8	57.0	54.9	96.3	.554	31.58	30.43
	1932	72	296	5.1	55.2	43.0	77.9	.408	22.52	17.54
Other employees, female.....	1929	22	97	5.6	51.5	47.0	91.3	.401	20.65	18.86
	1932	17	31	4.2	48.6	31.6	65.0	.372	18.08	11.74
Total, males.....	1929	100	3,323	5.4	56.6	48.6	85.9	.612	34.64	29.76
	1932	100	2,282	4.6	55.1	34.8	63.2	.418	23.03	14.56
Total, females.....	1929	28	157	5.5	52.0	46.6	89.6	.389	20.23	18.12
	1932	18	68	3.6	48.6	27.2	56.0	.386	18.76	10.52
<i>Power</i>										
Firemen.....	1929	26	116	6.5	61.9	59.4	96.0	.523	32.37	31.05
	1932	26	97	5.9	61.9	49.5	80.0	.404	25.01	19.96
Engineers, male.....	1929	37	203	6.4	60.3	59.0	97.8	.589	35.52	34.74
	1932	34	156	5.9	60.6	49.4	81.5	.480	29.09	23.72
Turbine operators, male.....	1929	15	38	6.6	64.7	64.2	99.2	.582	37.66	37.37
	1932	19	57	6.6	64.1	57.9	90.3	.476	30.51	27.55
Pumpmen.....	1929	24	57	6.5	69.3	67.5	97.4	.450	31.19	30.37
	1932	23	50	6.5	63.7	56.3	88.4	.389	24.78	21.90
Oilers, male.....	1929	32	99	6.5	79.5	67.3	95.5	.461	32.50	31.03
	1932	28	100	6.3	70.9	57.1	80.5	.339	24.04	19.34
Laborers, male.....	1929	26	71	5.7	63.2	57.6	91.1	.395	24.96	22.72
	1932	21	77	5.7	62.2	50.2	80.7	.313	19.47	15.75
Other employees, male.....	1929	85	875	6.4	67.1	62.8	93.6	.557	37.37	35.03
	1932	79	547	6.1	62.2	50.4	81.0	.431	26.81	21.69
Total.....	1929	88	1,459	6.4	65.8	62.3	94.7	.541	35.60	33.68
	1932	89	1,084	6.1	62.9	51.4	81.7	.418	26.29	21.51

TABLE 1.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, IN THE PORTLAND CEMENT INDUSTRY, 1929 AND 1932, BY DEPARTMENT, OCCUPATION, AND SEX—Continued

Department, occupation, and sex	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
<i>Shops and miscellaneous</i>										
Machinists, male.....	1929	99	433	5.6	56.0	52.3	93.4	\$0.651	\$36.46	\$34.03
	1932	99	296	5.0	55.9	41.7	74.6	.529	29.57	22.05
Repairmen.....	1929	100	1,329	6.2	61.3	59.7	97.4	.572	35.06	34.17
	1932	103	939	5.7	58.3	48.8	83.7	.444	25.89	21.70
Laborers, male.....	1929	90	1,212	5.5	58.7	53.4	91.0	.371	21.78	19.77
	1932	85	711	5.2	56.7	45.2	79.7	.301	17.07	13.60
Other employees, male.....	1929	101	2,559	5.8	57.4	55.0	95.8	.562	32.26	30.95
	1932	103	1,530	5.5	55.8	46.5	83.3	.468	26.11	21.78
Total.....	1929	102	5,533	5.8	58.5	55.6	95.0	.531	31.06	29.51
	1932	103	3,476	5.5	56.7	46.5	82.0	.433	24.55	20.11
Total, all occupations:										
Male.....	1929	102	20,544	5.9	60.8	56.7	93.3	.518	31.49	29.33
	1932	103	13,609	5.5	59.1	45.8	77.5	.401	23.70	18.39
Female.....	1929	28	157	5.5	52.0	46.6	89.6	.389	20.23	18.12
	1932	18	68	3.6	48.6	27.2	56.0	.386	18.76	10.52
Male and female.....	1929	102	20,701	5.9	60.8	56.6	93.1	.517	31.43	29.25
	1932	103	13,677	5.5	59.0	45.7	77.5	.401	23.66	18.35

## Hours and Earnings, 1929 and 1932, by Sex and District

AVERAGE days, hours, and earnings, and the per cent of full time worked by wage earners of each sex and of both sexes combined are shown in Table 2 for each of 12 geographic districts in the United States. The districts are those shown by the Bureau of Mines in Portland Cement Industry in 1931, except that no data are shown in this table for Maine in district 2, for Louisiana in district 6, for Minnesota and South Dakota in district 7, for Arkansas in district 8, and for Idaho and Wyoming in district 10. The districts are as follows:

- District 1.—Maryland, New Jersey, and eastern Pennsylvania.
- District 2.—New York.
- District 3.—Ohio, western Pennsylvania, and West Virginia.
- District 4.—Michigan.
- District 5.—Illinois, Indiana, Kentucky, and Wisconsin.
- District 6.—Alabama, Florida, Georgia, Tennessee, and Virginia.
- District 7.—Iowa and eastern Missouri.
- District 8.—Kansas, western Missouri, Nebraska, and Oklahoma.
- District 9.—Texas.
- District 10.—Colorado, Montana, and Utah.
- District 11.—California.
- District 12.—Oregon and Washington.

Hours actually worked in one week by males in all districts combined averaged 56.7 in 1929 and 45.8 in 1932, and ranged in the various districts from 50.1 to 62.4 in 1929 and from 39.4 to 59.1 in 1932.

Earnings per hour of males in all districts combined averaged 51.8 cents in 1929 and 40.1 cents in 1932, and ranged in the various districts from 37.3 to 60.9 cents in 1929 and from 31.4 to 56.6 cents in 1932.

Actual earnings in one week of males in all districts combined averaged \$29.33 in 1929 and \$18.39 in 1932, and of those in the various districts ranged in 1929 from \$23.31 to \$32.64, and in 1932 from \$16.39 to \$25.03.



TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, IN THE PORTLAND CEMENT INDUSTRY, 1929 AND 1932, BY SEX AND DISTRICT

Sex and district	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
<i>Males</i>										
District 1.....	1929	16	4,566	5.8	61.2	57.3	93.6	\$.554	\$33.90	\$31.74
	1932	20	3,842	4.8	60.3	39.4	65.3	.416	25.08	16.39
District 2.....	1929	6	1,230	5.7	60.7	55.8	91.9	.551	33.45	30.71
	1932	7	1,165	5.3	58.0	41.9	72.2	.415	24.07	17.39
District 3.....	1929	10	2,194	5.8	61.5	58.5	95.1	.558	34.32	32.64
	1932	6	804	5.7	58.4	45.0	77.1	.412	24.06	18.54
District 4.....	1929	9	1,409	5.6	63.1	56.8	91.5	.564	35.02	32.00
	1932	4	392	5.7	67.5	59.1	87.6	.369	24.90	21.82
District 5.....	1929	10	2,708	5.9	60.2	55.2	91.7	.495	29.80	27.30
	1932	8	1,919	5.5	54.1	43.9	81.1	.408	22.07	17.93
District 6.....	1929	13	2,043	5.7	64.0	55.6	86.7	.427	27.33	23.73
	1932	14	1,375	5.7	63.8	52.4	82.1	.314	20.03	16.43
District 7.....	1929	6	1,892	6.0	61.6	59.0	95.8	.479	29.51	28.22
	1932	5	603	6.4	69.4	58.7	84.6	.355	24.64	20.83
District 8.....	1929	7	1,292	6.0	60.0	57.4	95.7	.446	26.76	25.60
	1932	11	1,070	5.9	57.7	49.3	85.4	.358	20.66	17.66
District 9.....	1929	3	607	5.8	67.9	62.4	91.9	.373	25.33	23.31
	1932	8	667	5.7	61.9	50.0	80.8	.348	21.54	17.39
District 10.....	1929	6	617	6.4	56.8	54.1	95.2	.526	29.88	28.45
	1932	5	349	6.7	54.5	53.4	98.0	.466	25.40	24.86
District 11.....	1929	9	1,416	6.4	55.2	54.3	98.4	.587	32.40	31.88
	1932	8	946	6.1	54.3	49.4	91.0	.491	26.66	24.23
District 12.....	1929	7	570	6.0	53.9	50.1	92.9	.609	32.83	30.54
	1932	7	477	6.1	51.3	44.2	86.2	.566	29.04	25.03
Total.....	1929	102	20,544	5.9	60.8	56.7	93.3	.518	31.49	29.33
	1932	103	13,609	5.5	59.1	45.8	77.5	.401	23.70	18.39
<i>Females</i>										
District 1.....	1929	2	11	4.9	53.6	41.4	77.2	.356	19.08	14.74
District 2.....	1929	1	11	5.0	45.1	43.6	96.7	.412	18.58	17.96
	1932	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
District 3.....	1929	2	10	4.7	50.4	39.4	78.2	.448	22.58	17.65
District 4.....	1929	4	11	5.3	56.7	48.9	86.2	.348	19.73	17.04
	1932	1	3	5.3	48.0	42.7	89.0	.263	12.62	11.22
District 5.....	1929	5	31	5.6	51.7	44.9	86.8	.370	19.13	16.63
	1932	4	36	2.9	48.7	21.4	43.9	.370	18.46	8.11
District 7.....	1929	2	39	5.7	54.6	51.2	93.8	.331	18.07	16.95
	1932	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
District 8.....	1929	3	8	5.8	57.8	53.9	93.3	.399	23.06	21.54
	1932	2	7	2.3	48.0	16.6	34.6	.335	16.08	5.55
District 9.....	1929	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1932	2	5	4.8	50.4	36.2	71.8	.255	12.85	9.23
District 10.....	1929	5	10	5.3	48.8	42.0	86.1	.416	20.30	17.43
	1932	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
District 11.....	1929	2	22	6.0	47.8	47.8	100.0	.528	25.24	25.24
	1932	1	7	6.0	48.0	47.9	99.8	.564	27.07	27.01
District 12.....	1929	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	1932	5	7	4.9	48.0	32.1	66.9	.375	18.00	12.03
Total.....	1929	28	157	5.5	52.0	46.6	89.6	.389	20.23	18.12
	1932	18	68	3.6	48.6	27.2	56.0	.386	18.76	10.52

<sup>1</sup> Data included in totals.

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, IN THE PORTLAND CEMENT INDUSTRY, 1929 AND 1932, BY SEX AND DISTRICT—Continued

Sex and district	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
<i>Males and females</i>										
District 1.....	1929	16	4,577	5.8	61.1	57.3	93.6	\$0.553	\$33.79	\$31.70
	1932	20	3,842	4.8	60.3	39.4	65.3	.416	25.08	16.39
District 2.....	1929	6	1,241	5.7	60.6	55.7	91.9	.550	33.33	30.60
	1932	7	1,166	5.3	58.0	41.8	72.1	.415	24.07	17.38
District 3.....	1929	10	2,204	5.8	61.4	58.4	95.1	.558	34.26	32.57
	1932	6	804	5.7	58.4	45.0	77.1	.412	24.06	18.54
District 4.....	1929	9	1,420	5.6	62.0	56.7	91.5	.562	34.84	31.88
	1932	4	395	5.7	67.3	59.0	87.7	.369	24.83	21.74
District 5.....	1929	10	2,739	5.9	60.2	55.0	91.4	.494	29.74	27.18
	1932	8	1,955	5.4	54.0	43.5	80.6	.408	22.03	17.75
District 6.....	1929	13	2,043	5.7	64.0	55.6	86.7	.427	27.33	23.75
	1932	14	1,375	6.7	63.8	52.4	82.1	.314	20.03	16.43
District 7.....	1929	6	1,931	6.0	61.5	58.8	95.6	.476	29.27	27.99
	1932	5	604	6.4	69.4	58.6	84.4	.355	24.64	20.80
District 8.....	1929	7	1,300	6.0	60.0	57.4	95.7	.446	26.76	25.58
	1932	11	1,077	5.8	57.7	49.1	85.1	.358	20.66	17.58
District 9.....	1929	3	609	5.8	67.8	62.3	91.8	.373	25.29	23.25
	1932	8	672	5.7	61.8	49.9	80.7	.348	21.51	17.33
District 10.....	1929	6	627	6.4	66.7	53.9	95.1	.525	29.77	28.28
	1932	5	350	6.7	54.5	54.3	98.0	.465	25.34	24.85
District 11.....	1929	9	1,438	6.4	55.1	54.2	98.4	.586	32.29	31.78
	1932	8	953	6.1	54.3	49.4	91.0	.491	26.66	24.25
District 12.....	1929	7	572	6.0	53.9	50.1	92.9	.608	32.77	30.48
	1932	7	484	6.1	51.3	44.0	85.8	.564	28.93	24.85
Total.....	1929	102	20,701	5.9	60.8	56.6	93.1	.517	31.43	29.25
	1932	103	13,677	5.5	59.0	45.7	77.5	.401	23.66	18.35

Hours and Earnings, 1932, by Sex and State

TABLE 3 shows for the wage earners of each sex and of both sexes combined in each State, or group of two States, average days, hours, and earnings, and the per cent of full time worked in one week in 1932. Averages are shown for groups of two States to avoid disclosing figures for any one establishment, thereby possibly revealing its identity.

Average days worked in one week by males ranged in the various States or groups of States from 4.7 to 7.0; average full-time hours per week, from 50.6 to 73.9; and average hours actually worked in one week, from 38.1 to 63.7. The per cent of full time worked ranged from 66.0 to 100.5. Average earnings per hour ranged from 24.2 to 59.1 cents; average full-time earnings per week, from \$15.78 to \$29.90; and average actual earnings in one week, from \$14.80 to \$25.78.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS OF WAGE EARNERS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, IN THE PORTLAND CEMENT INDUSTRY, 1932, BY SEX AND STATE

Sex and State	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
<i>Males</i>									
Alabama.....	5	437	5.5	66.0	51.3	77.7	\$0.344	\$22.70	\$17.61
California.....	8	946	6.1	54.3	49.4	91.0	.491	26.66	24.23
Colorado and Montana.....	3	234	6.6	54.0	52.3	96.9	.467	25.22	24.41
Georgia and Florida.....	3	357	6.0	65.2	61.3	94.0	.242	15.78	14.80
Illinois.....	2	727	5.7	51.4	44.4	86.4	.405	20.82	17.99
Indiana and Kentucky.....	5	1,110	5.3	54.5	42.8	78.5	.411	22.40	17.60
Iowa.....	3	340	6.6	73.9	63.7	86.2	.331	24.46	21.08
Kansas.....	6	501	5.5	57.8	43.8	75.8	.350	20.23	15.32
Maryland and West Virginia.....	3	397	5.4	57.7	38.1	66.0	.401	23.14	15.30
Michigan and Wisconsin.....	5	474	5.8	68.3	58.3	85.4	.374	25.54	21.81
Missouri.....	3	407	6.2	66.1	57.8	87.4	.380	25.12	21.96
Nebraska.....	2	157	6.4	54.7	53.9	98.5	.335	18.32	18.07
New Jersey.....	3	716	4.7	69.9	46.8	67.0	.387	27.05	18.12
New York.....	7	1,165	5.3	58.0	41.9	72.2	.415	24.07	17.39
Ohio.....	2	251	5.7	53.2	45.6	85.7	.433	23.04	19.75
Oklahoma.....	2	268	6.0	52.4	46.9	89.5	.385	20.17	18.05
Oregon.....	3	166	6.4	52.6	46.8	89.0	.523	27.51	24.44
Pennsylvania.....	18	3,282	4.9	58.5	38.8	66.3	.423	24.75	16.41
Tennessee.....	4	296	5.4	60.0	47.4	79.0	.334	20.04	15.83
Texas.....	8	667	5.7	61.9	50.0	80.8	.348	21.54	17.39
Utah.....	2	115	7.0	55.4	55.7	100.5	.463	25.65	25.78
Virginia.....	2	285	5.8	62.4	48.0	76.9	.359	22.40	17.26
Washington.....	4	311	5.9	50.6	42.9	84.8	.591	29.50	25.35
Total.....	103	13,609	5.5	59.1	45.8	77.5	.401	23.70	18.39
<i>Females</i>									
California.....	1	7	6.0	48.0	47.9	99.8	.564	27.07	27.01
Illinois.....	1	7	5.9	48.0	46.9	97.7	.342	16.42	16.01
Indiana and Kentucky.....	3	29	2.1	48.8	15.3	31.4	.406	19.81	6.21
Iowa.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Michigan and Wisconsin.....	1	3	5.3	48.0	42.7	89.0	.263	12.62	11.22
New York.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Oklahoma.....	2	7	2.3	48.0	16.6	34.6	.335	16.08	5.55
Oregon.....	3	3	3.3	48.0	25.2	52.5	.379	18.19	9.55
Texas.....	2	5	4.8	50.4	36.2	71.8	.255	12.85	9.23
Utah.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Washington.....	2	4	6.0	48.0	37.3	77.7	.373	17.90	13.89
Total.....	18	68	3.6	48.6	27.2	56.0	.386	18.76	10.52
<i>Males and females</i>									
Alabama.....	5	437	5.5	66.0	51.3	77.7	.344	22.70	17.61
California.....	8	953	6.1	54.3	49.4	91.0	.491	26.66	24.25
Colorado and Montana.....	3	234	6.6	54.0	52.3	96.9	.467	25.22	24.41
Georgia and Florida.....	3	357	6.0	65.2	61.3	94.0	.242	15.78	14.80
Illinois.....	2	734	5.7	51.3	44.4	86.5	.404	20.73	17.97
Indiana and Kentucky.....	5	1,139	5.2	54.4	42.1	77.4	.411	22.36	17.31
Iowa.....	3	341	6.6	73.8	63.5	86.0	.331	24.43	21.03
Kansas.....	6	501	5.5	57.8	43.8	75.8	.350	20.23	15.32
Maryland and West Virginia.....	3	397	5.4	57.7	38.1	66.0	.401	23.14	15.30
Michigan and Wisconsin.....	5	477	5.8	68.2	58.2	85.3	.373	25.44	21.74
Missouri.....	3	407	6.2	66.1	57.8	87.4	.380	25.12	21.96
Nebraska.....	2	157	6.4	54.7	53.9	98.5	.335	18.32	18.07
New Jersey.....	3	716	4.7	69.9	46.8	67.0	.387	27.05	18.12
New York.....	7	1,166	5.3	58.0	41.8	72.1	.415	24.07	17.38
Ohio.....	2	251	5.7	53.2	45.6	85.7	.433	23.04	19.75
Oklahoma.....	2	275	5.9	52.3	46.1	88.1	.384	20.08	17.73
Oregon.....	3	169	6.3	52.3	46.4	88.4	.521	27.35	24.18
Pennsylvania.....	18	3,282	4.9	58.5	38.8	66.3	.423	24.75	16.41
Tennessee.....	4	296	5.4	60.0	47.4	79.0	.334	20.04	15.83
Texas.....	8	672	5.7	61.8	49.0	80.7	.348	21.51	17.33
Utah.....	2	116	7.0	55.4	55.7	100.5	.462	25.69	25.72
Virginia.....	2	285	5.8	62.4	48.0	76.9	.359	22.40	17.26
Washington.....	4	315	5.9	50.6	42.8	84.6	.589	29.80	25.21
Total.....	103	13,677	5.5	59.0	45.7	77.5	.401	23.66	18.35

<sup>1</sup> Data included in totals.

## Hours and Earnings in 14 Representative Occupations, 1932

For the males in each of 14 representative occupations in the industry, Table 4 presents average days, hours, and earnings in 1932. These figures illustrate the variations in hours and earnings of the wage earners in practically all occupations in the industry in each district. Days on which drillers in the quarry (the first occupation in the table) worked in one week ranged in the different districts from an average of 4.2 to 6.2, and for all districts combined averaged 5.2. Full-time hours per week ranged, by district, from an average of 48 to 60.6, and for all districts combined averaged 55.3, while hours actually worked in one week ranged, by district, from an average of 32.9 to 56.9, and for all districts combined averaged 43.8. The per cent of full time worked in one week ranged, by district, from 63.3 to 102.8, and for all districts combined was 79.2. Earnings per hour ranged, by district, from an average of 27.9 to 55.2 cents, and for all districts combined averaged 39.6 cents. Full-time earnings per week ranged, by district, from an average of \$16.54 to \$26.50, and for all districts combined averaged \$21.90; but the range in actual earnings in one week, by district, was from \$12.86 to \$23.58, and for all districts combined averaged \$17.36.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS OF MALES IN 14 SPECIFIED OCCUPATIONS IN THE PORTLAND CEMENT INDUSTRY, 1932, BY DEPARTMENT AND DISTRICT

Department, occupation, and district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
<i>Quarry</i>									
Drillers:									
District 1.....	18	80	4.9	57.7	45.3	78.5	\$0.406	\$23.43	\$18.40
District 2.....	6	39	5.4	57.9	43.4	75.0	.362	20.96	15.69
District 3.....	6	38	4.2	52.0	32.9	63.3	.421	21.89	13.87
District 5.....	6	34	5.5	54.9	43.7	79.6	.420	23.06	18.34
District 6.....	6	34	5.5	54.9	43.7	79.6	.420	23.06	18.34
District 7.....	12	59	4.8	59.3	46.1	77.7	.279	16.54	12.86
District 8.....	4	18	6.2	60.6	56.9	93.9	.342	20.73	19.43
District 9.....	9	29	5.3	54.4	47.6	87.5	.359	19.53	17.09
District 10.....	5	9	5.3	53.3	47.6	89.3	.387	20.63	18.41
District 11.....	5	9	5.3	53.3	47.6	89.3	.387	20.63	18.41
District 12.....	7	41	5.8	49.0	38.9	79.4	.538	26.36	20.96
District 12.....	6	20	5.6	48.0	39.1	81.5	.552	26.50	21.58
Total.....	84	379	5.2	55.3	43.8	79.2	.396	21.90	17.36
Shovel operators:									
District 1.....	19	54	4.6	57.5	39.9	69.4	.561	32.26	22.42
District 2.....	5	15	5.8	56.7	46.2	81.5	.546	30.96	25.25
District 3.....	6	20	5.0	53.6	44.1	82.3	.551	29.53	24.29
District 4.....	2	4	7.0	77.0	78.3	101.7	.437	33.65	34.23
District 5.....	7	28	5.4	55.9	42.6	76.2	.508	28.40	21.66
District 6.....	12	23	4.8	58.9	43.3	73.5	.507	29.86	21.96
District 7.....	4	10	6.2	59.8	59.3	99.2	.530	31.69	31.42
District 8.....	10	22	5.4	52.9	46.8	88.5	.502	26.56	23.50
District 9.....	7	10	5.5	54.9	48.8	88.9	.538	29.54	26.25
District 10.....	5	5	6.8	54.4	54.4	100.0	.679	36.94	36.94
District 11.....	5	7	6.4	52.6	58.1	110.5	.822	43.24	47.78
District 12.....	6	8	5.0	48.0	36.0	75.0	.678	32.54	24.41
Total.....	88	206	5.2	56.3	45.2	80.3	.551	31.02	24.91

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS OF MALES IN 14 SPECIFIED OCCUPATIONS IN THE PORTLAND CEMENT INDUSTRY, 1932, BY DEPARTMENT AND DISTRICT—Continued

Department, occupation, and district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
<i>Quarry—Continued</i>									
Laborers:									
District 1.....	20	130	4.3	57.2	35.7	62.4	\$0.337	\$19.28	\$12.03
District 2.....	5	35	5.2	57.2	37.3	65.2	.337	19.28	12.59
District 3.....	6	50	4.4	54.2	35.0	64.6	.337	18.27	11.77
District 4.....	2	5	6.6	71.6	71.6	100.0	.256	18.33	18.33
District 5.....	7	63	4.6	52.0	37.0	71.2	.316	16.43	11.68
District 6.....	13	125	5.1	59.3	48.0	80.9	.196	11.62	9.38
District 7.....	4	20	6.1	62.7	58.3	93.0	.280	17.56	16.30
District 8.....	9	40	5.3	51.3	44.1	86.0	.292	14.98	12.87
District 9.....	6	28	4.5	56.0	41.2	73.6	.223	12.49	9.18
District 10.....	3	5	6.4	51.2	51.2	100.0	.387	19.81	19.81
District 11.....	7	55	5.9	52.4	45.5	86.8	.344	18.03	15.66
District 12.....	6	17	5.0	48.0	34.4	71.7	.469	22.51	16.15
Total.....	88	573	4.9	55.9	41.6	74.4	.291	16.27	12.09
<i>Raw</i>									
Crusher operators:									
District 1.....	20	36	4.6	58.4	41.3	70.7	.391	22.83	16.14
District 2.....	6	15	5.5	60.3	43.0	71.3	.357	21.53	15.38
District 3.....	6	14	6.4	56.3	58.1	103.2	.324	18.24	18.84
District 4.....	6	15	5.3	55.1	47.4	86.0	.369	20.33	17.48
District 5.....	14	26	5.5	64.3	54.9	84.3	.249	16.01	13.48
District 6.....	5	16	5.8	67.8	50.3	74.2	.345	23.39	17.38
District 7.....	11	15	5.9	56.8	55.8	98.2	.334	18.97	18.66
District 8.....	7	9	5.3	58.3	48.7	83.5	.367	21.40	17.86
District 9.....	5	5	6.6	54.0	54.0	100.0	.440	23.76	23.76
District 10.....	7	14	6.4	53.0	55.5	104.7	.450	23.85	24.95
District 11.....	7	10	5.2	48.0	37.9	79.0	.599	28.75	22.67
Total.....	94	175	5.5	58.6	49.0	83.6	.362	21.21	17.72
Raw millers, primary:									
District 1.....	20	61	4.8	63.1	42.5	67.4	.406	25.62	17.26
District 2.....	7	21	5.8	60.2	39.1	65.0	.386	23.24	15.09
District 3.....	6	16	6.9	64.8	54.2	83.6	.390	25.27	21.17
District 4.....	4	9	6.7	74.7	72.0	96.4	.345	25.77	24.84
District 5.....	8	32	5.8	59.3	47.2	79.6	.401	23.78	18.93
District 6.....	14	34	6.3	74.1	64.0	86.4	.347	25.71	22.22
District 7.....	5	15	6.9	78.4	63.7	81.3	.344	26.97	21.89
District 8.....	11	26	6.6	64.6	58.0	89.8	.356	23.00	20.66
District 9.....	8	19	6.5	70.7	59.6	84.3	.330	23.33	19.64
District 10.....	5	14	7.0	56.0	56.0	100.0	.487	27.27	27.27
District 11.....	8	23	6.6	61.9	57.0	92.1	.455	28.16	25.95
District 12.....	7	24	6.3	55.3	45.7	82.6	.523	28.92	23.87
Total.....	103	294	6.1	64.5	52.4	81.2	.395	25.48	20.69
Laborers:									
District 1.....	14	56	4.4	61.8	36.5	59.1	.342	21.14	12.49
District 2.....	3	4	5.5	65.0	37.0	56.9	.350	22.75	12.96
District 3.....	3	6	6.5	66.8	51.3	76.8	.329	21.98	16.89
District 4.....	3	4	6.8	68.5	73.6	107.4	.266	18.22	19.57
District 5.....	5	53	5.0	53.5	40.3	75.3	.338	18.08	13.62
District 6.....	8	23	6.0	60.8	59.4	97.7	.216	13.13	12.82
District 7.....	4	10	6.9	81.6	61.0	74.8	.284	23.17	17.31
District 8.....	7	16	6.0	58.8	52.5	89.3	.289	16.99	15.18
District 9.....	7	19	4.9	68.6	47.5	69.2	.252	17.29	11.99
District 10.....	3	5	7.0	56.0	56.0	100.0	.404	22.62	22.62
District 11.....	6	21	6.3	60.9	56.9	93.4	.347	21.13	19.75
District 12.....	6	15	5.1	49.6	37.4	75.4	.489	24.25	18.29
Total.....	69	232	5.3	60.3	46.1	76.5	.318	19.18	14.63

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS OF MALES IN 14 SPECIFIED OCCUPATIONS IN THE PORTLAND CEMENT INDUSTRY, 1932, BY DEPARTMENT AND DISTRICT—Continued

Department, occupation, and district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Percent of full time			
<i>Coal mill</i>									
Coal millers:									
District 1.....	20	56	6.1	64.8	49.8	76.9	\$.402	\$26.05	\$20.01
District 2.....	6	14	5.6	59.3	42.0	70.8	.415	24.61	17.44
District 3.....	6	16	7.0	64.8	53.0	81.8	.396	25.66	21.02
District 4.....	4	8	7.0	77.0	73.5	95.5	.339	26.10	24.89
District 5.....	8	23	6.7	63.5	53.0	83.5	.431	27.37	22.80
District 6.....	13	30	7.0	71.4	61.9	86.7	.335	23.92	20.75
District 7.....	4	9	6.9	84.0	70.4	83.8	.342	28.73	24.07
District 8.....	2	5	7.0	72.8	56.2	77.2	.344	25.04	19.34
District 10.....	3	8	7.0	56.0	56.0	100.0	.464	25.98	25.98
District 12.....	6	15	6.9	54.9	48.5	88.3	.573	31.46	27.76
Total.....	72	184	6.6	65.8	54.2	82.4	.399	26.25	21.65
Laborers:									
District 1.....	6	17	5.1	61.8	37.8	61.2	.338	20.89	12.78
District 3.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
District 4.....	2	4	7.0	70.0	70.0	100.0	.320	22.40	22.40
District 5.....	3	7	5.9	64.6	55.0	85.1	.275	17.77	15.12
District 6.....	8	17	6.4	69.8	56.9	81.5	.218	15.22	12.41
District 7.....	4	11	7.0	84.0	75.1	89.4	.283	23.77	21.23
District 10.....	1	3	7.0	56.0	56.0	100.0	.400	22.40	22.40
District 12.....	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	26	62	6.0	67.8	54.4	80.2	.285	19.32	15.52
<i>Clinker</i>									
Burners, first:									
District 1.....	20	105	5.5	62.7	49.9	79.6	.481	30.16	24.01
District 2.....	7	26	5.9	57.2	47.7	83.4	.507	29.00	24.18
District 3.....	6	19	7.0	66.3	53.1	80.1	.495	32.82	26.30
District 4.....	4	9	6.6	68.4	63.1	92.3	.501	34.27	31.59
District 5.....	8	52	6.1	55.5	46.9	84.5	.497	27.58	23.29
District 6.....	14	39	6.9	67.5	66.7	98.8	.449	30.31	29.96
District 7.....	5	19	6.9	75.2	61.4	81.6	.413	31.06	25.37
District 8.....	11	34	7.0	63.4	60.9	96.1	.435	27.58	26.48
District 9.....	8	21	6.9	68.0	62.6	92.1	.484	32.91	30.29
District 10.....	5	15	7.0	56.0	56.0	100.0	.529	29.62	29.62
District 11.....	8	24	6.6	57.9	53.6	92.6	.629	36.42	33.72
District 12.....	7	23	7.0	56.0	51.1	91.3	.660	36.96	33.73
Total.....	103	386	6.3	62.1	54.3	87.4	.495	30.74	26.84
Clinker millers:									
District 1.....	17	78	5.2	63.6	43.5	68.4	.399	25.38	17.37
District 2.....	6	31	5.9	60.9	44.3	72.7	.380	23.14	16.82
District 3.....	5	18	6.6	66.9	50.2	75.0	.376	25.15	18.86
District 4.....	4	9	7.0	74.7	74.7	100.0	.361	26.97	26.97
District 5.....	7	36	6.7	65.3	57.3	87.7	.392	25.60	22.48
District 6.....	10	24	6.6	77.0	66.9	86.9	.312	24.02	20.87
District 7.....	5	19	6.9	76.6	64.8	84.6	.337	25.81	21.84
District 8.....	11	34	6.6	66.7	56.1	84.1	.350	25.35	19.67
District 9.....	5	11	6.6	78.9	61.5	77.9	.319	25.17	19.61
District 10.....	3	8	7.0	56.0	56.0	100.0	.464	25.98	25.98
District 11.....	7	20	6.6	59.2	58.3	98.5	.445	26.34	25.90
District 12.....	6	15	6.9	55.5	50.8	91.5	.486	26.97	24.69
Total.....	86	303	6.2	66.0	53.5	81.1	.380	25.08	20.34

<sup>1</sup> Data included in total.



TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS OF MALES IN 14 SPECIFIED OCCUPATIONS IN THE PORTLAND CEMENT INDUSTRY, 1932, BY DEPARTMENT AND DISTRICT—Continued

Department, occupation, and district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
<i>Clinker—Continued</i>									
Laborers:									
District 1	14	41	4.3	61.1	33.7	55.2	\$0.334	\$20.41	\$11.26
District 2	3	5	6.6	55.2	36.2	65.6	.317	17.50	11.48
District 3	4	10	6.7	65.6	52.5	80.0	.310	20.34	16.29
District 4	2	5	6.6	72.8	69.3	95.6	.249	18.33	17.30
District 5	4	40	5.0	59.2	38.3	64.7	.306	18.12	11.70
District 6	6	14	6.8	65.6	63.7	97.1	.221	14.50	14.05
District 7	4	6	7.0	78.0	74.7	95.8	.284	22.15	21.19
District 8	8	21	6.0	64.6	48.9	75.7	.303	19.57	14.79
District 9	7	15	5.5	73.1	52.3	71.5	.266	19.44	13.91
District 10	3	6	7.0	56.0	56.0	100.0	.389	21.78	21.78
District 11	6	21	6.1	63.6	55.7	87.6	.319	20.29	17.76
District 12	6	9	6.0	50.7	46.0	90.7	.467	23.68	21.49
Total	67	193	5.6	62.9	46.8	74.4	.307	19.31	14.39
<i>Cement</i>									
Packers (sackers):									
District 1	19	303	3.9	57.8	21.7	37.5	.583	33.70	12.67
District 2	7	50	5.0	57.6	38.6	67.0	.494	28.45	19.10
District 3	5	33	4.3	58.4	20.2	34.6	.652	38.08	13.17
District 4	3	16	5.9	58.5	56.3	96.2	.553	32.35	31.17
District 5	8	100	5.5	50.9	40.0	78.6	.515	26.21	20.64
District 6	13	96	4.4	58.7	21.7	37.0	.392	23.01	8.50
District 7	4	32	4.8	54.0	42.9	79.4	.513	27.70	22.03
District 8	10	78	4.5	53.6	25.4	47.4	.382	20.48	9.70
District 9	8	51	4.5	55.6	36.1	64.9	.392	21.80	14.15
District 10	5	9	5.0	49.8	36.9	74.1	.508	25.30	18.75
District 11	8	60	5.0	49.8	34.4	69.1	.519	25.85	17.85
District 12	7	35	5.5	48.7	39.7	81.5	.723	35.21	28.69
Total	97	863	4.5	55.5	29.1	52.4	.518	28.75	15.10
Laborers:									
District 1	15	74	4.2	57.5	32.7	56.9	.329	18.92	10.75
District 2	6	46	5.0	57.8	43.7	75.6	.384	22.20	16.80
District 3	4	15	4.4	60.0	25.8	43.0	.320	19.20	8.24
District 4	3	7	6.0	56.1	57.0	101.6	.306	17.17	17.45
District 5	5	97	4.3	48.0	33.3	69.4	.333	15.98	11.10
District 6	9	31	5.3	59.8	49.3	82.4	.213	12.74	10.51
District 7	3	11	5.2	52.4	45.8	87.4	.309	16.19	14.17
District 8	6	23	5.0	54.8	40.6	74.1	.295	16.17	11.97
District 9	4	10	5.3	53.4	45.1	84.5	.265	14.15	11.96
District 10	3	10	4.4	52.0	33.8	65.0	.412	21.42	13.93
District 11	5	14	6.0	51.4	47.3	92.0	.371	19.07	17.54
District 12	2	4	6.0	48.0	48.4	100.8	.540	25.92	26.13
Total	65	342	4.7	54.1	38.2	70.6	.326	17.64	12.45
<i>Shops and miscellaneous</i>									
Laborers:									
District 1	19	232	4.8	58.3	41.3	70.8	.327	19.06	13.50
District 2	6	52	4.9	53.9	38.2	70.9	.310	16.71	11.82
District 3	4	31	5.4	53.0	44.2	83.4	.312	16.54	13.80
District 4	3	16	6.3	65.3	65.8	100.8	.309	20.18	20.32
District 5	7	86	4.8	50.1	38.2	76.2	.329	16.48	12.55
District 6	14	106	5.6	60.2	52.8	87.7	.218	13.12	11.49
District 7	5	41	6.1	69.8	56.5	80.9	.293	20.45	16.55
District 8	10	54	5.7	53.7	48.8	90.9	.288	15.47	14.04
District 9	6	34	5.1	56.1	45.5	81.1	.205	11.50	9.32
District 10	2	13	6.7	53.5	53.5	100.0	.392	20.97	20.97
District 11	5	28	5.7	49.4	47.4	96.0	.380	18.77	18.01
District 12	4	18	5.8	48.9	40.9	83.6	.468	22.89	19.15
Total	85	711	5.2	56.7	45.2	79.7	.301	17.07	13.60

## Wages and Hours of Labor in Rayon and Other Synthetic Yarn Manufacturing, 1932

**W**AGE earners in establishments engaged in the manufacture of rayon and other synthetic yarn in the United States actually worked an average of 46.4 hours in a representative weekly pay period in 1932 as compared with 44.8 hours in 1930. They earned an average of \$16.64 in the one week in 1932 and \$19.76 in 1930, and an average of 35.9 cents per hour in 1932 and 44.1 cents in 1930. Thus it is seen that between 1930 and 1932 there was a decrease in the average amount earned per week of \$3.12 and in average earnings per hour of 8.2 cents.

The above and other figures in this report are the results of studies by the Bureau of Labor Statistics of the synthetic yarn industry and are for a total of 32,292 wage earners of 21 establishments in 1930 and of 25,326 wage earners of 20 establishments in 1932. These figures were computed from wage data collected by agents of the bureau from the records of the establishments covered in the studies. The pay period, except for a few plants, was for a representative week in February, March, April, or May, 1930, and in October, November, or December, 1932. The 1930 figures are taken from Bulletin No. 546; and the data for 1932 are summary figures, the details of which will be published later in bulletin form.

Table 1 shows average days on which wage earners worked in one week; the average full-time hours per week; the per cent that the hours actually worked in one week are of the average full-time hours per week; and average full-time earnings per week for each of the more important occupations in the industry, and for a group of miscellaneous wage earners designated "other employees," which group includes all occupations other than those referred to as important occupations.

Days on which wage earners worked in one week averaged 5.7 in 1932 and 5.4 in 1930. In computing average days, each full day or part of a day on which the wage earner did any work was counted as a day.

Full-time hours per week averaged 48.2 in 1932 and 50.2 in 1930. The full-time hours per week for each wage earner were used in computing average full-time hours, even though he may have actually worked more or less than full time during the week covered in each year.

The average hours actually worked in one week were 96.3 per cent of the average full-time hours per week in 1932 and 89.2 per cent in 1930, thus showing short-time work of 3.7 per cent in 1932 and of 10.8 per cent in 1930.

Full-time earnings per week averaged \$17.30 in 1932, having dropped considerably from 1930, when the average was \$22.14.

Average earnings per hour of males were 50.4 cents in 1930 as against 40.8 cents in 1932. By occupations the range in hourly earnings in 1930 was from 35.4 cents for winders, cone, quill, cap, or bobbin, to 58.8 cents for spinning bath men, and in 1932 from 29.4 cents for twistors and throwers to 45.7 cents for spinners. For females average earnings per hour in 1930 were 34.4 cents and in 1932 28.3 cents. The range, by occupation, in 1930 was from 24.4 cents for truckers and handlers to 50.8 cents for spoolers, and in 1932 from 26.6 cents for truckers and handlers and filter cleaners to 30.0 cents for skein inspectors.

TABLE 1.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK, 1930 AND 1932, BY OCCUPATION AND SEX

Occupation and sex	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Chemical-building workers, male	1930	21	1,782	5.8	53.6	48.3	90.1	\$0.527	\$28.25	\$25.48
	1932	20	1,854	6.1	50.0	50.8	101.6	.406	20.30	20.58
Spinning-bath men, male	1930	21	229	5.7	50.7	47.2	93.1	.588	29.81	27.72
	1932	18	266	6.4	51.5	51.6	100.2	.402	20.70	20.73
Spinners, male	1930	21	4,359	5.3	49.9	42.4	85.0	.564	28.14	23.95
	1932	20	3,437	6.0	49.5	49.6	100.2	.457	22.62	22.64
Machine cleaners, male	1930	16	220	5.8	51.5	48.0	93.2	.457	23.59	21.99
	1932	15	142	5.9	47.2	45.9	97.2	.352	16.61	16.17
Spinneret cleaners, male	1930	19	161	5.9	51.4	49.6	96.5	.555	28.53	27.53
	1932	14	107	6.1	49.6	49.9	100.6	.404	20.04	20.16
Spinneret cleaners, female	1930	5	34	5.9	50.9	50.0	98.2	.298	15.17	14.87
	1932	7	52	5.8	48.4	48.8	100.8	.268	12.97	13.10
Filter cleaners, male	1930	18	134	5.8	52.9	50.1	94.7	.457	24.18	22.93
	1932	13	101	6.0	48.5	50.6	104.3	.356	17.27	18.03
Filter cleaners, female	1930	5	28	5.7	51.7	48.1	93.0	.313	16.18	15.06
	1932	4	18	6.0	49.0	49.6	101.2	.266	13.03	13.17
Bobbin washers, male	1930	9	443	5.9	50.0	49.2	98.4	.463	23.15	22.77
	1932	9	242	6.0	51.4	48.3	94.0	.336	17.27	16.24
Cake washers, male	1930	6	164	6.2	50.0	52.9	98.0	.487	26.30	25.77
	1932	5	160	5.3	50.2	43.4	86.5	.376	18.88	16.32
Bobbin driers, male	1930	9	77	6.1	52.2	50.2	96.2	.452	23.59	22.69
	1932	8	78	6.0	50.1	50.4	100.6	.330	16.53	16.63
Cake driers, male	1930	5	34	6.1	55.3	50.2	90.8	.490	27.10	24.64
	1932	2	10	5.2	43.2	41.6	96.3	.383	16.55	15.94
Cake inspectors, male	1930	3	34	6.4	55.3	51.8	93.7	.526	29.09	27.26
	1932	2	32	5.4	47.0	42.8	91.1	.481	22.61	20.58
Pump testers, male	1930	21	147	5.7	52.9	51.7	97.7	.501	26.50	25.89
	1932	18	99	6.0	47.6	47.8	100.4	.396	18.85	18.93
Spoolers, male	1930	4	74	5.6	46.7	44.4	95.1	.300	14.01	13.31
Spoolers, female	1930	3	523	5.5	45.6	39.2	86.0	.508	23.16	19.95
	1932	6	685	5.4	46.2	37.4	81.0	.281	12.98	10.54
Twisters and throwers, male	1930	6	722	5.5	49.7	46.1	92.8	.385	19.13	17.73
	1932	7	513	5.6	47.7	46.4	97.3	.294	14.02	13.63
Twisters and throwers, female	1930	12	1,834	5.4	49.7	45.5	91.5	.319	15.85	14.54
	1932	10	752	5.6	50.8	48.6	95.7	.269	13.67	13.08
Reelers and lacers, female	1930	20	4,636	4.9	49.5	40.2	81.2	.351	17.37	14.10
	1932	16	3,276	5.6	46.9	44.9	95.7	.293	13.74	13.15
Winders, cone, quill, cop, or bobbin, male	1930	10	1,013	5.2	50.0	42.7	85.4	.354	17.70	15.11
	1932	8	969	5.2	45.0	40.9	90.9	.305	13.73	12.46
Winders, cone, quill, cop, or bobbin, female	1930	17	2,402	5.4	47.8	44.5	92.3	.332	16.00	14.78
	1932	15	2,496	5.5	47.8	43.4	90.8	.269	12.86	11.68
Skein washers and bleachers, male	1930	19	865	5.4	51.5	46.7	90.7	.458	25.13	22.79
	1932	16	694	5.8	47.9	48.3	100.8	.406	19.45	19.62
Skein driers, male	1930	15	181	5.4	49.4	45.8	92.7	.453	22.38	20.74
	1932	8	239	5.7	48.4	47.2	97.5	.380	18.39	17.93
Skein driers, female	1930	12	300	4.6	48.7	37.5	77.0	.359	17.48	13.45
	1932	7	62	5.7	49.5	49.9	100.8	.283	14.01	14.13
Skein inspectors, male	1930	2	32	5.0	48.0	36.5	76.0	.360	14.40	10.94
Skein inspectors, female	1930	20	2,269	5.1	48.9	41.1	84.0	.342	16.72	14.06
	1932	16	1,670	5.4	46.8	43.8	93.6	.300	14.04	13.15
Cone inspectors, male	1930	3	23	6.1	50.0	50.4	100.8	.391	19.55	19.71
Cone inspectors, female	1930	18	220	5.6	48.3	46.6	96.5	.346	16.71	16.13
	1932	14	621	5.7	48.1	45.1	93.8	.288	12.89	12.06
Wrappers and packers, male	1930	14	206	5.6	50.3	47.5	94.4	.494	24.85	23.44
	1932	12	119	5.5	47.4	44.8	94.5	.383	18.15	17.14
Wrappers and packers, female	1930	20	343	4.9	49.1	40.5	82.5	.338	16.60	13.72
	1932	16	373	5.7	48.7	46.3	95.1	.269	13.10	12.45
Truckers and handlers, male	1930	21	1,409	5.5	50.5	46.3	91.7	.369	18.63	17.11
	1932	19	1,042	5.9	48.3	49.3	102.1	.301	14.54	14.83
Truckers, and handlers, female	1930	7	112	5.5	51.4	47.4	92.2	.244	12.54	11.57
	1932	5	21	6.0	49.8	48.6	97.6	.266	13.25	12.94
Laborers, male	1930	21	837	5.6	51.6	48.4	93.8	.394	20.33	19.10
	1932	19	833	5.7	48.7	46.5	95.5	.307	14.95	14.27
Laborers, female	1930	2	6	6.0	48.0	48.6	101.3	.232	11.14	11.26
Other employees, male	1930	21	5,644	5.7	51.3	49.1	95.7	.450	28.22	27.00
	1932	20	3,803	5.7	48.2	46.8	97.1	.570	22.65	22.02
Other employees, female	1930	21	574	5.5	50.0	46.3	92.6	.325	16.25	15.03
	1932	16	425	5.6	48.2	45.9	95.2	.295	14.22	13.57
All employees: Male	1930	21	18,743	5.6	51.1	46.7	91.4	.504	25.75	23.53
	1932	20	14,869	5.8	48.6	47.9	98.6	.408	19.83	19.51
Female	1930	21	13,549	5.2	49.0	42.3	86.3	.344	16.86	14.55
	1932	20	10,457	5.6	47.6	44.3	93.1	.283	13.47	12.55
Male and female	1930	21	32,292	5.4	50.2	44.8	89.2	.441	22.14	19.76
	1932	20	25,326	5.7	48.2	46.4	96.3	.359	17.30	16.64

## Average Hours and Earnings, 1930 and 1932, by Districts

TABLE 2 shows average days, hours, earnings, and the per cent of full time actually worked in one week for the wage earners included in the studies of the industry in each district in 1930 and 1932. The averages are for each sex separately and for both sexes combined, and are shown by districts instead of by States so as to avoid presenting figures for one establishment alone.

District 1 includes 1 plant in Connecticut, 1 in Massachusetts, 1 in New Hampshire, and 1 in Rhode Island.

District 2 includes 1 plant in Delaware, 2 in New York, 2 in Ohio, and 1 in Pennsylvania.

District 3 includes 1 plant in Georgia, 1 in Maryland, 1 in North Carolina, 3 in Tennessee, and 4 in Virginia.

Males in all districts combined worked an average of 5.6 days and 46.7 hours in one week in 1930 and 5.8 days and 47.9 hours in 1932 and earned an average of 50.4 cents per hour and \$23.53 in one week in 1930 and 40.8 cents per hour and \$19.51 in one week in 1932. Their full-time hours per week averaged 51.1 in 1930 and 48.6 in 1932, and they actually worked 91.4 per cent of full time in 1930 and 98.6 per cent in 1932. Their full-time earnings per week averaged \$25.75 in 1930 and \$19.83 in 1932.

Females in all districts combined worked an average 5.2 days and 42.3 hours in one week in 1930 and 5.6 days and 44.3 hours in 1932 and earned an average of 34.4 cents per hour and \$14.55 in one week in 1930 and 28.3 cents per hour and \$12.55 in one week in 1932. Their full-time hours per week averaged 49 in 1930 and 47.6 in 1932 and they actually worked 86.3 per cent of full time in 1930 and 93.1 per cent in 1932. Their full-time earnings per week averaged \$16.86 in 1930 and \$13.47 in 1932.

Average earnings per hour of males ranged, by districts, from 45.3 to 65.7 cents in 1930 and from 38.2 to 50.3 cents in 1932, and of females, from 30.7 to 44.7 cents in 1930 and from 27.5 to 31.9 cents in 1932. Earnings of each sex in each district were less in 1932 than in 1930.

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK 1930 AND 1932, BY SEX AND DISTRICT

Sex and district	Year	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
<i>Males</i>										
District 1-----	1930	5	861	5.9	50.7	51.7	102.0	\$0.508	\$25.76	\$26.26
	1932	4	544	6.1	50.3	51.4	102.2	.401	20.17	20.63
District 2-----	1930	6	4,415	5.6	49.9	46.8	93.8	.657	32.78	30.75
	1932	6	3,097	5.7	50.3	47.1	93.6	.503	25.30	23.68
District 3-----	1930	10	13,467	5.5	51.5	46.3	89.9	.453	23.33	20.99
	1932	10	11,228	5.8	48.1	47.9	99.6	.382	18.37	18.31
Total-----	1930	21	18,743	5.6	51.1	46.7	91.4	.504	25.75	23.53
	1932	20	14,869	5.8	48.6	47.9	98.6	.408	19.83	19.51
<i>Females</i>										
District 1-----	1930	5	837	5.2	50.8	45.0	88.6	.357	18.14	16.04
	1932	4	536	5.5	50.3	48.1	95.6	.264	13.28	12.69
District 2-----	1930	6	3,482	5.1	47.5	39.4	82.9	.447	21.23	17.62
	1932	6	2,199	5.5	47.3	43.6	92.2	.319	15.09	13.88
District 3-----	1930	10	9,230	5.2	49.4	43.2	87.4	.307	15.17	13.26
	1932	10	7,722	5.6	47.4	44.3	93.5	.275	13.04	12.17
Total-----	1930	21	13,549	5.2	49.0	42.3	86.3	.344	16.86	14.55
	1932	20	10,457	5.6	47.6	44.3	93.1	.283	13.47	12.55
<i>Males and females</i>										
District 1-----	1930	5	1,698	5.6	50.7	48.4	95.5	.439	22.26	21.22
	1932	4	1,080	5.8	50.3	49.8	99.0	.335	16.85	16.69
District 2-----	1930	6	7,897	5.4	48.9	43.5	89.0	.573	28.02	24.96
	1932	6	5,296	5.6	49.1	45.6	92.9	.430	21.11	19.61
District 3-----	1930	10	22,697	5.4	50.6	45.0	88.9	.396	20.04	17.84
	1932	10	18,950	5.7	47.8	46.4	97.1	.341	16.30	15.81
Total-----	1930	21	32,292	5.4	50.2	44.8	89.2	.441	22.14	19.76
	1932	20	25,326	5.7	48.2	46.4	96.3	.359	17.30	16.64

Table 3 presents, by districts, average days, hours, earnings, and the per cent of full time worked in one week for wage earners in each of 10 specified occupations. These occupations include 72.5 per cent of the 25,326 wage earners in all occupations found in the industry. For geographic units in each district see page 609.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK IN 10 SPECIFIED OCCUPATIONS, 1932, BY SEX AND DISTRICT

Occupation, sex, and district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
<b>Chemical building workers, male:</b>									
District 1.....	4	84	6.5	51.7	53.2	102.9	\$0.408	\$21.09	\$21.73
District 2.....	6	362	6.1	51.7	50.2	97.1	.504	26.06	25.32
District 3.....	10	1,408	6.1	49.4	50.8	102.8	.380	18.77	19.30
Total.....	20	1,854	6.1	50.0	50.8	101.6	.406	20.30	20.58
<b>Spinners, male:</b>									
District 1.....	4	143	6.1	47.0	45.4	96.6	.422	19.83	19.17
District 2.....	6	815	5.9	50.6	48.6	96.0	.551	27.88	26.79
District 3.....	10	2,479	6.0	49.3	50.1	101.6	.428	21.10	21.47
Total.....	20	3,437	6.0	49.5	49.6	100.2	.457	22.62	22.64
<b>Spoolers, male: District 3.....</b>									
	4	74	5.6	46.7	44.4	95.1	.300	14.01	13.31
<b>Spoolers, female:</b>									
District 1.....	1	16	5.4	54.0	37.5	69.4	.255	13.77	9.55
District 2.....	1	281	5.3	43.0	34.0	79.1	.274	11.78	9.30
District 3.....	4	388	5.5	48.3	39.9	82.6	.287	13.86	11.47
Total.....	6	685	5.4	46.2	37.4	81.0	.281	12.98	10.54
<b>Twisters and throwers, male:</b>									
District 1.....	1	21	4.6	60.0	54.8	91.3	.276	16.56	15.14
District 3.....	6	492	5.7	47.2	46.0	97.5	.295	13.92	13.57
Total.....	7	513	5.6	47.7	46.4	97.3	.294	14.02	13.63
<b>Twisters and throwers, female:</b>									
District 1.....	2	70	5.9	51.3	53.6	104.5	.271	13.90	14.51
District 2.....	2	207	5.7	49.6	48.9	98.6	.316	15.67	15.47
District 3.....	6	475	5.6	51.2	47.7	93.2	.248	12.70	11.83
Total.....	10	752	5.6	50.8	48.6	95.7	.269	13.67	13.08
<b>Reelers and lacers, female:</b>									
District 1.....	4	209	5.5	49.7	48.0	96.6	.266	13.22	12.80
District 2.....	3	581	5.6	48.1	47.6	99.0	.359	17.27	17.12
District 3.....	9	2,486	5.6	46.4	44.0	94.8	.278	12.90	12.25
Total.....	16	3,276	5.6	46.9	44.9	95.7	.293	13.74	13.15
<b>Winders, cone, quill, cop, or bobbin, male:</b>									
District 2.....	1	69	4.2	48.0	31.4	65.4	.358	17.18	11.24
District 3.....	7	900	5.2	44.8	41.6	92.9	.302	13.53	12.56
Total.....	8	969	5.2	45.0	40.9	90.9	.305	13.73	12.46
<b>Winders, cone, quill, cop, or bobbin, female:</b>									
District 1.....	2	37	4.6	52.4	42.1	80.3	.261	13.68	11.00
District 2.....	6	646	5.2	46.8	41.1	87.8	.289	13.53	11.86
District 3.....	7	1,813	5.7	48.0	44.3	92.3	.263	12.62	11.63
Total.....	15	2,496	5.5	47.8	43.4	90.8	.269	12.86	11.68
<b>Skein, washers and bleachers, male:</b>									
District 1.....	4	38	5.5	54.2	54.6	100.7	.368	19.95	20.07
District 2.....	3	105	5.9	49.7	52.8	106.2	.497	24.70	26.25
District 3.....	9	551	5.9	47.1	47.0	99.8	.390	18.37	18.33
Total.....	16	694	5.8	47.9	48.3	100.8	.406	19.45	19.62
<b>Skein inspectors, male: District 3.....</b>									
	2	32	5.0	48.0	36.5	76.0	.300	14.40	10.94



TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PER CENT OF FULL TIME WORKED IN ONE WEEK IN 10 SPECIFIED OCCUPATIONS, 1932, BY SEX AND DISTRICT—Continued

Occupation, sex, and district	Number of establishments	Number of wage earners	Average days on which wage earners worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
<b>Skein inspectors, female:</b>									
District 1.....	4	127	5.4	49.7	46.6	93.8	\$0.252	\$12.52	\$11.71
District 2.....	3	252	5.7	48.0	46.0	95.8	.317	15.22	14.57
District 3.....	9	1,291	5.4	46.3	43.0	92.9	.302	13.98	13.01
Total.....	16	1,670	5.4	46.8	43.8	93.6	.300	14.04	13.15
<b>Truckers and handlers, male:</b>									
District 1.....	4	31	6.2	50.5	55.6	110.1	.291	14.70	16.18
District 2.....	5	141	5.5	49.3	46.8	94.9	.326	16.07	15.26
District 3.....	10	870	6.0	48.0	49.5	103.1	.297	14.26	14.71
Total.....	19	1,042	5.9	48.3	49.3	102.1	.301	14.54	14.83
<b>Truckers and handlers, female:</b>									
District 1.....	2	5	6.0	49.2	47.2	95.9	.263	12.94	12.43
District 2.....	1	2	6.0	49.5	47.4	95.8	.220	10.89	10.42
District 3.....	2	14	6.0	50.0	49.3	98.6	.273	13.65	13.48
Total.....	5	21	6.0	49.8	48.6	97.6	.266	13.25	12.94
<b>Laborers, male:</b>									
District 1.....	3	23	6.1	50.9	51.2	100.6	3.62	18.43	18.53
District 2.....	6	189	5.5	49.6	45.5	91.7	.400	19.84	18.22
District 3.....	10	621	5.7	48.3	46.7	96.7	.277	13.38	12.91
Total.....	19	833	5.7	48.7	46.5	95.5	.307	14.95	14.27
<b>Laborers, female:</b>									
District 1.....	1	2	6.0	48.0	49.9	104.0	.264	12.67	13.18
District 3.....	1	4	6.0	48.0	47.9	99.8	.215	10.32	10.30
Total.....	2	6	6.0	48.0	48.6	101.3	.232	11.14	11.26

## Wage-Rate Changes in American Industries

### Manufacturing Industries

IN THE following table is presented information concerning wage-rate adjustments occurring between December 15, 1932, and January 15, 1933, as shown by reports received from manufacturing establishments supplying employment data to this bureau. Of the 17,762 manufacturing establishments included in the January survey, 17,164 establishments, or 96.6 per cent of the total, reported no change in wage rates over the month interval. The 2,499,480 employees not affected by changes in wage rates constituted 97.7 per cent of the total number of employees covered by the January trend-of-employment survey of manufacturing industries.

Decreases in wage rates were reported by 595 establishments in 75 of the 89 industries surveyed. These establishments represented 3.3 per cent of the total number of establishments covered. The wage-rate decreases reported averaged 11.4 per cent and affected 58,038 employees, or 2.3 per cent of all employees in the establishments reporting.

Three establishments in one industry reported wage-rate increases in January, averaging 14.2 per cent, and affecting 319 employees.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING JANUARY 15, 1933

Industry	Estab- lish- ments report- ing	Total number of em- ployees	Number of establish- ments reporting—			Number of employees having—		
			No wage changes	Wage in- creases	Wage de- creases	No wage changes	Wage in- creases	Wage de- creases
All manufacturing industries.....	17,762	2,557,837	17,164	3	595	2,499,480	319	58,038
Per cent of total.....	100.0	100.0	96.6	(1)	3.3	97.7	(1)	2.3
Food and kindred products:								
Baking.....	962	61,981	931	-----	31	60,202	-----	1,779
Beverages.....	321	8,756	320	-----	1	8,753	-----	3
Butter.....	294	4,994	290	-----	4	4,883	-----	111
Confectionery.....	320	84,270	308	-----	12	31,762	-----	2,508
Flour.....	427	15,952	409	-----	18	15,484	-----	468
Ice cream.....	360	10,240	339	-----	21	9,600	-----	640
Slaughtering and meat pack- ing.....	234	82,979	227	-----	7	82,430	-----	549
Sugar, beef.....	57	9,622	57	-----	-----	9,622	-----	-----
Sugar refining, cane.....	14	7,160	14	-----	-----	7,160	-----	-----
Textiles and their products:								
Fabrics—								
Carpets and rugs.....	31	13,300	29	-----	2	12,167	-----	1,133
Cotton goods.....	669	229,251	655	3	11	225,586	319	3,346
Cotton small wares.....	111	8,843	101	-----	10	8,521	-----	322
Dyeing and finishing tex- tiles.....	146	33,598	138	-----	8	32,432	-----	1,166
Knit goods.....	436	98,137	421	-----	15	93,500	-----	4,637
Silk and rayon goods.....	241	44,445	238	-----	3	44,229	-----	216
Woolen and worsted goods.....	250	56,054	241	-----	9	54,999	-----	1,055
Wearing apparel—								
Clothing—								
Men's.....	359	53,676	348	-----	11	52,959	-----	717
Women's.....	420	24,479	413	-----	7	23,631	-----	848
Corsets and allied gar- ments.....	31	5,447	29	-----	2	5,063	-----	384
Hats, fur-felt.....	34	4,841	33	-----	1	4,764	-----	77
Men's furnishings.....	68	6,927	66	-----	2	6,875	-----	52
Millinery.....	134	9,041	132	-----	2	8,942	-----	99
Shirts and collars.....	111	13,562	110	-----	1	13,351	-----	211
Iron and steel and their products, not including machinery:								
Bolts, nuts, washers, and rivets.....	65	7,174	54	-----	11	5,257	-----	1,917
Cast-iron pipe.....	37	5,049	37	-----	-----	5,049	-----	-----
Cutlery (not including silver and plated cutlery) and edge tools.....	124	7,785	120	-----	4	7,549	-----	236
Forgings—iron and steel.....	60	4,938	58	-----	2	4,920	-----	18
Hardware.....	102	20,125	99	-----	3	19,783	-----	342
Iron and steel.....	208	166,759	205	-----	3	166,501	-----	258
Plumbers' supplies.....	64	4,793	57	-----	7	4,227	-----	566
Steam and hot-water heating apparatus and steam fit- tings.....	93	11,938	84	-----	9	10,591	-----	1,347
Stoves.....	163	12,387	152	-----	11	11,630	-----	757
Structural and ornamental metal work.....	188	12,206	172	-----	16	11,164	-----	1,042
Tin cans and other tinware.....	60	8,026	60	-----	-----	8,026	-----	-----
Tools (not including edge tools, machine tools, files, and saws).....	126	5,829	125	-----	1	5,817	-----	12
Wirework.....	65	4,549	63	-----	2	4,490	-----	59
Machinery, not including trans- portation equipment:								
Agricultural implements.....	77	6,844	76	-----	1	6,806	-----	38
Cash registers, adding ma- chines, and calculating machines.....	39	12,434	38	-----	1	12,244	-----	190
Electrical machinery, appa- ratus, and supplies.....	209	99,239	201	-----	8	98,367	-----	872
Engines, turbines, tractors, and water wheels.....	87	14,686	84	-----	3	14,454	-----	232
Foundry and machine-shop products.....	1,041	91,691	1,001	-----	40	89,065	-----	2,626
Machine tools.....	145	10,949	139	-----	6	10,674	-----	275
Radios and phonographs.....	40	14,951	39	-----	1	14,813	-----	138
Textile machinery and parts.....	43	6,625	42	-----	1	6,623	-----	2
Typewriters and supplies.....	16	8,843	15	-----	1	8,500	-----	343

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING JANUARY 15, 1933—Continued

Industry	Estab-lish-ments report-ing	Total number of em-ployees	Number of establish-ments reporting—			Number of employees having—		
			No wage changes	Wage in-creases	Wage de-creases	No wage changes	Wage in-creases	Wage de-creases
Nonferrous metals and their parts:								
Aluminum manufactures.....	24	4,738	23	-----	1	4,684	-----	54
Brass, bronze, and copper products.....	206	26,820	196	-----	10	26,401	-----	410
Clocks and watches and time-recording devices.....	24	5,436	23	-----	1	5,407	-----	29
Jewelry.....	145	6,717	137	-----	8	6,354	-----	363
Lighting equipment.....	54	4,588	48	-----	6	4,228	-----	360
Silverware and plated ware.....	53	6,847	39	-----	14	4,502	-----	2,345
Smelting and refining—cop-per, lead, and zinc.....	29	7,753	27	-----	2	7,570	-----	183
Stamped and enameled ware.....	87	11,652	77	-----	10	9,955	-----	1,697
Transportation equipment:								
Aircraft.....	26	5,417	26	-----	-----	5,417	-----	-----
Automobiles.....	246	199,317	240	-----	6	196,474	-----	2,843
Cars, electric and steam rail-road.....	41	4,971	40	-----	1	4,946	-----	25
Locomotives.....	10	1,905	10	-----	-----	1,905	-----	-----
Shipbuilding.....	93	24,629	92	-----	1	24,613	-----	16
Railroad repair shops:								
Electric railroad.....	397	20,677	392	-----	5	20,582	-----	95
Steam railroad.....	527	76,878	527	-----	-----	76,878	-----	-----
Lumber and allied products:								
Furniture.....	436	38,401	420	-----	16	37,217	-----	1,184
Lumber—								
Millwork.....	458	15,099	430	-----	28	14,450	-----	649
Sawmills.....	593	51,772	567	-----	26	50,078	-----	1,694
Turpentine and rosin.....	19	863	19	-----	-----	863	-----	-----
Stone, clay, and glass products:								
Brick, tile, and terra cotta.....	653	12,735	644	-----	9	12,324	-----	411
Cement.....	115	9,808	115	-----	-----	9,808	-----	-----
Glass.....	190	30,934	187	-----	3	30,716	-----	218
Marble, granite, slate, and other products.....	208	3,648	203	-----	5	3,330	-----	318
Pottery.....	115	12,143	113	-----	2	12,039	-----	104
Leather and its manufactures:								
Boots and shoes.....	320	100,871	312	-----	8	99,624	-----	1,247
Leather.....	160	24,167	153	-----	7	22,232	-----	1,935
Paper and printing:								
Boxes, paper.....	302	18,373	291	-----	11	18,089	-----	284
Paper and pulp.....	404	76,073	393	-----	11	74,018	-----	2,055
Printing and publishing—								
Book and job.....	752	47,612	733	-----	19	46,966	-----	646
Newspapers and periodicals.....	467	69,001	443	-----	24	66,560	-----	2,441
Chemicals and allied products:								
Chemicals.....	121	20,702	120	-----	1	20,680	-----	22
Cottonseed oil, cake, and meal.....	53	1,969	52	-----	1	1,919	-----	50
Druggists' preparations.....	39	6,849	38	-----	1	6,825	-----	24
Explosives.....	25	3,043	25	-----	-----	3,043	-----	-----
Fertilizers.....	205	7,048	196	-----	9	6,784	-----	264
Paints and varnishes.....	357	13,394	335	-----	22	12,814	-----	580
Petroleum refining.....	130	51,262	130	-----	-----	51,262	-----	-----
Rayon and allied products.....	23	29,197	23	-----	-----	29,197	-----	-----
Soap.....	86	12,486	86	-----	-----	12,486	-----	-----
Rubber products:								
Rubber boots and shoes.....	9	9,806	9	-----	-----	9,806	-----	-----
Rubber goods, other than boots, shoes, tires, and inner tubes.....	103	19,120	99	-----	4	18,327	-----	793
Rubber tires and inner tubes.....	45	41,767	44	-----	1	40,520	-----	1,247
Tobacco manufactures:								
Chewing and smoking to-bacco and snuff.....	33	10,070	32	-----	1	9,680	-----	390
Cigars and cigarettes.....	207	35,904	195	-----	12	34,442	-----	1,462

## Nonmanufacturing Industries

DATA concerning wage-rate changes occurring between December 15, 1932, and January 15, 1933, in 14 groups of nonmanufacturing industries are presented in the following table.

No changes in wage rates were reported in the anthracite mining group. In the remaining 13 groups, one or more establishments reported decreases in wage rates over the month interval. The average per cent of decrease in rates in each of the several groups follows: Electric-railroad and motor-bus operation and maintenance, 8.2 per cent; laundries, 10 per cent; power and light, 10.1 per cent; hotels, 11 per cent; dyeing and cleaning, 11.2 per cent; canning and preserving, 11.3 per cent; metalliferous mining and telephone and telegraph, 11.4 per cent each; retail trade, 12.1 per cent; bituminous coal mining, 13.2 per cent; wholesale trade, 13.3 per cent; crude petroleum, 14.2 per cent; and quarrying and nonmetallic mining, 14.6 per cent. One increase, averaging 11 per cent, was reported in hotels over the month interval.

TABLE 2.—WAGE CHANGES IN NONMANUFACTURING INDUSTRIES DURING MONTH ENDING JANUARY 15, 1933

Industrial group	Estab- lish- ments report- ing	Total number of em- ployees	Number of establish- ments reporting—			Number of employees having—		
			No wage changes	Wage in- creases	Wage de- creases	No wage changes	Wage in- creases	Wage de- creases
Anthracite mining.....	160	71, 822	160	-----	-----	71, 822	-----	-----
Per cent of total.....	100.0	100.0	100.0	-----	-----	100.0	-----	-----
Bituminous coal mining.....	1, 238	173, 010	1, 203	35	-----	165, 400	-----	7, 610
Per cent of total.....	102.9	100.0	97.2	2.8	-----	95.6	-----	4.4
Metalliferous mining.....	279	22, 364	275	4	-----	21, 537	-----	827
Per cent of total.....	100.0	100.0	98.6	1.4	-----	96.3	-----	3.7
Quarrying and nonmetallic mining.....	592	15, 419	579	13	-----	15, 048	-----	371
Per cent of total.....	100.0	100.0	97.8	2.2	-----	97.6	-----	2.4
Crude petroleum producing.....	262	23, 359	260	2	-----	23, 311	-----	48
Per cent of total.....	100.0	100.0	99.2	.8	-----	99.8	-----	.2
Telephone and telegraph.....	8, 274	266, 129	8, 224	50	-----	265, 775	-----	354
Per cent of total.....	100.0	100.0	99.4	.6	-----	99.9	-----	.1
Power and light.....	3, 508	208, 066	3, 454	54	-----	205, 013	-----	3, 053
Per cent of total.....	100.0	100.0	98.5	1.5	-----	98.5	-----	1.5
Electric railroad and motor-bus operation and maintenance.....	505	131, 235	499	6	-----	130, 818	-----	417
Per cent of total.....	100.0	100.0	98.8	1.2	-----	99.7	-----	.3
Wholesale trade.....	2, 734	69, 612	2, 664	70	-----	68, 297	-----	1, 315
Per cent of total.....	100.0	100.0	97.4	2.6	-----	98.1	-----	1.9
Retail trade.....	16, 411	332, 297	16, 107	304	-----	328, 029	-----	4, 268
Per cent of total.....	100.0	100.0	98.1	1.9	-----	98.7	-----	1.3
Hotels.....	2, 402	130, 945	2, 362	1	-----	127, 577	9	3, 359
Per cent of total.....	100.0	100.0	98.3	( <sup>1</sup> )	-----	97.4	( <sup>1</sup> )	2.6
Canning and preserving.....	829	30, 251	788	41	-----	29, 477	-----	774
Per cent of total.....	100.0	100.0	95.1	4.9	-----	97.4	-----	2.6
Laundries.....	908	52, 918	897	11	-----	52, 413	-----	505
Per cent of total.....	100.0	100.0	98.8	1.2	-----	99.0	-----	1.0
Dyeing and cleaning.....	374	10, 525	369	5	-----	10, 491	-----	34
Per cent of total.....	100.0	100.0	98.7	1.3	-----	99.7	-----	.3

<sup>1</sup> Less than one-tenth of 1 per cent.

### Wage Changes Reported by Trade-Unions and Municipalities Since November, 1932

WAGE and hour changes for 22,119 union and municipal workers, covering the months November to February, have been reported to the bureau during the past month. Of this number, 5,511 were reported to have gone on the 5-day week.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, NOVEMBER, 1932, TO FEBRUARY, 1933

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Bakers, Detroit, Mich.-----	Nov. 26	<i>Per week</i> \$60.00	<i>Per week</i> \$50.00	45	45
Building trades:					
Bricklayers, Santa Barbara, Calif., and vicinity	Jan. 1	<i>Per hour</i> 1.31 $\frac{1}{4}$	<i>Per hour</i> 1.06 $\frac{1}{4}$	1 8	1 8
Stone masons-----	do	1.00	.75	1 8	1 8
Tile setters-----	do	1.06 $\frac{1}{4}$	.81 $\frac{1}{4}$	1 8	1 8
Carpenters, Santa Barbara, Calif., and vicinity	Jan. 9	1.00	.75	40	40
Electrical workers, Butte, Mont.	Dec. 12	1.25	1.06 $\frac{1}{4}$	40	40
Elevator constructors, Montana	Feb. 1	1.30	1.25	44	44
Hodcarriers and laborers, Santa Barbara, Calif.					
Brick masons' and plasterers' tenders	Jan. 1	1.00	.75	40	40
Building laborers-----	do	.65 $\frac{5}{8}$	.50	44	40
Painters, Butte, Mont.	Dec. 12	1.25	1.06 $\frac{1}{4}$	40	40
Plumbers and steam fitters--					
Butte, Mont.	do	1.50	1.27 $\frac{1}{2}$	40	40
Santa Barbara, Calif.	Jan. 8	1.18 $\frac{3}{4}$	.93 $\frac{3}{4}$	40	40
Sheet-metal workers, Santa Barbara, Calif.	Jan. 10	1.06 $\frac{1}{4}$	.81 $\frac{1}{4}$	40	40
Structural-iron workers, Butte, Mont.	Dec. 12	1.25	1.06 $\frac{1}{4}$	44	44
Stone cutters, Southern California	Jan. --	1.12 $\frac{1}{2}$	.87 $\frac{1}{2}$	40	40
Chauffeurs and teamsters:					
Chicago, Ill., inside dairy workers	Dec. 4	<i>Per week</i> 39.00	<i>Per week</i> 36.00	48	48
Cincinnati, Ohio, and vicinity, milk wagon drivers and inside dairy workers					
Employees receiving \$40 and over	Nov. 1	( <sup>2</sup> )	<sup>3</sup> 5.00	( <sup>2</sup> )	( <sup>2</sup> )
Employees receiving less than \$40	do	( <sup>2</sup> )	<sup>3</sup> 2.00	( <sup>2</sup> )	( <sup>2</sup> )
Clothing:					
Glove workers, Gloversville and Johnstown, N. Y.	Jan. 16	( <sup>4</sup> )	( <sup>5</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Printing and publishing--compositors and machine operators:					
Ann Arbor, Mich.--					
Job work, day-----	Jan. 1	41.00	37.00	44	44
Job work night-----	do	43.00	39.00	44	44
Dallas, Tex., hand men--					
Newspaper, day-----	Dec. 30	51.00	50.54	48	48
Newspaper, night-----	do	53.00	52.52	48	48
Dayton, Ohio--					
Job work, day-----	Nov. 28	47.00	42.00	44	44
Job work, night-----	do	50.00	45.00	44	44
Des Moines, Iowa--					
Job work, day-----	Nov. 1	45.50	40.50	44	44
Job work, night-----	do	49.00	43.65	44	44
Indianapolis, Ind.--					
Job work, day-----	do	49.00	44.00	44	44
Job work, night-----	do	53.00	48.00	44	44
New York, N. Y., job work	Jan. 1	60.00	50.00	44	40
Rockford, Ill., newspaper work	Nov. 1	42.30	35.25	48	40
San Antonio, Tex.--					
Newspaper, day-----	Jan. 1	53.76	48.38	48	48
Newspaper, night-----	do	56.64	50.97	48	48
Shawnee, Okla.--					
Newspaper, day-----	Dec. 1	40.00	37.50	45	45
Newspaper, night-----	do	43.00	40.50	45	45
Syracuse, N. Y.--					
Newspaper, day-----	Dec. --	49.00	47.00	48	48
Newspaper, night-----	do	46.00	44.00	48	48
Toledo, Ohio, newspaper work	Jan. 2	47.00	39.17	48	40
Municipal:					
Alliance, Ohio--					
City laborers-----	Jan. 1	<i>Per hour</i> .50- .60	<i>Per hour</i> .40- .50	44	44
Firemen and policemen-----	do	<i>Per month</i> 150.00	<i>Per month</i> 115.00	44	44
Bellingham, Wash.	do	( <sup>2</sup> )	<sup>3</sup> 5.00-25.00	48	48
Binghamton, N. Y.	do	( <sup>2</sup> )	( <sup>6</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Brewton, Ala.	Nov. 1	( <sup>2</sup> )	( <sup>7</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Camden, N. J.	Jan. 1	<i>Per year</i> 500-1,600	( <sup>8</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Columbus, Ind., laborers	Dec. 20	<i>Per hour</i> .35	<i>Per hour</i> .25	48	54
Danbury, Conn.	Nov. 1	( <sup>2</sup> )	( <sup>5</sup> )	50	50

<sup>1</sup> Hours per day.

<sup>2</sup> Not reported.

<sup>3</sup> Amount of reduction.

<sup>4</sup> Piecework.

<sup>5</sup> 10 per cent reduction.

<sup>6</sup> 10 to 15 per cent reduction.

<sup>7</sup> 25 per cent reduction.

<sup>8</sup> 5 to 30 per cent reduction.

## RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, NOVEMBER, 1932, TO FEBRUARY, 1933—Continued

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Municipal—Continued.					
Grants Pass, Oreg.-----	Jan. 1	<i>Per month</i> \$75.00-125.00	( <sup>5</sup> )	48	48
Homestead, Pa.-----	do	<i>Per day</i> 9 5.50	<i>Per day</i> 9 \$4.15	( <sup>2</sup> )	( <sup>2</sup> )
Kokomo, Ind., police and firemen-----	do	<i>Per month</i> 135.00	<i>Per month</i> 75.00	( <sup>2</sup> )	( <sup>2</sup> )
New Brunswick, N. J.-----	do	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Normal, Ill., teachers and janitors-----	do	<i>Per year</i> 1,000-2,250	( <sup>5</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Rushville, Ind., street and power plant employees-----	do	<i>Per hour</i> 0.35-0.65	( <sup>5</sup> )	54	48
Sheboygan, Wis., city laborers-----	Nov. 1	.40- .90	<i>Per hour</i> .40- .65	40	40
Watertown, Mass.-----	Jan. 1	( <sup>2</sup> )	( <sup>5</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Highway department laborers-----	do	.79	.68	( <sup>2</sup> )	( <sup>2</sup> )

<sup>2</sup> Not reported.<sup>5</sup> 10 per cent reduction.<sup>4</sup> Average.

## Farm Wage and Labor Situation, January 1, 1933

THE average wages paid on farms of the United States on January 1, 1933, are shown in Table 1, in comparison with the annual average for the pre-war period 1910-1914, as reported by the Bureau of Agricultural Economics of the United States Department of Agriculture in a press release of January 17, 1933.

TABLE 1.—AVERAGE FARM WAGE RATES ON JANUARY 1, 1933, AND AVERAGE FOR THE PERIOD 1910 TO 1914, BY GEOGRAPHIC DIVISION

Geographic division	Per month				Per day			
	With board		Without board		With board		Without board	
	Jan. 1, 1933	Annual average, 1910-1914	Jan. 1, 1933	Annual average, 1910-1914	Jan. 1, 1933	Annual average, 1910-1914	Jan. 1, 1933	Annual average, 1910-1914
New England-----	\$24.80	\$24.23	\$43.87	\$37.54	\$1.32	\$1.27	\$1.96	\$1.71
Middle Atlantic-----	20.52	22.08	35.94	33.19	1.18	1.23	1.72	1.62
East North Central-----	16.05	23.79	25.48	32.86	.89	1.31	1.19	1.68
West North Central-----	14.48	26.02	24.29	36.45	.81	1.44	1.16	1.85
South Atlantic-----	11.16	14.65	17.09	20.96	.56	.81	.78	1.05
East South Central-----	10.57	14.65	15.48	20.72	.52	.81	.68	1.04
West South Central-----	12.74	17.65	19.53	25.33	.62	.99	.83	1.26
Mountain-----	20.71	32.36	32.06	46.15	.99	1.50	1.40	2.06
Pacific-----	26.05	33.33	42.82	47.97	1.13	1.50	1.70	2.06
United States-----	14.77	20.41	23.62	29.09	.76	1.10	1.06	1.43



The Bureau of Agricultural Economics states that farm wages on January 1 were lower than they had been before in 34 years, or since 1899, ranging from an average of 40 cents a day with board in South Carolina and Georgia to \$1.75 in Rhode Island. It is reported that some farm laborers in the North Central States are receiving only board and lodging for their work. The bureau's index of the general level of farm wage rates on January 1, 1933, was 74 per cent of the 5-year pre-war (1910-1914) average and 24 per cent lower than on January 1, 1932. There was a decline of 12 per cent between October 1, 1932, and January 1, 1933, whereas the corresponding average seasonal decrease during the preceding 10 years was about 9.6 per cent. For the year 1932, the general index of farm wages averaged 86 per cent of the pre-war figure as compared with 116 per cent of the pre-war average for 1931.

The decline between October, 1932, and January, 1933, is attributed to an increased supply of farm labor and a decreased demand for workers, "due primarily to the continued decline in the level of farm prices since last October." The index of the Department of Agriculture for prices paid farmers for agricultural products declined from 56 per cent of the pre-war (1910-1914) figure on October 15, 1932, to 52 per cent in mid-December. This drop in the prices received for their products caused the farmers to "conserve their fast dwindling cash resources, do their own work in so far as possible, and dispense with the services of hired workers. Only 72 hired workers were employed on every 100 farms owned by crop reporters on January 1." However, the purchasing power of the farmer's dollar in terms of wages, as represented by the ratio between the prices received for farm products and the wages paid to hired farm workers, is rising, according to the Department of Agriculture. "On January 1, this ratio stood at 70 per cent of pre-war as compared with 67 three months earlier and 64 per cent of pre-war on January 1, 1932."

Figures on farm labor supply and demand on January 1, 1933, as compared with January 1, 1932, are given in Table 2.

TABLE 2.—FARM LABOR SUPPLY AND DEMAND ON JANUARY 1 OF 1932 AND 1933, BY GEOGRAPHIC DIVISION

Geographic division	Supply, per cent of normal		Demand, per cent of normal		Supply, per cent of demand	
	Jan. 1, 1932	Jan. 1, 1933	Jan. 1, 1932	Jan. 1, 1933	Jan. 1, 1932	Jan. 1, 1933
New England.....	126.9	132.3	69.1	66.9	183.7	197.9
Middle Atlantic.....	118.7	128.3	70.3	64.3	168.8	199.5
East North Central.....	128.5	135.3	61.1	56.1	210.2	241.1
West North Central.....	123.1	129.7	56.7	46.8	217.0	277.2
South Atlantic.....	114.2	118.1	63.5	57.7	179.8	204.7
East South Central.....	116.8	117.1	59.0	54.6	197.9	214.3
West South Central.....	119.2	129.4	55.0	48.2	216.7	268.6
Mountain.....	128.0	135.5	59.5	45.7	215.1	296.1
Pacific.....	130.2	143.3	63.9	54.3	203.8	264.0
United States.....	120.9	127.3	60.5	53.8	199.8	236.6

Table 3 shows the average number of family members and of hired laborers, and of the two classes of workers combined, employed per farm on January 1 of 1932 and 1933.

TABLE 3.—NUMBER OF PERSONS EMPLOYED PER FARM ON JANUARY 1 OF 1932 AND 1933, BY GEOGRAPHIC DIVISION

Geographic division	Family labor		Hired labor		Family and hired labor combined	
	Jan. 1, 1932	Jan. 1, 1933	Jan. 1, 1932	Jan. 1, 1933	Jan. 1, 1932	Jan. 1, 1933
New England.....	1.59	1.60	1.06	0.94	2.65	2.54
Middle Atlantic.....	1.68	1.65	.64	.61	2.32	2.26
East North Central.....	1.68	1.68	.39	.43	2.07	2.11
West North Central.....	1.80	1.78	.43	.36	2.23	2.14
South Atlantic.....	2.84	2.65	1.19	1.33	4.03	3.98
East South Central.....	3.47	3.34	1.04	1.04	4.51	4.38
West South Central.....	2.54	2.43	.86	.69	3.40	3.12
Mountain.....	1.76	1.73	.51	.51	2.27	2.24
Pacific.....	1.62	1.71	1.52	1.37	3.14	3.08
United States.....	2.17	2.11	.74	.72	2.91	2.83

## Hourly Wages on Federal-Aid Highway Projects, 1922 to 1932

THE average hourly wage rates paid to common labor employed on Federal-aid highway projects in each of the years 1922 to 1931 and in each month of 1932 from January to October, inclusive, are shown in the table below. The figures for the years 1922 to 1931 are from the Yearbook of Agriculture, 1932, published by the United States Department of Agriculture, and for the months of 1932, from the Survey of Current Business for January, 1933, published by the United States Bureau of Foreign and Domestic Commerce.

AVERAGE HOURLY WAGE RATES OF COMMON LABOR EMPLOYED ON FEDERAL AID HIGHWAY PROJECTS, 1922 TO 1931, AND JANUARY TO OCTOBER, 1932

Year and month	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	United States
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
1922.....	40	37	33	32	21	20	24	38	49	33
1923.....	53	47	41	36	27	23	25	41	54	39
1924.....	49	43	40	36	28	24	27	40	53	38
1925.....	46	43	37	37	27	25	26	44	52	38
1926.....	49	47	38	36	29	25	27	44	52	38
1927.....	49	47	39	37	28	25	30	45	53	40
1928.....	49	43	39	38	26	26	28	46	52	41
1929.....	51	43	39	37	28	26	31	47	53	39
1930.....	50	42	38	37	25	24	28	47	53	39
1931.....	45	37	36	35	22	20	23	45	51	36
1932:										
January.....	41	37	40	38	18	19	24	45	50	32
February.....	43	40	40	42	21	17	25	44	49	33
March.....	44	38	40	37	19	16	27	45	47	34
April.....	39	40	37	33	20	19	24	44	48	33
May.....	34	35	36	28	20	19	25	44	47	32
June.....	34	35	36	31	20	19	25	44	47	33
July.....	34	34	35	31	18	19	26	44	46	32
August.....	33	34	36	31	18	19	26	43	47	32
September.....	34	34	36	34	19	19	26	44	47	32
October.....	34	35	37	32	19	19	27	44	48	32

## Wages and Labor Conditions in Alaska, 1931-32

ACCORDING to the annual report of the Governor of Alaska, the economic situation in his jurisdiction for the year ending June 30, 1932, was not so satisfactory as in the preceding 12 months.

Wage schedules in the coal-mining and gold-mining industries were not changed, but decreases were reported for the copper mines and fisheries.<sup>1</sup> The cost of the necessary commodities, however, declined and the Territory was free from labor disturbances. The fishing industry, which ordinarily employs four-fifths of the labor in Alaska, was unfavorably affected by a reduction in output in some sections and by adverse conditions existing in those regions which previously absorbed the products of the fisheries. The fall in the prices of lumber and metals restricted the production of such commodities. There were also cuts in railroad and road construction appropriations. Many workers were therefore unable to secure their normal employment.

A survey of the larger communities showed an exceptional number of jobless persons, and in the summer the situation was made more acute by the migration of workers from the Pacific Coast States. A concerted attempt was made to check this influx, but many of these job seekers paid no attention to warnings. The governor stated that the care of these unemployed people was expected to present a grave problem during the winter of 1932-33.

Over 1,200 barrels of flour were allotted by the American Red Cross for distribution through various Alaskan chapters and some of the local authorities prepared additional requisitions. A plan was being considered by the commissioner of fisheries for the extension of the salmon trolling season to allow fishermen to operate during at least a part of the winter.

Every community is reported as strenuously endeavoring to meet its own particular relief problem. It seemed probable, however, that the resources of some of the smaller villages would not be equal to the strain upon them.

A number of projects for the improvement of Alaskan rivers and harbors have been approved. Some of these undertakings were not completed at the time the governor was preparing his report and others had not been begun. "It is believed that some, if not all of these projects, can be undertaken under the emergency appropriations for public works. It is urged that funds be made available so that work may be started this season."

Among the projects recommended by the governor were road construction in the national forests, the completion of the road through the McKinley National Park, the building of schools and hospitals, and the erection of Federal buildings at Anchorage and Ketchikan.

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## Wages and Hours in Wyoming, 1932

THE following figures on wages and hours in Wyoming for a period of eight months ending September 30, 1932, are taken from the eighth biennial report of the commissioner of labor and statistics of that State, 1931-32.

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<sup>1</sup> For 1930-31 wages, see Monthly Labor Review, March, 1932, pp. 657-659.

AVERAGE WAGES AND HOURS OF LABOR IN WYOMING, 1932<sup>1</sup>

Industry and occupation	Average number of employees		Average hours worked per employee				Average wages per employee	
			Per day		Per week		Per month	
	Men	Women	Men	Women	Men	Women	Men	Women
<b>Automobile sales and services:</b>								
Clerical employees.....	10.00	18.00	8.30	8.05	52.60	48.61	\$124.45	\$97.25
Floormen and janitors.....	37.00		9.86		63.97		85.50	
Foremen.....	3.00		9.33		56.66		115.00	
Managers.....	12.00		9.08		57.25		165.83	
Mechanics.....	93.00		9.03		54.38		116.83	
Stock clerks.....	5.00		9.40		60.40		111.02	
Salesmen.....	31.00		8.61		52.93		141.64	
Total and average.....	191.00	18.00	9.11	8.05	56.29	48.61	117.91	97.25
<b>Building, construction, and highway:</b>								
Common labor.....	207.25		7.82		35.67		59.57	
Cooks and helpers.....	1.75	.25	8.00	8.00	56.00	56.00	77.14	105.00
Skilled construction men.....	61.75		6.33		35.87		109.76	
Skilled highway men.....	27.25		8.00		29.43		84.26	
Supervisory and clerical employees.....	10.50	2.00	7.62	8.00	45.33	44.00	152.86	98.00
Total and average.....	308.50	2.25	7.54	8.00	35.60	45.33	75.04	98.77
<b>Coal mining:</b>								
Clerical employees.....	25.00	2.00	8.00	8.00	40.00	46.00	150.00	87.50
Drillers.....	20.00		8.00		47.00		104.85	
Drivers and motormen.....	209.00		8.00		26.00		87.49	
Foremen.....	28.00		8.00		48.00		194.93	
Machine operators and helpers.....	175.00		8.00		25.64		110.22	
Mechanical loaders.....	479.00		8.00		26.00		101.43	
Miners.....	1,290.00		8.00		24.42		91.68	
Officials.....	31.00		8.00		48.00		350.00	
Outside labor.....	503.00		8.00		33.52		108.50	
Total and average.....	2,761.00	2.00	8.00	8.00	23.52	46.00	101.52	87.50
<b>Confectionery, ice cream, bakery, and dairy:</b>								
Bakers, butter, cheese, ice cream makers and wrappers.....	72.00	15.00	8.75	7.00	53.68	43.26	124.09	53.86
Drivers, janitors, and bottlers.....	28.00		7.81		49.35		102.37	
Office and sales employees.....	8.00	27.00	8.56	7.11	60.87	41.96	141.79	56.97
Total and average.....	108.00	42.00	8.38	7.07	52.53	42.47	119.77	55.86
<b>Hotels, restaurants, and cafes:</b>								
Cooks and helpers.....	143.00	141.00	9.17	7.83	62.80	53.41	87.36	55.14
Firemen, porters, and miscellaneous workers.....	57.00		10.87		68.40		66.03	
Housekeepers and maids.....		44.00		7.66		52.88		57.27
Supervisory, clerical, and sales employees.....	37.00	8.00	10.32	8.00	69.59	56.00	96.63	68.75
Total and average.....	237.00	193.00	9.76	7.80	65.19	53.39	83.68	56.13
<b>Laundry, cleaning, dyeing, and pressing:</b>								
Clerical employees.....		3.00		6.66		40.00		80.00
Delivery men.....	12.00		8.00		47.75		116.87	
Laundry and cleaning workers.....	35.00	72.00	8.08	7.29	47.76	41.29	102.37	61.76
Total and average.....	50.00	75.00	8.06	7.00	47.76	41.24	105.86	62.35
<b>Milling, manufacturing, and canning:</b>								
Common labor.....	95.00	10.00	8.52	8.00	53.69	56.00	93.88	33.60
Skilled labor.....	91.00		8.36		47.96		192.81	
Supervisory and clerical employees.....	12.00	5.00	8.00	7.20	46.66	40.08	160.96	78.70
Truck drivers.....	10.00		8.00		48.00		60.40	
Total and average.....	208.00	15.00	8.39	7.73	50.50	50.93	139.42	48.63

<sup>1</sup> Figures cover a period of 8 months.<sup>2</sup> As given in report; average for group is below average for any occupation listed in group.

## AVERAGE WAGES AND HOURS OF LABOR IN WYOMING, 1932—Continued

Industry and occupation	Average number of employees		Average hours worked per employee				Average wages per employee	
			Per day		Per week		Per month	
	Men	Women	Men	Women	Men	Women	Men	Women
Oil and petroleum products:								
Clerical employees.....	134.50	47.00	8.95	8.02	51.98	47.36	\$192.50	\$111.80
Culinary workers.....		24.00		8.00		47.66		122.40
Laborers and miscellaneous workers.....	660.77		8.47		48.38		107.61	
Mechanics.....	358.25		8.00		44.48		151.25	
Production workers (pipe line).....	678.00		8.86		55.16		134.74	
Refinery workers.....	500.00		8.11		48.10		167.75	
Superintendents and foremen.....	212.00		8.11		48.34		213.01	
Still men.....	200.00		8.00		43.02		137.40	
Total and average.....	2,743.52	71.00	8.40	8.01	49.31	47.43	145.46	115.53
Printing and publishing:								
Editors, reporters, etc.....	14.00	12.00	8.00	6.75	48.57	38.88	124.43	76.66
Engravers, bindery workers, etc.....	17.60	2.00	8.53	8.00	44.17	42.00	161.47	105.00
Printers, pressmen, and helpers.....	41.00	1.00	7.07	7.66	42.36	45.00	162.58	174.80
Total and average.....	72.00	15.00	7.60	6.93	44.00	39.66	154.90	86.98
Public utilities:								
Clerical workers.....	32.00	35.00	8.00	7.60	44.25	42.74	125.97	95.73
Laborers.....	27.00		7.81		47.33		82.27	
Janitors and patrolmen.....	5.00		6.50		44.00		97.80	
Plant workmen (skilled).....	156.50		8.04		51.28		145.89	
Salesmen.....	20.00	1.00	8.00	8.00	47.20	48.00	116.76	116.00
Supervisory employees.....	37.00		8.13		49.67		201.24	
Total and average.....	277.50	36.00	7.99	7.61	49.45	42.88	145.49	96.29
Railroads:								
Bridge and building department—								
Skilled.....	125.00		7.86		47.25		114.85	
Unskilled.....	11.00		8.00		48.72		62.24	
Clerical employees.....	69.00	20.50	8.00	7.67	46.19	39.06	121.39	109.62
Officials and supervisors.....	28.00		8.46		51.78		293.26	
Shops—								
Skilled.....	1,748.00		6.13		36.13		106.70	
Unskilled.....	42.00		8.00		47.62		71.92	
Signalmen.....	51.00		5.03		30.19		125.12	
Station employees.....	160.00	7.00	8.57	7.90	51.45	47.46	129.94	139.14
Store department.....	90.00		8.00		43.88		95.72	
Telegraph department—								
Dispatchers.....	52.00		8.01		55.11		246.72	
Telegraphers.....	119.00	10.00	8.00	7.76	48.00	50.31	148.21	149.46
Track department—								
Skilled.....	257.00		7.80		46.95		133.43	
Unskilled.....	572.00		9.30		57.71		73.07	
Trainmen.....	1,197.00		7.73		51.90		217.49	
Total and average.....	4,521.00	37.50	7.35	7.74	45.50	43.36	138.13	131.22
Ranching, livestock, and dude ranches:								
Clerical employees.....	1.00	1.00	9.00	8.00	60.00	56.00	150.00	100.00
Cooks, helpers, and waitresses.....	3.00	10.00	10.00	8.70	70.00	50.40	75.00	42.25
Foremen, ranch hands, etc.....	118.00		10.03		60.47		46.53	
Housekeepers, maids, and laundry workers.....	1.00	5.00	10.00	8.00	70.00	56.00	60.00	58.00
Total and average.....	123.00	16.00	10.02	8.43	60.70	52.50	56.31	50.78
Telegraph and telephone:								
Lineamen and plant men.....	147.00		7.80		43.44		122.37	
Miscellaneous.....	9.00		7.55		46.88		40.22	
Supervisory and clerical workers.....	39.00	23.00	8.02	8.00	44.26	47.03	165.25	80.79
Telegraph and telephone operators.....	3.00	147.00	8.00	8.00	48.00	44.87	112.50	68.95
Total and average.....	198.00	170.00	7.84	8.00	41.69	44.92	126.91	69.96

<sup>2</sup> As given in report; average for group is below average for any occupation listed in group.

## AVERAGE WAGES AND HOURS OF LABOR IN WYOMING, 1932—Continued

Industry and occupation	Average number of employees		Average hours worked per employee				Average wages per employee	
			Per day		Per week		Per month	
	Men	Women	Men	Women	Men	Women	Men	Women
Wholesale and retail merchandise:								
Clerical employees.....	55.00	68.00	7.42	7.94	42.64	47.63	\$130.45	\$88.48
Delivery men.....	51.00		10.70		52.35		108.27	
Miscellaneous.....	15.00	2.00	7.33	8.00	42.73	48.00	73.00	100.00
Sales people.....	494.00	225.00	9.66	8.03	59.43	48.58	128.92	58.15
Supervisory employees.....	64.00	1.00	8.84	8.50	56.07	54.00	167.01	135.00
Unskilled workers.....	4.00		6.12		41.37		47.75	
Warehousemen.....	59.00		8.76		50.83		114.87	
Total and average.....	742.00	296.00	9.36	8.02	56.14	48.38	128.35	65.66
Miscellaneous:								
Supervisory and clerical employees.....	37.00	17.00	8.43	7.00	51.21	45.23	214.62	61.24
Skilled employees.....	245.00	9.00	7.92	8.00	43.41	48.00	156.85	127.24
Unskilled employees.....	149.50	31.00	8.30	4.33	50.95	25.73	132.26	28.81
Total and average.....	431.50	57.00	8.09	5.45	49.26	34.61	<sup>2</sup> 129.58	54.03
Grand total and average.....	12,972.02	1,045.75	8.00	7.69	42.27	46.81	127.22	70.62

<sup>2</sup> As given in report; average for group is below average for any occupation listed in group.



## Wages in France in 1932<sup>1</sup>

**I**NFORMATION is here presented concerning wage rates in the following French industries: Manufacturing, coal and metal mining, oil production, agriculture, and lumbering. In cases where a particular industry is substantially concentrated in one or two particular areas of France the wage statistics refer only to the dominantly important area or areas, even though the industry may be carried on to some extent in other sections of the country. Where, however, an industry is spread in a general way over all or most of France, the average figures given apply to the entire country, although in that case any marked differences in wages are noted and separate figures given for the "Paris region," a term applying to the important manufacturing area included in the city of Paris and its suburbs.

The survey was made in the latter part of 1932 and, although in some cases the wage rates secured were as of an earlier date, as far as could be ascertained, they were still in effect at the time the study was made.

### Hours of Labor

**I**N ALL the industries discussed, except agriculture, the hours of labor are limited by legislation. The French Labor Code (Vol. II, Book I, Chapter II, art. 6) provides that "in industrial or commercial concerns, or in their dependencies, of whatever nature, public or private, lay or religious, even if they possess the character of professional instruction or charity, the duration of work of the laborers or employees of either sex or of any age may not exceed 8 hours per day, or 48 hours per week, or an equivalent limitation based on a period of time other than the week."<sup>2</sup> Variations of the 8-hour day established under the above law and exceptional or emergency digressions from it are arranged by the public authorities, regard being given to a balancing of the interests of employers and laborers.

In the absence of specific statements to the contrary, wage rates in the industries discussed are based on the 48-hour week, either through a week of 6 days of 8 hours each, or of 5 days of 9 hours and 1 day of 3 hours, or some other variation.

The 8-hour day is not obligatory for agricultural workers, and working hours depend entirely upon the agreement between employer and laborer. Most farm laborers work from sunrise to sunset, depending upon the nature of the task and the season; those employed by the day usually work eight hours.

### Child Labor

**T**HE French Labor Code provides that "children may not be employed nor admitted into factories, manufactures, mines, quarries,

<sup>1</sup> This report was prepared by the American Consular Service in France under the direction of L. J. Keena, American Consul General. Consular officers participating in the preparation of the report were: Frank Cussans, Bordeaux; James G. Carter, Calais; Harold Playter, Lille; James P. Moffitt, Marseille; John B. Faust, Paris; O. Gaylord Marsh, Strassburg; and Hugh S. Fullerton and William H. Windom, clerk, Lyon.

<sup>2</sup> Law of Apr. 23, 1919.

works or workshops of any kind, nor in their dependencies, whether they are public or private, lay or religious, even when these establishments possess a professional or charitable character, before the age of 13 years." There are certain exceptions to this provision, but they are unimportant for the purpose of this study.

#### Free Housing and Transportation

THE provision of free housing for workers has not become a general custom in France. Many industrial establishments, however, especially in the mining districts, have constructed lodgings for use by their employees without charge or at a nominal rent. Diversity of practice and lack of published information makes it impossible to form reliable estimates of the general effect of such isolated advantages upon the cash wages paid.

In the smaller industrial centers, especially in the mining and textile industries, free transportation to and from work is sometimes provided.

#### Family Allowances

THE custom of supplementing wages with special allotments or allowances to workers according to the size of their families developed during the war and has spread into nearly all fields of industrial enterprise. The system, consisting of contributions solely from employers to funds for distribution to workers in a particular industry or group of industries, has been entirely voluntary and optional. A law providing for compulsory contributions to family-allowance funds by all employers was enacted March 11, 1932. However, article 8 provided that it should not become effective until some months after the promulgation of certain administrative regulations, and since this has not been done the new law remains without effect. Employers engaged in public works, however, have been required by a law enacted in 1922 to contribute to a fund for distribution according to the size of workers' families, based on minimum rates fixed by each Department in France.

A central organization called the Comité Central des Allocations Familiales, with offices in Paris, heads the system. A large proportion of the small organizations administering the funds for particular industries or groups of industries are represented on this central committee. In 1931 the total personnel of the industries adhering to the central committee numbered 1,850,000 workers, the allowances amounting to 380,000,000 francs (\$14,896,000), or approximately \$8 per worker. The mining industry, the railways, and a few smaller industries are not affiliated with the central committee but distribute the family allotments among their workers through their own organizations.

It is estimated that at present there are between four and four and a half million persons in France who, in addition to their wages, benefit from family allotments to the extent of 1,700,000,000 francs (\$66,640,000) annually. This includes beneficiaries of the member organizations of the central committee, independent organizations, and public-work organizations.

The average monthly family allowances in 16 of the important French industrial centers, according to the number of children in the family, are as follows:

	Family allowance
1 child.....	22. 81 francs <sup>3</sup> (89.4 cents).
2 children.....	60. 66 francs (\$2.38).
3 children.....	109. 34 francs (\$4.29).
4 children.....	172. 62 francs (\$6.77).
5 children.....	240. 92 francs (\$9.44).
6 children.....	315. 26 francs (\$12.36).

It is apparent that workmen with families may receive, in addition to their regular wages, cash benefits ranging from 89 cents to \$12.36 per month.

In addition to such cash allowances, there are certain benefits in kind, such as sending children to healthful localities, supplying visiting nurses, making loans for the purchase of household goods, free laundry, gifts of linen, subsidies to companies constructing free houses, milk allowances for children, birth bonuses, etc. Annual disbursements for such purposes from organizations affiliated with the central committee total about 10,000,000 francs (\$392,000).

#### Wage and Income Taxes

THE salary tax (*impôt sur les traitements*) is payable by all persons domiciled in France on January 1, on their total salaries, pensions, annuities, or other remuneration earned or received during the preceding year, either in France or abroad. The tax is essentially a personal tax, each member of a family being assessable separately on his own income.

The following are among the most important sources of personal income that are assessable:

1. Salaries and remunerations received for services rendered (except family allowances).
2. Remuneration in kind, such as accommodations, food, light, etc.
3. Bonuses or Christmas gifts.
4. Life pensions (except war pensions or those arising out of civil accidents) and pensions for a limited period.
5. Income of artisans and other individuals working for their own account, who would normally be assessable under the commercial-profits tax but who are specially exempted therefrom by law.

From the income received certain deductions for taxation purposes are permitted, among which are the following:

1. Salary tax paid during the preceding year.
2. Contributions to pension-fund schemes, or alternatively, life-insurance premiums.
3. Traveling expenses to and from the place of business.
4. Cost of books and periodicals necessitated by the occupation followed.
5. Subscriptions to trade or professional associations.
6. Extra cost of meals necessarily taken at restaurants, owing to distance of place of occupation from home.

From the income thus arrived at, the following deductions for taxation purposes are allowed:

<sup>3</sup> Conversions into United States currency on basis of franc at par=3.92 cents.

1. Three thousand francs (\$117.60) for the wife, if her income does not exceed this amount.

2. Three thousand francs (\$117.60) for each child under 18 years of age, and not in receipt of earned income in excess of this amount (this allowance is increased to 4,000 francs (\$156.80) for the third and subsequent children).

3. Two thousand francs (\$78.40) for any other person under the taxpayer's charge.

It should be observed that, if the husband and wife are both taxable, then only the one who has the greater income is entitled to the deductions.

Since January 1, 1930, the rate of tax payable has been 10 per cent, subject to the following relief: (a) When the taxable income arrived at in the manner set out above does not exceed 10,000 francs, it is totally exempted from the tax; (b) on taxable income between 10,000 and 20,000 francs (\$392 and \$784) 50 per cent is taxable; between 20,000 and 40,000 francs (\$784 and \$1,568) 75 per cent is taxable, and in excess of 40,000 francs it is taxable in full.

The many reservations and deductions connected with the application of this tax result in but few persons properly classified as workers paying it.

While employers must submit data on their employees in connection with this, they do not withhold sums from their wages unless requested to do so in special cases by the authorities.

The income tax (*impôt général sur le revenu*) begins on incomes of 10,000 francs (\$392), but exemptions and deductions which are allowed rarely place a worker in the position of having to pay it.

#### Social Insurance Deductions

THE social insurance law which came into effect on July 1, 1930, provides for the compulsory insurance of all French wage earners whose annual remuneration does not exceed 15,000 francs (\$588) or 18,000 francs (\$704.60) in cities of more than 200,000 inhabitants and in industrial centers. The risks covered are sickness, incapacity, old age, and death.

For the purpose of contributions and benefits the insured are divided into five classes. The amount of the contribution thus varies in accordance with the wages of the insured, but the average is 4 per cent of the wage. This sum is deducted from the pay by the employer who contributes an equivalent sum, the entire amount being turned over to the administrative authorities.

#### Wages in Manufacturing Industries

WAGES are here shown for various industries, the following being representative of the French manufacture of products appearing in international commerce: Automobiles, textiles, metallurgy, clothing, furniture, tanning, beauty products, gloves, and beet sugar.

## Automobile Industry

Table 1 shows the average rates per hour for timework and piecework in the automobile industry in the Paris district:

TABLE 1.—AVERAGE HOURLY WAGES<sup>1</sup> IN THE AUTOMOBILE INDUSTRY OF THE PARIS DISTRICT, JANUARY-FEBRUARY, 1932, BY OCCUPATION

*The industry (except body building)*

[Conversions into United States currency on basis of franc at par=3.92 cents. Exchange value of franc has been substantially at par]

Class of workers, occupation, and sex	Timework		Piecework	
	French currency	United States currency	French currency	United States currency
Skilled workers, male ( <i>professionnels</i> ):				
Tool sharpeners ( <i>afûteurs-outilleurs</i> )	6.24	24.5		
Fitters ( <i>ajusteurs</i> )	5.52	21.6	6.27	24.6
Engine fitters and assemblers ( <i>ajusteurs-monteurs et assembleurs</i> )	5.61	22.0	6.48	25.4
Tool adjusters, tool fitters ( <i>ajusteurs-outilleurs</i> )	6.59	25.8	7.09	27.8
Drill adjusters ( <i>ajusteurs-traceurs</i> )	6.53	26.5		
Drillers ( <i>aléseurs</i> )	6.37	25.0	6.88	27.0
Coppersmiths ( <i>chaudronniers en cuivre au marteau</i> )	6.29	24.7		
Copper-pipe makers ( <i>chaudronniers en cuivre tuyauteurs</i> )	5.98	23.4	6.61	25.9
Boilermakers ( <i>chaudronniers en fer</i> )	5.82	22.8	6.78	26.6
Cutters on semiautomatic or nonautomatic machines ( <i>décolleteurs sur machine demi-automatique ou non automatique</i> )			6.44	25.2
Electrical adjusters ( <i>électriciens-ajusteurs</i> )	5.67	22.2		
Electrical fitters ( <i>électriciens-monteurs</i> )	5.71	22.4	6.28	24.6
Enamellers ( <i>émailleurs</i> )	5.34	20.9	6.03	23.6
Die stampers ( <i>estampeurs à chaud et au mouton</i> )			7.28	28.5
Tinsmiths ( <i>ferblantiers</i> )			6.51	25.5
Hammersmiths ( <i>forgerons à main</i> )	6.06	23.8	6.73	26.4
Toolsmiths ( <i>forgerons outilleurs</i> )	6.59	25.8		
Metal-lathe workers ( <i>fraiseurs</i> )	6.11	24.0	6.71	26.3
Lathe-tool fitters ( <i>fraiseurs outilleurs</i> )	6.72	26.3	7.00	27.4
Mechanical adjusters ( <i>mécaniciens metteurs au point</i> )	5.94	23.3	6.77	26.5
Machinery fitters and assemblers ( <i>monteurs et monteuses assembleurs</i> )	5.77	22.6	6.40	25.1
Electric fitters on cars ( <i>monteurs électriciens sur voitures</i> )	5.62	22.0	6.53	25.6
Mortisers-planers ( <i>mortaiseurs-raboteurs</i> )	6.24	24.5	6.87	26.9
Nickel platers ( <i>nicketeurs</i> )	5.56	21.8	6.17	24.2
Die makers ( <i>outilleurs en matrice</i> )	6.87	26.9		
Punchers ( <i>perceurs au tracé</i> )	5.56	21.8	6.15	24.1
Polishers and polisher grinders ( <i>polisseurs et polisseurs meuleurs</i> )			6.71	26.3
Planers and rough squarers ( <i>raboteurs et dégauchisseurs</i> )	5.73	22.5	6.82	26.7
Tool planers ( <i>raboteurs et outilleurs</i> )	6.64	26.0	7.06	27.7
Rectifiers ( <i>rectifieurs</i> )	6.38	25.0	6.93	27.2
Tool rectifiers and adjusters ( <i>rectifieurs-outilleurs</i> )	6.67	26.1	6.97	27.3
Adjusters ( <i>régleurs</i> )	6.84	26.8	7.42	29.1
Arc-lamp welders ( <i>soudeurs à l'auogène</i> )	5.82	22.8	6.44	25.2
Gear cutters ( <i>tailleurs d'engrenages</i> )	5.72	22.4	6.51	25.5
Sheet-iron workers ( <i>tôliers</i> )	5.87	23.0	6.42	25.2
Turners ( <i>tourneurs</i> )	5.79	22.7	6.62	26.0
Tool turners ( <i>tourneurs-outilleurs</i> )	6.73	26.4	7.02	27.5
Tracers ( <i>tracers</i> )	6.59	25.8	6.98	27.4
Measurers ( <i>vérificateurs</i> )	5.93	23.2		
Specialized workers, male ( <i>ouvriers spécialisés</i> ):				
Sharpeners ( <i>affecteurs</i> )	5.48	21.5	5.92	23.2
Adjusters, fitters ( <i>ajusteurs</i> )	4.98	19.5	5.62	22.0
Clippers, stampers ( <i>cisailleurs, poinçonneurs</i> )	4.88	19.1	5.51	21.6
Currier, leather dressers ( <i>corroyeurs</i> )	5.03	19.7		
Metal scourers ( <i>décapeurs</i> )	4.75	18.6	5.34	20.9
Cutters on automatic machines ( <i>décolleteurs sur machines automatiques</i> )			5.58	21.9

<sup>1</sup> Including all premiums, bonuses, etc., except family allowances.

TABLE 1.—AVERAGE HOURLY WAGES<sup>1</sup> IN THE AUTOMOBILE INDUSTRY OF THE PARIS DISTRICT, JANUARY-FEBRUARY, 1932, BY OCCUPATION—Continued*The industry (except body building)—Continued*

Class of workers, occupation, and sex	Timework		Piecework	
	French currency	United States currency	French currency	United States currency
	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Specialized workers, male—Continued.				
Setters, by machine or by hand, of ordinary articles ( <i>dresseurs à la main et à la machine de produits courants</i> )	4.81	18.9		
Sheet-iron cutters ( <i>ébarbeurs</i> )	4.89	19.2	5.43	21.3
Chasers ( <i>emboutisseurs</i> )			6.02	23.6
Metal lathe workers ( <i>fraiseurs</i> )	4.98	19.5	5.71	22.4
File cutters and holders ( <i>frappeurs et teneurs de tas</i> )	4.92	19.3	5.38	21.1
Filers ( <i>limeurs</i> )	4.80	18.8	5.32	20.9
Grinders ( <i>meuleurs</i> )	5.02	19.7	5.81	22.8
Drillers ( <i>perceurs au montage</i> )	5.24	20.5	5.60	22.0
Polishers ( <i>polisseurs</i> )			5.23	20.5
Planers ( <i>raboteurs</i> )	5.03	19.7	5.68	22.3
Rectifiers ( <i>rectifieurs</i> )			5.61	22.0
Resettlers ( <i>redresseurs</i> )	5.52	21.6	6.18	24.2
Spring winders on automatic machines ( <i>ressortiers sur machine automatique</i> )			5.58	21.9
Hand riveters ( <i>riveurs à la main</i> )	5.42	21.2	5.98	23.4
Polishers ( <i>rodeurs</i> )			5.76	22.6
Sand molders ( <i>sableurs</i> )	4.98	19.5	5.61	22.0
Screw cutters ( <i> taraudeurs</i> )			5.23	20.5
Turners on automatic lathes ( <i>tourneurs sur tour automatique</i> )	5.31	20.8	5.97	23.4
Turners on parallel lathes ( <i>tourneurs sur tour parallèle</i> )	4.87	19.1	5.48	21.5
Hardeners, cementers ( <i>trempeurs—cimenteurs</i> )	4.97	19.5	5.75	22.5
Cutters ( <i>trancheurs</i> )	4.88	19.1	5.49	21.5
Verifiers ( <i>vérificateurs</i> )	4.92	19.3		
Ordinary laborers, male ( <i>manœuvres</i> )	4.11	16.1	4.62	18.1
Foundry laborers, male ( <i>manœuvres de fonderie</i> )	4.39	17.2	4.82	18.9
Specialized and ordinary workers, female:				
Sharpeners ( <i>affûteuses</i> )			4.14	16.2
Matchers ( <i>appareilleuses</i> )	3.51	13.8	4.11	16.1
Winders ( <i>bobineuses</i> )	3.79	14.9	4.25	16.7
Spindlers ( <i>bobinières</i> )	4.19	16.4	4.61	18.1
Inspectors ( <i>contrôleuses</i> )	3.70	14.5	4.35	17.1
Sewers ( <i>couturières</i> )	3.61	13.8	4.32	16.9
Cutters knowing how to set up ( <i>décolleteuses sachant se monter</i> )	4.39	17.2	5.06	19.8
Cutters ( <i>découpeuses</i> )	3.57	14.0	4.37	17.1
Cutters without knowledge of setting up ( <i>décolleteuses ne sachant pas se monter</i> )	3.56	14.0	4.12	16.2
Enamellers ( <i>émailleuses</i> )			4.50	17.6
Gaugers, adjusters ( <i>ballonneuses</i> )	3.36	13.2	4.02	15.8
Tinsmiths ( <i>ferbantières</i> )	4.01	15.7	4.76	18.7
Metal lathe workers ( <i>fraiseuses</i> )	3.71	14.5	4.54	17.8
Mechanics ( <i>mécaniciennes</i> )	3.72	14.6	4.50	17.6
Corers ( <i>noyautéuses</i> )	3.68	14.4	4.28	16.8
Painters ( <i>peintres</i> )	3.33	13.1	4.35	17.1
Drillers ( <i>perceuses</i> )	3.77	14.8	4.46	17.5
Polishers on machines ( <i>polisseuses de mécanique</i> )	3.95	15.5	4.78	18.7
Rectifiers ( <i>rectifieuses</i> )	3.63	14.2	4.56	17.9
Arc-lamp welders ( <i>soudeuses à l'autogène</i> )	4.35	17.1	4.82	18.9
Solderers ( <i>soudeuses à l'étain</i> )	3.81	14.9	4.45	17.4
Turners ( <i>tourneuses</i> )	3.82	15.0	4.63	18.1
Workers specializing in other trades than those mentioned ( <i>ouvrières spécialisées autres que les catégories ci-contre</i> )	3.48	13.6	4.03	15.8
Ordinary laborers, female	3.25	12.7	3.68	14.4

<sup>1</sup> Including all premiums, bonuses, etc., except family allowances.



TABLE 1.—AVERAGE HOURLY WAGES<sup>1</sup> IN THE AUTOMOBILE INDUSTRY OF THE PARIS DISTRICT, JANUARY-FEBRUARY, 1932, BY OCCUPATION—Continued

## Automobile body building

Occupation	Custom building				Mass production			
	Timework		Piecework		Timework		Piecework	
	French currency	United States currency	French currency	United States currency	French currency	United States currency	French currency	United States currency
	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Locksmiths ( <i>ferreurs</i> ) .....	6.59	25.8	7.10	27.8	5.99	23.5	6.38	25.0
Blacksmiths ( <i>forgerous à main</i> ) .....	6.58	25.8	7.72	30.3	5.92	23.2	6.80	26.7
Joiners ( <i>menuisiers ordinaires</i> ) .....	6.46	25.3	7.19	28.2	5.64	22.1	6.24	24.5
Special automobile joiners ( <i>menuisiers traceurs de voitures</i> ) .....	6.99	27.4	7.68	30.1	6.04	23.7	6.87	26.9
Decorators ( <i>peintres finisseurs—lettres finition, rechapissage</i> ) .....	6.44	25.2	7.66	30.0	5.55	21.8	6.22	24.4
Ordinary painters ( <i>peintres hommes de fond</i> ) .....	5.81	22.8	6.53	25.6	5.25	20.6	6.01	23.6
Leather upholstery makers ( <i>selliers à l'établi ou confectionneurs</i> ) .....	6.27	24.6	6.59	25.8	5.49	21.5	5.94	23.3
Leather upholsterers ( <i>selliers poseurs et garnisseurs</i> ) .....	6.79	26.6	7.48	29.3	5.77	22.6	6.63	26.0
Sheet-metal workers ( <i>tôliers</i> ) .....	6.57	25.8	7.14	28.0	5.63	22.1	6.34	24.9

<sup>1</sup> Including all premiums, bonuses, etc., except family allowances.

## Textile Industry

Table 2 shows the average hourly rates in the textile industry in certain districts.

In certain branches of the Lille textile industries, such as the weaving of velvets, velveteens, and Jacquard tapestries, piecework pay is almost universal. Such pay, of course, varies greatly, but a consideration of that prevailing for velvet weaving will give a general idea of its application.

It will be seen from the table that the basic wage of the warper is 3.69 francs (14.5 cents) per hour. This is the lowest hourly wage, and in general it may be said that the worker receives 15 per cent more when on a piecework basis. The pay of velvet workers is considerably higher, and varies according to the skill required. Workers may earn as much as 450 to 540 francs (\$17.64 to \$21.17) per week, but the average is probably in the neighborhood of 5.85 francs (22.9 cents) per hour, or 281 francs (\$11.02) per week.

TABLE 2.—WAGES IN THE TEXTILE INDUSTRY IN SPECIFIED DISTRICTS IN SEPTEMBER, 1932, BY PROCESS AND OCCUPATION

## Cotton and wool (Lille)

[Conversions into United States currency on basis of franc at par=3.92 cents. Exchange value of franc has been substantially at par]

Process, occupation, and sex	Average hourly rate			
	Minimum		Maximum	
	French currency	United States currency	French currency	United States currency
Combing:	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Greasers, male ( <i>graisseurs</i> ) .....	2.70	10.6	3.09	12.1
Card cleaners, male ( <i>nettoyeurs de carde</i> ) .....	2.91	11.4	3.07	12.0
Washers, male ( <i>laveurs</i> ) .....	2.70	10.6	2.90	11.4
Washers' helpers, male ( <i>aide laveurs</i> ) .....	2.70	10.6	2.86	11.2

TABLE 2.—WAGES IN THE TEXTILE INDUSTRY IN SPECIFIED DISTRICTS IN SEPTEMBER, 1932, BY PROCESS AND OCCUPATION—Continued

Cotton and wool (Lille)—Continued

Process, occupation, and sex	Average hourly rate			
	Minimum		Maximum	
	French currency	United States currency	French currency	United States currency
Combing—Continued.	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Polishers, male ( <i>polisseurs</i> )	2.78	10.9	3.04	11.9
Polishers, female ( <i>polisseuses</i> )	2.32	9.1	2.45	9.6
Deobstructors, male ( <i>déboucheurs</i> )	2.63	10.3	2.86	11.2
Combers, male ( <i>peigneurs</i> )	2.72	10.7	2.79	10.9
Combers, female ( <i>peigneuses</i> )	2.32	9.1	2.42	9.5
Drawers, male ( <i>soigneurs</i> )	2.70	10.6	2.76	10.8
Drawers, female ( <i>soigneuses</i> )	2.25	8.8	2.31	9.1
Tank emptiers, male ( <i>remplisseurs de bac</i> )	2.70	10.6	2.70	10.6
Tank emptiers, female ( <i>remplisseuses de bac</i> )	2.25	8.8	2.31	9.1
Finishers, male ( <i>apprêteurs</i> )	2.70	10.6	2.79	10.9
Finishers, female ( <i>apprêteuses</i> )	2.25	8.8	2.31	9.1
Utility men ( <i>hommes de peine</i> )	2.70	10.6	2.91	11.4
Packers, male ( <i>emballeurs</i> )	2.70	10.6	3.22	12.6
Bundlers, male ( <i>empaqueteurs</i> )	2.94	11.5		
Bundlers, female ( <i>empaqueteuses</i> )	2.25	8.8	2.37	9.3
Wheelbarrowers, male ( <i>brouetteurs</i> )	2.70	10.6	2.79	10.9
Winders, male ( <i>bobineurs</i> )	2.70	10.6		
Winders, female ( <i>bobineuses</i> )	2.25	8.8		
Beaters, male ( <i>batteurs</i> )	2.70	10.6	2.90	11.4
Dryers, male ( <i>sécheurs</i> )	2.70	10.6		
Dryers, female ( <i>sécheuses</i> )	2.25	8.8		
Burr removers, male ( <i>ébarbeurs</i> )	2.70	10.6		
Burr removers, female ( <i>ébarbeuses</i> )	2.25	8.8		
Spinning:				
Spinners, male ( <i>fileurs</i> )	4.18	16.4		
Attachers, male ( <i>rattacheurs</i> )	3.56	14.0		
Helpers ( <i>aides</i> ), under 18 years	1.59	6.2		
Preparation attendant, female ( <i>préparatrices</i> )	2.51	9.8		
Ring-frame attendant, female ( <i>fileuses sur continu</i> )	2.76	10.8		
Helpers ( <i>aides</i> ), spinning ring frames, female	1.59	6.2		
Twisting ring frame attendant, female ( <i>retordeuses</i> )	2.61	10.2		
Winders, doublers, twisters, etc., female ( <i>bobineuses, soigneuses, retordeuses</i> )	2.50	9.8		
Breakers, female ( <i>casseuses</i> )	2.76	10.8		
Utility men ( <i>hommes de peine</i> )	2.70	10.6		
Carded spinning:				
Spinners, male ( <i>fileurs</i> )	4.18	16.4		
Adjusters, male ( <i>ajusteurs</i> )	3.76	14.7		
Attachers, male ( <i>rattacheurs</i> )	3.63	14.2		
Attachers, female ( <i>rattacheuses</i> )	2.93	11.5		
Helpers ( <i>aides</i> ), under 18 years	1.64	6.4		
Card attendants, male ( <i>cardeurs</i> )	3.09	12.1		
First card cleaners, male ( <i>nettoyeurs de 1ère carte</i> )	3.69	14.5		
Second card cleaners, male ( <i>nettoyeurs de 2ème carte</i> )	3.51	13.8		
Mixers, male ( <i>mélangeurs</i> )	3.00	11.8		
Collectors, male ( <i>collecteurs</i> )	2.74	10.7		
Cop attendants, female ( <i>fileuses à pot</i> )	2.70	10.6		
Utility men ( <i>hommes de peine</i> )	2.72	10.7		
Weaving:				
Weavers, male ( <i>tisserands</i> )	3.43	13.4		
Warpers, male ( <i>encolleurs</i> )	3.69	14.5		
Warpers, female ( <i>encolleuses</i> )	2.52	9.9		
Removers of knots, female ( <i>purgeuses de noeuds</i> )	2.50	9.8		
Repairers of defects, female ( <i>remetteuses de défauts</i> )	2.91	11.4		
Testers, male ( <i>verificateurs</i> )	3.42	13.4		
Sizers, male ( <i>colleurs</i> )	3.63	14.2		
Foil makers, female ( <i>repuisseuses</i> )	3.31	13.0		
Warp mounters, male ( <i>monteurs de chaines</i> )	2.67	10.5		
Threaders, male ( <i>enfileurs</i> )	3.67	14.4		
Utility men ( <i>hommes de peineur</i> )	2.70	10.6		
Dyeing (in tanks):				
Store keepers, male ( <i>magasiniers</i> )	2.70	10.6		
Dye workers, male ( <i>teinturiers</i> )	2.82	11.1		
Machine workers, male ( <i>mécaniciens</i> )	2.91	11.4		
Dryers, male ( <i>sécheurs</i> )	2.89	11.3		
Washers, male ( <i>laveurs</i> )	2.82	11.1		
Bundlers, female ( <i>empaqueteuses</i> )	2.41	9.4		
Boys 13 to 16 years ( <i>apprentis</i> )	1.43	5.6		
Boys, 16 to 18 years ( <i>apprentis</i> )	1.94	7.6		
Utility men ( <i>hommes de peine</i> )	2.70	10.6		

TABLE 2.—WAGES IN THE TEXTILE INDUSTRY IN SPECIFIED DISTRICTS IN SEPTEMBER, 1932, BY PROCESS AND OCCUPATION—Continued.

Silk (Lyon district)<sup>1</sup>

Process, occupation, and sex	Average hourly rate	
	French currency	United States currency
<i>Francs</i>		
Weaving:		
Bobbin winders, female ( <i>canneteuses</i> ).....	1.80	\$0.07
Reelers, female ( <i>dévideuses</i> ).....	1.80	.07
Warpers, female ( <i>ourdisseuses</i> ).....	2.30	.09
Weavers, male ( <i>tisseurs</i> ).....	3.25	.13
Weavers, female ( <i>tisseuses</i> ).....	2.40	.09
Loom fixers, male ( <i>gareurs</i> ).....	<sup>2</sup> 900.00	<sup>2</sup> 35.28
Loom fixers, apprentices, male ( <i>apprentis gareurs</i> ).....	<sup>2</sup> 500.00	<sup>2</sup> 19.60
Dyeing:		
Dyers, male ( <i>coloristes</i> ).....	3.50	.14
Printers, male ( <i>imprimeurs</i> ).....	3.75	.15
Finishing:		
Finishers, male ( <i>finisseurs</i> ).....	3.15	.12
Laborers, male ( <i>manoeuvres</i> ).....	<sup>2</sup> 400.00	<sup>2</sup> 15.68
Velvet weaving:		
Bobbin winders, female ( <i>canneteuses</i> ).....	2.65	.10
Reelers, female ( <i>dévideuses</i> ).....	2.50	.10
Warpers, female ( <i>ourdisseuses</i> ).....	2.50	.10
Weavers, female ( <i>tisseuses</i> ).....	2.80	.11
Stoppers, female ( <i>stoppeuses</i> ).....	2.70	.11
Burlers, female ( <i>épicetteuses</i> ).....	2.40	.09
Velvet dyeing:		
Dyers, male ( <i>coloristes</i> ).....	4.20	.16
Laborers, male ( <i>manoeuvres</i> ).....	2.80	.11
Velvet finishing:		
Glazers, male ( <i>lisseurs</i> ).....	3.60	.14
Glazers, female ( <i>lisseuses</i> ).....	2.50	.10
Combers, male ( <i>cardeurs</i> ).....	3.00	.12
Luster ironers, male ( <i>miroiteurs</i> ).....	3.10	.12
Shavers, male ( <i>raseurs</i> ).....	3.35	.13
Shavers, female ( <i>raseuses</i> ).....	2.30	.09
Plush finishers, male ( <i>apprêteurs peluche</i> ).....	3.30	.13
Finishers, male ( <i>finisseurs</i> ).....	3.15	.12
Finishers, female ( <i>finisseuses</i> ).....	2.35	.09
Folders, female ( <i>plieuses</i> ).....	2.35	.09

## Artificial silk (Strassburg district)

Workers, male.....	\$ 32.00	<sup>3</sup> \$1.25
Workers, female.....	42.50	4.10
Handicrafts, male.....	4.50	.18
Electricians and machinists, male.....	5.00	.20

## Jute (Strassburg district)

Workers, male.....	5 25.00	5 \$0.98
Workers, female.....	5 20.00-25.00	5 .78-.98

<sup>1</sup> Piecework.<sup>2</sup> Per month.<sup>3</sup> Per day; night work 25 per cent extra.<sup>4</sup> Women on piecework earn from 25 to 30 francs per day.<sup>5</sup> Per day; workers also receive free transportation to and from home.

## Metallurgy

The wages paid per hour in the metallurgical industry in the Paris district during January and February, 1932, are shown in Table 3:

TABLE 3.—HOURLY RATES IN THE METALLURGICAL INDUSTRY IN THE PARIS DISTRICT, JANUARY-FEBRUARY, 1932, BY OCCUPATION

[Conversions into United States currency on basis of franc at par=3.92 cents. Exchange value of franc has been substantially at par]

Class of worker, occupation, and sex	Hourly wage rate <sup>1</sup>			
	Timework		Piecework	
	French currency	United States currency	French currency	United States currency
Skilled workers, male ( <i>professionnels</i> ):	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Fitters ( <i>ajusteurs</i> )	5.34	20.9		
Tool adjusters and fitters ( <i>ajusteurs outilleurs</i> )	6.28	24.6		
Band adjusters ( <i>dresseurs à la main de profil</i> )	5.24	20.5		
Drawers ( <i>étireurs au banc de profils réglant leur outillage</i> )	5.13	20.1		
Tube drawers ( <i>étireurs au banc de tubes réglant leur outillage</i> )	4.78	18.7	5.62	22.0
Furnace or skillet founders ( <i>fondeurs au creuset et au four</i> )	5.13	20.1	5.88	23.0
Band rollers ( <i>lamineurs de bandes</i> )	4.45	17.4	5.44	21.3
Heat rollers ( <i>lamineurs à chaud</i> )	4.90	19.2	5.87	23.0
Cold rollers ( <i>lamineurs à froid</i> )	4.59	18.0	5.19	20.3
Plank rollers ( <i>lamineurs de planches</i> )	4.48	17.6	5.45	21.4
Pointers ( <i>pointiers</i> )			6.11	24.0
Wire drawers ( <i>tréfileurs</i> )	5.48	21.5	5.94	23.3
Special wire drawers ( <i>tréfileurs rebattant les filières</i> )	5.37	21.1	6.37	25.0
Wire drawers, copper ( <i>tréfileurs rebattant les filières cuivre</i> )	5.22	20.5	6.18	24.2
Specialized workers, male ( <i>ouvriers spécialisés</i> ):				
Band clippers ( <i>cisailleurs de bandes</i> )	4.51	17.7	4.94	19.4
Plank clippers ( <i>cisailleurs de planches</i> )	4.39	17.2	4.93	19.3
Clippers-punchers ( <i>cisailleurs-poinçonneurs</i> )	4.46	17.5	4.96	19.4
Crane and rolling-bridge conductors ( <i>conducteurs de grues et ponts roulants</i> )	4.78	18.7		
Scourers ( <i>décapeurs</i> )	4.42	17.3	5.03	19.7
Machine setters ( <i>dresseurs à la machine</i> )	4.87	19.1		
Drawers ( <i>étireurs</i> )	4.59	18.0	4.92	19.3
Rolling-mill assistants ( <i>manoeuvres de laminoirs</i> )	4.31	16.9	4.68	18.3
Temperers ( <i>recenseurs</i> )	4.41	17.3	4.84	19.0
Metal cutters ( <i>scieurs sur métal</i> )	4.42	17.3		
Verifiers ( <i>vérificateurs</i> )	4.52	17.7		

<sup>1</sup> Includes all premiums, bonuses, etc., except family allowances.

## Clothing Industry

In Table 4 are shown average wage rates in the various branches of the clothing industry in the Paris district and in the ready-made clothing industry in the rest of France, in October, 1931:

TABLE 4.—WAGE RATES IN THE CLOTHING INDUSTRY IN THE PARIS DISTRICT AND IN THE REST OF FRANCE IN OCTOBER, 1931

[Conversions into United States currency on basis of franc at par=3.92 cents. Exchange value of franc has been substantially at par]

District, occupation, and sex	Average wage rates		
	Period	Amount	
		French currency	United States currency
<i>Paris district</i>			
Men's clothing, ready made:		<i>Francs</i>	
Cutters, male ( <i>tailleurs d'habits</i> ).....	Per hour.....	6.50	\$0.25
Dressmaking and lingeries:			
Seamstress, first class ( <i>premières mains</i> ).....	Per week.....	218.40	8.56
Seamstresses, second class ( <i>deuxièmes mains</i> ).....	do.....	163.20	6.40
Seamstresses, ordinary ( <i>petites mains</i> ).....	do.....	115.20	4.52
High-class dressmaking:			
Skilled finishers, female ( <i>bonnes apprêteuses</i> ).....	Per month.....	936.00	36.69
Average finishers, female ( <i>moyennes apprêteuses</i> ).....	do.....	748.40	29.34
Ordinary finishers, female ( <i>petites apprêteuses</i> ).....	do.....	520.00	20.38
Apprentices, female ( <i>apprenties</i> ).....	do.....	208.00-260.00	8.15-10.19
<i>Rest of France</i>			
Clothing, ready made:			
Cutters, male ( <i>tailleurs d'habits</i> ).....	Per hour.....	4.10	.16
Sewers, female ( <i>couturières</i> ).....	do.....	2.45	.10
Underclothing makers, female ( <i>lingères</i> ).....	do.....	2.29	.09
Vest makers, female ( <i>giletrières</i> ).....	do.....	2.45	.10
Embroiderers, female ( <i>brodeuses</i> ).....	do.....	2.43	.10
Women's hat makers, female ( <i>modistes</i> ).....	do.....	2.38	.09

## Furniture Industry

The average hourly wages paid to males in the furniture industry in the Paris district and in the rest of France in October, 1931, are shown in the following statement:

	Per hour
Paris district:	
Wood turners ( <i>tourneurs en bois</i> ).....	6.75 francs (26.5 cents).
Cabinetmakers ( <i>ébénistes</i> ).....	6.75 francs (26.5 cents).
Joiners ( <i>menuisiers</i> ).....	6.25 francs (24.5 cents).
Rest of France:	
Wood turners ( <i>tourneurs en bois</i> ).....	4.17 francs (16.3 cents).
Cabinetmakers ( <i>ébénistes</i> ).....	4.30 francs (16.9 cents).
Joiners ( <i>menuisiers</i> ).....	4.16 francs (16.3 cents).

## Tanning Industry

The average hourly rates paid in various centers of production in the tanning industry in October, 1931, are shown in Table 5:

TABLE 5.—AVERAGE HOURLY RATES IN THE TANNING INDUSTRY IN SPECIFIED LOCALITIES IN 1931, BY SEX

[Conversions into United States currency on basis of franc at par=3.92 cents. Exchange value of franc has been substantially at par]

Division of industry and locality	Average hourly rate				Division of industry and locality	Average hourly rate			
	Males		Females			Males		Females	
	French currency	United States currency	French currency	United States currency		French currency	United States currency	French currency	United States currency
Heavy leather:	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>	Heavy leather—	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Annonay.....	3.50	13.7	2.50	9.8	Continued.....				
Bordeaux.....	3.35	13.1	2.50	9.8	Romans.....	3.25	12.7	1.75	6.9
Bellac.....	2.75	10.8	1.50	5.9	Strassburg.....	3.00	11.8	1.75	6.9
Chateaurenault.....	3.50	13.7	2.00	7.8	St. Amand.....				
Grenoble.....	3.00	11.8	1.50	5.9	les Eaux.....	3.00	11.8	1.90	7.4
Lannoy.....	3.65	14.3			Tournon.....	3.00	11.8		
Lille.....	3.75	14.7	2.25	8.8	Light leather:				
Millau.....	3.75	14.7	1.90	7.4	Annonay.....	4.00	15.7	3.50	13.7
Nantes.....	3.25	12.7	2.00	7.8	Graulhet.....	3.75	14.7	2.25	8.8
Oullins.....	2.25	8.8			Grenoble.....	3.50	13.7	2.00	7.8
Paris.....	5.00	19.6	2.75	10.8	L u b r u -				
Rennes.....	2.75	10.8	1.35	5.3	guière.....	3.00	11.8	1.75	6.9
					Mazamet.....	3.20	12.5	2.30	9.0

## Beauty Products Industry

The wage rates per hour paid in the beauty products industry in the Paris district in September, 1932, are shown in the following statement. The data relate to the manufacture of the products themselves as opposed to their containers of various materials. Ordinarily, only women are employed in the making of these products, for which no special skill or training is required.

Overtime in the industry is usually paid for at 25 per cent above the regular wage rate.

	Per hour
Under 15 years:	
Beginning.....	2.00 francs (7.8 cents).
After 6 months.....	2.25 francs (8.8 cents).
Over 15 and under 16 years:	
Beginning.....	2.25 francs (8.8 cents).
After 6 months.....	2.50 francs (9.8 cents).
Over 16 and under 17 years:	
Beginning.....	2.50 francs (9.8 cents).
After 6 months.....	2.75 francs (10.8 cents).
Over 17 and under 18 years:	
Beginning.....	2.75 francs (10.8 cents).
After 6 months.....	3.00 francs (11.8 cents).
Over 18 years:	
Beginning.....	3.00 francs (11.8 cents).
After 1 year.....	3.15 francs (12.3 cents).
After 5 years.....	3.25 francs (12.7 cents).
Table heads ( <i>premières de table</i> ).....	3.50 francs (13.7 cents).
Carriers of materials ( <i>manutentionnaires</i> ).....	3.40 francs (13.3 cents).

## Glove Industry

The average monthly wages paid in the glove industry of the Lyon district in September, 1932, are shown in the following statement. The rates include cash payments of all kinds. Lodging is not furnished.



	Per month
Parers, male ( <i>mégisseurs</i> )	650 francs (\$25.48).
Skin dyers ( <i>teinturiers</i> )	850 francs (\$33.32).
Skin stakers ( <i>palissonneurs</i> )	850 francs (\$33.32).
Glove cutters ( <i>coupeurs</i> )	950 francs (\$37.24).
Glove dressers ( <i>dresseurs</i> )	750 francs (\$29.40).
Seamstresses ( <i>couturières</i> )	375 francs (\$14.70).
Factory employees, male ( <i>employés de fabrication</i> )	1,050 francs (\$41.16).
Factory employees, female ( <i>employées de fabrication</i> )	675 francs (\$26.46).
Warehouse employees, female ( <i>employées de magasin</i> )	575 francs (\$22.54).

#### Beet Sugar Industry

In the beet-sugar industry in 1931, men received an average daily wage of 31.83 francs (\$1.25); women, 18.29 francs (71.7 cents); and children, 17.05 francs (66.8 cents).

#### Glass Industry

Ordinary workers (male and female) making watch crystals, eye glasses, and ordinary glasses in the Strassburg district earn monthly, by piecework, from 400 to 700 francs (\$15.68 to \$27.44), while specialists, such as engravers, painters, etc., earn from 900 to 1,000 francs \$35.28 to \$39.20). Only about 10 per cent of all the workmen are specialists. The workers coming from a distance—about one-third of the total—have free apartments, while those living near by pay rent.

In the window-glass industry in the Saar region the wages range from 3.78 to 5 francs (14.8 to 19.6 cents) per hour and in glass-bottle manufacture in the same region the range is from 3.64 to 8.33 francs (14.3 to 32.7 cents) per hour. A family allowance of 25 francs (98 cents) a month is paid to wives of workers and 12.50 francs (49 cents) for each child.

#### Chemical Industry

In the soap and candle industry in the vicinity of Strassburg men are paid an average of 3 francs (11.8 cents) per hour and women from 2 to 2.25 francs (7.8 to 8.8 cents) per hour.

A family allowance of 2 francs (7.8 cents) a day is paid for each child. A special indemnity of 30 to 35 francs (\$1.18 to \$1.37) a month is paid for rent. Social insurance charges are the same as in other industries.

#### Paper Industry

The wages of men in paper mills in the Strassburg district average from 3 to 3.80 francs (11.8 to 14.9 cents) per hour and those of women from 2.25 to 2.50 francs (8.8 to 9.8 cents) per hour.

The family allowance amounts to 2 francs (7.8 cents) a day for each child. No special indemnity is paid for rent.

#### Flour Mills

Flour mills in the Strassburg district work three shifts of 8 hours daily and also Sundays and holidays.

The wages of foremen average 4.20 francs (16.5 cents) per hour and those of ordinary workers from 3.20 to 3.80 francs (12.5 to 14.9 cents) according to the length of time employed. No extra pay is given for night and Sunday work.

The family allowances range from 1 franc (3.9 cents) per day for 1 child to 6 francs (23.5 cents) for 4 children, with an additional 2 francs (7.8 cents) for each child above this number.

## Wages in the Mining Industry

## Coal Mining

BELOW are given wage data as of September, 1932, in four mining regions.

*Calais region.*—Approximately 40 per cent of the entire personnel (80 per cent of the underground workers) are on piece work, while the remainder are on an 8-hour shift basis.

The piecework men are paid on the amount of coal extracted by them from the veins. They usually work in groups of from 5 to 50, under the charge of a foreman, who is paid separately by, and largely represents the interests of, the mine owners. The earnings of the gangs are calculated at the end of a 15-day working period on the number of "berlines" (i. e., small wagonnets with a capacity of 500 kilos or 1,102 pounds) of coal produced. The rate per "berline" varies according to the obstacles and difficulties encountered in any particular vein, and is determined by the foreman. In cases of disagreement between the foreman and the men as to the rate, a mine engineer is called in for a decision. The rate varies according to the run of the vein, and during a working period, or even during a shift, the price allowed may be changed several times.

The lowest rate thus far paid per berline is said to have been 4 francs (15.7 cts) and the highest, 10 francs (39.2 cents). The total earnings of the pieceworkers are divided among the members of the gang at the end of each "quinzaine," or 15-day period, each man receiving a share calculated on his grading as a mine worker. For this purpose, four gradings have been instituted, viz, grades 7, 8, 9, and 10. The grade 10 men are the most proficient and ordinarily the highest paid men, while grades 9 to 7 are usually slightly inferior workmen and juniors qualifying for the higher paid ratings. Approximately 30 per cent of the underground workers are grade 10 men.

Following is an example of the way the earnings are divided: A gang of 25 men, comprising 9 grade 10 hewers; 8 grade 9 hewers; 5 grade 8 hewers; and 3 grade 7 hewers, extract, say, 200 berlines of coal in a shift, each berline being assessed by the foreman at the rate of 5 francs (19.6 cents). The total earnings of the gang for the shift would be 1,000 francs (\$39.20), i. e., 200 berlines at 5 francs (19.6 cents). The grade 10 man's ratio share is 100; that of the grade 9 man, 95; that of the grade 8 man, 90, and that of the grade 7 man, 85. Thus, for this particular example, the total sum earned would be divided into 2365ths ( $9 \times 100$ , plus  $8 \times 95$ , plus  $5 \times 90$ , plus  $3 \times 85$ ). The grade 10 men would receive  $100/2365$  or 42.30 francs (\$1.65) each; the grade 9 men,  $95/2365$  or 40.19 francs (\$1.58) each; the grade 8 men  $90/2365$  or 38.07 francs (\$1.49) each, and the grade 7 men,  $85/2365$  or 35.95 francs (\$1.41) each.

The agreement between the mine owners and the workers, however, as now modified, stipulates that the average daily wage, constituting the "basic salary" of a vein worker, according to grade, shall be as follows plus a bonus of 10 per cent:

Grade 10.....	35.00 francs (\$1.37), plus 10 per cent, or 38.50 francs (\$1.51).
Grade 9.....	32.47 francs (\$1.27), plus 10 per cent, or 35.72 francs (\$1.40).
Grade 8.....	29.91 francs (\$1.17), plus 10 per cent, or 32.90 francs (\$1.29).
Grade 7.....	28.00 francs (\$1.10), plus 10 per cent, or 30.80 francs (\$1.21).

These basic salaries, together with a changeable bonus, have been in operation since November 6, 1928, when the agreement went into effect. The bonus, however, which was originally fixed at 10 per cent, has undergone various changes. It was raised to 17 per cent on April 16, 1929, and to 25 per cent effective October 1, 1929. It was reduced to 21 per cent, effective April 1, 1931; to 19 per cent, effective May 16, 1931; to 13 per cent, effective February 1, 1932; and finally to 10 per cent, effective April 1, 1932. The wages given above are average wages, and the actual amounts paid are about 1 to 2 francs (3.9 to 7.8 cents) in excess thereof. The agreement further stipulates, however, that the actual amount paid shall in no case be less than 94 per cent of the average wage. If, during the course of a wage period of 15 days, it is seen by the foreman that his group will not, by the work they are turning out, earn the stipulated sum, he either advises the men to make a greater production effort, or, if he realizes this is not possible, he increases the sum to be allowed per berline. Long experience enables the foreman, as well as the men themselves, to estimate just what amount should be allowed per berline from the outset.

For workers paid by the day, except boys (*galibots*), there is no real agreement wage, although the conventional 10 per cent bonus applies to this class of worker as well as to the piecework miner. Laborers, whether for underground or surface work, other than recognized pieceworkers, are engaged at a rate based upon what they merit and the work to be done. There are more or less recognized extremes, however, established for the various classes of these workers, according to sex and age. A starting wage, fixed at the time of hiring, is increased, as indicated, by the conventional bonus, and this bonus applies to all subsequent revisions of the initial wage. The daily wage for boys (*galibots*), beginning at the age of 13, is increased by 0.70 franc (2.7 cents), for every increase of six months in age, up to 15½ years, as follows:

13 years...	13.20 francs (51.7 cents), plus 10 per cent, or 14.52 francs (56.9 cents)
13½ years...	13.90 francs (54.5 cents), plus 10 per cent, or 15.29 francs (59.9 cents)
14 years...	14.60 francs (57.2 cents), plus 10 per cent, or 16.06 francs (63.0 cents)
14½ years...	15.30 francs (60.0 cents), plus 10 per cent, or 16.83 francs (66.0 cents)
15 years...	16.00 francs (62.7 cents), plus 10 per cent, or 17.60 francs (69.0 cents)
15½ years...	16.70 francs (65.5 cents), plus 10 per cent, or 18.37 francs (72.0 cents)

From 15½ years to 18 years and above, the amount of the increase per 6 months of age is as follows:

16 years.....	20.57 francs (80.6 cents), plus 10 per cent, or 22.63 francs (88.7 cents).
16½ years.....	21.55 francs (84.5 cents), plus 10 per cent, or 23.70 francs (92.9 cents).
17 years.....	22.53 francs (88.3 cents), plus 10 per cent, or 24.78 francs (97.1 cents).
17½ years.....	23.54 francs (92.3 cents), plus 10 per cent, or 25.89 francs (101.5 cents).
18 years and more.....	26.34 francs (103.3 cents), plus 10 per cent, or 28.97 francs (113.6 cents).

While, as indicated, there is no definite or conventional wage schedule for day workers, other than boys, as shown above, investigation reveals that they received in September, 1932, the following wages, per shift of 8 hours, including the conventional bonus of 10 per cent.

TABLE 6.—AVERAGE DAILY WAGES OF DAY WORKERS IN COAL MINES IN THE CALAIS REGION, SEPTEMBER, 1932

[Conversions into United States currency on basis of franc at par =3.92 cents; exchange value of franc has been substantially at par]

Class of workers, and occupations	Average daily wages	
	French currency	United States currency
Underground workers ( <i>ouvriers du fond</i> ):	<i>Francs</i>	
Pickmen ( <i>picquers, ouvriers d'about</i> ).....	38.50-40.14	\$1.51-\$1.59
Trimmers ( <i>raucyeurs</i> ).....	32.08-35.54	1.26-1.39
Timbermen ( <i>raccommodeurs</i> ).....	28.56-34.48	1.12-1.35
Fillers-in, truckmen and laborers ( <i>remblayeurs, herscheurs et manoeuvres</i> ), over 21 years of age.....	27.29-29.54	1.07-1.16
Surface workers ( <i>ouvriers du jour</i> ):		
Machinists and machinists' helpers ( <i>machinistes et aide-machinistes</i> ).....	26.58-42.16	1.04-1.65
Firemen ( <i>chauffeurs</i> ).....	25.05-31.01	.98-1.22
Shaftsmen ( <i>moulineurs</i> ).....	24.66-31.26	.97-1.23
Laborers ( <i>manoeuvres</i> ) over 21 years of age.....	24.66-26.59	.97-1.04
Women and girls ( <i>femmes et filles</i> ).....	9.66-15.04	.38-.59

In addition to the wages, there is a family allowance for heads of families amounting to 1 franc (3.9 cents) per day for the first child, 1.50 francs (5.9 cents) per day for the second child, and 2 francs (7.8 cents) per day for the third and each subsequent child up to the age of 13 years. A worker having 5 children under 13 years of age, for instance, would receive a family allowance of 8.50 francs (33.3 cents) per day.

Workers who are heads of families are housed free, except for a nominal upkeep charge ranging from 27 to 78 cents per month. Single men are not usually furnished quarters. Free water is supplied, together with approximately 7 metric tons of coal per annum to each household.

All workers receive free medical treatment, medicines, and appliances, as well as payment during illness, ranging from 4 to 10 francs (15.7 to 39.2 cents) per day, through locally organized societies under State control, operated especially in connection with the mining industry and independent of the French national social insurance scheme. All workers, through payments to the Miners' Pensions Fund (*Caisse Autonome de Retraite des Ouvriers Mineurs*), operated nationally, qualify for old-age pensions up to 5,000 francs (\$196) annually, at the age of 55, after 30 years' service, and proportionally for shorter periods of service. In connection with both sick benefit and pension insurance, the employer makes a contribution equal to that of the worker, while the State makes occasional grants to the sick benefit societies amounting to what the State would ordinarily contribute if the mine workers came within the general French social insurance régime (approximately 20 francs (78.4 cents) per worker). Workers also qualify, through compulsory contributions to a fund recently constituted for the purpose, for free coal allowances on retirements under the pension scheme, as provided by the law of July 8, 1932. The employers also contribute to this fund an amount equal to the contributions of the workers.

The deductions from the miners' wages on account of the three types of insurance amount to 5.5 per cent of their earnings for the pension fund; not more than 1.75 per cent (1.45 per cent in 1931) of

their earnings, nor more than 180 francs (\$7.06) per year for the sick fund; and 0.15 per cent of their earnings for the fund for free fuel for pensioned miners. As indicated, the mining companies contribute an equal amount to these three funds for each worker.

*Saar region.*—The statement below shows the average wages in the Saar coal mines:

Underground workers:	
Pickmen.....	<sup>4</sup> 38.70 francs (\$1.52).
Other underground workers:	
Group 1.....	36.12 francs (\$1.42).
Group 2.....	34.18 francs (\$1.34).
Group 3.....	32.25 francs (\$1.26).
Surface workers:	
Group 1.....	<sup>5</sup> 34.18 francs (\$1.34).
Group 2.....	<sup>5</sup> 32.25 francs (\$1.26).
Group 3.....	<sup>5</sup> 30.90 francs (\$1.21).

The foregoing wage scale went into effect on May 31, 1931, under a contract between the Direction of Mines and the four syndicates. Proposals were made for reduction of wages in 1932, but the Minister of Public Works decided in September, 1932, to postpone the reduction of wages to a later date.

Deductions from wages are made for social insurance, for the wage tax, and for fines. For social insurance of all kinds the deductions amount to 98 francs per month. Miners taken by motor busses must pay their own fare. Those living at a distance, returning only weekly to their families, either hire sleeping accommodations in private quarters or pay a reduced sum for accommodations in the dormitories maintained by the Direction of Mines. The family allowance amounts to an average of 1.50 francs (5.9 cents) per day for each member of the family not working.

*Lyon region.*—Miners are paid for the most part on a bonus system, comprising a minimum with subsequent payments for larger output. These conditions vary in different mines and under different conditions. In the most important mines of the Saône-et-Loire, the average daily wages for the second quarter of 1932 were as follows:

	Per day <sup>6</sup>
Underground workers ( <i>ouvriers de fond</i> ).....	38.80 francs (\$1.52).
Surface workers ( <i>ouvriers de jour</i> ).....	28.10 francs (\$1.10).
Drillers ( <i>picqueurs</i> ).....	43.50 francs (\$1.71).

#### Iron Mines

In the iron mines of the Strassburg district there is a family allowance for each working-day of 1 franc (3.9 cents) for the wife, 1.25 francs (4.9 cents) for the first child, 1.50 francs (5.9 cents) for the second child and 2 francs (7.8 cents) for each succeeding child. About 51 per cent of the workers occupy lodgings at reduced rentals and receive coal at special rates. An average of 1.74 francs (6.8 cents) per working-day is charged each worker for social insurance, the employer paying 2.09 francs (8.2 cents) as his contribution.

The daily rates paid in the iron mines of the Strassburg region in September, 1932, are shown in the following statement.

<sup>4</sup> Average per 6-hour day; minimum, 36.12 francs (\$1.42).

<sup>5</sup> Per 8-hour day.

<sup>6</sup> Includes family allowances and all other cash payments of every nature. Does not include material advantages which are considerable, as coal is usually supplied either free or at a nominal figure and housing accommodation is furnished in much the same way.



	Per day
Pickmen ( <i>picqueurs</i> ).....	<sup>7</sup> 44. 68 francs (\$1.75).
Other underground workers ( <i>autres ouvriers de fond</i> ).....	36. 96-41. 95 francs (\$1.45-\$1.64).
Surface workers ( <i>ouvriers du jour</i> ).....	27. 52 francs (\$1.08).
Average for all workers.....	34. 87 francs (\$1.37).

## Potash Mines

The statement following shows the wage rates paid in the potash mines of the Strassburg region in September, 1932:

	Per day
Pickmen ( <i>picqueurs</i> ).....	<sup>8</sup> 41. 35 francs (\$1.62).
Other underground workers ( <i>autres ouvriers de fond</i> ).....	35. 35-37.44 francs (\$1.39-\$1.47).
Surface workers ( <i>ouvriers du jour</i> ).....	30. 05 francs (\$1.18).
Average for all workers.....	34. 00 francs (\$1.33).

Family allowances are also paid, the rate per working-day being as follows:

For 1 child.....	1.35 francs (5.3 cents).
For 2 children.....	3.00 francs (11.8 cents).
For 3 children.....	5.05 francs (19.8 cents).
For 4 children.....	7.50 francs (29.4 cents).
For 5 children.....	10.35 francs (40.6 cents).
For 6 children.....	13.60 francs (53.3 cents).
For 7 children.....	17.25 francs (67.6 cents).
For 8 children.....	21.30 francs (83.5 cents).
For 9 children.....	23.75 francs (93.1 cents).

Social insurance is compulsory at the same rates as in the iron mines.

Excellent lodgings in cottages are furnished families at very cheap rates. Single men also get reduced prices.

## Wages in Oil Production

THE average daily wages in the production of oil in the Strassburg district are as follows:

	Per day
Pickmen ( <i>picqueurs</i> ).....	<sup>8</sup> 36.19 francs (\$1.42).
Other underground workers ( <i>autres ouvriers de fond</i> ).....	27.48 francs (\$1.08).
Surface workers ( <i>ouvriers de jour</i> ).....	24.14 francs (\$0.95).
Average for all workers.....	26.13 francs (\$1.02).

The family allowance amounts to 2 francs (7.8 cents) for each child. Social insurance is compulsory and costs about the same as in other mines through company insurance, instead of State, which is permitted under the law regulating this problem.

## Wages in Agriculture

THE wages of agricultural workers are reported every two years by the prefects in the different Departments. As the reports for 1932 are not yet available the average wages paid in October, 1930, are shown in the following table:

<sup>7</sup> For 8 hours per day from mouth to pit and return.

<sup>8</sup> Per 6-hour day.



TABLE 7.—AVERAGE MAXIMUM AND MINIMUM DAILY WAGES OF DIFFERENT CLASSES OF AGRICULTURAL WORKERS IN THE FRENCH DEPARTMENTS IN OCTOBER, 1930

[Conversions into United States currency on basis of franc at par=3.92 cents. Exchange value of franc has been substantially at par]

Sex and occupation	Average wages in the Departments				Average for entire country	
	Maximum		Minimum		French currency	United States currency
	French currency	United States currency	French currency	United States currency		
Males:	<i>Francs</i>		<i>Francs</i>		<i>Francs</i>	
Laborers.....	40.00	\$1.57	14.95	\$0.59	22.77	\$0.89
Farm hands.....	35.00	1.37	12.85	.50	21.11	.83
Teamsters.....	37.50	1.47	16.00	.63	24.04	.94
Females:						
Laborers.....	25.00	.98	9.00	.35	15.57	.61
Farm servants.....	24.25	.95	8.00	.31	14.84	.58

These figures include all payments in kind. Lodging is calculated at 250 to 300 francs (\$9.80 to \$11.76) per year for men and 225 to 250 francs (\$8.82 to \$9.80) for women, and food at 12 to 15 francs (47.0 to 58.8 cents) per day for men and 8 to 10 francs (31.4 to 39.2 cents) for women. In view of depressed conditions it is probable that present-day farm wages are substantially lower than the above.

The wages of agricultural workers were fixed in Bouches-du-Rhone by a decree of the prefect, effective July 1, 1932. These rates were mandatory only for this department but it is said they were generally applied throughout the Marseille consular district. Wage contracts in agricultural work in this district are made only for work by the day or the year.

The average daily and yearly wages of agricultural workers and the average cost of payments in kind in this district are shown in the following table:

TABLE 8.—AVERAGE DAILY AND YEARLY WAGES OF DIFFERENT CLASSES OF AGRICULTURAL WORKERS IN THE DEPARTMENT OF BOUCHES-DU-RHONE, FRANCE, JULY 1, 1932

[Conversions into United States currency on basis of franc at par = 3.92 cents. Exchange value of franc has been substantially at par]

Sex and occupation	Average wages				Payments in kind			
	Per day		Per year <sup>1</sup>		Lodging		Food	
	French currency	United States currency	French currency	United States currency	French currency	United States currency	French currency	United States currency
	<i>Francs</i>		<i>Francs</i>		<i>Francs</i>		<i>Francs</i>	
Day laborers, male.....	28.0	\$1.10	7,840	\$307.33	250	\$9.80	11	\$0.43
Day laborers, female.....	15.0	.59	4,200	164.64	200	7.84	8	.31
Farm hands, male.....	24.2	.95	7,250	284.20	300	11.76	11	.43
Farm hands, female.....	13.0	.51	3,900	152.88	240	9.41	9	.35
Cart drivers, male.....	27.0	1.06	8,100	317.52	270	10.58	11	.43
Shepherds, male.....	27.4	1.07	10,000	392.00	270	10.58	12	-----
Woodcutters, male.....	35.0	1.37	10,500	411.60	300	11.76	14	-----
Woodcutters, female.....	20.0	.78	3,600	141.12	-----	-----	-----	-----
Gardeners.....	27.0	1.06	8,100	317.52	300	11.76	12	-----
Wine-cellar foremen.....	40.0	1.57	12,000	470.40	320	12.54	12	-----
Farm foremen.....	34.0	1.33	10,800	423.36	320	12.54	12	-----
Farm managers.....	47.2	1.85	17,000	666.40	-----	-----	-----	-----
Wine-cellar employees.....	46.7	1.83	14,000	548.80	600	23.52	-----	-----
Common laborers.....	28.0	1.10	7,840	307.33	-----	-----	-----	-----

<sup>1</sup> Including payment in kind.

The Departments of Dordogne, Correze, Charente, and Charente-Inferieure produce walnuts and a number of other food products which are exported via Bordeaux to various foreign countries. The Department of the Gironde is the principal department producing wine in the Bordeaux consular district. The yearly wage scale for farm labor in the above-mentioned departments is as follows:

Men:	
Gironde.....	6,000 francs (\$235.20).
Dordogne.....	4,200 francs (\$164.64).
Correze.....	5,000 francs (\$196.00).
Charente.....	5,200 francs (\$203.84).
Charente-Inferieure.....	6,500 francs (\$254.80).
Women:	
Gironde.....	3,000 francs (\$117.60).
Dordogne.....	2,400 francs (\$94.08).
Correze.....	3,600 francs (\$141.12).
Charente.....	3,000 francs (\$117.60).
Charente-Inferieure.....	4,000 francs (\$156.80).

In some instances the farm hands are provided with a house and garden, firewood, and two or three barrels of wine per year, and consequently the yearly wage scale is correspondingly lower, amounting to 400 to 500 francs (\$15.68 to \$19.60) per month for man and wife.

Grape cutters receive from 12 to 14 francs (47.0 to 54.9 cents) per day, with board and lodging furnished, and grape carriers receive 15 to 18 francs (58.8 cents to 70.6 cents) per day, board and lodging furnished.

In the Departments of Dordogne and Correze an average of 14 francs (54.9 cents) net per day is paid to women and girls for cracking walnuts. In Bordeaux women are paid 12 francs (47.0 cents) per kilogram of shelled walnuts, which is equivalent to 12 to 24 francs (47.0 to 94.0 cents) per day, depending on the quality and quantity of the nuts cracked. Women working by the day are paid 15 to 18 francs (58.8 to 70.6 cents) and men receive 25 to 30 francs (\$0.98 to \$1.18) per working-day of eight hours.

#### Wages in Naval Stores and Lumber Industries

THE wage scale for labor in the Bordeaux district in the production of naval stores, mine props, and railway ties, is 5,200 francs (\$203.84) per annum for men and 3,400 francs (\$133.28) for women. The wage scale in sawmills and lumber yards is as follows, being unchanged from the preceding year:

Per hour:	
Unskilled labor.....	3.75 francs (14.7 cents).
Skilled labor.....	5.00 francs (19.6 cents).
Per day:	
Unskilled labor.....	30.00 francs (\$1.18).
Skilled labor.....	45.00 francs (\$1.76).

This is the scale for an 8-hour day, with double pay for overtime. The wages are net, except for a social-insurance contribution of 1.50 francs (5.9 cents) per man per day. These workers have no family allowances and no free housing. Boys from 16 to 18 years of age receive from 15 to 25 francs (58.8 to 98.0 cents) per day.

Dockyard workers are paid 37 francs (\$1.45) per 8-hour day for loading or unloading general merchandise and 39 francs (\$1.53) per day for coal.

## Wages in Norway in 1932<sup>1</sup>

**N**ORWEGIAN industries are still operating on the basis of an 8-hour day, with a maximum of 48 working hours per week. The working hours may be reduced in certain industries, but under the law the maximum of 48 hours per week can not be exceeded.

Family allowances and payments in kind no longer exist in Norway. Some of the large paper mills, power plants, and other industries, however, furnish their employees living quarters at nominal rentals. In most industries paid holidays are fixed in collective agreements.

Under the present laws there are no special wage taxes, but all workers are subject to the general income tax.

Compulsory insurance against sickness exists in all branches of industry, and is applicable to all workers and employees with an income not exceeding a certain basic level, which at present is 4,500 kroner<sup>2</sup> per annum. Under the law now in force, the employee contributes six-tenths of the insurance cost, the employer one-tenth, the municipality one-tenth, and the Federal Government two-tenths. The worker's share is generally deducted from his wages.

In 1930 practically all wage agreements were extended without any changes in the existing rates, but reductions occurred in nearly all wage schedules in 1931. Only the match factories, the canning factories, the stone industry, and the margarine factories in Oslo and Lysaker extended their agreements without noteworthy changes. In 1930 the municipality of Oslo entered into a two years' agreement which was not subject to adjustment in accordance with the index number of cost of living. A two years' wage agreement was also made for the electro-chemical industry, with the option of an index adjustment in August, 1931, but this was postponed until 1932.

The wage reductions which were made at the time of the joint settlement after the widespread labor conflict that occurred in Norway in the period from April to September, 1931, vary from 6 to 8 per cent, although for certain trades slightly smaller reductions were made and for one or two trades somewhat larger reductions. From the third quarter of 1930 to the third quarter of 1931 the cost-of-living index dropped from 161 to 151, or 6.2 per cent. It would appear, therefore, that the cuts corresponded more or less to the price decline.

The trades which were not involved in the labor conflict revised their agreements in the fall of 1931, and the reductions made were somewhat smaller than for the trades included in the joint settlement. In October, 1931, a new agreement was drawn up for the bakers and pastry makers, providing for a reduction of 3 per cent; and in December, 1931, one for teamsters and truck drivers, reducing wages 3 to 4 per cent.

There are given below a number of tables showing the wage scales in the leading industries in 1931. Because of the wide fluctuations

<sup>1</sup> This report was prepared, late in 1932, by Thomas H. Bevan, American consul general, Oslo.

<sup>2</sup> Krone at par=26.8 cents; average exchange rate in December, 1932=16.9 cents.

in the exchange at the present time, owing to the fact that Norway has gone off the gold standard, conversions into United States currency are made at par and also at the average exchange rate for the month of December, 1932.

The survey was made in the latter part of 1932 and, although in some cases the wage rates secured were as of an earlier date, so far as could be ascertained they were still in effect at the time the study was made.

### Wages in Certain Trades

TABLES 1 and 2 show average wage rates in specified trades in Norway and Oslo in 1931. In most instances the rates given are for the period after negotiation of new wage agreements in the fall of 1931.

TABLE 1.—AVERAGE HOURLY AND DAILY WAGE RATES IN SPECIFIED TRADES IN NORWAY AND OSLO, 1931

[Conversions into United States currency on basis of krone at par=26.8 cents; at average exchange rate for December, 1932=16.9 cents]

Trade, industry, and city	Average rate of wages					
	Per hour			Per day		
	Norwegian currency	United States currency		Norwegian currency	United States currency	
		At par	At exchange rate		At par	At exchange rate
	Kroner	Cents	Cents	Kroner		
Carpenters.....	1.42	38.1	24.0			
Bricklayers.....	1.53	41.0	25.9			
Building laborers and hod carriers.....	1.38	37.0	23.3			
Painters.....	1.47	39.4	24.8			
Cement workers.....	1.35	36.2	22.8			
Laundry workers, female.....				4.95	\$1.33	\$0.84
Paper industry:						
Cellulose-factory workers.....				19.66	12.59	11.63
Paper-mill workers.....				19.22	12.47	11.56
Pulp-mill workers.....				19.02	12.42	11.52
Lumber industry:						
Sawmill workers, inside.....				19.95	12.67	11.68
Sawmill laborers, inside.....				19.86	12.64	11.67
Millyard workers.....				19.23	12.47	11.56
Metal industry:						
Skilled workers.....	11.37	136.7	123.2			
Laborers.....	11.15	130.8	119.4			
Mining industry:						
Underground and surface workers.....	11.18	131.6	119.9			
<i>City of Oslo</i>						
Carpenters.....	1.44	38.6	24.3			
Bricklayers.....	1.50	40.2	25.4			
Building laborers and hod carriers.....	1.37	36.7	23.2			
Painters.....	1.50	40.2	25.4			
Metal industry:						
Skilled workers.....	1.20	32.2	20.3			
Unskilled workers.....	1.00	26.8	16.9			
Brewery industry, female workers.....	.96	25.7	16.2			
Tobacco industry:						
Male workers.....				9.15-10.20	2.45-2.73	1.55-1.72
Female workers.....				5.00- 5.60	1.34-1.50	.85-.95
Cement and other foundation workers.....	1.37	36.7	23.2			
Garden and greenhouse workers:						
Male.....	1.00	26.8	16.9			
Female.....				5.60- 7.20	1.50-1.93	.95-1.22
Laundry workers, female.....				5.00- 6.00	1.34-1.61	.85-1.01

<sup>1</sup> Average earnings, second half of 1931.

TABLE 2.—AVERAGE WEEKLY RATES IN SPECIFIED TRADES IN NORWAY AND OSLO, 1931

[Conversions into United States currency on basis of krone at par=26.8 cents; at average exchange rate for December, 1932=16.9 cents]

Trade, industry, and city	Average rate of wages per week		
	Norwegian currency	United States currency	
		At par	At exchange rate
	<i>Kroner</i>		
Bakers.....	69.00	\$18. 49	\$11. 66
Shoemakers, hand.....	55.00	14. 74	9. 30
Tailors.....	61.00	16. 35	10. 31
Teamsters.....	55.00	14. 74	9. 30
Truck drivers.....	61.00	16. 35	10. 31
<i>City of Oslo</i>			
Bakers.....	72.00	19. 30	12. 17
Shoemakers.....	60.00-65.00	16.08-17. 42	10.14-10. 99
Tailors.....	66.00	17. 69	11. 15
Barbers.....	70.00	18. 76	11. 83
Brewery industry, male workers.....	60.50-70.84	16.21-18. 99	10.23-11. 97
Longshoremen.....	60.00	16. 08	10. 14
Teamsters.....	57.50-69.00	15.41-18. 49	9.72-11. 66
Seamstresses, factory.....	25.00-30.00	6.70- 8.04	4.23- 5.07

## Wages in Agriculture

IN TABLE 3 average earnings of agricultural workers in the 1931-32 season are given for temporary as well as permanent employees.

TABLE 3.—AVERAGE EARNINGS OF AGRICULTURAL WORKERS IN NORWAY, 1931-32  
[Conversions into United States currency on basis of krone at par=26.8 cents; at average exchange rate for December, 1932=16.9 cents]

Occupation and season	Average earnings per day					
	Males			Females		
	Norwegian currency	United States currency		Norwegian currency	United States currency	
		At par	At exchange rate		At par	At exchange rate
Temporary employees—board and lodging provided:						
Farm laborers—	<i>Kroner</i>	<i>Cents</i>	<i>Cents</i>	<i>Kroner</i>	<i>Cents</i>	<i>Cents</i>
Plowing and sowing season.....	2.97	79.6	50.2	1.92	51.5	32.4
Mowing season.....	3.38	90.6	57.1	2.13	57.1	36.0
Harvest season.....	2.94	78.8	49.7	2.03	54.4	34.3
Other seasons, summer.....	2.70	72.4	45.6	1.74	46.6	29.4
Other seasons, winter.....	2.30	61.6	38.9	1.53	41.0	25.9
Ditch diggers:						
Summer.....	3.41	91.4	57.6			
Winter.....	2.96	79.3	50.0			
Forest workers:						
Summer.....	3.13	83.9	52.9			
Winter.....	2.73	73.2	46.1			
Stonemasons—						
Summer.....	4.52	121.1	76.4			
Winter.....	3.87	103.7	65.4			
Carpenters:						
Summer.....	4.68	125.4	79.1			
Winter.....	3.98	106.7	67.3			
Temporary employees—board and lodging not provided:						
Farm laborers—						
Plowing and sowing season.....	4.34	116.3	73.3	2.93	78.5	49.5
Mowing season.....	4.72	126.5	79.8	3.15	84.4	53.2
Harvest season.....	4.35	116.6	73.5	3.02	80.9	51.0
Other seasons, summer.....	4.07	109.1	68.8	2.77	74.2	48.8
Other seasons, winter.....	3.57	95.7	60.3	2.50	67.0	42.3

TABLE 3.—AVERAGE EARNINGS OF AGRICULTURAL WORKERS IN NORWAY, 1931-32—Continued

Occupation and season	Average earnings per day					
	Males			Females		
	Norwegian currency	United States currency		Norwegian currency	United States currency	
		At par	At exchange rate		At par	At exchange rate
Temporary employees—board and lodging not provided—Continued.						
Ditch diggers:	<i>Kroner</i>	<i>Cents</i>	<i>Cents</i>	<i>Kroner</i>	<i>Cents</i>	<i>Cents</i>
Summer .....	4.73	126.8	79.9	-----	-----	-----
Winter .....	4.33	116.0	73.2	-----	-----	-----
Forest workers:						
Summer .....	4.54	121.7	76.7	-----	-----	-----
Winter .....	4.11	110.1	69.5	-----	-----	-----
Stonemasons—						
Summer .....	5.93	158.9	100.2	-----	-----	-----
Winter .....	5.32	142.6	89.9	-----	-----	-----
Carpenters:						
Summer .....	6.10	163.5	103.1	-----	-----	-----
Winter .....	5.49	147.1	92.8	-----	-----	-----
Average earnings per season						
Permanent employees—board and lodging provided:						
Farm hands—	<i>Kroner</i>			<i>Kroner</i>		
Full year .....	455	\$121.94	\$76.90	319	\$85.49	\$53.91
Summer half year .....	267	71.56	45.12	178	47.70	30.08
Winter half year .....	193	51.72	32.62	147	39.40	24.84
Stock tenders:						
Full year .....	608	162.94	102.75	435	116.58	73.52
Summer half year .....	309	82.81	52.22	225	60.30	38.03
Winter half year .....	301	80.67	50.87	216	57.89	36.50

Wages in Construction Work

HOURLY earnings of workers engaged in various kinds of construction work during 1931 appear in Table 4.

TABLE 4.—HOURLY EARNINGS OF CONSTRUCTION WORKERS, 1931, BY INDUSTRY AND KIND OF WORKERS

[Conversions into United States currency on basis of krone at par = 26.8 cents; at average exchange rate for December, 1932 = 16.9 cents]

Industry and kind of worker	Norwegian currency	United States currency	
		At par	At exchange rate
Railroads:	<i>Kroner</i>	<i>Cents</i>	<i>Cents</i>
Skilled workers .....	1.50	40.2	25.4
Laborers, piecework .....	1.56	41.8	26.4
Laborers, daywork .....	1.24	33.2	21.0
Telegraph service:			
Dayworkers .....	1.08	28.9	18.3
Highways: <sup>1</sup>			
Pieceworkers .....	1.08	28.9	18.3
Dayworkers .....	.95	25.5	16.1
Harbors:			
Laborers, paid by the month .....	1.18	31.6	19.9
Laborers, paid by the hour .....	.92	24.7	15.5

<sup>1</sup> Data are for fiscal year, 1930-31.



## Wages of Common Labor

TABLE 5 shows hourly wage rates of municipal day laborers in Oslo in 1931 and 1932. In every case the 1932 rate is lower than for the previous year.

TABLE 5.—HOURLY WAGE RATES OF MUNICIPAL DAY LABORERS IN OSLO, 1931 AND 1932, BY CLASS OF WORK

[Conversions into United States currency on basis of krone at par = 26.8 cents; at average exchange rate for December, 1932 = 16.9 cents]

Class of work	1931			1932		
	Norwegian currency	United States currency		Norwegian currency	United States currency	
		At par	At exchange rate		At par	At exchange rate
	<i>Kroner</i>	<i>Cents</i>	<i>Cents</i>	<i>Kroner</i>	<i>Cents</i>	<i>Cents</i>
Paving work.....	1.52	40.7	25.7	1.47	39.4	24.8
Street cleaning.....	1.39	37.3	23.5	1.34	35.9	22.6
Park department and cemeteries:						
Males.....	1.39	37.3	23.5	1.34	35.9	22.6
Females.....	.96	25.7	16.2	.93	24.9	15.7
Water and sewage department.....	1.39	37.3	23.5	1.34	35.9	22.6
Garbage department.....	1.58	42.3	26.7	1.53	41.0	25.9
Electrical works.....	1.39	37.3	23.5	1.34	35.9	22.6
Gas works:						
Inside workers.....	1.52	40.7	25.7	1.47	39.4	24.8
Laborers, diggers, etc.....	1.39	37.3	23.5	1.34	35.9	22.6
Harbor department.....	1.39	37.3	23.5	1.34	35.9	22.6
Stone crushing.....	1.39	37.3	23.5	1.34	35.9	22.6

## Wages of Seamen

THE monthly wages of seamen on Norwegian vessels in foreign trade are shown in Table 6. The statistics furnished are for June, 1931, since which time wages of sailors and firemen have been reduced 4 per cent and those of engineers 5 per cent.

TABLE 6.—MONTHLY WAGES OF SEAMEN ON NORWEGIAN VESSELS IN FOREIGN TRADE, JUNE, 1931,<sup>1</sup> BY OCCUPATION

[Conversions into United States currency on basis of krone at par = 26.8 cents; at average exchange rate for December, 1932 = 16.9 cents]

Occupation	European trade			Trans-Atlantic trade			Average all seaports, including Oslo <sup>2</sup>		
	Norwegian currency	United States currency		Norwegian currency	United States currency		Norwegian currency	United States currency	
		At par	At exchange rate		At par	At exchange rate		At par	At exchange rate
	<i>Kroner</i>			<i>Kroner</i>			<i>Kroner</i>		
Mates:									
First.....	320	\$85.76	\$54.08	430	\$115.24	\$72.67	318	\$85.22	\$53.74
Second.....	270	72.36	45.63	300	80.40	50.70	265	71.02	44.79
Third.....				220	58.96	37.18	223	59.76	37.69
Boatswains.....	167	44.76	28.22	167	44.76	28.22	167	44.76	28.22
Carpenters.....	167	44.76	28.22	167	44.76	28.22	168	45.02	28.39
Seamen:									
Able.....	150	40.20	25.35	150	40.20	25.35	149	39.93	25.18
Ordinary.....	80	21.44	13.52	80	21.44	13.52	80	21.44	13.52
Apprentice.....	57	15.28	9.63	57	15.28	9.63	56	15.01	9.46
Deck boys.....	38	10.18	6.42	38	10.18	6.42	38	10.18	6.42
Stewards.....	330	88.44	55.77	340	91.12	57.46	285	76.38	48.17
Cooks.....	225	60.30	38.03	240	64.32	40.56	191	51.19	32.28
Engineers:									
First.....	405	108.54	68.45	575	154.10	97.18	404	108.27	68.28
Second.....	335	89.78	56.62	415	111.22	70.14	317	84.96	53.57
Third.....	295	79.06	49.86	345	92.46	58.31	281	75.31	47.49
Donkey men.....	167	44.76	28.22	167	44.76	28.22	167	44.76	28.22
Firemen.....	155	41.54	26.20	155	41.54	26.20	155	41.54	26.20
Coal trimmers.....	87	23.32	14.70	87	23.32	14.70	87	23.32	14.70

<sup>1</sup> Reductions varying from 4 to 5 per cent were made in the fall of 1931.

<sup>2</sup> European trade principally but in a few instances special wages for the trans-Atlantic trade only are included.

## Wages in Tokyo, November, 1932

DAILY wages of Tokyo workers in November, 1932, in various occupations are shown in the following table, based on tabulations presented in the November, 1932, issue of the Monthly Report on Current Economic Conditions, published by the Tokyo Chamber of Commerce and Industry:

## DAILY WAGES IN TOKYO, NOVEMBER, 1932

[Conversions into United States currency on basis of yen at par = 50 cents and average exchange rate of yen for December, 1932 = 20.7 cents]

Occupation	Daily wage			Index numbers, (November, 1931 = 100.0)
	Japanese currency	United States currency		
		At par	At exchange rate	
	Yen			
Textile industry:				
Silk reelers, female.....	0.72	\$0.36	\$0.15	92.3
Cotton spinners, female.....	.85	.43	.18	89.5
Silk throwers, female.....	.88	.44	.18	97.8
Cotton weavers, machine, female.....	.78	.39	.16	100.0
Silk weavers, hand, female.....	1.41	.71	.29	115.6
Hosiery knitters, male.....	2.10	1.05	.43	93.3
Hosiery knitters, female.....	1.10	.55	.23	78.6
Metal industry:				
Lathe men.....	4.41	2.21	.91	139.1
Finishers.....	4.07	2.04	.84	136.1
Founders.....	3.32	1.66	.69	118.1
Blacksmiths.....	3.70	1.85	.77	148.0
Wooden-pattern makers.....	3.52	1.76	.73	107.0
Stone, glass and clay products:				
Cement makers.....	2.45	1.23	.51	98.4
Glass makers.....	2.88	1.44	.60	120.0
Potters.....	1.77	.89	.37	101.1
Tile makers (shape).....	1.40	.70	.29	100.0
Chemical industry:				
Matchmakers, male.....	1.15	.58	.24	100.0
Matchmakers, female.....	.65	.33	.13	100.0
Oil pressers.....	1.51	.76	.31	111.9
Makers of chemicals.....	2.15	1.08	.45	103.4
Paper industry:				
Makers of Japanese paper.....	1.50	.75	.31	100.0
Makers of printing paper.....	1.77	.89	.37	92.2
Leather industry: Leather makers.....	3.04	1.52	.63	107.0
Food industry:				
Flour millers.....	1.95	.98	.40	103.2
Sake-brewery workers.....	1.30	.65	.27	108.3
Soy-brewery workers.....	2.10	1.05	.43	100.0
Sugar-refinery workers.....	2.16	1.08	.45	90.4
Confectioners (Japanese cake).....	1.80	.90	.37	102.3
Canners.....	1.56	.78	.32	92.9
Wearing-apparel industry:				
Tailors (for European dress).....	2.00	1.00	.41	81.3
Shoemakers.....	2.32	1.16	.48	101.8
Clog makers.....	1.40	.70	.29	93.3
Building industry:				
Carpenters.....	2.02	1.01	.42	88.6
Plasterers.....	2.37	1.19	.49	93.7
Stonemasons.....	2.83	1.42	.59	96.6
Bricklayers.....	2.67	1.34	.55	95.4
Roofing-tile layers.....	2.65	1.33	.55	101.9
Painters.....	2.31	1.16	.48	100.0
Woodworking industry:				
Sawyers, machine.....	1.74	.87	.36	98.3
Joiners.....	1.85	.93	.38	94.9
Lacquers.....	1.85	.93	.38	90.2
Printing industry:				
Compositors.....	3.16	1.58	.65	98.1
Bookbinders.....	2.22	1.11	.46	95.3
Day laborers:				
Stevedores.....	2.40	1.20	.50	99.2
Day laborers, male.....	1.42	.71	.29	97.9
Day laborers, female.....	.84	.42	.17	110.5
Fishermen.....	1.86	.93	.39	108.1
Domestic service:				
Servants, male.....	.83	.42	.17	89.2
Servants, female.....	.77	.39	.16	88.5
Other industries:				
Rope makers.....	1.48	.74	.31	102.1
Mat makers (Tatami).....	2.33	1.17	.48	95.1

# TREND OF EMPLOYMENT

## Summary for January, 1933

**E**MPLOYMENT decreased 3.9 per cent in January, 1933, as compared with December, 1932, and pay-roll totals decreased 5 per cent. These figures are based on the pay rolls ending nearest the 15th of the month.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the pay rolls for one week, for both December, 1932, and January, 1933, together with the per cents of change in January are shown in the following tabulation:

SUMMARY OF EMPLOYMENT AND PAY ROLLS, DECEMBER, 1932, AND JANUARY, 1933

Industrial groups	Estab-lish-ments	Employment		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		December, 1932	January, 1933		December, 1932	January, 1933	
<b>Manufacturing</b> .....	17,762	2,626,482	2,557,837	1-2.9	\$44,755,487	\$42,657,894	1-5.0
<b>Coal mining</b> .....	1,398	258,766	244,832	-5.4	4,689,542	4,069,795	-13.2
Anthracite.....	160	85,284	71,822	-15.8	2,235,194	1,719,317	-23.1
Bituminous.....	1,238	173,482	173,010	-.3	2,454,348	2,350,478	-4.2
<b>Metalliferous mining</b> .....	279	22,928	22,364	-2.5	420,339	407,320	-3.1
<b>Quarrying and nonmetallic mining</b> .....	592	18,569	15,419	-17.0	263,049	216,072	-17.9
<b>Crude petroleum producing</b> .....	262	23,369	23,359	-( <sup>2</sup> )	657,650	630,931	-4.2
<b>Public utilities</b> .....	12,287	609,812	605,430	-.7	16,836,097	16,598,973	-1.4
Telephone and telegraph.....	8,274	266,950	266,129	-.3	7,016,009	6,847,078	-2.4
Power and light.....	3,508	210,045	208,066	-.9	6,142,081	6,131,669	-.2
Electric-railroad and motor-bus operation and maintenance.....	505	132,817	131,235	-1.2	3,678,007	3,620,226	-1.6
<b>Trade</b> .....	19,145	482,782	401,909	-16.8	9,703,704	8,523,540	-12.2
Wholesale.....	2,734	71,176	69,612	-2.2	1,916,619	1,889,697	-1.4
Retail.....	16,411	411,606	332,297	-19.3	7,787,085	6,633,843	-14.8
<b>Hotels</b> .....	2,402	129,972	130,945	+ .7	1,773,671	1,744,665	-1.6
<b>Canning and preserving</b> .....	829	29,910	30,251	+1.1	377,504	364,717	-3.4
<b>Laundries</b> .....	908	53,215	52,918	-.6	817,186	806,259	-1.3
<b>Dyeing and cleaning</b> .....	374	10,842	10,525	-2.9	179,016	172,454	-3.7
<b>Building construction</b> .....	10,144	67,117	63,673	-5.1	1,529,675	1,466,498	-4.1
<b>Banks, brokerage, insurance and real estate</b> .....	3,010	116,550	116,098	-.4	4,039,283	4,049,001	+ .2
<b>Total</b> .....	69,392	4,450,314	4,275,560	-3.9	86,042,203	81,707,219	-5.0

<sup>1</sup> Weighted per cent of change for the combined 89 manufacturing industries, wherein the proper allowance is made for the relative importance of the several industries so that the figures represent all establishments of the country in the 89 industries surveyed; the remaining per cents of change, including total, are unweighted.

<sup>2</sup> Less than one-tenth of 1 per cent.

<sup>3</sup> The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.

Data are not yet available concerning railroad employment for January, 1933. (See section "Class I steam railroads" for latest figures reported.)

Per capita weekly earnings in January, 1933, for each of the 17 industrial groups included in the bureau's monthly trend-of-employment survey, together with the per cents of change in January, 1933, as compared with December, 1932, and January, 1932, are given in the table following. These per capita weekly earnings must not be confused with full-time weekly rates of wages; they are per capita weekly earnings computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

PER CAPITA WEEKLY EARNINGS IN 17 INDUSTRIAL GROUPS IN JANUARY, 1933, AND COMPARISON WITH DECEMBER, 1932, AND JANUARY, 1932

Industrial group	Per capita weekly earnings in January, 1933	Per cent of change January, 1933, compared with—	
		December, 1932	January, 1932
Manufacturing.....	\$16.68	-2.2	-15.6
Coal mining:			
Anthracite.....	23.94	-8.7	2.0
Bituminous.....	13.59	-4.0	-11.2
Metalliferous mining.....	18.21	-7	-7.1
Quarrying and nonmetallic mining.....	14.01	-1.1	-16.5
Crude petroleum producing.....	26.97	-4.2	-17.6
Public utilities:			
Telephone and telegraph.....	25.73	-2.1	-10.4
Power and light.....	29.47	+8	-5.1
Electric-railroad and motor bus operation and maintenance.....	27.59	-4	-9.0
Trade:			
Wholesale.....	27.15	+8	-9.6
Retail.....	19.96	+5.4	-11.9 <sup>a</sup>
Hotels (cash payments only) <sup>1</sup> .....	13.32	-2.4	-15.0
Canning and preserving.....	12.06	-4.4	-20.0
Laundries.....	15.24	-8	-14.9
Dyeing and cleaning.....	16.39	-7	-20.3
Building construction.....	23.03	+1.1	( <sup>2</sup> )
Banks, brokerage, insurance, and real estate.....	34.88	+6	( <sup>2</sup> )
Total.....	18.60	<sup>3</sup> -1.4	<sup>3</sup> -13.0

<sup>1</sup> The additional value of board, room, and tips can not be computed.

<sup>2</sup> Data not available.

<sup>3</sup> Not including building construction or banks, etc.

### Employment in Selected Manufacturing Industries in January, 1933

Comparison of Employment and Pay-Roll Totals in January, 1933, with December, 1932, and January, 1932

**E**MPLOYMENT in manufacturing industries decreased 2.9 per cent in January, 1933, as compared with December, 1932, and pay-roll totals decreased 5 per cent over the month interval. Comparing January, 1933, with January, 1932, decreases of 12.7 per cent in employment and 26.3 per cent in pay rolls are shown over the 12-month period.

The per cents of change in employment and pay-roll totals in January, 1933, as compared with December, 1932, are based on returns made by 17,762 establishments in 89 of the principal manufacturing industries in the United States, having in January 2,557,837 employees, whose combined earnings in one week were \$42,657,894.

The index of employment in January, 1933, was 56.6, as compared with 58.3 in December, 1932, 59.4 in November, 1932, and 64.8 in

January, 1932; the pay-roll index in January, 1933, was 35.8 as compared with 37.7 in December, 1932, 38.6 in November, 1932, and 48.6 in January, 1932. The 12-month average for 1926 equals 100.

In Table 1, which follows, are shown the number of identical establishments reporting in both December, 1932, and January, 1933, in the 89 manufacturing industries, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest January 15, the amount of their weekly earnings in January, the per cents of change over the month and year intervals, and the indexes of employment and pay roll in January, 1933.

The monthly per cents of change for each of the 89 separate industries are computed by direct comparison of the total number of employees and of the amount of weekly pay roll reported in identical establishments for the two months considered. The per cents of change over the month interval in the several groups and in the total of the 89 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighting the index numbers of the several industries in the groups by the number of employees or wages paid in the industries. The per cents of change over the year interval in the separate industries, in the groups and in the totals, are computed from the index numbers of employment and pay-roll totals.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN JANUARY, 1933, WITH DECEMBER, 1932, AND JANUARY, 1932

Industry	Establishments reporting in both December, 1932, and January, 1933	Employment			Pay-roll totals			Index numbers, January, 1933, (average 1926=100)	
		Number on pay roll January, 1933	Per cent of change		Amount of pay roll (1 week) January, 1933	Per cent of change		Employment	Pay-roll totals
			December, 1932, to January, 1933	January, 1932, to January, 1933		December, 1932, to January, 1933	January, 1932, to January, 1933		
<b>Food and kindred products.</b>	<b>2,989</b>	<b>235,954</b>	<b>-5.4</b>	<b>-5.3</b>	<b>4,791,710</b>	<b>-4.3</b>	<b>-17.4</b>	<b>78.7</b>	<b>62.1</b>
Baking.....	962	61,981	-2.0	-8.3	1,365,629	-1.9	-18.5	77.3	63.4
Beverages.....	321	8,756	-5	-13.4	211,314	-2.5	-19.8	63.5	49.4
Butter.....	294	4,994	-5.6	-3.2	108,552	-3.5	-14.1	88.6	71.0
Confectionery.....	320	34,270	-11.7	+8	464,300	-15.3	-18.4	76.3	54.0
Flour.....	427	15,952	-7	-3.4	341,179	-3	-9.6	82.2	66.5
Ice cream.....	360	10,240	-9	-10.1	263,531	+2	-25.0	61.3	47.1
Slaughtering and meat packing.....	234	82,979	-2.0	-7.7	1,713,525	-1.5	-19.2	84.5	67.1
Sugar, beet.....	57	9,622	-43.1	+124.3	158,965	-40.4	+57.3	114.4	66.7
Sugar refining, cane.....	14	7,160	-3.9	-9.3	164,715	-8.2	-17.6	71.8	56.2
<b>Textiles and their products.</b>	<b>3,041</b>	<b>601,601</b>	<b>-2.4</b>	<b>-3.6</b>	<b>7,312,013</b>	<b>-5.8</b>	<b>-21.9</b>	<b>69.6</b>	<b>42.2</b>
Fabrics:									
Carpets and rugs.....	31	13,300	-2.3	-18.6	183,672	-12.9	-39.3	51.2	27.0
Cotton goods.....	669	229,251	-5	+2.6	2,316,371	-3.1	-12.3	74.8	48.4
Cotton small wares.....	111	8,843	-3.6	-10.4	123,971	-7.0	-29.3	76.0	50.8
Dyeing and finishing textiles.....	146	33,598	-9	-6.9	581,207	-1.5	-25.0	77.3	52.5
Knit goods.....	436	98,137	-6.9	-1.0	1,152,606	-18.4	-18.2	79.3	48.4
Silk and rayon goods.....	241	44,445	+1	-14.1	528,244	-7.0	-32.3	59.7	35.8
Woolen and worsted goods.....	250	56,054	-1	+6.1	870,786	-3.4	-12.3	71.4	49.9
Wearing apparel:									
Clothing, men's.....	359	53,676	-4.4	-6.8	675,502	+2.0	-27.9	62.1	31.3
Clothing, women's.....	420	24,479	-4	-11.0	387,026	-3.3	-30.5	63.6	34.8
Corsets and allied garments.....	31	5,447	-1.8	-4.7	73,551	-10.5	-20.3	96.6	68.6
Hats, fur-felt.....	34	4,841	-5	-6.1	86,220	-6.5	-8.3	64.9	38.8
Men's furnishings.....	68	6,927	-11.2	-1.1	67,581	-21.2	-31.4	61.7	32.1
Millinery.....	134	9,041	+8.4	-15.7	139,522	+12.8	-34.6	64.9	39.8
Shirts and collars.....	111	13,562	-16.6	-11.0	125,754	-27.1	-24.5	53.4	30.2

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN JANUARY, 1933, WITH DECEMBER, 1932, AND JANUARY, 1932—Continued

Industry	Estab-lish-ments reporting in both De-cem-ber, 1932, and January, 1933	Employment			Pay-roll totals			Index num-bers, Janu-ary, 1933, (average 1926=100)	
		Number on pay roll January, 1933	Per cent of change		Amount of pay roll (1 week) January, 1933	Per cent of change		Em-ploy-ment	Pay-roll totals
			De-cem-ber, 1932, to January, 1933	Janu-ary, 1932, to Janu-ary, 1933		De-cem-ber, 1932, to January, 1933	Janu-ary, 1932, to January, 1933		
<b>Iron and steel and their products, not including machinery</b>	<b>1,355</b>	<b>271,558</b>	<b>-4.7</b>	<b>-21.1</b>	<b>3,651,193</b>	<b>-6.6</b>	<b>-37.2</b>	<b>49.0</b>	<b>22.6</b>
Bolts, nuts, washers, and rivets.....	65	7,174	-2.6	-16.2	103,464	-8.4	-35.2	59.9	30.9
Cast-iron pipe.....	37	5,049	-6.7	-40.7	60,499	-11.5	-57.0	27.0	13.1
Cutlery (not including silver and plated cutlery), and edge tools.....	124	7,785	-5.8	-18.2	127,488	-10.3	-32.5	57.8	35.3
Forgings, iron and steel.....	60	4,938	-8	-21.3	76,137	-2.6	-35.4	52.9	27.0
Hardware.....	102	20,125	-3.1	-18.5	249,756	-10.3	-40.7	48.3	22.4
Iron and steel.....	208	166,759	-3.0	-19.0	2,119,812	-2.1	-35.0	50.6	21.4
Plumbers' supplies.....	64	4,793	-4.3	-37.5	59,566	-8.4	-55.4	44.1	19.3
Steam and hot water heating apparatus and steam fittings.....	93	11,938	-8.0	-29.0	188,270	-12.1	-37.9	31.3	16.7
Stoves.....	163	12,387	-23.8	-14.9	182,274	-28.2	-29.9	37.8	18.5
Structural and ornamental metalwork.....	188	12,206	-4.7	-35.2	173,579	-15.1	-54.1	38.1	18.5
Tin cans and other tinware.....	60	8,026	-4.8	-9.0	151,659	-6.4	-17.1	67.7	39.8
Tools (not including edge tools, machine tools, files, and saws).....	126	5,829	-2.8	-23.4	91,836	-5.0	-33.5	59.4	33.0
Wirework.....	65	4,549	-2.9	-15.8	66,853	-4.1	-34.4	84.7	50.6
<b>Machinery, not including transportation equipment</b>	<b>1,787</b>	<b>266,262</b>	<b>-4.4</b>	<b>-27.4</b>	<b>4,715,482</b>	<b>-7.4</b>	<b>-41.0</b>	<b>43.4</b>	<b>25.0</b>
Agricultural implements.....	77	6,844	+5.4	-29.4	103,970	+5.5	-31.5	27.4	18.9
Cash registers, adding machines, and calculating machines.....	39	12,434	-1.4	-19.9	278,967	-5.9	-28.0	62.2	42.9
Electrical machinery, apparatus, and supplies.....	299	99,239	-4.4	-35.5	1,933,712	-6.4	-47.3	46.4	30.5
Engines, turbines, tractors, and water wheels.....	87	14,686	-5	-9.7	285,042	-2.7	-20.8	39.9	24.3
Foundry and machine shop products.....	1,041	91,691	-5.6	-24.4	1,395,002	-10.3	-39.4	41.6	20.9
Machine tools.....	145	10,949	+1.3	-33.7	207,566	+3.9	-43.7	31.7	19.6
Radios and phonographs.....	40	14,951	-17.8	-25.7	264,387	-17.7	-42.6	57.9	41.9
Textile machinery and parts.....	43	6,625	+6	-19.9	114,111	-2.2	-40.6	54.5	33.8
Typewriters and supplies.....	16	8,843	+10.7	-22.5	132,225	+1.9	-29.4	57.4	32.7
<b>Nonferrous metals and their products</b>	<b>622</b>	<b>74,551</b>	<b>-5.6</b>	<b>-17.6</b>	<b>1,187,873</b>	<b>-11.0</b>	<b>-32.7</b>	<b>50.1</b>	<b>29.9</b>
Aluminum manufactures.....	24	4,738	-1.5	-14.3	74,608	-3.5	-27.6	46.8	28.0
Brass, bronze, and copper products.....	206	26,820	-4.7	-20.2	429,395	-8.3	-37.7	48.6	27.1
Clocks and watches and time-recording devices.....	24	5,436	-9.8	-30.2	69,965	-18.9	-39.2	39.1	23.0
Jewelry.....	145	6,717	-11.9	-20.9	116,477	-22.0	-37.2	33.0	20.9
Lighting equipment.....	54	4,588	-6.8	-19.2	90,277	-8.7	-28.2	62.6	42.5
Silverware and platedware.....	53	6,847	-11.5	-14.3	110,204	-20.8	-31.8	55.1	30.0
Smelting and refining, copper, lead, and zinc.....	29	7,753	-1	-15.3	127,915	-2.4	-27.1	58.7	36.8
Stamped and enameled ware.....	87	11,652	-8.2	-13.0	169,032	-11.0	-29.2	54.8	30.8
<b>Transportation equipment</b>	<b>416</b>	<b>236,239</b>	<b>+8.3</b>	<b>-21.1</b>	<b>4,804,779</b>	<b>+8.6</b>	<b>-26.3</b>	<b>49.5</b>	<b>34.1</b>
Aircraft.....	26	5,417	-2.6	-19.9	158,805	-6.4	-22.4	182.7	181.1
Automobiles.....	246	193,317	+11.7	-20.5	4,015,198	+13.8	-23.9	51.6	35.3
Cars, electric and steam railroad.....	41	4,971	-9.8	+2.9	85,219	-14.0	-2.9	18.0	10.0
Locomotives.....	10	1,905	-8.7	-38.9	37,262	-12.9	-52.3	12.7	8.3
Shipbuilding.....	93	24,629	-2.7	-27.9	508,295	-11.1	-42.5	65.0	45.8



TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN JANUARY, 1933, WITH DECEMBER, 1932, AND JANUARY, 1932—Continued.

Industry	Establishments reporting in both December, 1932, and January, 1933	Employment			Pay-roll totals			Index numbers, January, 1933, (average 1926=100)	
		Number on pay roll January, 1933	Per cent of change		Amount of pay roll (1 week) January, 1933	Per cent of change		Employment	Pay-roll totals
			December, 1932, to January, 1933	January, 1932, to January, 1933		December, 1932, to January, 1933	January, 1932, to January, 1933		
<b>Railroad repair shops</b> .....	924	97,555	-2.8	-6.6	2,171,192	-8.2	-19.4	48.1	35.8
Electric railroad.....	397	20,677	-4	-10.5	524,295	-3.0	-21.5	65.6	52.9
Steam railroad.....	527	76,878	-3.2	-6.2	1,646,897	-8.7	-19.9	46.7	34.5
<b>Lumber and allied products</b> .....	1,506	106,135	-7.4	-19.7	1,211,903	-13.3	-38.0	33.9	16.3
Furniture.....	436	38,401	-8.0	-20.8	455,160	-17.0	-40.7	42.2	19.8
Lumber, millwork.....	468	15,099	-7.8	-29.8	205,093	-11.4	-46.2	30.4	16.2
Lumber, sawmills.....	593	51,772	-7.0	-17.1	538,153	-11.4	-33.6	31.0	14.0
Turpentine and rosin.....	19	863	-5.0	-8.8	13,497	-1.6	-8.0	43.5	36.8
<b>Stone, clay, and glass products</b> .....	1,281	69,268	-13.0	-24.8	1,065,135	-15.9	-37.2	35.4	20.1
Brick, tile, and terra cotta.....	653	12,735	-19.6	-38.1	138,837	-22.4	-51.6	19.2	7.7
Cement.....	115	9,808	-9.0	-32.1	146,929	-12.8	-48.6	30.0	15.0
Glass.....	190	30,934	-7.3	-11.6	541,379	-4.6	-19.9	53.1	36.6
Marble, granite, slate, and other products.....	208	3,648	-22.2	-35.8	74,323	-25.4	-46.7	33.6	20.9
Pottery.....	115	12,149	-12.1	-16.3	163,668	-23.9	-36.7	54.8	28.1
<b>Leather and its manufactures</b> .....	490	125,038	+4.6	-3.2	1,731,351	+3.9	-17.9	72.5	42.3
Boots and shoes.....	320	100,871	+5.9	-3.8	1,308,156	+7.6	-20.4	73.1	40.1
Leather.....	160	24,167	-9	-3	423,195	-5.7	-9.6	70.1	50.1
<b>Paper and printing</b> .....	1,925	211,059	-1.6	-9.6	5,114,716	-4.0	-21.5	78.2	62.3
Boxes, paper.....	302	18,373	-6.4	-9.8	304,598	-11.4	-21.6	67.3	51.4
Paper and pulp.....	404	76,073	-1.1	-6.7	1,262,445	-3.7	-22.3	72.2	45.0
Printing and publishing—									
Book and job.....	752	47,612	-1.4	-16.5	1,260,032	-2.9	-27.6	71.7	57.6
Newspapers and periodicals.....	467	69,001	-9	-5.5	2,287,641	-3.8	-16.1	97.1	82.6
<b>Chemicals and allied products</b> .....	1,039	145,950	-5	-6.2	3,195,769	-3	-15.1	75.2	59.5
Chemicals.....	121	20,702	+1.0	-5.0	478,299	+1.0	-15.0	85.4	60.4
Cottonseed, oil, cake, and meal.....	53	1,969	-28.4	-19.6	22,711	-25.2	-32.4	36.6	33.1
Druggists' preparations.....	39	6,849	+3.6	-8.4	134,109	+2.3	-12.4	73.9	72.5
Explosives.....	25	3,043	-4.3	-12.6	54,644	-9.9	-16.8	75.9	46.6
Fertilizers.....	205	7,048	+14.7	-2.5	85,992	+6.7	-20.0	49.9	32.5
Paints and varnishes.....	357	13,394	-3.3	-13.4	273,544	-6.9	-27.4	63.6	45.9
Petroleum refining.....	130	51,262	-7	-7.6	1,385,383	+2.8	-14.7	62.1	53.3
Rayon and allied products.....	23	29,197	+1.6	-4	491,386	+8	-3.9	148.3	123.5
Soap.....	86	12,486	-3	-1.8	269,881	-2.8	-12.4	94.2	77.0
<b>Rubber products</b> .....	157	70,693	-3.6	-10.6	1,190,557	-9.9	-28.8	62.2	36.6
Rubber boots and shoes.....	9	9,806	-12.8	-21.6	165,274	-27.5	-21.5	51.4	35.5
Rubber goods, other than boots, shoes, tires, and inner tubes.....	103	19,120	-2.4	-1.6	325,076	-8.0	-16.2	81.6	51.8
Rubber tires and inner tubes.....	45	41,767	-1.6	-12.1	710,207	-5.4	-36.0	57.4	31.5
<b>Tobacco manufactures</b> .....	240	45,974	-11.9	-12.4	514,220	-23.6	-27.6	62.4	40.9
Chewing and smoking tobacco and snuff.....	33	10,070	+3.6	-2.2	136,717	+6.9	-11.2	90.0	74.2
Cigars and cigarettes.....	207	35,904	-14.4	-14.0	377,503	-28.4	-30.6	58.9	36.9
<b>Total, 89 industries</b> .....	17,762	2,557,837	-2.9	-12.7	42,657,894	-5.0	-26.3	56.6	35.8

## Per Capita Earnings in Manufacturing Industries

PER CAPITA weekly earnings in January, 1933, for each of the 89 manufacturing industries surveyed by the Bureau of Labor Statistics, together with the per cents of change in January, 1933, as compared with December, 1932, and January, 1932, are shown in Table 2.

These earnings must not be confused with full-time weekly rates of wages. They are per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN JANUARY, 1933, AND COMPARISON WITH DECEMBER, 1932, AND JANUARY, 1932

Industry	Per capita weekly earnings in January, 1933	Per cent of change compared with—	
		December, 1932	January, 1932
<b>Food and kindred products:</b>			
Baking.....	\$22.03	+ (1)	-11.3
Beverages.....	24.13	-2.0	-7.9
Butter.....	21.74	+2.3	-10.9
Confectionery.....	13.55	-4.2	-19.3
Flour.....	21.39	+.	-6.3
Ice cream.....	25.74	+1.2	-16.5
Slaughtering and meat packing.....	20.65	+.	-12.4
Sugar, beet.....	16.52	+4.8	-29.8
Sugar refining, cane.....	23.00	-4.5	-9.1
<b>Textiles and their products:</b>			
Fabrics—			
Carpets and rugs.....	13.81	-10.8	-26.0
Cotton goods.....	10.10	-2.7	-14.6
Cotton small wares.....	14.02	-3.5	-20.9
Dyeing and finishing textiles.....	17.30	-.6	-19.4
Knit goods.....	11.74	-12.4	-17.4
Silk and rayon goods.....	11.89	-7.0	-20.9
Woolen and worsted goods.....	15.53	-3.3	-17.2
Wearing apparel—			
Clothing, men's.....	12.58	+6.7	-22.8
Clothing, women's.....	15.81	-2.9	-22.0
Corsets and allied garments.....	13.50	-8.8	-16.2
Hats, fur-felt.....	17.81	-6.0	-2.7
Men's furnishings.....	9.76	-11.3	-30.9
Millinery.....	15.43	+4.1	-22.4
Shirts and collars.....	9.27	-12.6	-14.9
<b>Iron and steel and their products, not including machinery:</b>			
Bolts, nuts, washers, and rivets.....	14.42	-6.0	-22.9
Cast-iron pipe.....	11.98	-5.1	-27.8
Cutlery (not including silver and plated cutlery) and edge tools.....	16.38	-4.8	-17.6
Forgings, iron and steel.....	15.42	-1.8	-17.9
Hardware.....	12.41	-7.4	-26.9
Iron and steel.....	12.71	+.	-20.0
Plumbers' supplies.....	12.43	-4.2	-28.6
Steam and hot-water heating apparatus and steam fittings.....	15.77	-4.4	-12.5
Stoves.....	14.71	-5.8	-17.5
Structural and ornamental metal work.....	14.22	-10.9	-29.0
Tin cans and other tinware.....	18.90	-1.7	-8.9
Tools (not including edge tools, machine tools, files, and saws).....	15.76	-2.2	-13.2
Wirework.....	14.70	-1.2	-22.1
<b>Machinery, not including transportation equipment:</b>			
Agricultural implements.....	15.19	+.	-2.9
Cash registers, adding machines, and calculating machines.....	22.44	-4.6	-10.4
Electrical machinery, apparatus, and supplies.....	19.49	-2.1	-18.1
Engines, turbines, tractors, and water wheels.....	19.41	-2.2	-12.3
Foundry and machine shop products.....	15.21	-5.1	-20.1
Machine tools.....	18.96	+2.5	-15.2
Radios and phonographs.....	17.72	+.	-22.6
Textile machinery and parts.....	17.22	-2.7	-25.8
Typewriters and supplies.....	14.95	-7.9	-8.8
<b>Nonferrous metals and their parts:</b>			
Aluminum manufactures.....	15.75	-2.1	-15.6
Brass, bronze, and copper products.....	16.01	-3.8	-21.8
Clocks and watches and time-recording devices.....	12.87	-10.1	-13.0
Jewelry.....	17.34	-11.4	-20.5
Lighting equipment.....	19.68	-2.1	-10.8
Silverware and plated ware.....	16.10	-10.5	-20.4
Smelting and refining, copper, lead, and zinc.....	16.50	-2.3	-14.1
Stamped and enameled ware.....	14.51	-3.0	-18.7

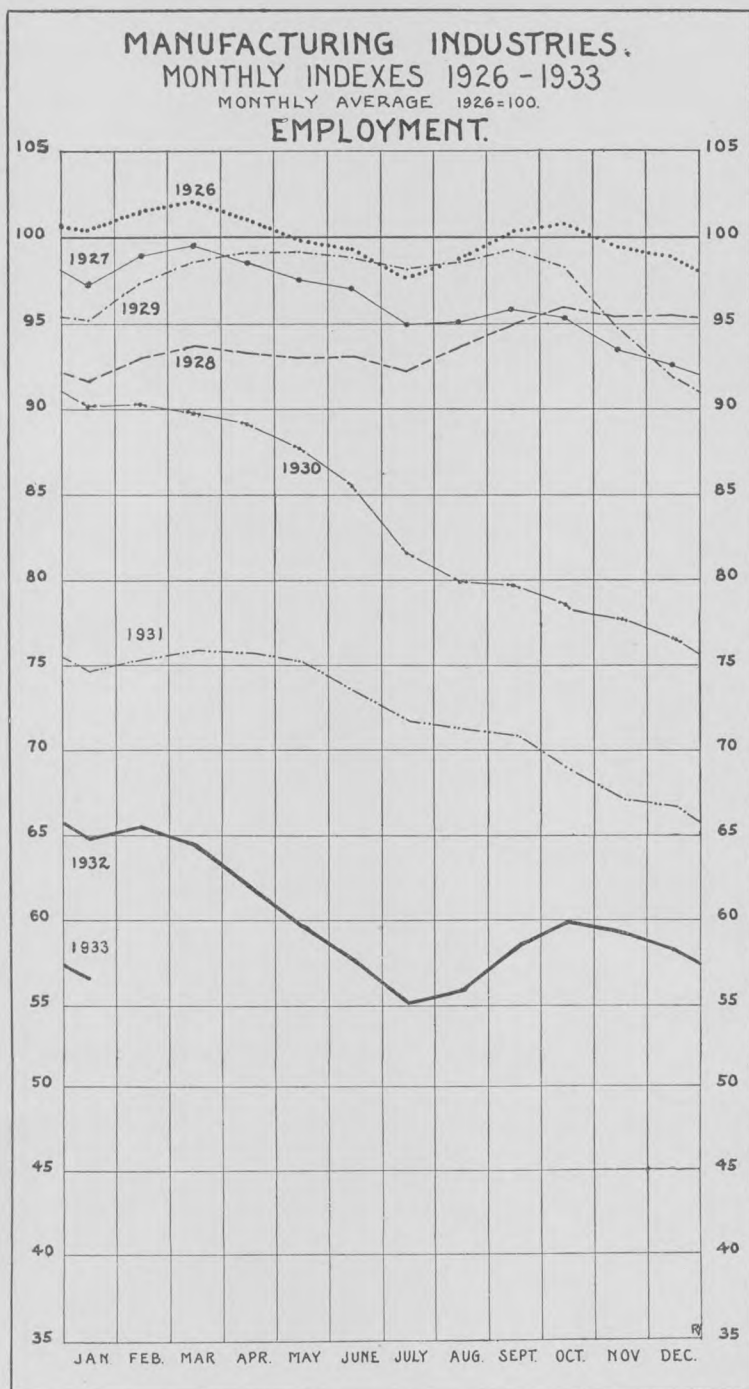
TABLE 2.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN JANUARY, 1933, AND COMPARISON WITH DECEMBER, 1932, AND JANUARY, 1932—Continued

Industry	Per capita weekly earnings in January, 1933	Per cent of change compared with—	
		December, 1932	January, 1932
Transportation equipment:			
Aircraft.....	\$29.32	-3.9	-3.1
Automobiles.....	20.14	+1.9	-4.1
Cars, electric and steam railroad.....	17.14	-4.8	-6.5
Locomotives.....	19.56	-4.6	-21.9
Shipbuilding.....	20.64	-8.6	-20.3
Railroad repair shops:			
Electric railroad.....	25.36	-2.6	-12.5
Steam railroad.....	21.42	-5.6	-13.5
Lumber and allied products:			
Furniture.....	11.85	-9.9	-25.2
Lumber—			
Millwork.....	13.58	-3.9	-23.0
Sawmills.....	10.39	-4.8	-20.3
Turpentine and rosin.....	15.64	+3.5	+1.0
Stone, clay, and glass products:			
Brick, tile, and terra cotta.....	10.90	-3.5	-21.3
Cement.....	14.98	-4.2	-24.0
Glass.....	17.50	+2.9	-9.8
Marble, granite, slate, and other products.....	20.37	-4.1	-17.3
Pottery.....	13.48	-13.4	-24.1
Leather and its manufactures:			
Boots and shoes.....	12.97	+1.6	-17.3
Leather.....	17.51	-4.8	-9.4
Paper and printing:			
Boxes, paper.....	16.58	-5.4	-13.1
Paper and pulp.....	16.60	-2.6	-16.9
Printing and publishing—			
Book and job.....	26.46	-1.6	-13.5
Newspapers and periodicals.....	33.15	-3.0	-11.3
Chemicals and allied products:			
Chemicals.....	23.10	+ <sup>(1)</sup>	-10.5
Cottonseed, oil, cake, and meal.....	11.53	+4.4	-16.3
Druggists' preparations.....	19.58	-1.2	-4.7
Explosives.....	17.90	-5.9	-4.8
Fertilizers.....	12.20	-6.9	-17.6
Paints and varnishes.....	20.42	-3.7	-16.4
Petroleum refining.....	27.03	+3.5	-7.9
Rayon and allied products.....	16.83	-8	-3.8
Soap.....	21.61	-2.5	-11.0
Rubber products:			
Rubber boots and shoes.....	15.83	-16.9	+2
Rubber goods, other than boots, shoes, tires, and inner tubes.....	17.00	-5.7	-14.8
Rubber tires and inner tubes.....	17.00	-3.9	-27.3
Tobacco manufactures:			
Chewing and smoking tobacco and snuff.....	13.58	+3.2	-9.3
Cigars and cigarettes.....	10.51	-16.3	-19.3

<sup>1</sup> Less than one-tenth of 1 per cent.

### General Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

GENERAL index numbers of employment and pay-roll totals in manufacturing industries by months, from January, 1926, to January, 1933, together with the average indexes for each of the years from 1926 to 1932, inclusive, are shown in the following table. In computing these general indexes, the index numbers of each of the separate industries are weighted according to their relative importance in the total. Preceding this table are two charts prepared from these general indexes showing the course of employment and pay rolls for each of the years 1926 to 1932, inclusive, and for January, 1933.



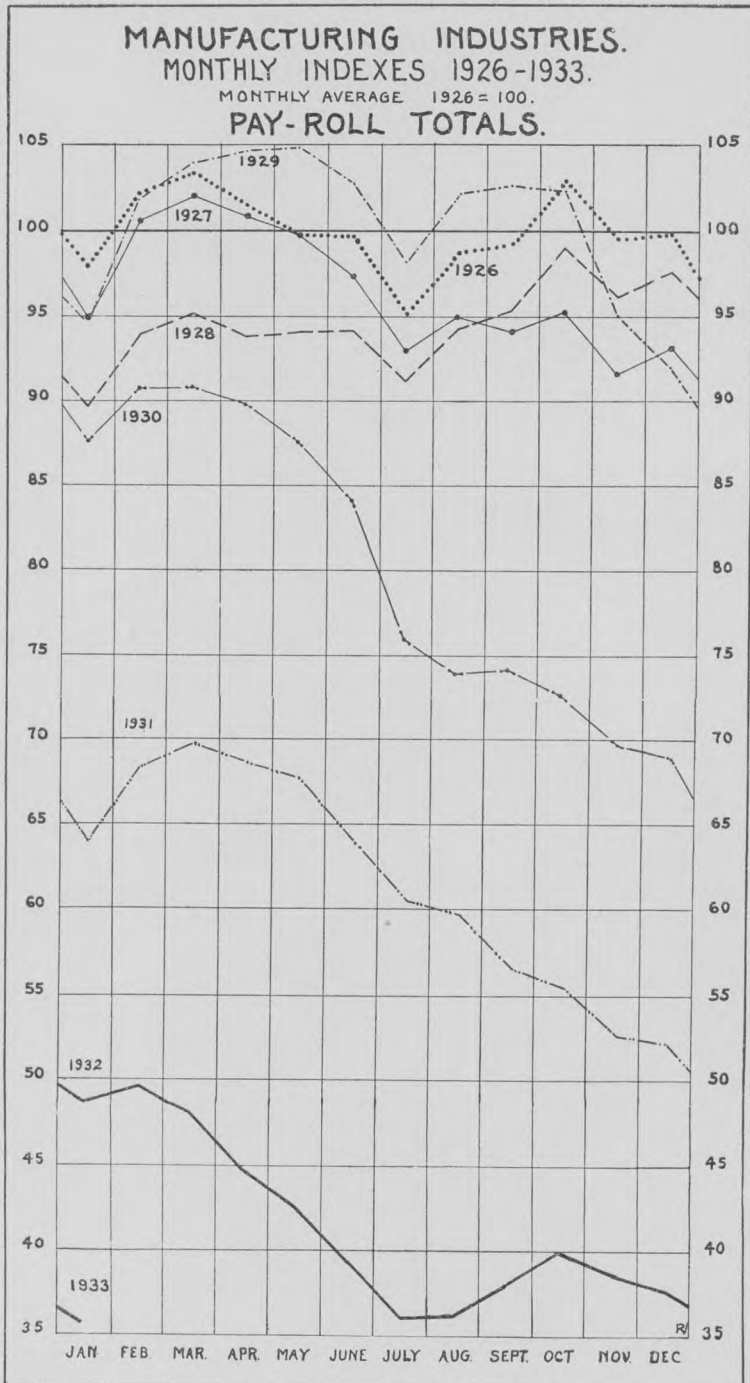


TABLE 3.—GENERAL INDEXES OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING INDUSTRIES, JANUARY, 1926, TO JANUARY, 1933

[12-month average, 1926=100]

Month	Employment								Pay rolls							
	1926	1927	1928	1929	1930	1931	1932	1933	1926	1927	1928	1929	1930	1931	1932	1933
January.....	100.4	97.3	91.6	95.2	90.7	74.6	64.8	56.6	98.0	94.9	89.6	95.5	88.1	63.7	48.6	35.8
February.....	101.5	99.0	93.0	97.4	90.9	75.3	65.6	-----	102.2	100.6	93.9	101.8	91.3	68.1	49.6	-----
March.....	102.0	99.5	93.7	98.6	90.5	75.9	64.5	-----	103.4	102.0	95.2	103.9	91.6	69.6	48.2	-----
April.....	101.0	98.6	93.3	99.1	89.9	75.7	62.2	-----	101.5	100.8	93.8	104.6	90.7	68.5	44.7	-----
May.....	99.8	97.6	93.0	99.2	88.6	75.2	59.7	-----	99.8	99.8	94.1	104.8	88.6	67.7	42.5	-----
June.....	99.3	97.0	93.1	98.8	86.5	73.4	57.5	-----	99.7	97.4	94.2	102.8	85.2	63.8	39.3	-----
July.....	97.7	95.0	92.2	98.2	82.7	71.7	55.2	-----	95.2	93.0	91.2	98.2	77.0	60.3	36.2	-----
August.....	98.7	95.1	93.6	98.6	81.0	71.2	56.0	-----	98.7	95.0	94.2	102.1	75.0	59.7	36.3	-----
September.....	100.3	95.8	95.0	99.3	80.9	70.9	58.5	-----	99.3	94.1	95.4	102.6	75.4	56.7	38.1	-----
October.....	100.7	95.3	95.9	98.4	79.9	68.9	59.9	-----	102.9	95.2	99.0	102.4	74.0	55.3	39.9	-----
November.....	99.5	93.5	95.4	95.0	77.9	67.1	59.4	-----	99.6	91.6	96.1	95.4	69.6	52.5	38.6	-----
December.....	98.9	92.6	95.5	92.3	76.6	66.7	58.3	-----	99.8	93.2	97.7	92.4	68.8	52.2	37.7	-----
<b>Average...</b>	<b>100.0</b>	<b>96.4</b>	<b>93.5</b>	<b>97.5</b>	<b>84.7</b>	<b>72.2</b>	<b>60.1</b>	<b>-----</b>	<b>100.0</b>	<b>96.5</b>	<b>94.5</b>	<b>100.5</b>	<b>81.3</b>	<b>61.5</b>	<b>41.6</b>	<b>-----</b>

## Time Worked in Manufacturing Industries in January, 1933

REPORTS as to working time in January were received from 13,408 establishments in 89 manufacturing industries. Four per cent of these establishments were idle, 43 per cent operated on a full-time basis, and 53 per cent worked on a part-time schedule.

An average of 84 per cent of full-time operation in January was shown by reports received from all the operating establishments included in Table 4. The establishments working part time in January averaged 72 per cent of full-time operation.

A number of establishments supplying data concerning plant-operating time have reported full-time operations but have qualified the hours reported with a statement that, while the plant was operating full time, the work in the establishment was being shared and the employees were not working the full-time hours operated by the plant. Such establishments have been classified under full-time establishments in the following tabulation. The heading of the column concerning full-time plants has therefore been changed to read "Per cent of establishments operating full time" instead of "Per cent of establishments in which employees worked full time."



TABLE 4.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN JANUARY 1933

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
<b>Food and kindred products</b> .....	<b>2,393</b>	<b>1</b>	<b>71</b>	<b>28</b>	<b>94</b>	<b>78</b>
Baking.....	729	-----	86	14	97	78
Beverages.....	284	1	58	41	89	73
Butter.....	246	1	72	28	95	84
Confectionery.....	256	1	53	46	90	78
Flour.....	377	( <sup>1</sup> )	65	35	91	75
Ice cream.....	284	1	68	31	94	80
Slaughtering and meat packing.....	174	-----	74	26	96	86
Sugar, beet.....	32	6	88	6	99	85
Sugar refining, cane.....	11	27	45	27	85	56
<b>Textiles and their products</b> .....	<b>2,397</b>	<b>5</b>	<b>54</b>	<b>40</b>	<b>89</b>	<b>74</b>
Fabrics:						
Carpets and rugs.....	22	5	32	64	77	65
Cotton goods.....	617	3	51	46	88	74
Cotton small wares.....	100	1	47	52	86	74
Dyeing and finishing textiles.....	133	2	41	56	89	81
Knit goods.....	370	5	62	34	91	75
Silk and rayon goods.....	227	5	67	28	92	73
Woolen and worsted goods.....	235	5	60	35	91	75
Wearing apparel:						
Clothing, men's.....	246	9	44	46	86	73
Clothing, women's.....	193	16	57	27	89	68
Corsets, and allied garments.....	25	-----	44	56	87	77
Hats, fur-felt.....	21	-----	48	52	87	70
Men's furnishings.....	50	2	48	50	86	72
Millinery.....	91	5	57	37	90	76
Shirts and collars.....	67	7	55	37	92	80
<b>Iron and steel and their products not including machinery</b> .....	<b>987</b>	<b>5</b>	<b>19</b>	<b>76</b>	<b>70</b>	<b>63</b>
Bolts, nuts, washers, and rivets.....	61	-----	13	87	65	60
Cast-iron pipe.....	35	9	9	83	52	47
Cutlery (not including silver and plated cutlery) and edge tools.....	100	4	31	65	74	61
Forgings, iron and steel.....	37	-----	27	73	68	56
Hardware.....	58	2	12	86	67	62
Iron and steel.....	125	10	19	70	67	58
Plumbers' supplies.....	48	-----	19	81	70	63
Steam and hot water heating apparatus and steam fittings.....	76	8	9	83	55	49
Stoves.....	130	7	12	82	71	67
Structural and ornamental metal work.....	118	4	21	75	79	73
Tin cans and other tinware.....	54	-----	44	56	86	75
Tools (not including edge tools, machine tools, files, and saws).....	101	4	19	77	73	67
Wirework.....	44	2	20	77	77	70
<b>Machinery, not including transportation equipment</b> .....	<b>1,322</b>	<b>2</b>	<b>22</b>	<b>76</b>	<b>73</b>	<b>66</b>
Agricultural implements.....	55	-----	24	76	75	67
Cash registers, adding machines, and calculating machines.....	32	-----	44	56	86	75
Electrical machinery, apparatus, and supplies.....	210	1	18	81	76	70
Engines, turbines, tractors, and water wheels.....	68	1	15	84	73	68
Foundry and machine-shop products.....	781	2	23	76	71	63
Machine tools.....	111	4	19	77	74	68
Radios and phonographs.....	26	-----	42	58	88	78
Textile machinery and parts.....	29	3	21	76	81	76
Typewriters and supplies.....	10	-----	20	80	72	64
<b>Nonferrous metals and their parts</b> .....	<b>493</b>	<b>1</b>	<b>28</b>	<b>71</b>	<b>78</b>	<b>70</b>
Aluminum manufactures.....	18	-----	22	78	77	71
Brass, bronze, and copper products.....	152	1	21	78	75	68
Clocks and watches and time-recording devices.....	18	-----	33	67	72	58
Jewelry.....	121	2	33	65	80	70
Lighting equipment.....	43	-----	28	72	82	75
Silverware and plated ware.....	49	2	22	76	75	66
Smelting and refining, copper, lead, and zinc.....	20	5	55	40	88	71
Stamped and enameled ware.....	72	-----	28	72	81	74

<sup>1</sup> Less than one-half of 1 per cent.

TABLE 4.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN JANUARY, 1933—Continued

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
<b>Transportation equipment</b> .....	<b>285</b>	<b>6</b>	<b>45</b>	<b>49</b>	<b>87</b>	<b>75</b>
Aircraft.....	23	4	57	39	95	87
Automobiles.....	140	7	36	56	85	75
Cars, electric and steam railroad.....	31	10	16	74	73	68
Locomotives.....	9	-----	44	56	79	63
Shipbuilding.....	82	4	66	30	95	83
<b>Railroad repair shops</b> .....	<b>757</b>	<b>1</b>	<b>46</b>	<b>53</b>	<b>89</b>	<b>80</b>
Electric railroad.....	325	-----	70	30	95	83
Steam railroad.....	432	1	29	70	85	79
<b>Lumber and allied products</b> .....	<b>1,029</b>	<b>5</b>	<b>20</b>	<b>75</b>	<b>73</b>	<b>65</b>
Furniture.....	317	4	30	66	78	68
Lumber—						
Millwork.....	283	3	15	82	70	65
Sawmills.....	411	6	15	79	69	63
Turpentine and rosin.....	18	6	44	50	92	85
<b>Stone, clay, and glass products</b> .....	<b>666</b>	<b>27</b>	<b>30</b>	<b>43</b>	<b>85</b>	<b>75</b>
Brick, tile, and terra cotta.....	219	39	7	54	85	83
Cement.....	67	30	66	4	99	78
Glass.....	128	9	69	22	94	74
Marble, granite, slate, and other products.....	167	31	20	49	79	71
Pottery.....	85	13	25	62	74	63
<b>Leather and its manufactures</b> .....	<b>341</b>	<b>4</b>	<b>40</b>	<b>56</b>	<b>86</b>	<b>75</b>
Boots and shoes.....	219	5	33	62	82	73
Leather.....	122	2	53	45	91	80
<b>Paper and printing</b> .....	<b>1,580</b>	<b>1</b>	<b>42</b>	<b>57</b>	<b>86</b>	<b>76</b>
Boxes, paper.....	253	-----	17	83	78	74
Paper and pulp.....	327	2	23	75	76	69
Printing and publishing—						
Book and job.....	608	( <sup>1</sup> )	40	60	87	79
Newspapers and periodicals.....	392	( <sup>1</sup> )	78	22	97	88
<b>Chemicals and allied products</b> .....	<b>827</b>	<b>3</b>	<b>49</b>	<b>48</b>	<b>89</b>	<b>77</b>
Chemicals.....	80	-----	59	41	89	74
Cottonseed, oil, cake, and meal.....	47	36	43	21	92	73
Druggists' preparations.....	26	-----	62	38	94	85
Explosives.....	17	-----	6	94	75	74
Fertilizers.....	159	1	62	38	92	78
Paints and varnishes.....	320	1	34	65	84	75
Petroleum refining.....	83	5	69	27	96	87
Rayon and allied products.....	15	-----	80	20	97	87
Soap.....	80	1	55	44	92	83
<b>Rubber products</b> .....	<b>127</b>	<b>2</b>	<b>24</b>	<b>74</b>	<b>81</b>	<b>74</b>
Rubber boots and shoes.....	8	13	38	50	91	85
Rubber goods, other than boots, shoes, tires, and inner tubes.....	88	2	28	69	84	77
Rubber tires and inner tubes.....	31	-----	6	94	69	66
<b>Tobacco manufactures</b> .....	<b>204</b>	<b>18</b>	<b>25</b>	<b>57</b>	<b>80</b>	<b>71</b>
Chewing and smoking tobacco and snuff.....	32	6	53	41	91	78
Cigars and cigarettes.....	172	20	19	60	78	70
<b>Total, 89 industries</b> .....	<b>13,408</b>	<b>4</b>	<b>43</b>	<b>53</b>	<b>84</b>	<b>72</b>

<sup>1</sup> Less than one-half of 1 per cent.

### Employment in Nonmanufacturing Industries in January, 1933

IN THE following table are presented employment and pay-roll data for 14 groups of nonmanufacturing industries, the totals of which also appear in the summary table of employment and pay-roll totals.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **NONMANUFACTURING** ESTABLISHMENTS IN JANUARY, 1933, WITH DECEMBER, 1932, AND JANUARY, 1932

Industrial group	Estab-lish-ments reporting in both December, 1932, and January, 1933	Employment			Pay-roll totals			Index numbers, January 1933 (average 1929 = 100)	
		Number on pay roll, January, 1933	Per cent of change		Amount of pay roll (1 week) January, 1933	Per cent of change		Em-employment	Pay-roll totals
			De-cem-ber, 1932, to Janu-ary, 1933	Janu-ary, 1932, to Janu-ary, 1933		De-cem-ber, 1932, to Janu-ary, 1933	Janu-ary, 1932, to Janu-ary, 1933		
Anthracite mining.....	160	71,822	-15.8	-31.1	\$1,719,317	-23.1	-29.8	52.5	43.2
Bituminous-coal mining.....	1,238	173,010	-3	-13.6	2,350,478	-4.2	-23.2	69.8	36.1
Metalliferous mining.....	279	22,364	-2.5	-34.3	407,320	-3.1	-39.1	32.4	18.1
Quarrying and nonmetallic min- ing.....	592	15,419	-17.0	-28.2	216,072	-17.9	-40.1	35.1	18.1
Crude petroleum producing.....	262	23,359	-(1)	+4.2	630,031	-4.2	-14.2	57.2	39.9
Telephone and telegraph.....	8,274	266,129	-3	-10.1	6,847,078	-2.4	-19.5	74.6	71.7
Power and light.....	3,508	208,066	-9	-13.0	6,131,669	-2	-17.4	77.7	73.0
Electric-railroad and motor-bus operation.....	505	131,235	-1.2	-11.2	3,620,226	-1.6	-19.2	70.6	60.9
Wholesale trade.....	2,734	69,612	-2.2	-7.9	1,889,697	-1.4	-16.7	75.3	61.7
Retail trade.....	16,411	332,297	-19.3	-8.8	6,633,843	-14.8	-19.6	76.9	62.7
Hotels.....	2,402	130,945	+7	-11.3	1,744,665	-1.6	-24.6	73.8	55.7
Canning and preserving.....	829	30,251	+1.1	-2.6	364,717	-3.4	-22.0	34.1	24.8
Laundries.....	908	52,918	-6	-11.0	806,259	-1.3	-24.2	75.4	57.9
Dyeing and cleaning.....	374	10,525	-2.9	-11.1	172,454	-3.7	-29.2	73.0	46.6

<sup>1</sup> Less than one-tenth of 1 per cent.

### Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

INDEX numbers of employment and pay-roll totals for 14 nonmanufacturing industries are presented in the following table. The index numbers show the variation in employment and pay rolls in these groups, by months, from January, 1929, to January, 1933, with the exception of laundries and the dyeing and cleaning groups, for which information over the entire period is not available. The bureau recently secured data concerning employment and pay rolls for the index base year 1929 from establishments in the laundries and the dyeing and cleaning groups, and has computed index numbers for these two groups, which now appear in this tabulation. The monthly collection of trend-of-employment statistics in these two groups did not begin until the later months of 1930 and, therefore, indexes for each month of the entire period are not available.

TABLE 2.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR **NONMANUFACTURING** INDUSTRIES, JANUARY TO DECEMBER, 1930, 1931, AND 1932, AND JANUARY, 1933

[12-month average, 1929=100]

Month	Anthracite mining								Bituminous coal mining							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	102.1	90.6	76.2	52.5	105.8	89.3	61.5	43.2	102.5	93.9	80.8	69.8	101.4	73.3	47.0	36.1
February	106.9	89.5	71.2	-----	121.5	101.9	57.3	-----	102.4	91.5	77.4	-----	102.1	68.3	47.0	-----
March	82.6	82.0	73.7	-----	78.5	71.3	61.2	-----	98.6	88.8	75.2	-----	86.4	65.2	46.8	-----
April	84.1	85.2	70.1	-----	75.0	75.2	72.0	-----	94.4	85.9	65.5	-----	81.7	58.6	33.9	-----
May	93.8	80.3	66.9	-----	98.8	76.1	58.0	-----	90.4	82.4	62.6	-----	77.5	54.4	30.7	-----
June	90.8	76.1	53.0	-----	94.3	66.7	37.4	-----	88.4	78.4	60.5	-----	75.9	52.4	27.3	-----
July	91.6	65.1	44.5	-----	84.0	53.7	34.5	-----	88.0	76.4	58.6	-----	68.9	50.4	24.4	-----
August	80.2	67.3	49.2	-----	78.8	56.4	41.4	-----	89.2	77.0	59.4	-----	71.1	50.6	26.4	-----
September	93.8	80.0	55.8	-----	91.6	64.9	47.0	-----	90.5	80.4	62.4	-----	74.9	53.6	30.2	-----
October	99.0	86.8	63.9	-----	117.2	91.1	66.7	-----	91.8	81.3	67.0	-----	79.4	56.2	37.8	-----
November	97.2	83.5	62.7	-----	98.0	79.5	51.0	-----	92.5	81.2	69.4	-----	79.1	54.6	38.0	-----
December	99.1	79.8	62.3	-----	100.0	78.4	56.2	-----	92.5	81.0	70.0	-----	77.7	52.3	37.7	-----
Average	93.4	80.5	62.5	-----	95.3	75.4	53.7	-----	93.4	83.2	67.4	-----	81.3	57.5	35.6	-----
	Metalliferous mining								Quarrying and nonmetallic mining							
January	95.7	68.3	49.3	32.4	92.7	55.0	29.7	18.1	79.6	64.4	48.9	35.1	71.9	50.4	30.2	18.1
February	92.3	65.3	46.9	-----	92.5	64.6	27.8	-----	79.8	66.6	47.4	-----	73.5	54.4	29.6	-----
March	90.9	63.5	45.0	-----	90.8	52.8	26.5	-----	83.0	70.0	46.0	-----	80.0	58.2	28.7	-----
April	89.3	63.9	43.3	-----	88.3	51.4	25.0	-----	87.4	76.1	48.6	-----	85.4	68.2	30.0	-----
May	87.5	62.4	38.3	-----	85.6	49.3	23.8	-----	90.8	75.0	50.6	-----	90.2	62.3	32.3	-----
June	84.6	60.0	32.2	-----	81.6	46.1	20.1	-----	90.3	72.3	49.5	-----	90.9	60.1	30.0	-----
July	80.5	56.2	29.5	-----	71.9	41.3	16.9	-----	89.9	71.0	49.5	-----	85.5	57.3	29.1	-----
August	79.0	55.8	28.6	-----	71.0	40.2	16.5	-----	83.3	68.9	51.1	-----	85.8	55.1	29.7	-----
September	78.1	55.5	29.3	-----	69.9	40.0	17.0	-----	87.7	66.6	52.4	-----	82.5	51.2	30.5	-----
October	77.2	53.8	30.5	-----	68.6	37.4	18.0	-----	84.7	64.5	52.4	-----	79.3	48.7	30.1	-----
November	72.8	52.8	31.9	-----	63.4	35.1	18.7	-----	78.3	59.3	49.4	-----	66.8	43.3	27.1	-----
December	70.1	51.2	33.3	-----	59.9	34.3	18.7	-----	70.2	53.9	42.3	-----	59.9	36.9	22.1	-----
Average	83.2	59.1	36.5	-----	78.0	44.8	21.6	-----	84.3	67.4	49.0	-----	79.3	53.4	29.1	-----
	Crude petroleum producing								Telephone and telegraph							
January	92.7	74.8	54.9	57.2	94.0	71.5	46.5	39.9	101.6	90.5	83.0	74.6	105.1	96.3	89.1	71.7
February	90.8	73.2	54.4	-----	88.6	70.0	46.9	-----	100.2	89.2	82.0	-----	101.9	94.8	89.6	-----
March	89.3	72.2	51.4	-----	91.3	73.2	43.2	-----	99.4	88.6	81.7	-----	105.8	97.9	88.2	-----
April	86.8	69.8	54.9	-----	86.6	66.3	44.5	-----	98.9	88.1	81.2	-----	103.4	95.0	83.4	-----
May	89.8	67.8	54.5	-----	85.4	64.7	47.1	-----	99.7	87.4	80.6	-----	103.2	94.1	82.8	-----
June	90.2	65.0	54.2	-----	87.1	62.7	44.8	-----	99.8	86.9	79.9	-----	103.4	95.0	82.1	-----
July	89.9	65.3	55.4	-----	88.5	59.2	44.6	-----	100.0	86.6	79.1	-----	106.6	93.3	79.6	-----
August	8.7	62.4	57.4	-----	86.0	56.3	42.9	-----	98.8	85.9	78.1	-----	102.5	92.3	79.1	-----
September	85.0	61.2	56.2	-----	84.0	55.2	41.9	-----	96.8	85.0	77.4	-----	102.2	92.1	75.9	-----
October	85.2	60.4	56.8	-----	82.6	54.4	42.5	-----	94.5	84.1	76.2	-----	100.9	91.6	75.7	-----
November	83.6	57.6	56.5	-----	80.0	52.0	42.4	-----	93.0	83.5	75.5	-----	97.9	89.7	74.3	-----
December	77.4	58.2	57.2	-----	77.2	54.9	41.7	-----	91.6	83.1	74.8	-----	101.3	92.7	73.5	-----
Average	87.4	65.7	55.3	-----	85.9	61.7	44.1	-----	97.9	86.6	79.1	-----	102.9	93.7	81.1	-----
	Power and light								Electric-railroad and motor-bus operation and maintenance <sup>1</sup>							
January	99.6	99.2	89.3	77.7	99.7	98.6	88.4	73.0	97.1	86.9	79.5	70.6	97.8	85.6	75.4	60.9
February	98.8	97.8	87.2	-----	100.4	99.7	86.0	-----	95.1	86.6	78.9	-----	95.7	87.1	74.8	-----
March	99.7	96.7	85.5	-----	102.1	102.4	85.4	-----	94.4	86.4	77.6	-----	95.4	88.1	73.6	-----
April	100.7	97.1	84.8	-----	102.6	97.6	82.4	-----	95.2	86.8	78.0	-----	97.1	86.6	71.8	-----
May	103.4	97.6	84.0	-----	104.5	98.7	84.2	-----	95.2	85.9	76.9	-----	96.0	85.1	72.2	-----
June	104.6	96.2	83.2	-----	106.7	98.3	80.5	-----	94.8	85.3	76.5	-----	97.0	84.8	70.2	-----
July	105.9	96.7	82.3	-----	106.7	97.4	78.7	-----	95.3	85.6	75.6	-----	95.6	83.3	66.4	-----
August	106.4	95.9	81.5	-----	106.1	94.3	74.7	-----	92.9	84.8	74.1	-----	92.1	81.9	63.8	-----
September	105.2	92.7	81.0	-----	106.1	94.3	74.7	-----	91.8	84.0	73.5	-----	90.5	81.2	62.5	-----
October	104.8	92.7	79.9	-----	105.6	93.2	74.4	-----	91.0	82.7	72.8	-----	88.9	79.0	61.5	-----
November	103.4	91.3	79.1	-----	103.7	93.3	73.2	-----	89.3	81.5	71.8	-----	87.7	79.7	61.7	-----
December	103.2	90.3	78.4	-----	106.3	91.2	73.2	-----	88.8	79.9	71.4	-----	88.6	77.8	61.9	-----
Average	103.0	95.6	83.0	-----	104.3	96.7	79.8	-----	93.4	84.7	75.5	-----	93.5	83.4	68.0	-----

<sup>1</sup> Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, Table 1.

TABLE 2.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR **NONMANUFACTURING** INDUSTRIES, JANUARY TO DECEMBER, 1930, 1931, AND 1932, AND JANUARY, 1933—Con.

Month	Wholesale trade								Retail trade							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January.....	100.0	89.5	81.8	75.3	100.0	87.5	74.1	61.7	98.9	90.0	84.3	76.9	99.7	89.4	78.0	62.7
February.....	98.5	88.2	80.9	-----	98.3	88.4	72.5	-----	94.4	87.1	80.5	-----	96.0	86.7	73.7	-----
March.....	97.7	87.4	79.8	-----	99.7	89.1	71.3	-----	93.9	87.8	81.4	-----	95.5	87.5	73.4	-----
April.....	97.3	87.4	78.9	-----	97.9	85.2	68.9	-----	97.3	90.1	81.6	-----	97.5	88.3	72.7	-----
May.....	96.8	87.1	77.9	-----	97.4	84.7	69.7	-----	96.7	89.9	80.9	-----	97.3	88.0	71.1	-----
June.....	96.5	87.1	77.0	-----	98.6	84.1	66.2	-----	93.9	89.1	79.4	-----	96.8	87.6	68.2	-----
July.....	96.0	86.8	76.6	-----	96.0	83.3	64.7	-----	89.0	83.9	74.6	-----	91.7	83.3	63.3	-----
August.....	95.0	86.5	76.4	-----	93.6	82.1	63.2	-----	85.6	81.8	72.6	-----	87.6	80.3	60.7	-----
September.....	94.8	86.1	77.1	-----	93.6	81.4	63.1	-----	92.0	86.6	77.8	-----	92.4	83.5	64.6	-----
October.....	94.2	85.2	77.8	-----	92.9	79.9	63.9	-----	95.5	89.8	81.3	-----	95.1	84.6	67.1	-----
November.....	92.6	84.1	77.6	-----	91.0	79.7	63.3	-----	98.4	90.9	81.7	-----	96.8	85.4	66.9	-----
December.....	92.0	83.7	77.0	-----	91.3	77.8	62.6	-----	115.1	106.2	95.2	-----	107.7	94.1	73.6	-----
Average.....	96.0	86.6	78.2	-----	95.9	83.6	67.0	-----	95.9	89.4	80.9	-----	96.2	86.6	69.4	-----
	Hotels								Canning and preserving							
January.....	100.4	95.0	83.2	73.8	100.3	91.0	73.9	55.7	46.1	48.9	35.0	34.1	50.3	46.1	31.8	24.8
February.....	102.4	96.8	84.3	-----	103.8	93.7	73.9	-----	45.7	48.3	37.1	-----	51.5	48.6	32.7	-----
March.....	102.4	96.8	84.0	-----	104.4	93.4	72.4	-----	49.7	53.0	36.3	-----	50.8	50.3	31.9	-----
April.....	100.1	95.9	82.7	-----	100.3	89.9	69.6	-----	74.8	59.6	47.0	-----	72.6	57.1	37.9	-----
May.....	98.0	92.5	80.1	-----	98.4	87.7	67.0	-----	65.7	56.0	40.5	-----	66.9	56.0	36.0	-----
June.....	98.0	91.6	78.0	-----	98.1	85.4	63.8	-----	83.0	70.6	55.5	-----	81.5	68.6	40.5	-----
July.....	101.3	93.3	78.4	-----	99.8	85.2	61.8	-----	126.3	102.2	73.0	-----	112.7	74.2	47.5	-----
August.....	101.5	92.8	77.6	-----	98.6	83.8	59.6	-----	185.7	142.9	99.0	-----	172.0	104.7	65.6	-----
September.....	100.1	90.6	77.0	-----	97.1	81.9	59.1	-----	246.6	180.1	125.3	-----	214.8	129.4	75.1	-----
October.....	97.5	87.4	75.4	-----	95.5	79.7	58.6	-----	164.7	108.1	81.1	-----	140.0	77.6	51.8	-----
November.....	95.2	84.9	74.3	-----	93.6	77.1	57.5	-----	96.7	60.8	50.5	-----	82.9	48.1	34.4	-----
December.....	93.5	83.1	73.2	-----	91.5	75.4	56.6	-----	61.6	40.7	33.7	-----	57.4	36.9	25.6	-----
Average.....	99.2	91.7	79.0	-----	98.5	85.4	64.5	-----	103.9	80.9	59.5	-----	96.1	65.6	42.6	-----
	Laundries								Dyeing and cleaning							
January.....	-----	90.5	84.7	75.4	-----	86.6	76.4	57.9	-----	88.9	82.1	73.0	-----	77.7	65.8	46.6
February.....	-----	90.0	82.9	-----	-----	85.6	73.3	-----	-----	87.4	80.5	-----	-----	75.1	62.2	-----
March.....	-----	89.5	82.0	-----	-----	85.6	71.6	-----	-----	88.0	80.6	-----	-----	75.6	61.7	-----
April.....	-----	90.5	82.0	-----	-----	86.8	71.4	-----	-----	95.7	83.3	-----	-----	86.3	65.9	-----
May.....	-----	90.3	81.4	-----	-----	86.5	70.6	-----	-----	96.7	84.5	-----	-----	86.6	67.3	-----
June.....	-----	91.0	81.0	-----	-----	87.1	68.6	-----	-----	99.0	85.1	-----	-----	89.1	65.8	-----
July.....	-----	91.8	80.3	-----	-----	87.4	66.3	-----	-----	98.6	82.4	-----	-----	86.2	60.0	-----
August.....	-----	90.2	78.9	-----	-----	84.6	63.9	-----	-----	93.5	79.5	-----	-----	80.0	56.3	-----
September.....	-----	89.3	78.6	-----	-----	84.1	62.9	-----	-----	95.3	83.3	-----	-----	82.6	61.0	-----
October.....	-----	88.1	77.5	-----	-----	81.8	61.2	-----	-----	94.2	82.3	-----	-----	81.4	58.8	-----
November.....	-----	86.2	76.2	-----	-----	78.9	59.1	-----	-----	90.1	78.0	-----	-----	74.7	52.3	-----
December.....	-----	85.3	75.9	-----	-----	77.4	58.7	-----	-----	84.9	75.2	-----	-----	67.9	48.4	-----
Average.....	-----	89.4	80.1	-----	-----	84.4	67.0	-----	-----	92.7	81.4	-----	-----	80.3	60.5	-----

### Average Man-Hours Worked and Average Hourly Earnings

IN THE following tables the bureau presents a tabulation of man-hours worked per week and average hourly earnings, based on reports supplied by identical establishments in December, 1932, and January, 1933, in 15 industrial groups and 73 manufacturing industries. Man-hour data for the building construction group and for the insurance, real estate, banking, and brokerage groups are not available, and data for several of the 89 manufacturing industries surveyed monthly are omitted from these tables due to lack of adequate information.

The total number of establishments supplying man-hour data in these 15 industrial groups represents approximately 50 per cent of the establishments supplying monthly employment data.

The tabulations are based on reports supplying actual man-hours worked and do not include nominal man-hour totals, obtained by multiplying the total number of employees in the establishment by the plant operating time.

Table 1 shows the average hours worked per employee per week and average hourly earnings in 15 industrial groups and for all groups combined. The average hours per week and average hourly earnings for the combined total of the 15 industrial groups are weighted averages, wherein the average man-hours and average hourly earnings in each industrial group are multiplied by the total number of employees in the group in the current month and the sum of these products divided by the total number of employees in the combined 15 industrial groups.

In presenting information for the separate manufacturing industries, shown in Table 2, data are published for only those industries in which the available man-hour information covers 20 per cent or more of the total number of employees in the industry at the present time. The average man-hours and hourly earnings for the combined 89 manufacturing industries have been weighted in the same manner as the averages for all industrial groups combined, Table 1.

Per capita weekly earnings, computed by multiplying the average man-hours worked per week by the average hourly earnings shown in the following table, are not identical to the per capita weekly earnings appearing elsewhere in this trend-of-employment compilation, which are obtained by dividing the total weekly earnings in all establishments reporting by the total number of employees in those establishments. As already noted, the basic information upon which the average weekly man-hours and average hourly earnings are computed covers approximately 50 per cent of the establishments reporting monthly employment data.

TABLE 1.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN 15 INDUSTRIAL GROUPS, DECEMBER, 1932, AND JANUARY, 1933

Industrial group	Average hours per week		Average hourly earnings	
	December, 1932	January, 1933	December, 1932	January, 1933
			<i>Cents</i>	<i>Cents</i>
Manufacturing.....	38.4	37.5	43.3	42.7
Anthracite mining.....	32.0	28.1	82.3	83.6
Bituminous-coal mining.....	30.5	29.0	47.5	48.1
Metalliferous mining.....	39.3	39.4	45.7	45.5
Quarrying and nonmetallic mining.....	34.0	34.6	41.9	40.4
Crude petroleum producing.....	45.0	44.6	63.7	58.0
Telephone and telegraph.....	38.7	37.6	68.9	69.3
Power and light.....	44.1	43.4	65.6	66.9
Electric-railroad and motor-bus operation and maintenance.....	46.4	46.2	59.2	59.3
Wholesale trade.....	46.9	47.0	55.8	56.7
Retail trade.....	44.4	44.8	41.6	43.1
Hotels.....	51.7	51.4	24.9	24.3
Canning and preserving.....	39.9	40.6	34.5	34.0
Laundries.....	42.2	42.0	35.5	35.4
Dyeing and cleaning.....	43.9	44.1	37.1	37.4
Total.....	41.5	41.1	45.8	46.1



TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS, IN SELECTED MANUFACTURING INDUSTRIES, DECEMBER, 1932, AND JANUARY, 1933

Industry	Average hours per week		Average hourly earnings	
	December, 1932	January, 1933	December, 1932	January, 1933
Food and kindred products:			<i>Cents</i>	<i>Cents</i>
Baking.....	45.7	46.4	43.8	43.2
Beverages.....	39.0	39.4	61.2	61.0
Confectionery.....	42.2	40.6	33.5	33.1
Flour.....	47.3	48.1	43.6	43.0
Ice cream.....	48.1	48.8	51.6	51.0
Slaughtering and meat packing.....	46.0	46.4	44.4	44.2
Sugar, beet.....	34.3	43.8	39.5	48.7
Sugar refining, cane.....	48.8	44.2	43.6	42.6
Textiles and their products:				
Carpets and rugs.....	32.9	34.5	42.4	40.1
Cotton goods.....	45.6	45.0	22.6	22.4
Cotton small wares.....	40.5	39.6	36.0	34.7
Dyeing and finishing textiles.....	45.1	45.2	39.1	38.5
Knit goods.....	46.0	41.3	31.6	30.4
Silk and rayon goods.....	41.2	39.8	30.9	29.4
Woolen and worsted goods.....	45.3	45.2	35.3	34.2
Iron and steel and their products, not including machinery:				
Bolts, nuts, washers, and rivets.....	31.4	29.2	46.7	45.6
Cast-iron pipe.....	28.3	25.3	44.7	48.2
Cutlery (not including silver and plated cutlery), and edge tools.....	35.3	33.8	50.1	49.2
Forgings—iron and steel.....	32.3	30.4	48.2	48.7
Hardware.....	31.0	28.2	44.8	44.9
Iron and steel.....	24.9	25.3	48.7	48.4
Plumbers' supplies.....	28.0	27.3	47.3	45.1
Steam and hot-water heating apparatus and steam fittings.....	30.2	29.2	50.8	49.8
Stoves.....	28.3	28.5	48.1	47.8
Structural and ornamental metal work.....	30.7	28.4	48.1	45.3
Tin cans and other tinware.....	41.9	39.5	40.7	39.8
Tools (not including edge tools, machine tools, files, and saws).....	32.7	30.6	46.6	47.1
Machinery, not including transportation equipment:				
Agricultural implements.....	29.9	30.5	48.9	48.8
Cash registers, adding machines, and calculating machines.....	34.8	33.9	67.7	67.5
Electrical machinery, apparatus, and supplies.....	31.1	29.4	57.6	59.6
Engines, turbines, tractors, and water wheels.....	32.6	32.2	56.5	57.3
Foundry and machine-shop products.....	29.3	27.8	51.9	51.6
Machine tools.....	31.4	32.5	56.7	56.6
Radio and phonographs.....	36.0	32.5	43.6	42.3
Textile machinery and parts.....	30.9	29.6	58.7	57.4
Typewriters and supplies.....	35.1	32.1	47.5	47.1
Nonferrous metals and their parts:				
Brass, bronze, and copper products.....	32.4	30.8	45.5	46.5
Clocks and watches and time-recording devices.....	40.1	32.6	42.7	43.9
Jewelry.....	33.9	33.6	53.0	47.5
Silverware and plated ware.....	35.2	32.6	46.2	46.5
Smelting and refining, copper, lead, and zinc.....	32.1	31.2	48.3	48.2
Stamped and enameled ware.....	37.5	36.1	37.8	38.2
Transportation equipment:				
Aircraft.....	47.4	42.5	64.3	64.9
Automobiles.....	34.3	35.8	57.6	55.6
Locomotives.....	27.7	24.9	46.5	52.9
Shipbuilding.....	33.4	29.8	60.4	59.4
Railroad repair shops:				
Electric railroad.....	45.0	43.9	57.5	57.4
Steam railroad.....	36.4	34.5	62.1	62.7
Lumber and allied products:				
Furniture.....	34.7	30.4	35.1	34.5
Lumber.....				
Millwork.....	34.8	35.5	36.3	34.2
Sawmills.....	34.3	33.1	30.1	29.0
Stone, clay, and glass products:				
Brick, tile, and terra cotta.....	29.3	28.9	36.4	35.4
Cement.....	35.0	30.8	43.4	44.6
Glass.....	35.3	34.7	43.9	43.6
Marble, granite, slate, and other products.....	29.4	32.2	59.8	55.2
Pottery.....	37.4	34.5	40.5	39.4
Leather and its manufactures: Leather.....	42.8	41.8	40.1	39.3
Paper and printing:				
Boxes, paper.....	41.4	37.8	41.6	43.0
Paper and pulp.....	38.7	38.6	43.5	42.8
Printing and publishing—				
Book and job.....	37.2	37.3	67.4	66.5
Newspapers and periodicals.....	41.4	40.6	77.5	75.8

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS, IN SELECTED MANUFACTURING INDUSTRIES, DECEMBER, 1932, AND JANUARY, 1933—Continued

Industry	Average hours per week		Average hourly earnings	
	December, 1932	January, 1933	December, 1932	January, 1933
Chemicals and allied products:			<i>Cents</i>	<i>Cents</i>
Chemicals.....	40.9	40.2	51.7	52.0
Druggists' preparations.....	41.8	43.8	44.3	42.5
Explosives.....	37.5	35.3	54.1	54.3
Fertilizers.....	44.0	43.1	30.4	28.4
Paints and varnishes.....	39.9	38.3	52.5	52.6
Petroleum refining.....	38.8	39.9	62.7	62.4
Rayon and allied products.....	46.1	45.5	37.6	37.7
Soap.....	40.6	40.8	44.1	41.4
Rubber products:				
Rubber goods, other than boots, shoes, tires, and inner tubes.....	37.8	36.3	44.0	44.3
Rubber tires and inner tubes.....	29.7	28.7	58.9	58.3
Tobacco manufactures:				
Chewing and smoking tobacco and snuff.....	40.5	43.0	32.7	31.8
Cigars and cigarettes.....	39.9	34.8	30.8	29.1

### Employment in Building Construction in January, 1933

EMPLOYMENT in the building construction industry decreased 5.1 per cent in January, 1933, as compared with December, 1932, and pay rolls decreased 4.1 per cent over the month interval.

The per cents of change of employment and pay-roll totals in January, 1933, as compared with December, 1932, are based on returns made by 10,144 firms employing in January 63,673 workers in the various trades in the building construction industry. These reports cover building operations in various localities in 34 States and the District of Columbia.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE BUILDING CONSTRUCTION INDUSTRY IN IDENTICAL FIRMS, DECEMBER 1932, AND JANUARY, 1933

Locality	Number of firms reporting	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		Dec. 15	Jan. 15		Dec. 15	Jan. 15	
Alabama: Birmingham.....	69	423	443	+4.7	\$4,649	\$4,917	+5.8
California:							
Los Angeles 1.....	20	661	603	-8.8	11,544	12,474	+8.1
San Francisco-Oakland 1.....	23	575	638	+11.0	12,757	12,649	- .8
Other reporting localities 1.....	17	332	293	-11.7	7,474	5,903	-21.0
Colorado: Denver.....	183	558	501	-10.2	11,328	10,218	-9.8
Connecticut:							
Bridgeport.....	126	455	395	-13.2	10,625	8,342	-21.5
Hartford.....	212	920	797	-13.4	20,333	18,309	-10.0
New Haven.....	170	990	1,030	+4.0	25,496	27,294	+7.1
Delaware: Wilmington.....	113	1,026	943	-8.1	20,903	18,792	-10.1
District of Columbia.....	541	7,627	7,997	+4.9	204,599	219,400	+7.2
Florida:							
Jacksonville.....	51	319	309	-3.1	4,975	4,617	-7.2
Miami.....	77	546	484	-11.4	11,437	10,045	-12.2
Georgia: Atlanta.....	119	1,015	906	-10.7	12,420	13,810	+11.2
Illinois:							
Chicago 1.....	142	970	1,178	+21.4	23,928	30,946	+29.3
Other reporting localities 1.....	77	442	397	-10.2	7,075	7,457	+5.4
Indiana:							
Evansville.....	50	200	222	+11.0	3,334	3,770	+13.1
Fort Wayne.....	101	253	230	-9.1	3,693	3,627	-1.8
Indianapolis.....	160	643	754	+17.3	13,856	14,403	+3.9
South Bend.....	35	167	208	+24.6	2,743	3,501	+27.6

1 Data supplied by cooperating State bureaus.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE BUILDING CONSTRUCTION INDUSTRY IN IDENTICAL FIRMS, DECEMBER, 1932, AND JANUARY, 1933—Continued

Locality	Number of firms reporting	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		Dec. 15	Jan. 15		Dec. 15	Jan. 15	
Iowa: Des Moines.....	109	553	556	+0.5	\$10,578	\$12,947	+22.4
Kansas: Wichita.....	60	294	281	-4.4	5,061	4,962	-2.0
Kentucky: Louisville.....	122	604	649	+7.5	9,456	10,419	+10.2
Louisiana: New Orleans.....	134	1,137	1,154	+1.5	19,088	19,546	+2.4
Maine: Portland.....	100	429	306	-28.7	8,996	5,990	-33.4
Maryland: Baltimore <sup>1</sup> .....	114	841	786	-6.5	14,105	11,505	-18.4
Massachusetts: All reporting localities <sup>1</sup> .....	726	4,526	3,510	-22.4	109,647	85,668	-21.9
Michigan:							
Detroit.....	408	2,308	2,071	-10.3	48,348	40,442	-16.4
Flint.....	50	115	112	-2.6	1,910	1,655	-13.4
Grand Rapids.....	98	477	375	-21.4	9,360	7,223	-22.8
Minnesota:							
Duluth.....	55	309	306	-1.0	5,935	6,627	+11.7
Minneapolis.....	225	1,048	917	-12.5	21,073	17,622	-16.4
St. Paul.....	155	545	431	-20.9	10,433	7,451	-28.6
Missouri:							
Kansas City <sup>2</sup> .....	247	1,051	1,088	+3.5	23,390	22,320	-4.6
St. Louis.....	454	2,049	2,266	+10.6	51,670	60,047	+16.2
Nebraska: Omaha.....	133	541	527	-2.6	10,841	8,515	-21.5
New York:							
New York City <sup>1</sup> .....	332	7,299	6,696	-8.3	252,888	240,374	-4.9
Other reporting localities <sup>1</sup> .....	169	3,691	2,972	-19.5	94,023	79,437	-15.5
North Carolina: Charlotte.....	36	155	186	+12.0	2,143	2,569	+19.9
Ohio:							
Akron.....	80	271	265	-2.2	4,059	3,627	-10.6
Cincinnati <sup>3</sup> .....	488	2,246	2,548	+13.4	49,222	61,785	+25.5
Cleveland.....	495	2,271	2,001	-11.9	56,115	48,775	-13.1
Dayton.....	110	454	439	-3.3	7,776	7,808	+4.4
Youngstown.....	66	210	186	-11.4	3,771	3,173	-15.9
Oklahoma:							
Oklahoma City.....	86	259	341	+31.7	4,351	4,664	+7.2
Tulsa.....	49	147	178	+21.1	2,264	2,598	+14.8
Oregon: Portland.....	179	552	573	+3.8	9,818	11,268	+14.8
Pennsylvania: <sup>4</sup>							
Erie area <sup>1</sup> .....	24	83	79	-4.8	1,849	1,571	-15.0
Philadelphia area <sup>1</sup> .....	418	3,022	2,612	-13.6	60,381	50,677	-16.1
Pittsburgh area <sup>1</sup> .....	230	1,107	1,063	-4.0	27,188	27,783	+2.2
Reading-Lebanon area <sup>1</sup> .....	38	227	200	-11.9	4,363	4,146	-5.0
Scranton area <sup>1</sup> .....	34	167	163	-2.4	3,741	3,089	-17.4
Other reporting areas <sup>1</sup> .....	261	1,703	1,495	-12.2	30,095	26,606	-11.6
Rhode Island: Providence.....	231	1,180	1,065	-9.7	25,056	22,201	-11.4
Tennessee:							
Chattanooga.....	37	129	196	+51.9	1,783	2,477	+38.9
Knoxville.....	46	433	359	-17.1	4,683	4,133	-11.7
Memphis.....	91	388	394	+1.5	6,515	7,110	+9.1
Nashville.....	64	586	511	-12.8	8,089	7,000	-13.5
Texas:							
Dallas.....	150	706	936	+32.6	10,617	14,322	+34.9
El Paso.....	21	203	232	+14.3	2,584	3,068	+18.7
Houston.....	138	620	760	+22.6	9,247	12,045	+30.3
San Antonio.....	101	450	464	+3.1	6,385	7,025	+10.0
Utah: Salt Lake City.....	83	269	202	-24.9	5,204	3,359	-35.5
Virginia:							
Norfolk-Portsmouth.....	86	534	415	-22.3	8,116	5,995	-26.1
Richmond.....	142	831	730	-12.2	15,125	12,997	-14.1
Washington:							
Seattle.....	155	659	577	-12.4	14,379	10,951	-23.8
Spokane.....	50	148	157	+6.1	2,335	2,047	-12.3
Tacoma.....	73	103	111	+7.8	1,817	1,803	-8.8
West Virginia: Wheeling.....	45	126	112	-11.1	2,187	1,848	-15.5
Wisconsin: All reporting localities <sup>1</sup> .....	60	939	792	-15.7	18,446	14,754	-20.0
Total, all localities.....	10,144	67,117	63,673	-5.1	1,529,675	1,466,498	-4.1

<sup>1</sup> Data supplied by cooperating State bureaus.<sup>2</sup> Includes both Kansas City, Mo., and Kansas City, Kans.<sup>3</sup> Includes Covington and Newport, Ky.<sup>4</sup> Each separate area includes from 2 to 8 counties.

## Employment in the Executive Civil Service of the United States, January, 1933

THE Federal pay rolls in the United States showed 9,419 fewer names in January, 1933, than in January, 1932. Comparing January, 1933, with December, 1932, there was a loss of 942.

These figures do not include the legislative, judicial, or Army and Navy services. The data as shown in the table below are compiled by the various Federal departments and offices and sent to the United States Civil Service Commission, where they are assembled. They are tabulated by the United States Bureau of Labor Statistics, and published here by courtesy of the Civil Service Commission, and in compliance with the direction of Congress. No information has as yet been collected relative to the amounts of pay rolls. Because of the importance of Washington as a Government center, the figures for the District of Columbia, and for the Government service outside of the District of Columbia, are shown separately.

The number of employees in the District of Columbia showed a decrease of 4.1 per cent in January, 1933, as compared with January, 1932. The number of permanent employees in the District of Columbia decreased 2.9 per cent, while the number of temporary employees decreased 26 per cent, comparing January, 1933, with January, 1932. There was an increase of eight-tenths of 1 per cent in the total number of Federal employees in the District of Columbia, comparing January, 1933, with December, 1932. This increase was caused by taking on in the Department of Agriculture of 581 employees (net) in the new Crop Production Loan Office.

EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES, JANUARY AND DECEMBER, 1932, AND JANUARY, 1933<sup>1</sup>

Item	District of Columbia			Outside the District			Entire service		
	Perma- nent	Tempo- rary <sup>2</sup>	Total	Perma- nent	Tempo- rary <sup>2</sup>	Total	Perma- nent	Tempo- rary <sup>2</sup>	Total
<b>Number of employees:</b>									
January, 1932.....	65,975	3,667	69,642	478,453	24,485	502,938	544,428	28,152	572,580
December, 1932.....	64,214	2,088	66,302	468,769	29,032	497,801	532,983	31,120	564,103
January, 1933.....	64,086	2,714	66,800	469,080	27,281	496,361	533,166	29,995	563,161
<b>Gain or loss:</b>									
January, 1932-January, 1933.....	-1,889	-953	-2,842	-9,373	+2,796	-6,577	-11,262	+1,843	-9,419
December, 1932-Janu- ary, 1933.....	-128	+626	+498	+311	-1,751	-1,440	+183	-1,125	-942
<b>Per cent of change:</b>									
January, 1932-January, 1933.....	-2.9	-26.0	-4.1	-2.0	+11.4	-1.3	-2.1	+6.5	-1.6
December, 1932-Janu- ary, 1933.....	-0.2	+30.0	+0.8	+0.1	-6.0	-0.3	+( <sup>3</sup> )	-3.6	-0.2
<b>Labor turnover, January, 1933:</b>									
Additions.....	472	843	1,315	2,758	13,550	16,308	3,230	14,393	17,623
Separations.....	600	217	817	2,447	15,301	17,748	3,047	15,518	18,565
Turnover rate per 100....	0.74	9.04	1.23	0.53	48.13	3.28	0.57	47.1	3.13

<sup>1</sup> Revisions have been made from time to time by the Civil Service Commission in dropping certain classes of employees, previously carried in the tabulations. Thus, in the District of Columbia, 68 mail contractors and special-delivery messengers were eliminated from the enumeration in May, 1932, and in the service outside the District of Columbia 35,800 star route and other contractors, clerks in charge of mail-contract stations, clerks in third-class post offices, and special-delivery messengers were eliminated in April, 1932, and 835 collaborators of the Department of Agriculture, in June, 1932. In the table, in order to make the figures comparable for the months shown, it was assumed that the number of these employees was the same in 1931, as in the month they were dropped from the tabulation (actual figures not being available from the Civil Service Commission), and the data for this month has been revised accordingly in this table.

<sup>2</sup> Not including field service of the Post Office Department.

<sup>3</sup> Less than one-tenth of 1 per cent.

## Employment on Class I Steam Railroads in the United States

DATA are not yet available concerning railroad employment for January, 1933. Reports of the Interstate Commerce Commission for Class I railroads show that the number of employees (exclusive of executives and officials) decreased from 1,000,119 on November 15, 1932, to 980,501 on December 15, 1932, or 2.0 per cent; the amount of pay roll decreased from \$114,581,486 in November to \$114,284,718 in December, or 0.3 per cent.

The monthly trend of employment from January, 1923, to December, 1932, on Class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by the index numbers published in the following table. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12-month average for 1926 as 100.

TABLE 1.—INDEXES OF EMPLOYMENT, ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO DECEMBER, 1932

[12-month average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
January.....	98.3	96.9	95.6	95.8	95.5	89.3	88.2	86.3	73.7	61.2
February.....	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7	60.3
March.....	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9	60.5
April.....	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5	60.0
May.....	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9	59.7
June.....	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8	57.8
July.....	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4	56.4
August.....	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2	55.0
September.....	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	69.3	55.8
October.....	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	67.7	57.0
November.....	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	64.5	55.9
December.....	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	62.6	54.8
Average.....	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	70.6	57.9

### Trend of Employment in January, 1933, by States

IN THE following table are shown the fluctuations in employment and pay-roll totals in January, 1933, as compared with December, 1932, in certain industrial groups by States. These tabulations have been prepared from data secured directly from reporting establishments and from information supplied by cooperating State agencies. The combined total of all groups does not include building-construction data, information concerning which is published elsewhere in a separate tabulation by city and State totals. In addition to the combined total of all groups, the trend of employment and pay rolls in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous-coal mining, crude-petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundries, and dyeing and cleaning groups is presented. In this State compilation, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group—public utilities. Due to the extreme seasonal fluctuations in the canning and preserving industry, and the fact that during certain months the activity in this industry in a number of States is negligible, data for this industry are not presented separately. The number of employees and the amount of weekly pay roll in December, 1932, and January, 1933, as reported by identical establishments in this industry are included, however, in the combined total of "All groups."

The per cents of change shown in the accompanying tables, unless otherwise noted, are unweighted per cents of change; that is, the industries included in the groups, and the groups comprising the total of all groups, have not been weighted according to their relative importance in the combined totals.

As the anthracite-mining industry is confined entirely to the State of Pennsylvania, the changes reported in this industry in the summary table are the fluctuations in this industry by State totals.

When the identity of any reporting company would be disclosed by the publication of a State total for any industrial group, figures for the group do not appear in the separate industrial-group tabulation, but are included in the State totals for "All groups." Data are not presented for any industrial group when the representation in the State covers less than three establishments.



COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS  
IN DECEMBER, 1932, AND JANUARY, 1933, BY STATES[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued  
by cooperating State organizations]

State	Total—all groups					Manufacturing				
	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change
Alabama.....	459	46,650	-4.4	\$491,709	-5.5	196	32,247	-3.5	\$322,633	-5.9
Arizona.....	361	7,445	-5.9	153,737	-2.7	55	1,639	-10.7	34,463	-9.9
Arkansas.....	<i>1,444</i>	<i>14,007</i>	<i>-2.9</i>	<i>193,780</i>	<i>-4.7</i>	<i>179</i>	<i>9,022</i>	<i>-1.5</i>	<i>108,098</i>	<i>-4.7</i>
California.....	<i>21,942</i>	<i>220,910</i>	<i>-5.6</i>	<i>5,216,073</i>	<i>-5.3</i>	<i>1,114</i>	<i>105,715</i>	<i>-2.9</i>	<i>2,339,103</i>	<i>-4.9</i>
Colorado.....	722	26,213	-15.3	519,282	-11.5	116	8,832	-29.5	164,566	-15.9
Connecticut.....	1,033	127,119	-2.7	2,155,761	-7.9	635	108,578	-2.5	1,694,117	-8.7
Delaware.....	120	8,959	+3	177,904	-4.1	52	6,871	+2.2	132,086	-3.4
District of Columbia.....	<i>2,333</i>	<i>36,705</i>	<i>-2.4</i>	<i>814,569</i>	<i>-2.8</i>	<i>56</i>	<i>3,740</i>	<i>+1.8</i>	<i>123,763</i>	<i>-2.5</i>
Florida.....	530	23,977	+8.2	344,167	-5.5	124	9,771	-24.3	123,225	-33.3
Georgia.....	620	69,145	-8	821,231	-2.4	298	56,820	-7	567,884	-3.4
Idaho.....	198	7,540	-15.4	117,388	-22.0	41	3,763	-28.6	48,441	-39.7
Illinois.....	<i>31,583</i>	<i>258,841</i>	<i>-2.1</i>	<i>5,167,023</i>	<i>-2.6</i>	<i>1,052</i>	<i>154,643</i>	<i>-1.9</i>	<i>2,640,256</i>	<i>-2.2</i>
Indiana.....	1,151	104,078	-3.7	1,869,211	-3.8	548	76,824	-2.5	1,327,115	-4.0
Iowa.....	1,142	38,739	-7.3	735,648	-7.6	450	20,477	-10.0	371,900	-12.1
Kansas.....	<i>41,003</i>	<i>57,364</i>	<i>-3.6</i>	<i>1,265,897</i>	<i>-3.9</i>	<i>448</i>	<i>21,057</i>	<i>-1.6</i>	<i>434,511</i>	<i>-3.1</i>
Kentucky.....	771	52,090	-2.3	764,108	-3.4	199	17,295	-3.5	265,784	-1.9
Louisiana.....	480	25,636	-3.9	383,104	-1.1	204	15,231	-1.0	198,226	+2.3
Maine.....	528	35,622	-3.1	557,653	-5.6	180	29,958	-1.9	433,375	-5.1
Maryland.....	<i>3,822</i>	<i>70,352</i>	<i>-6.3</i>	<i>1,299,202</i>	<i>-6.7</i>	<i>448</i>	<i>46,235</i>	<i>-5.8</i>	<i>766,332</i>	<i>-5.7</i>
Massachusetts.....	<i>67,811</i>	<i>315,148</i>	<i>-4.8</i>	<i>6,385,933</i>	<i>-6.5</i>	<i>1,099</i>	<i>151,660</i>	<i>-1.7</i>	<i>2,489,307</i>	<i>-7.3</i>
Michigan.....	1,418	248,587	+3.2	5,013,478	+3.8	378	181,619	+7.9	3,673,720	+10.6
Minnesota.....	967	55,553	-6.2	1,143,238	-5.6	263	27,272	-6.6	519,223	-8.9
Mississippi.....	373	8,008	-3.8	97,262	-5.8	62	4,354	-9.3	43,170	-15.2
Missouri.....	1,079	95,050	-2.0	1,916,102	-1.1	505	54,366	-6.6	986,498	+1.1
Montana.....	288	8,226	-2.4	188,972	-5.4	46	2,976	-3.3	55,318	-6.3
Nebraska.....	663	19,691	-10.6	422,086	-5.1	117	9,498	-14.7	196,771	-7.2
Nevada.....	129	1,121	-8.6	28,591	-10.1	23	234	-4.5	6,191	-6.5
New Hampshire.....	431	32,055	-1.4	489,890	-3.0	175	28,616	-8	408,674	-2.2
New Jersey.....	1,413	166,014	-5.1	3,487,759	-7.6	<i>7,890</i>	<i>150,715</i>	<i>-4.8</i>	<i>3,060,651</i>	<i>-6.9</i>
New Mexico.....	172	4,648	-2.7	80,462	-1.8	23	444	-13.4	5,761	-33.3
New York.....	6,388	472,107	-5.2	10,734,232	-6.5	<i>81,667</i>	<i>290,591</i>	<i>-3.1</i>	<i>6,087,442</i>	<i>-6.1</i>
North Carolina.....	845	103,422	-1.7	1,086,733	-5.9	509	98,938	-1.7	1,019,343	-6.2
North Dakota.....	307	3,103	-6.0	67,349	-11.0	57	909	-2.7	21,466	-2.1
Ohio.....	4,486	336,255	-3.2	6,064,949	-1.5	1,876	243,597	-1.1	4,182,699	+1
Oklahoma.....	641	25,030	-3	499,087	-1.0	98	8,742	+2.8	168,538	+4.4
Oregon.....	630	22,969	-5.2	426,236	-5.2	140	12,672	-7.4	193,939	-9.5
Pennsylvania.....	3,994	545,025	-6.2	9,218,307	-11.1	<i>1,710</i>	<i>303,163</i>	<i>-4.5</i>	<i>4,163,740</i>	<i>-10.4</i>
Rhode Island.....	881	52,436	-3.0	905,565	-6.9	266	41,605	-1.9	661,129	-7.0
South Carolina.....	311	48,846	-3	462,483	-1.3	170	45,545	+3	411,758	-1.3
South Dakota.....	223	5,852	-2.4	125,123	-4.1	45	2,183	-2.2	40,329	-7.0
Tennessee.....	697	57,324	-3.7	769,760	-3.5	259	41,859	-3.2	529,318	-4.0
Texas.....	<i>761</i>	<i>54,417</i>	<i>-4.2</i>	<i>1,208,392</i>	<i>-3.0</i>	<i>356</i>	<i>29,978</i>	<i>-3.5</i>	<i>584,900</i>	<i>-2.6</i>
Utah.....	312	13,251	-5.7	265,580	-1.5	70	4,768	-14.7	87,859	-13.0
Vermont.....	340	8,066	-11.0	142,848	-14.1	116	4,372	-9.2	70,820	-9.9
Virginia.....	1,214	75,902	-3.0	1,160,550	-5.3	415	53,285	-1.4	770,426	-5.7
Washington.....	1,048	42,812	-8.1	859,705	-8.3	228	19,335	-5.4	350,344	-10.0
West Virginia.....	740	75,047	-4.3	1,219,286	-2.8	184	28,517	-7.4	510,527	-3.9
Wisconsin.....	<i>91,079</i>	<i>114,167</i>	<i>-5.6</i>	<i>1,776,504</i>	<i>-8.5</i>	<i>794</i>	<i>87,479</i>	<i>-3.4</i>	<i>1,248,473</i>	<i>-8.0</i>
Wyoming.....	183	6,062	-1.3	130,305	-10.5	26	1,464	-3.7	33,996	-10.1

<sup>1</sup> Includes automobile dealers and garages, and sand, gravel, and building construction.<sup>2</sup> Includes banks, insurance, and office employment.<sup>3</sup> Includes building and contracting.<sup>4</sup> Includes transportation, financial institutions, restaurants, and building construction<sup>5</sup> Weighted per cent of change.<sup>6</sup> Includes construction, municipal, agricultural, and office employment, amusement and recreation, professional and transportation services.<sup>7</sup> Includes laundries.<sup>8</sup> Includes laundering and cleaning.<sup>9</sup> Includes construction, but does not include hotels and restaurants.

## TREND OF EMPLOYMENT

673

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS  
IN DECEMBER, 1932, AND JANUARY, 1933, BY STATES—Continued[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued  
by cooperating State organizations]

State	Wholesale trade				Retail trade					
	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change
Alabama.....	14	529	-3.6	\$13,815	+1.6	29	1,778	-27.3	\$27,255	-14.9
Arizona.....	17	125	- 8	3,467	+6.3	178	1,896	-16.4	23,072	- 5.5
Arkansas.....	17	453	- 2	12,301	+2.6	138	1,618	-16.1	27,322	-14.1
California.....	93	4,985	-3.0	145,996	-3.1	115	26,782	-26.4	517,911	-20.4
Colorado.....	29	818	-1.0	23,271	+3.0	260	3,915	-17.8	82,058	-11.6
Connecticut.....	56	1,188	-1.7	33,510	-1.9	118	4,778	-11.7	92,607	-9.0
Delaware.....	8	165	+1.2	4,656	+1.8	9	149	-39.9	2,169	-31.0
District of Columbia.....	24	288	-1.7	9,272	-2.1	400	10,165	-24.2	215,430	-17.6
Florida.....	43	733	-1.5	17,080	-1.4	74	1,219	- 2	23,774	+3.7
Georgia.....	33	418	+2.0	10,986	-2.3	27	1,727	-21.5	28,300	-13.3
Idaho.....	7	108	(10)	3,107	+1.9	68	793	+19.8	11,093	-4.4
Illinois.....	14	820	+ 7	19,739	-2.4	95	20,049	-7.5	406,947	-9.9
Indiana.....	57	1,025	- 5	26,703	+1.3	188	5,650	-22.8	99,028	-17.2
Iowa.....	32	893	-1.4	23,689	+3.4	124	3,040	-16.7	53,830	- 6.7
Kansas.....	66	1,731	-6.9	42,504	-8.0	306	5,761	-16.7	103,882	-7.5
Kentucky.....	21	451	- 2	9,323	+2.2	26	1,034	-9.5	15,516	-9.4
Louisiana.....	28	661	- 6	15,513	+2.3	46	2,726	-25.1	40,253	-23.6
Maine.....	17	443	+7.5	10,448	+6.4	75	1,068	-18.4	19,593	-13.5
Maryland.....	53	739	- 1	15,896	-1.1	55	5,047	-30.3	85,745	-26.3
Massachusetts.....	644	13,159	-2.4	350,774	-1.8	3,904	54,885	-13.6	1,102,219	-12.0
Michigan.....	55	1,508	+ 2	43,028	+ 1	186	9,885	-28.6	188,185	-22.6
Minnesota.....	57	3,994	-3.3	106,740	-2.4	279	7,452	- 8.1	129,087	- 6.0
Mississippi.....	4	109	+1.9	1,933	-5.7	58	428	-20.1	4,492	-21.4
Missouri.....	58	4,569	-2.1	118,383	+ 4	133	5,691	-21.4	112,233	-16.6
Montana.....	11	196	- 5	6,053	+2.6	65	681	-10.0	15,049	+1.5
Nebraska.....	35	885	-3.0	24,834	+ 5	158	1,606	-12.5	29,856	- 7.0
Nevada.....	6	78	+5.4	2,611	-9.3	37	217	- 7.3	5,403	- 6.7
New Hampshire.....	14	170	-5.6	4,463	-2.9	56	513	-27.4	9,340	-12.1
New Jersey.....	28	599	-1.5	18,422	-4.4	411	7,329	-30.2	159,683	-25.0
New Mexico.....	5	38	(10)	1,288	+1.8	48	231	-15.1	5,103	- 3.6
New York.....	318	7,330	-2.0	234,246	- 8	3,227	56,187	-21.9	1,248,477	-18.7
North Carolina.....	16	193	-4.5	4,268	-3.5	174	556	-11.6	10,434	- 3.9
North Dakota.....	15	193	-2.5	5,382	- 7.2	37	281	-22.8	4,657	-13.4
Ohio.....	228	4,718	-1.7	122,355	-1.6	1,431	28,337	-22.4	529,911	-17.3
Oklahoma.....	49	944	+ 1	25,600	+2.5	93	1,706	-10.2	27,327	- 8.7
Oregon.....	44	873	-5.0	25,353	-1.6	186	1,947	- 8.5	38,125	- 6.6
Pennsylvania.....	127	3,422	- 7	94,600	+(11)	310	25,132	-17.2	487,258	-15.0
Rhode Island.....	41	978	-7.0	23,751	- 7.5	498	4,915	-12.2	101,090	- 9.4
South Carolina.....	13	223	+ 5	4,502	- 8	16	394	-34.7	3,871	-24.9
South Dakota.....	10	123	+ 8	3,679	+2.4	12	92	-29.2	1,447	- 4.2
Tennessee.....	34	631	+ 5	13,818	+3.3	51	3,289	-17.6	53,444	-12.7
Texas.....	197	2,630	-4.7	72,992	- 9	65	5,051	-15.7	89,980	-17.6
Utah.....	15	447	-4.3	11,190	-1.0	82	726	- 1.1	14,256	+2.0
Vermont.....	5	109	(10)	2,684	-6.7	33	329	-34.9	6,176	-19.9
Virginia.....	40	892	+ 2	19,758	-1.8	460	4,480	-18.4	78,886	-15.5
Washington.....	89	1,951	-3.3	54,557	-2.7	389	6,114	-21.9	116,123	-15.7
West Virginia.....	33	583	+1.0	15,627	+2.0	49	876	-27.5	14,838	-15.0
Wisconsin.....	48	1,836	-7.7	41,632	-12.8	57	8,097	-23.5	122,040	-17.8
Wyoming.....	8	56	+3.7	1,694	- 5	46	213	- 9	5,551	+3.6

<sup>10</sup> No change.<sup>11</sup> Less than one-tenth of 1 per cent.

## COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN DECEMBER, 1932, AND JANUARY, 1933, BY STATES—Continued

Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Quarrying and nonmetallic mining					Metalliferous mining				
	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change
Alabama	8	445	-9.4	\$3,997	-16.4	9	606	-39.6	\$5,993	-44.8
Arizona						19	2,206	-4.4	49,855	+7
Arkansas	8	321	-34.6	2,364	-31.7					
California	29	502	-18.6	9,273	-21.7	33	2,466	-1.2	59,223	-5.9
Colorado						13	620	+2	14,601	-1.6
Connecticut	10	76	-26.2	1,375	-20.5					
Delaware										
Dist. of Columbia										
Florida	8	499	+3.1	6,229	+7.7					
Georgia	15	817	+1.7	7,694	-3.9					
Idaho						10	1,964	+6	38,420	+1.5
Illinois	25	314	+10.6	6,047	+13.9					
Indiana	33	558	+7.3	7,208	+4.8					
Iowa	17	158	-35.0	2,047	-30.7					
Kansas	18	324	-1.4	18,091	-3.8	10	566	-7	9,799	-12.6
Kentucky	24	525	-26.1	3,777	-26.2					
Louisiana	4	485	-4	4,829	+2.9					
Maine	7	23	-76.0	805	-64.8					
Maryland	13	172	-19.6	1,934	-33.6					
Massachusetts	13	178	-21.9	2,769	-31.6					
Michigan	14	269	-29.9	4,133	-19.9	42	5,076	+3.9	50,291	-2.7
Minnesota	6	20	-70.6	457	-48.4	32	813	-26.6	9,512	-24.2
Mississippi	3	63	+3.3	823	+36.7					
Missouri	13	236	+27.6	3,122	+16.1	13	1,024	-3	19,732	-5
Montana	4	2	-85.7	20	-91.5	17	1,254	-5.4	34,698	-7.5
Nebraska	3	34	-77.0	225	-87.4					
Nevada						11	96	+3.2	2,250	-14.0
New Hampshire	10	151	-1.3	3,855	-3.2					
New Jersey	3	24	-41.5	467	-64.4					
New Mexico						5	792	-4.5	15,661	-1.2
New York	43	776	-47.1	14,968	-42.9					
North Carolina	6	123	+7.0	1,052	+14.6					
North Dakota										
Ohio	57	1,268	-13.5	18,835	-12.2					
Oklahoma	4	59	<sup>(10)</sup>	749	+9.0	31	1,406	+10.4	18,586	+3.2
Oregon						4	50	+6.4	641	-15.7
Pennsylvania	58	1,531	-30.6	12,910	-39.6					
Rhode Island										
South Carolina	5	54	-3.6	381	+42.2					
South Dakota	5	41	-25.5	489	-42.9					
Tennessee	19	1,051	-3.8	14,490	+7.3	4	198	-2.9	2,589	-3.0
Texas	22	513	+10.8	9,740	+1.0					
Utah						12	2,039	+1	36,816	-3.7
Vermont	37	1,750	-16.0	33,786	-17.6					
Virginia	17	806	-8.0	6,193	-18.0					
Washington	6	124	-12.7	2,113	-15.8					
West Virginia	7	197	-36.0	1,833	-43.8					
Wisconsin	14	87	-13.0	1,142	-5.0					
Wyoming										

<sup>10</sup> No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS  
IN DECEMBER, 1932, AND JANUARY, 1933, BY STATES—Continued[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued  
by cooperating State organizations]

State	Bituminous coal mining					Crude petroleum producing				
	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change
Alabama	44	7,219	+1.5	\$62,169	+2.5					
Arizona										
Arkansas	6	431	+44.9	5,254	+57.3	9	369	-9.3	\$9,532	-4.4
California						41	6,389	+1.1	196,888	+5.3
Colorado	42	4,843	-1.3	73,516	-20.4					
Connecticut										
Delaware										
District of Columbia										
Florida										
Georgia										
Idaho										
Illinois	29	4,903	-12.1	105,753	-14.8	9	192	-1.0	3,972	-4.7
Indiana	45	5,427	-3.6	115,989	-1.8	4	18	-5.3	278	-9.2
Iowa	18	2,038	+2.0	38,698	-10.7					
Kansas	22	1,757	-4.4	22,502	-24.0	30	1,230	+1.8	26,063	-3.1
Kentucky	140	23,241	-1.0	279,530	-4.6	5	198	+1.0	3,630	-3.4
Louisiana						10	189	+9.9	5,332	+14.4
Maine										
Maryland	14	1,456	+1.1	12,991	-0.9					
Massachusetts										
Michigan	3	873	+4.1	21,208	+9.9					
Minnesota										
Mississippi										
Missouri	18	1,311	+10.5	23,708	-2.1					
Montana	8	756	+5.7	17,896	-12.6	3	16	<sup>(10)</sup>	485	-4.2
Nebraska										
Nevada										
New Hampshire										
New Jersey										
New Mexico	14	2,094	+3.5	33,940	+8.0	5	46	-9.8	1,197	-21.8
New York						6	185	-2.6	4,520	-2.8
North Carolina										
North Dakota										
Ohio	61	10,211	+8.6	140,468	+2.3	6	45	+2.3	641	-3.5
Oklahoma	17	615	-14.8	9,093	-31.1	60	4,336	-2.4	103,697	-5.2
Oregon										
Pennsylvania	381	50,861	+2.2	584,777	-4.2	20	617	+10.8	15,077	+12.4
Rhode Island										
South Carolina										
South Dakota										
Tennessee	17	2,628	-5.5	27,291	+3.9					
Texas						3	7,120	+2.2	246,291	+1.2
Utah	15	2,138	+4.7	59,733	+22.5					
Vermont										
Virginia	32	8,257	-2.9	116,988	+4.4					
Washington	10	1,372	+2.2	28,585	-15.2					
West Virginia	259	36,895	-9.9	493,129	-1.7	7	321	+3.3	7,564	+1.7
Wisconsin										
Wyoming	32	3,600	-(11)	73,374	-12.1	6	59	-3.3	2,068	-10.5

<sup>10</sup>No change.<sup>11</sup>Less than one-tenth of 1 per cent

## COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN DECEMBER, 1932, AND JANUARY, 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Public utilities				Hotels					
	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week), January, 1933	Per cent of change
Alabama.....	123	1,984	+3.8	\$40,218	+3.7	24	1,111	-1.7	\$9,470	-1.8
Arizona.....	67	1,217	+8	30,429	-2.2	13	430	+29.9	6,072	+24.3
Arkansas.....	<i>51</i>	<i>1,087</i>	<i>+2</i>	<i>25,844</i>	<i>-2.7</i>	<i>15</i>	<i>732</i>	<i>+4.1</i>	<i>7,462</i>	<i>-1.5</i>
California.....	<i>46</i>	<i>46,419</i>	<i>-1.0</i>	<i>1,255,057</i>	<i>-2.2</i>	<i>199</i>	<i>9,569</i>	<i>+1.3</i>	<i>147,695</i>	<i>+2</i>
Colorado.....	196	5,299	-6	133,689	-3.5	31	1,103	-5.8	15,325	-6.5
Connecticut.....	145	9,828	-6	294,495	-3.5	30	1,097	-2.6	13,916	-5.0
Delaware.....	28	1,083	-7	29,690	-6.4	6	249	-8	2,955	-2
District of Columbia.....	22	8,297	+1	239,636	+3	54	3,695	+8	55,540	-2.5
Florida.....	186	4,223	+1.1	108,611	-9	65	2,694	+166.2	33,239	+206.0
Georgia.....	186	6,744	+ <sup>(1)</sup>	183,245	+9	35	1,716	+17.5	15,426	+25.7
Idaho.....	56	658	-9	12,713	-8.0	15	222	-9	2,974	-7.9
Illinois.....	<i>65</i>	<i>66,418</i>	<i>-5</i>	<i>1,796,279</i>	<i>-8</i>	<i>124</i>	<i>7,943</i>	<i>-7</i>	<i>121,891</i>	<i>-2.8</i>
Indiana.....	147	9,562	-1.2	234,571	+1.8	57	2,409	-8	26,075	-2.2
Iowa.....	431	9,490	-2.1	218,979	+3	50	2,138	+6.6	19,137	-4.6
Kansas.....	<i>24</i>	<i>6,709</i>	<i>-2.9</i>	<i>153,403</i>	<i>-1.7</i>	<i>29</i>	<i>670</i>	<i>-6.8</i>	<i>10,942</i>	<i>-6.6</i>
Kentucky.....	298	6,792	-1	157,315	-2.9	35	1,526	-3.2	15,998	-3.9
Louisiana.....	154	4,335	+1.0	97,530	+2.9	23	1,823	-1.7	19,644	-5
Maine.....	169	2,793	-1.3	74,449	-4.4	20	685	+2.2	8,721	-1.9
Maryland.....	<i>98</i>	<i>12,462</i>	<i>-7</i>	<i>355,893</i>	<i>-2</i>	<i>26</i>	<i>1,387</i>	<i>-4.9</i>	<i>18,253</i>	<i>-4.2</i>
Massachusetts.....	<sup>13</sup> 139	<i>45,191</i>	<i>-1.1</i>	<i>1,251,225</i>	<i>-4.8</i>	<i>83</i>	<i>3,422</i>	<i>-1.6</i>	<i>52,032</i>	<i>-2.0</i>
Michigan.....	385	16,623	-8	479,281	-5.6	62	3,811	-1.3	47,623	-5.2
Minnesota.....	230	12,109	-3.8	325,805	+1	54	2,708	-2.1	33,674	-6.2
Mississippi.....	213	2,100	+9.7	38,755	+5.6	20	570	+14.2	4,963	+21.9
Missouri.....	221	21,164	-8	565,905	-1.2	69	4,106	+1.3	48,939	-2.3
Montana.....	102	1,807	+3	50,527	-3.6	17	247	+4.7	3,583	+1.7
Nebraska.....	302	5,609	-2.9	145,891	-9	33	1,460	-4.5	16,146	-4.3
Nevada.....	39	323	-20.0	9,108	-14.6	9	122	-3.2	2,010	-8.7
New Hampshire.....	143	2,055	-6	56,150	-6.9	13	228	-2.6	2,627	-9.7
New Jersey.....	280	22,228	-1.2	652,937	-2.3	73	4,137	+6.5	51,012	+2
New Mexico.....	55	516	-6.0	11,531	-4	12	272	-3.5	2,845	-3.6
New York.....	907	103,982	-4	3,153,616	-2.9	269	30,355	-1.6	481,589	-3.0
North Carolina.....	92	1,736	+9	33,749	-4	37	1,275	-3.8	11,844	-5
North Dakota.....	171	1,205	-7.0	29,374	-17.9	17	321	+2.9	3,274	-4.5
Ohio.....	498	32,417	-1.2	860,080	+2.9	152	8,785	-1	108,435	-4.4
Oklahoma.....	246	5,963	-8	132,500	-6	34	748	+1.6	6,924	+1.0
Oregon.....	186	5,702	-3	144,664	+2	37	966	-2.0	12,807	-3.9
Pennsylvania.....	687	58,640	+2	1,602,335	-8	177	9,240	-2.7	114,721	-7.1
Rhode Island.....	36	3,365	+1	94,073	-3.8	14	248	-5.7	3,224	-8.7
South Carolina.....	71	1,584	-3.1	34,794	+3.1	20	459	+23.7	3,732	+25.6
South Dakota.....	129	932	-3.2	24,336	-6.1	13	276	-3.2	3,268	-4.4
Tennessee.....	251	4,609	-1.7	101,517	+1	40	2,234	+4	19,369	-3.3
Texas.....	<i>155</i>	<i>6,164</i>	<i>-4.4</i>	<i>163,916</i>	<i>-3.2</i>	<i>43</i>	<i>2,911</i>	<i>-1.8</i>	<i>55,573</i>	<i>-2</i>
Utah.....	68	1,707	+1.7	35,316	-2.4	10	447	-2.2	5,862	+3.8
Vermont.....	120	1,024	-1.8	24,386	-3.4	21	384	-4.7	3,890	-7.4
Virginia.....	179	5,662	-1.4	149,065	+9	32	1,489	-7.6	16,688	-9.7
Washington.....	205	9,768	+2	252,750	-1.3	57	1,854	-1	21,354	-3.4
West Virginia.....	133	5,786	-5.1	152,248	-2.1	41	1,095	-1.2	11,943	-3.4
Wisconsin.....	<sup>14</sup> <i>42</i>	<i>10,873</i>	<i>-1.5</i>	<i>280,890</i>	<i>-4.1</i>	<sup>12</sup> <i>44</i>	<i>1,158</i>	<i>+7</i>	-----	-----
Wyoming.....	48	415	-4.2	9,377	-11.5	11	142	-2.7	2,085	-2.3

<sup>11</sup> Less than one-tenth of 1 per cent.<sup>12</sup> Includes restaurants.<sup>13</sup> Includes steam railroads.<sup>14</sup> Includes railways and express.<sup>15</sup> Data not supplied.

## COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN DECEMBER, 1932, AND JANUARY, 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Laundries					Dyeing and Cleaning				
	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week) January, 1933	Per cent of change	Number of establishments	Number on pay roll January, 1933	Per cent of change	Amount of pay roll (1 week) January, 1933	Per cent of change
Alabama.....	5	457	-2	\$3,590	-14.0	4	150	-15.7	\$1,446	-18.8
Arizona.....	9	394	-8	5,624	-2.1					
Arkansas.....	17	481	-1.1	3,902	-8	3	36	(10)	385	-5.9
California.....	16 73	5,470	-1.7	99,142	-1					
Colorado.....	7	438	-2	6,042	-1	10	120	-8	2,068	-5
Connecticut.....	26	1,302	+3.1	20,464	-6	12	259	-5.8	4,973	-6.0
Delaware.....	4	308	+1.0	4,549	+1.4	3	38	-7.3	600	-7.6
District of Columbia.....										
Florida.....	15	2,219	+2	34,788	-1.2	5	102	+6.3	1,947	+2.7
Georgia.....	7	335	+5.7	3,256	+9.7					
Idaho.....	11	595	+7	5,325	-1.9	5	106	-11.7	1,177	-7.7
Illinois.....	10 26	1,684	+5.8	23,195	-2.2					
Indiana.....	15	1,219	-9	15,157	-2.1	10	160	-1.8	2,395	-7
Iowa.....	3	205	-8.3	3,031	+1.4					
Kansas.....	10 89	976	-15.8	11,403	-3.2					
Kentucky.....	10	465	+1.3	5,799	+4.2	5	221	+1.8	3,180	+8
Louisiana.....										
Maine.....	17	310	-6	4,060	-2.6					
Maryland.....	24	1,595	-2	24,604	-8	10	396	-2.5	4,814	-3.2
Massachusetts.....	103	3,364	-2.1	53,218	-5.1	76	1,673	-2.8	25,692	-3.6
Michigan.....	24	1,633	+1.3	20,175	-2.2	15	497	-2.0	8,026	-2.1
Minnesota.....	11	590	+3	9,356	-1.0	11	298	-4.5	4,705	-6.6
Mississippi.....	5	212	+2.4	1,672	-9					
Missouri.....	28	1,944	-1.4	26,756	-2.9	11	353	-3.8	5,482	-5.8
Montana.....	10	254	-8	4,617	-2.4	3	21	(10)	410	-7
Nebraska.....	6	365	-9.7	4,927	-11.5	5	130	+4.0	2,090	-28.7
Nevada.....	4	51	+2.0	1,018	+8					
New Hampshire.....	18	300	-3.5	4,474	-5.1					
New Jersey.....	24	2,887	+1	57,279	-2	8	232	-4.1	5,523	-4.9
New Mexico.....	4	209	-3.2	3,011	-7.4					
New York.....	71	6,860	+2	115,552	-1.4	16	434	-2.5	7,900	-2.1
North Carolina.....	9	555	+7	5,662	-2					
North Dakota.....	8	172	-1.1	2,877	-3.0					
Ohio.....	76	4,118	+2	61,132	-8	45	1,474	-3.2	23,878	+2.9
Oklahoma.....	5	354	+2.0	4,188	-3.1	3	146	(10)	1,749	-3.0
Oregon.....	4	307	-1.3	4,545	-2.3	4	47	-4.1	863	-8.6
Pennsylvania.....	40	2,969	-2.0	44,044	-2.8	25	1,091	-1.6	17,677	-1.8
Rhode Island.....	19	1,064	-1.5	17,633	-1.7	5	252	-2.7	4,449	-4.5
South Carolina.....	6	182	+1.7	1,688	+3					
South Dakota.....	7	130	-1.5	1,656	-4.4					
Tennessee.....	10	690	-6	6,022	+1.3	3	28	+3.7	303	-14.6
Texas.....	17	825	-8.7	9,160	-8.4	14	327	-1.5	4,896	-3
Utah.....	6	485	-1.0	6,822	-1.9	8	124	-4.6	2,019	-6.8
Vermont.....	5	66	-4.3	776	-9					
Virginia.....	10	617	-1.4	6,639	-7	22	281	-4.7	3,791	-11.3
Washington.....	12	591	+3	10,979	+1	13	175	-3.3	2,557	-9.3
West Virginia.....	18	586	+2.8	9,104	+21.6	9	191	+1.6	2,473	-1.0
Wisconsin.....	16 28	948	-2.0	12,154	-1.2					
Wyoming.....	3	67	-2.9	1,144	-6.4					

<sup>10</sup> No change.<sup>10</sup> Includes dyeing and cleaning.



### Employment and Pay Roll in January, 1933, in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and pay-roll totals in January, 1933, as compared with December, 1932, in 13 cities of the United States having a population of 500,000 or over. These changes are computed from reports received from identical establishments in each of the months considered.

In addition to including reports received from establishments in the several industrial groups regularly covered in the bureau's survey, excluding building construction, reports have also been secured from other establishments in these cities for inclusion in these totals. Information concerning employment in building construction is not available for all cities at this time and therefore has not been included.

TABLE 1.—FLUCTUATIONS IN EMPLOYMENT AND PAY ROLLS IN JANUARY, 1933, AS COMPARED WITH DECEMBER, 1932

Cities	Number of establishments reporting in both months	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		December, 1932	January, 1933		December, 1932	January, 1933	
New York City.....	4,368	321,778	302,410	-6.0	\$8,525,878	\$8,047,508	-5.6
Chicago, Ill.....	1,813	187,966	185,985	-1.1	4,359,918	4,312,202	-1.1
Philadelphia, Pa.....	782	125,543	121,299	-3.4	2,734,695	2,592,246	-5.2
Detroit, Mich.....	693	158,342	164,531	+3.9	3,319,443	3,335,649	+1.5
Los Angeles, Calif.....	683	62,678	57,589	-8.1	1,422,106	1,356,740	-4.6
Cleveland, Ohio.....	1,029	83,157	77,037	-7.4	1,650,542	1,560,752	-5.4
St. Louis, Mo.....	457	61,829	60,944	-1.4	1,278,577	1,267,704	-0.9
Baltimore, Md.....	557	46,914	42,574	-9.3	911,242	834,700	-8.4
Boston, Mass.....	2,945	84,317	79,576	-5.6	2,022,000	1,881,692	-6.9
Pittsburgh, Pa.....	351	47,461	43,010	-9.4	885,645	810,945	-8.4
San Francisco, Calif.....	1,150	45,901	43,862	-4.4	1,112,301	1,079,361	-3.0
Buffalo, N. Y.....	333	37,625	36,705	-2.4	837,696	814,569	-2.8
Milwaukee, Wis.....	442	31,779	29,183	-8.2	619,706	559,535	-9.7

Table 2 shows the total number of employees on the 15th day each of December, 1931, and November and December, 1932, and the total pay roll for the entire months.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, DECEMBER, 1931, AND NOVEMBER AND DECEMBER, 1932

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	December, 1931	November, 1932	December, 1932	December, 1931	November, 1932	December, 1932
Professional, clerical and general	205,788	175,271	173,861	\$29,808,212	\$22,833,014	\$22,889,560
Clerks	110,640	92,599	91,326	15,101,063	11,358,854	11,380,732
Stenographers and typists	19,244	16,422	16,364	2,487,425	1,922,412	1,930,689
Maintenance of way and structure	217,195	204,067	190,358	18,339,454	14,760,096	13,911,073
Laborers, extra gang and work train	13,789	12,798	10,273	800,998	631,823	495,946
Laborers, track and roadway section	116,197	111,475	103,685	6,623,490	5,281,094	4,962,136
Maintenance of equipment and stores	310,636	277,856	275,443	35,934,895	27,818,322	27,422,052
Carmen	63,843	57,111	55,846	8,291,894	6,388,117	6,217,251
Machinists	42,319	39,167	38,811	5,554,186	4,499,932	4,432,453
Skilled trades helpers	68,041	60,349	59,778	6,430,882	4,929,803	4,820,720
Laborers (shops, engine-houses, power plants, and stores)	25,766	21,917	22,136	2,326,506	1,628,459	1,680,747
Common laborers, (shop, engine-houses, power plants, and stores)	32,042	29,245	28,873	2,139,663	1,658,115	1,620,781
Transportation, other than train, engine, and yard	146,450	129,099	127,180	18,453,385	14,130,076	14,312,546
Station agents	26,877	25,235	25,093	4,238,256	3,465,639	2,228,184
Telegraphers, telephoners, and towermen	18,185	16,205	16,157	2,865,381	2,169,344	3,525,896
Truckers (stations, warehouses, and platforms)	20,497	17,623	16,644	1,771,961	1,310,932	1,277,036
Crossing and bridge flagmen and gatemen	18,542	17,780	17,641	1,425,624	1,200,377	1,195,148
Transportation (yardmaster, switch tenders and hostlers)	16,035	13,205	13,181	3,017,659	2,158,159	2,205,158
Transportation, train and engine	223,292	200,621	200,478	42,008,762	32,881,819	33,544,329
Road conductors	25,292	22,612	22,550	5,861,596	4,630,788	4,719,369
Road brakemen and flagmen	48,948	44,193	43,844	7,804,790	6,199,102	6,252,504
Yard brakemen and yard helpers	38,479	34,231	34,195	5,893,951	4,501,887	4,577,198
Road engineers and motormen	29,956	27,011	27,114	7,733,860	6,137,346	6,309,896
Road firemen and helpers	30,650	28,276	28,389	5,585,455	4,410,574	4,555,580
All employees	1,119,396	1,000,119	980,501	147,562,367	114,581,486	114,284,718

### Unemployment in Foreign Countries

THE following table gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports from January, 1931, to the latest available date:

## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES

Date (end of month)	Australia		Austria	Belgium			
	Trade-unionists unemployed		Compulsory insurance, number unemployed in receipt of benefit	Unemployment-insurance societies			
				Wholly unemployed		Partially unemployed	
	Number	Per cent	Number	Per cent	Number	Per cent	
1931							
January	(1)		331,239	77,181	11.1	112,734	16.2
February	(1)		334,041	81,750	11.7	121,906	19.4
March	113,614	25.8	304,084	81,305	11.3	125,972	17.7
April	(1)		246,845	70,377	10.0	110,139	15.6
May	(1)		208,852	56,250	7.9	97,755	13.8
June	118,424	27.6	191,150	62,642	8.9	101,616	14.4
July	(1)		194,364	64,644	9.1	116,747	16.3
August	(1)		196,321	70,893	9.9	120,669	16.8
September	120,694	28.3	202,130	74,175	10.3	119,433	16.6
October	(1)		228,101	82,811	11.3	122,733	16.8
November	(1)		273,658	93,487	13.3	134,799	19.2
December	118,732	28.0	329,627	128,884	17.0	159,941	21.1
1932							
January	(1)		358,114	153,920	20.0	179,560	23.2
February	(1)		361,948	168,204	21.3	180,079	22.8
March	120,366	28.3	352,444	155,653	19.4	185,267	23.0
April	(1)		303,888	152,530	18.8	183,668	22.6
May	(1)		271,481	160,700	18.9	191,084	22.5
June	124,068	30.0	265,040	153,659	18.7	173,819	21.2
July	(1)		266,365	169,411	19.6	174,646	20.3
August	(1)		269,188	167,212	19.5	170,081	19.9
September	122,340	29.6	275,840	163,048	18.3	166,160	18.9
October	(1)		297,791	157,023	17.7	148,812	16.8
November	(1)		329,707	154,657	17.7	144,583	16.3
December	115,042	28.1	327,829				
1933							
January			397,920				
Date (end of month)	Canada	Czechoslovakia			Danzig (Free City of)	Denmark	
	Per cent of trade-unionists unemployed	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed	
			Number	Per cent		Number	Per cent
1931							
January	16.0	313,511	104,580	9.5	27,081	70,961	24.2
February	15.6	343,972	117,450	10.0	28,192	73,427	26.0
March	15.5	339,505	119,350	10.0	27,070	67,725	22.1
April	14.9	296,756	107,238	8.9	24,186	45,698	15.3
May	16.2	249,686	93,941	7.6	20,686	37,856	12.3
June	16.3	220,038	82,534	6.6	19,855	34,030	11.8
July	16.2	209,233	82,759	6.6	20,420	36,369	11.8
August	15.8	214,520	86,261	6.9	21,509	35,060	11.8
September	18.1	228,383	84,660	6.7	22,922	35,871	12.1
October	18.3	253,518	88,600	6.9	24,932	47,196	16.0
November	18.6	336,874	106,015	8.2	28,966	66,526	22.3
December	21.1	480,775	146,325	11.3	32,956	91,216	30.4
1932							
January	22.0	583,138	186,308	14.0	34,912	105,600	35.1
February	20.6	631,736	197,612	14.8	36,258	112,346	37.3
March	20.4	633,907	195,076	14.6	36,481	113,378	37.5
April	23.0	555,832	180,456	13.3	33,418	90,704	29.9
May	22.1	487,228	171,389	12.6	31,847	79,931	26.1
June	21.9	466,948	168,452	12.3	31,004	80,044	25.6
July	21.8	453,294	167,529	12.2	29,195	92,732	29.6
August	21.4	460,952	172,118	12.5	28,989	95,770	30.5
September	20.4	486,935	170,772	12.3	30,469	96,076	30.4
October	22.0	533,616	173,706	12.4	31,806	101,518	31.8
November	22.8	608,809			35,507	113,273	35.6
December	25.5	749,876			39,042	138,335	42.8
1933							
January							

<sup>1</sup> Not reported.

## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Estonia		Finland		France		Germany		
	Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered	Trade-unionists				
					Per cent wholly unemployed	Per cent partially unemployed	Number unemployed in receipt of benefit		
1931									
January	5,364	11,706	28,536	4,887,000	34.2	19.2	3,364,770		
February	4,070	11,557	40,766	4,972,000	34.5	19.5	3,406,979		
March	2,765	11,491	50,815	4,756,000	33.6	18.9	3,240,523		
April	2,424	12,663	49,958	4,358,000	31.2	18.0	2,789,627		
May	1,368	7,342	41,339	4,053,000	29.9	17.4	2,507,732		
June	931	6,320	36,237	3,954,000	29.7	17.7	2,353,657		
July	634	6,790	35,916	3,976,000	31.0	19.1	2,231,513		
August	933	9,160	37,673	4,215,000	33.6	21.4	2,376,589		
September	2,096	12,176	38,524	4,355,000	35.0	22.2	2,483,364		
October	5,425	14,824	51,654	4,623,480	36.6	22.0	2,534,952		
November	7,554	18,095	92,157	5,059,773	38.9	21.8	2,771,985		
December	9,055	17,223	147,009	5,698,187	42.2	22.3	3,147,867		
1932									
January	9,318	20,944	241,487	6,041,910	43.6	22.6	3,481,418		
February	9,096	18,856	293,198	6,128,429	44.1	22.6	3,525,486		
March	8,395	17,699	303,218	6,034,100	44.6	22.6	3,323,109		
April	6,029	16,885	282,013	5,934,202	43.9	21.1	2,906,890		
May	4,896	13,189	262,184	5,582,620	43.3	22.9	2,658,042		
June	3,137	12,709	232,371	5,475,778	43.1	20.4	2,484,944		
July	2,022	13,278	262,642	5,392,248	43.9	23.0	2,111,342		
August	3,256	16,966	264,253	5,223,810	44.0	23.2	1,991,985		
September	5,957	18,563	259,237	5,102,750	43.6	22.7	1,849,768		
October	8,901	19,908	247,090	5,109,173	42.9	22.6	1,720,577		
November	10,715	21,690	255,411	5,355,428	43.2	22.1	1,768,602		
December		20,289	277,109	5,772,852	45.1	22.7	2,073,101		
1933									
January			315,364	6,014,011					

Date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary		Irish Free State
	Compulsory insurance					Number of persons registered with employment exchanges	Trade-unionists unemployed	
	Wholly unemployed		Temporary stoppages		Christian (Budapest)		Social-Democratic	Compulsory insurance—number unemployed
	Number	Per cent	Number	Per cent				
1931								
January	2,044,209	16.5	618,633	5.0	2,613,749	953	26,191	28,981
February	2,073,578	16.7	623,844	5.0	2,627,559	965	27,089	26,825
March	2,052,826	16.5	612,821	5.0	2,581,030	996	27,092	25,413
April	2,027,896	16.3	564,884	4.6	2,531,674	1,042	27,129	23,970
May	2,019,533	16.3	558,383	4.5	2,596,431	843	26,131	23,016
June	2,037,480	16.4	669,315	5.4	2,629,215	751	23,660	21,427
July	2,073,892	16.7	732,583	5.9	2,662,765	876	26,329	21,647
August	2,142,821	17.3	670,342	5.4	2,732,434	941	28,471	21,897
September	2,217,080	17.9	663,466	5.3	2,879,466	932	28,716	23,427
October	2,305,388	18.1	487,591	3.8	2,755,559	1,020	28,998	26,353
November	2,294,902	18.0	439,952	3.4	2,656,088	1,169	29,907	30,865
December	2,262,700	17.7	408,117	3.2	2,569,949	1,240	31,906	30,918
1932								
January	2,354,044	18.4	500,746	4.0	2,728,411	1,182	32,711	31,958
February	2,317,784	18.2	491,319	3.8	2,701,173	1,083	32,645	31,162
March	2,233,425	17.5	426,989	3.3	2,567,332	1,024	31,340	30,866
April	2,204,740	17.3	521,705	4.1	2,652,181	961	30,057	32,252
May	2,183,683	17.1	638,157	5.0	2,741,306	922	28,835	35,874
June	2,145,157	16.8	697,639	5.5	2,747,343	960	28,372	<sup>2</sup> 66,912
July	2,185,015	17.1	735,929	5.8	2,811,782	940	28,297	<sup>2</sup> 77,648
August	2,215,704	17.4	731,104	5.7	2,859,828	947	28,186	<sup>2</sup> 57,081
September	2,279,779	17.9	645,286	5.0	2,858,011	1,022	27,860	<sup>2</sup> 80,923
October	2,295,500	17.9	515,405	4.0	2,747,006	1,091	28,654	<sup>2</sup> 70,067
November	2,328,920	18.2	520,105	4.0	2,799,806	1,072	29,336	<sup>2</sup> 102,747
December	2,314,528	18.1	461,274	3.6	2,723,287			
1933								
January	2,422,808	18.9	532,640	4.2	2,903,065			

<sup>2</sup> Registration area extended.

## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Italy		Japan		Latvia	Netherlands	
	Number of unemployed registered		Official estimates, unemployed		Number unemployed remaining on live register	Unemployment—insurance societies—unemployed	
	Wholly unemployed	Partially unemployed	Number	Per cent		Number	Per cent
1931							
January	722,612	27,924	371,802	5.4	9,207	100,340	23.2
February	765,325	27,110	387,460	5.6	8,303	109,235	23.5
March	707,486	27,545	396,828	5.8	8,450	102,743	21.8
April	670,353	28,780	394,625	5.7	6,390	68,860	14.3
May	635,183	26,059	401,415	5.8	1,871	60,189	12.2
June	573,593	24,206	391,377	5.6	1,584	59,573	11.7
July	637,531	25,821	406,923	5.8	2,169	69,026	13.3
August	693,273	30,636	418,596	6.0	4,827	70,479	15.3
September	747,764	29,822	425,526	6.0	7,470	72,738	15.7
October	799,744	32,828	439,014	6.0	13,605	84,548	18.0
November	878,267	30,967	454,675	6.5	18,377	107,372	18.5
December	982,321	32,949	470,736	6.7	21,935	147,107	27.8
1932							
January	1,051,321	33,277	485,885	6.9	26,335	145,124	27.0
February	1,147,945	26,321	485,290	6.9	22,222	139,956	25.4
March	1,053,016	31,636	473,757	6.8	22,912	119,423	21.6
April	1,000,025	32,720	482,366	6.9	14,607	121,378	21.7
May	968,456	35,528	483,109	6.9	7,599	112,325	22.5
June	905,097	31,710	481,589	6.8	7,056	113,978	22.8
July	931,291	33,218	510,901	7.2	7,181	123,947	24.6
August	945,972	33,666	509,580	7.1	-----	116,524	22.9
September	949,408	37,043	505,969	7.0	-----	126,510	25.9
October	956,357	32,556	503,958	7.0	-----	128,961	25.9
November	1,038,757	36,349	-----	-----	-----	142,554	27.6
December	1,129,654	-----	-----	-----	-----	188,252	31.5
1933							
January	-----	-----	-----	-----	-----	226,709	37.6

Date (end of month)	New Zealand	Norway		Poland	Rumania
	Number unemployed registered by employment exchanges <sup>4</sup>	Trade-unionists (10 unions) unemployed		Number unemployed registered with employment offices	Number unemployed remaining on live register
		Number	Per cent		
1931					
January	(1)	11,692	26.3	28,596	340,718
February	(1)	(1)	-----	29,107	358,925
March	38,028	11,213	24.9	29,095	372,536
April	36,981	(1)	-----	28,477	351,679
May	40,507	-----	-----	25,206	313,104
June	45,264	-----	-----	22,736	274,942
July	47,772	-----	-----	20,869	255,179
August	50,033	-----	-----	22,431	246,380
September	51,375	-----	-----	27,012	246,426
October	50,266	<sup>5</sup> 9,048	<sup>5</sup> 19.6	29,349	255,622
November	47,535	10,577	22.8	32,078	266,027
December	45,140	12,633	27.2	34,789	312,487
1932					
January	45,677	14,160	30.4	35,034	338,434
February	44,107	14,354	30.6	38,135	350,145
March	45,383	15,342	32.5	38,952	360,031
April	48,601	14,629	30.8	37,703	339,773
May	53,543	13,465	28.3	32,127	306,801
June	54,342	12,603	26.2	28,429	264,147
July	55,203	12,563	25.9	26,390	218,059
August	56,332	13,084	26.9	27,543	187,537
September	55,855	14,358	29.3	31,431	147,166
October	54,549	15,512	31.6	35,082	146,982
November	-----	-----	-----	38,807	177,459
December	-----	-----	-----	<sup>3</sup> 41,571	220,245
1933					
January	-----	-----	-----	-----	264,258

<sup>1</sup> Not reported.<sup>3</sup> Provisional figure.<sup>4</sup> Includes not only workers wholly unemployed but also those intermittently employed.<sup>5</sup> Strike ended.

## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Saar Territory	Sweden		Switzerland				Yugo- slavia
	Number of unem- ployed registered	Trade-unionists unemployed		Unemployment funds				Number of unem- ployed registered
				Wholly unem- ployed		Partially unem- ployed		
		Number	Per cent	Number	Per cent	Number	Per cent	
1931								
January.....	18,921	69,437	19.8	20,551	8.3	30,977	12.5	11,903
February.....	20,139	66,923	18.4	20,081	7.9	30,879	12.2	14,424
March.....	18,292	72,944	19.3	18,991	5.4	41,880	12.4	12,029
April.....	18,102	64,534	17.5	10,389	4.0	27,726	10.6	11,391
May.....	14,886	49,807	13.2	9,174	3.5	26,058	9.9	6,929
June.....	15,413	45,839	12.1	12,577	3.6	34,266	9.7	4,431
July.....	17,685	46,180	12.4	12,200	3.3	39,000	11.3	6,672
August.....	20,205	48,590	12.7	9,754	3.6	33,346	12.4	7,466
September.....	21,741	54,405	13.7	15,188	4.0	42,998	11.2	7,753
October.....	24,685	65,469	16.4	18,000	4.8	47,200	13.2	10,070
November.....	28,659	79,484	19.9	25,200	6.6	51,900	14.4	10,349
December.....	35,045	110,149	27.2	41,611	10.1	61,256	14.9	14,502
1932								
January.....	38,790	93,272	24.5	44,600	10.6	67,600	14.8	19,665
February.....	42,394	93,900	23.0	48,600	11.3	70,100	15.0	21,435
March.....	44,883	98,772	24.4	40,423	9.0	62,659	14.0	23,251
April.....	42,993	82,500	21.0	35,400	7.7	58,900	12.6	18,532
May.....	42,881	75,650	18.9	35,200	7.6	54,500	11.5	13,568
June.....	40,188	79,338	19.5	33,742	7.1	53,420	13.3	11,418
July.....	39,063	77,468	19.4	35,700	7.5	54,000	11.4	9,940
August.....	38,858	80,975	20.0	36,600	7.6	53,400	11.1	11,940
September.....	40,320	86,709	20.7	38,070	7.8	52,967	10.8	10,985
October.....	40,728	92,868	22.2	42,300	8.7	52,100	10.6	10,474
November.....	41,962	97,666	23.8	50,500	10.3	55,700	11.3	11,670
December.....		129,002	31.3					



## RETAIL PRICES

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### Retail Prices of Food in January, 1933

**T**HE following tables are compiled from simple averages of the actual selling prices received monthly by the Bureau of Labor Statistics of the United States Department of Labor from retail dealers in 51 cities.

Indexes of all articles combined, or groups of articles combined, both for cities and for the United States, are weighted according to the average family consumption. Consumption figures used since January, 1921, are given in Bulletin 495 (p. 13). Those used for prior dates are given in Bulletin 300 (p. 61).

Table 1 shows the average retail prices of 23 principal food articles for the United States, 51 cities combined, and index numbers based on the year 1913, for specified years, 1913 to 1932, inclusive, and by months, January, 1929, to January, 1933, inclusive.

TABLE 1.—AVERAGE PRICES AND INDEX NUMBERS (1913=100.0) OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, FOR SPECIFIED YEARS, 1913 TO 1932, INCLUSIVE, AND BY MONTHS, 1929 TO JANUARY, 1933, INCLUSIVE

Year and month	Sirloin steak (pound)		Round steak (pound)		Rib roast (pound)		Chuck roast (pound)		Plate beef (pound)	
	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number
	<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>	
1913: Av. for year	25.4	100.0	22.3	100.0	19.8	100.0	16.0	100.0	12.1	100.0
1920: Av. for year	43.7	172.1	39.5	177.1	33.2	167.7	26.2	163.8	18.3	151.2
1927: Av. for year	42.6	167.7	37.1	166.4	31.3	158.1	23.7	148.1	15.4	127.3
1928: Av. for year	47.8	188.2	42.0	188.3	35.0	176.8	27.9	174.4	19.0	157.0
1929: Av. for year	50.0	196.9	44.4	199.1	36.7	185.4	29.9	186.9	20.9	172.7
1930: Av. for year	46.4	182.7	41.2	184.8	34.2	172.7	27.2	170.0	18.8	155.4
1931: Av. for year	39.4	155.1	34.4	154.3	28.9	146.0	21.5	134.4	14.3	118.2
1932: Av. for year	33.3	131.1	28.9	129.6	24.1	121.7	17.3	108.1	11.3	93.4
1929: January	48.4	190.6	42.6	191.0	35.8	180.8	29.0	181.3	20.6	170.2
February	47.8	188.2	42.1	188.8	35.4	178.8	28.7	179.4	20.3	167.8
March	47.9	188.6	42.2	189.2	35.5	179.3	28.8	180.0	20.3	167.8
April	49.0	192.9	43.4	194.6	36.4	183.8	29.5	184.4	20.6	170.2
May	50.4	198.4	44.9	201.3	37.2	187.9	30.4	190.0	21.1	174.4
June	51.2	201.6	45.8	205.4	37.6	189.9	30.7	191.9	21.3	176.0
July	52.5	206.7	47.0	210.8	38.2	192.9	31.3	195.6	21.5	177.7
August	52.4	206.3	47.0	210.8	38.0	191.9	31.1	194.4	21.3	176.0
September	51.5	202.8	46.1	206.7	37.5	189.4	30.7	191.9	21.2	175.2
October	50.3	198.0	44.5	199.6	37.0	186.9	30.0	187.5	21.0	173.6
November	49.3	194.1	43.8	196.4	36.3	183.3	29.4	183.8	20.7	171.1
December	48.9	192.5	43.4	194.6	36.0	181.8	29.3	183.1	20.6	170.2
1930: January	49.0	192.9	43.6	195.5	36.3	183.3	29.5	184.4	20.9	172.7
February	48.6	191.3	43.3	194.2	36.0	181.8	29.5	184.4	20.8	171.9
March	48.4	190.6	43.0	192.8	35.9	181.3	29.2	182.5	20.6	170.2
April	48.3	190.2	43.1	193.3	35.9	181.3	29.2	182.5	20.4	168.6
May	48.3	190.2	43.0	192.8	35.6	179.8	28.7	179.4	19.9	164.5
June	47.9	188.6	42.7	191.5	35.1	177.3	28.1	175.6	19.4	160.3
July	46.3	182.3	41.1	184.3	34.0	171.7	26.6	166.3	18.1	149.6
August	44.6	175.6	39.4	176.7	32.3	163.1	24.9	155.6	16.8	138.8
September	45.0	177.2	39.7	178.0	33.0	166.7	25.6	160.0	17.2	142.1
October	44.5	175.2	39.3	176.2	32.5	164.1	25.4	158.7	17.2	142.1
November	43.3	170.5	38.1	170.9	31.8	160.6	24.7	154.4	16.9	139.7
December	42.9	168.9	37.7	169.1	31.6	159.6	24.6	153.8	16.9	139.7
1931: January	42.5	167.3	37.5	168.2	31.5	159.1	24.4	152.5	16.7	138.0
February	41.0	161.4	35.9	161.0	30.5	154.0	23.3	145.6	15.9	131.4
March	40.3	158.7	35.2	157.8	30.3	153.0	22.7	141.9	15.5	128.1
April	40.0	157.5	34.9	156.5	29.7	150.0	22.3	139.4	15.1	124.8
May	39.5	155.5	34.5	154.7	29.1	147.0	21.7	135.6	14.5	119.8
June	38.7	152.4	33.7	151.1	28.3	142.9	20.9	130.6	13.6	112.4
July	39.2	154.3	34.4	154.3	28.3	142.9	20.8	130.0	13.4	110.7
August	39.5	155.5	34.6	155.2	28.5	143.9	20.8	130.0	13.3	109.9
September	39.4	155.1	34.4	154.3	28.3	142.9	20.9	130.6	13.5	111.6
October	38.6	152.0	33.6	150.7	28.0	141.4	20.7	129.4	13.5	111.6
November	37.3	146.9	32.3	144.8	27.3	137.9	20.2	126.3	13.3	109.9
December	36.3	142.9	31.3	140.4	26.7	134.8	19.6	122.5	13.1	108.3
1932: January	34.9	137.4	30.1	135.0	25.7	129.8	18.5	115.6	12.3	101.7
February	33.2	130.7	28.4	127.4	24.4	123.2	17.3	108.1	11.8	97.5
March	33.0	129.9	28.5	127.8	24.4	123.2	17.3	108.1	11.6	95.9
April	33.4	131.5	28.6	128.3	24.3	122.7	17.4	108.8	11.6	95.9
May	33.0	129.9	28.4	127.4	23.8	120.2	17.0	106.3	11.1	91.7
June	32.8	129.1	28.4	127.4	23.5	118.7	16.9	105.6	10.7	88.4
July	35.3	139.0	31.0	139.0	24.9	125.8	18.1	113.1	11.2	92.6
August	34.9	137.4	30.8	138.1	24.6	124.2	18.0	112.5	11.2	92.6
September	34.4	135.4	30.2	135.4	24.3	122.7	17.8	111.3	11.2	92.6
October	33.1	130.3	28.9	129.6	23.7	119.7	17.3	108.1	11.3	93.4
November	31.4	123.6	27.1	121.5	22.9	115.7	16.6	103.8	11.1	91.7
December	29.9	117.7	25.8	115.7	22.1	111.6	15.8	98.8	10.7	88.4
1933: January	28.9	113.8	24.9	111.7	21.2	107.1	15.3	95.6	10.5	86.8

TABLE 1.—AVERAGE PRICES AND INDEX NUMBERS (1913=100.0) OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, FOR SPECIFIED YEARS, 1913 TO 1932, INCLUSIVE, AND BY MONTHS, 1929 TO JANUARY, 1933, INCLUSIVE—Continued

Year and month	Pork chops (pound)		Bacon, sliced (pound)		Ham, sliced (pound)		Lamb, leg of (pound)		Hens (pound)		Milk, fresh (quart)	
	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number
	<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>	
1913: Av. for year	21.0	100.0	27.0	100.0	26.9	100.0	18.9	100.0	21.3	100.0	8.9	100.0
1920: Av. for year	42.3	201.4	52.3	193.7	55.5	206.3	39.3	207.9	44.7	209.9	16.7	187.6
1927: Av. for year	36.8	175.2	47.2	174.8	55.0	204.5	38.9	205.8	36.9	173.2	14.1	158.4
1928: Av. for year	34.8	165.7	44.0	163.0	52.9	196.7	39.4	208.5	37.4	175.6	14.2	159.6
1929: Av. for year	36.9	175.7	43.5	161.1	54.9	204.1	40.1	212.2	39.7	189.4	14.3	160.7
1930: Av. for year	35.9	171.0	42.3	156.7	53.4	198.5	35.1	185.7	35.5	166.7	14.0	157.3
1931: Av. for year	29.1	138.6	36.4	134.8	45.9	170.6	29.5	156.1	31.0	145.5	12.3	138.2
1932: Av. for year	21.2	101.0	24.1	89.3	35.0	130.1	23.7	125.4	24.6	115.5	10.9	122.5
1929: January	32.3	153.8	43.0	159.3	53.8	200.0	39.9	211.1	39.2	184.0	14.3	160.7
February	33.0	157.1	42.7	158.2	53.7	199.6	40.3	213.2	39.7	186.4	14.3	160.7
March	35.2	167.6	42.9	158.9	54.3	201.9	40.9	216.4	40.5	190.1	14.3	160.7
April	37.1	176.7	43.3	160.4	54.7	203.3	41.8	221.2	41.8	196.2	14.2	159.6
May	37.7	179.5	43.4	160.7	55.1	204.8	42.1	222.8	42.2	198.1	14.2	159.6
June	37.6	179.0	43.8	162.2	55.3	205.6	41.2	218.0	41.3	193.9	14.2	159.6
July	39.5	188.1	44.3	164.1	56.4	209.7	41.1	217.5	39.9	187.3	14.3	160.7
August	40.4	192.4	44.7	165.6	56.8	211.2	40.3	213.2	39.4	185.0	14.3	160.7
September	40.7	193.8	44.4	164.4	56.4	209.7	39.5	202.0	39.2	184.0	14.3	160.7
October	38.9	185.2	43.7	161.9	55.1	204.8	38.5	203.7	38.4	180.3	14.4	161.8
November	35.8	170.5	43.0	159.3	53.9	200.4	37.9	200.5	37.7	177.0	14.4	161.8
December	34.3	163.3	42.5	157.4	53.4	198.5	37.9	200.5	37.1	174.2	14.4	161.8
1930: January	35.3	168.1	42.4	157.0	53.6	199.3	39.1	206.9	38.0	178.4	14.2	159.6
February	35.2	167.6	42.6	157.8	54.0	200.7	38.1	201.6	38.2	179.3	14.1	158.4
March	36.1	171.9	42.6	157.8	54.1	201.1	36.6	193.7	38.3	179.8	14.0	157.3
April	37.1	176.7	42.5	157.4	53.9	200.4	35.8	189.4	38.2	179.3	14.0	157.3
May	36.1	171.9	42.3	156.7	54.0	200.7	35.9	189.9	37.4	175.6	14.0	147.3
June	36.6	174.3	42.3	156.7	54.0	200.7	36.6	193.7	37.7	167.6	14.0	157.3
July	36.5	173.8	42.3	156.7	53.8	200.0	35.7	188.9	34.4	161.5	14.0	157.3
August	36.7	174.8	42.0	155.6	53.3	198.1	33.7	178.3	33.8	158.7	14.0	157.3
September	39.1	186.2	42.7	158.1	53.5	198.9	34.0	179.9	34.0	159.6	14.0	157.3
October	37.9	180.5	42.6	157.8	53.1	197.4	32.8	173.5	33.8	158.7	14.0	157.3
November	32.8	156.2	42.1	155.9	52.1	193.7	31.4	166.1	32.6	153.1	14.0	157.3
December	31.4	149.5	41.3	153.0	51.5	191.4	31.1	164.6	32.0	150.2	13.5	151.7
1931: January	29.8	141.9	40.2	148.9	50.6	188.1	31.4	166.1	32.7	153.5	13.3	149.4
February	27.6	131.4	39.2	145.2	49.3	183.3	31.1	164.6	31.7	148.8	13.0	146.1
March	29.4	140.0	38.6	143.0	48.0	178.4	31.0	164.0	32.0	150.2	12.9	144.9
April	29.7	141.4	38.1	141.1	47.2	175.5	31.3	165.6	32.6	153.1	12.6	141.6
May	30.1	143.3	37.6	139.3	46.5	172.9	31.2	165.1	31.7	148.8	12.3	138.2
June	29.4	140.0	36.9	136.7	45.9	170.6	30.6	161.9	31.1	146.0	12.0	134.8
July	31.8	151.4	37.0	137.0	46.1	171.4	30.0	158.7	30.8	144.6	12.1	136.0
August	33.3	158.6	36.6	135.6	46.1	171.4	29.6	156.6	30.9	145.1	12.1	136.0
September	32.2	153.3	36.2	134.1	45.6	169.5	28.8	152.4	30.9	145.1	12.1	136.0
October	29.3	139.5	34.3	127.0	44.2	164.3	27.5	145.5	29.9	140.2	12.0	134.8
November	25.0	119.0	32.1	118.9	41.8	155.4	26.1	138.1	29.2	137.1	12.0	134.8
December	21.8	103.8	30.3	112.2	39.7	147.6	24.9	131.7	28.6	134.3	11.6	130.3
1932: January	20.9	99.5	27.4	101.5	37.6	139.8	24.1	127.5	27.9	131.0	11.5	129.2
February	19.1	91.0	26.1	96.7	36.7	136.4	23.7	125.4	27.1	127.2	11.4	128.1
March	21.5	102.4	25.7	95.2	36.6	136.1	24.9	131.7	27.3	128.2	11.3	127.0
April	21.5	102.4	24.9	92.2	36.3	134.9	25.0	135.4	26.6	124.9	11.0	123.6
May	19.9	94.8	23.9	88.5	35.3	131.2	25.0	132.3	25.7	120.7	10.8	121.3
June	19.7	93.8	23.2	85.9	34.9	129.7	24.3	128.6	24.1	113.1	10.8	121.3
July	25.5	121.4	23.7	87.8	36.0	133.8	24.9	131.7	23.6	110.8	10.7	120.2
August	23.3	111.0	23.9	88.5	35.7	132.7	24.0	127.0	23.1	108.5	10.5	118.0
September	23.8	113.3	23.5	87.0	35.2	130.9	23.4	123.8	23.5	110.3	10.6	119.1
October	21.5	102.4	23.2	85.9	34.0	126.4	22.1	116.9	23.1	108.5	10.7	120.2
November	20.2	96.2	22.5	83.3	31.7	117.8	21.3	112.7	22.4	105.2	10.6	119.1
December	17.6	83.8	21.6	80.0	30.3	112.6	21.0	111.1	21.2	99.5	10.4	116.9
1933: January	16.5	78.6	21.4	79.3	28.9	107.4	21.7	114.8	21.4	100.5	10.4	116.9

TABLE 1.—AVERAGE PRICES AND INDEX NUMBERS (1913=100.0) OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, FOR SPECIFIED YEARS, 1913 TO 1932, INCLUSIVE, AND BY MONTHS, 1929 TO JANUARY, 1933, INCLUSIVE—Continued

Year and month *	Butter (pound)		Cheese (pound)		Lard (pound)		Eggs, strictly fresh (dozen)		Bread (pound)		Flour (pound)	
	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number
	<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>	
1913: A. v. for year. . . . .	38.3	100.0	22.1	100.0	15.8	100.0	34.5	100.0	5.6	100.0	3.3	100.0
1920: A. v. for year. . . . .	70.1	183.0	41.6	188.2	29.5	186.7	68.1	197.4	11.5	205.4	8.1	245.5
1927: A. v. for year. . . . .	55.6	145.2	37.6	170.1	19.3	122.2	45.2	131.0	9.3	166.1	5.5	166.7
1928: A. v. for year. . . . .	56.5	147.5	38.5	174.2	18.6	117.7	46.4	134.5	9.1	162.5	5.4	163.6
1929: A. v. for year. . . . .	55.1	143.9	38.0	171.9	18.3	115.8	49.0	142.0	9.0	160.7	5.1	154.5
1930: A. v. for year. . . . .	46.1	120.4	35.1	158.8	17.0	107.6	41.0	118.8	8.7	155.4	4.7	142.4
1931: A. v. for year. . . . .	35.4	92.4	28.1	127.1	13.3	84.2	31.7	91.9	7.6	135.7	3.6	109.1
1932: A. v. for year. . . . .	27.4	71.5	23.0	104.1	8.8	55.7	27.2	78.8	6.8	121.4	3.2	97.0
1929: January. . . . .	57.7	150.7	38.4	173.8	18.5	117.1	50.6	146.7	9.0	160.7	5.1	154.5
February. . . . .	58.5	152.7	38.2	172.9	18.4	116.5	49.1	142.3	9.0	160.7	5.1	154.5
March. . . . .	58.4	152.5	38.2	172.9	18.4	116.5	42.1	122.0	9.0	160.7	5.1	154.5
April. . . . .	55.8	145.7	38.1	172.4	18.5	117.1	36.7	106.4	9.0	160.7	5.1	154.5
May. . . . .	54.5	142.3	38.0	171.9	18.4	116.5	38.7	112.2	9.0	160.7	5.0	151.5
June. . . . .	53.8	140.5	38.0	171.9	18.3	115.8	41.4	120.0	9.0	160.7	4.9	148.5
July. . . . .	53.4	139.4	37.9	171.5	18.3	115.8	44.1	127.8	9.0	160.7	5.0	151.5
August. . . . .	53.8	140.5	37.8	171.0	18.4	116.5	48.3	140.0	9.0	160.7	5.2	157.6
September. . . . .	54.8	143.1	38.0	171.9	18.5	117.1	53.0	153.6	9.0	160.7	5.3	160.6
October. . . . .	55.7	145.4	37.9	171.5	18.3	115.8	58.0	168.1	8.9	158.9	5.2	157.6
November. . . . .	53.5	139.7	37.8	171.0	18.0	113.9	63.3	183.5	8.9	158.9	5.2	157.6
December. . . . .	51.6	134.7	37.7	170.6	17.6	111.4	62.8	182.0	8.9	158.9	5.1	154.5
1930: January. . . . .	46.7	121.9	37.4	169.2	17.2	108.9	55.4	160.6	8.9	158.9	5.1	154.5
February. . . . .	47.0	122.7	36.9	167.0	17.1	108.2	47.2	136.8	8.8	157.1	5.1	154.5
March. . . . .	46.7	121.9	36.4	164.7	16.9	107.0	35.3	102.3	8.8	157.1	5.0	151.5
April. . . . .	48.1	125.6	36.0	162.9	16.8	106.3	34.5	100.0	8.8	157.1	4.9	148.5
May. . . . .	46.3	120.9	35.8	162.0	16.7	105.7	33.7	97.7	8.8	157.1	4.8	145.5
June. . . . .	43.3	113.1	34.9	157.9	16.6	105.1	33.6	97.4	8.8	157.1	4.8	145.5
July. . . . .	43.7	114.1	34.3	155.2	16.3	103.2	35.1	101.7	8.8	157.1	4.6	139.4
August. . . . .	47.4	123.8	33.9	153.4	16.5	104.4	38.8	112.5	8.7	155.4	4.5	136.3
September. . . . .	48.7	127.2	34.2	154.8	17.5	110.8	43.1	124.9	8.7	155.4	4.4	133.3
October. . . . .	47.8	124.8	34.2	154.8	17.7	112.0	44.8	129.9	8.6	153.6	4.3	130.3
November. . . . .	45.4	118.5	33.8	152.9	17.5	110.8	48.4	140.3	8.5	151.8	4.2	127.3
December. . . . .	42.5	111.0	33.2	150.2	16.7	105.7	41.6	120.6	8.5	151.8	4.1	124.2
1931: January. . . . .	37.7	98.4	32.1	145.2	15.7	99.4	36.1	104.6	8.2	146.4	4.0	121.2
February. . . . .	36.3	94.8	31.2	141.2	14.5	91.8	27.2	78.8	8.0	142.9	4.0	121.2
March. . . . .	37.3	97.4	30.3	137.1	14.2	89.9	28.5	82.6	7.9	141.1	3.9	118.2
April. . . . .	35.2	91.9	29.3	132.6	14.2	89.9	27.4	79.4	7.7	137.5	3.8	115.2
May. . . . .	31.2	81.5	27.4	124.0	13.5	85.4	24.8	71.9	7.7	137.5	3.7	112.1
June. . . . .	30.9	80.7	26.5	119.9	13.0	82.3	25.8	74.8	7.6	135.7	3.7	112.1
July. . . . .	31.7	82.8	26.2	118.6	13.0	82.3	28.6	82.9	7.5	133.9	3.6	109.1
August. . . . .	34.4	89.8	26.5	119.9	12.8	81.0	31.9	92.5	7.4	132.1	3.4	103.0
September. . . . .	36.8	96.1	27.0	122.2	12.6	79.8	33.8	98.0	7.3	130.4	3.3	100.0
October. . . . .	39.9	104.2	27.1	122.6	12.4	78.5	37.9	109.9	7.3	130.4	3.3	100.0
November. . . . .	37.3	97.4	26.8	121.3	12.2	77.2	39.7	115.1	7.3	130.4	3.3	100.0
December. . . . .	36.5	95.3	26.2	118.6	11.2	70.9	38.5	111.6	7.2	128.6	3.3	100.0
1932: January. . . . .	32.3	84.3	25.5	115.4	10.1	63.9	29.6	85.8	7.1	126.8	3.3	100.0
February. . . . .	29.5	77.0	24.4	110.4	9.4	59.5	24.2	70.1	7.0	125.0	3.3	100.0
March. . . . .	29.5	77.0	23.8	107.7	9.1	57.6	21.1	61.2	7.0	125.0	3.2	97.0
April. . . . .	26.8	70.0	23.3	105.4	8.7	55.1	20.0	58.0	6.9	123.2	3.2	97.0
May. . . . .	25.1	65.5	22.5	101.8	8.3	52.5	20.0	58.0	6.9	123.2	3.2	97.0
June. . . . .	24.1	62.9	22.3	100.9	7.8	49.4	20.8	60.3	6.9	123.2	3.2	97.0
July. . . . .	23.9	62.4	22.0	99.5	8.5	53.8	22.8	66.1	6.8	121.4	3.2	97.0
August. . . . .	26.8	70.0	22.6	102.3	8.9	56.3	26.8	77.7	6.8	121.4	3.1	93.9
September. . . . .	26.9	70.2	22.7	102.7	9.1	57.6	29.5	85.5	6.7	119.6	3.1	93.9
October. . . . .	26.7	69.7	22.6	102.3	9.0	57.0	34.6	100.3	6.7	119.6	3.1	93.9
November. . . . .	27.5	71.8	22.4	101.4	8.7	55.1	37.6	109.0	6.7	119.6	3.0	90.9
December. . . . .	29.8	77.8	22.4	101.4	8.1	51.3	39.9	115.7	6.6	117.9	2.9	87.9
1933: January. . . . .	26.8	70.0	22.3	100.9	8.1	51.3	32.4	93.9	6.4	114.3	2.9	87.9

TABLE 1.—AVERAGE PRICES AND INDEX NUMBERS (1913=100.0) OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, FOR SPECIFIED YEARS, 1913 TO 1932, INCLUSIVE, AND BY MONTHS, 1929 TO JANUARY, 1933, INCLUSIVE—Continued

Year and month	Corn meal (pound)		Rice (pound)		Potatoes (pound)		Sugar, granulated (pound)		Tea (pound)		Coffee (pound)	
	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number	Average price	Index number
	<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>		<i>Cents</i>	
1913: Av. for year	3.0	100.0	8.7	100.0	1.7	100.0	5.5	100.0	54.4	100.0	29.8	100.0
1920: Av. for year	6.5	216.7	17.4	200.0	6.3	370.6	19.4	352.7	73.3	134.7	47.0	157.7
1927: Av. for year	5.2	173.3	10.7	123.0	3.8	223.5	7.3	132.7	77.5	142.5	48.3	162.1
1928: Av. for year	5.3	176.7	10.0	114.9	2.7	158.8	7.1	129.1	77.4	142.3	49.2	165.1
1929: Av. for year	5.3	176.7	9.7	111.5	3.2	188.2	6.6	120.0	77.6	142.6	49.1	164.8
1930: Av. for year	5.3	176.7	9.5	109.2	3.6	211.8	6.2	112.7	77.5	142.5	40.6	136.2
1931: Av. for year	4.6	153.3	8.2	94.3	2.3	135.3	5.7	103.6	75.4	138.6	33.8	113.4
1932: Av. for year	3.8	126.7	6.7	77.0	1.7	100.0	5.1	92.7	70.9	130.3	30.2	101.3
1929: January	5.3	176.7	9.8	112.6	2.3	135.3	6.7	121.8	77.5	142.5	49.5	166.1
February	5.3	176.7	9.8	112.6	2.3	135.3	6.6	120.0	77.6	142.6	49.5	166.1
March	5.3	176.7	9.8	112.6	2.3	135.3	6.5	118.2	77.6	142.6	49.6	166.4
April	5.3	176.7	9.8	112.6	2.3	135.3	6.4	116.4	77.6	142.6	49.6	166.4
May	5.3	176.7	9.7	111.5	2.7	158.8	6.4	116.4	77.6	142.6	49.5	166.1
June	5.3	176.7	9.7	111.5	3.1	182.4	6.4	116.4	77.5	142.5	49.4	165.8
July	5.3	176.7	9.7	111.5	3.9	229.4	6.4	116.4	77.4	142.3	49.3	165.8
August	5.3	176.7	9.8	112.6	4.0	235.3	6.6	120.0	77.5	142.5	49.4	165.4
September	5.3	176.7	9.7	111.5	3.9	229.4	6.7	121.8	77.6	142.6	49.2	165.1
October	5.3	176.7	9.7	111.5	3.8	223.5	6.7	121.8	77.6	142.6	49.1	164.8
November	5.3	176.7	9.7	111.5	3.8	223.5	6.7	121.8	77.4	142.3	48.3	162.1
December	5.4	180.0	9.6	110.3	3.8	223.5	6.6	120.0	77.7	142.8	46.3	155.4
1930: January	5.4	180.0	9.6	110.3	3.9	229.4	6.6	120.0	78.0	143.4	43.8	147.0
February	5.3	176.7	9.6	110.3	3.9	229.4	6.5	118.2	77.9	143.2	42.7	143.3
March	5.3	176.7	9.5	109.2	3.9	229.4	6.4	116.4	77.7	142.8	41.9	140.6
April	5.3	176.7	9.6	110.3	4.1	241.2	6.3	114.5	77.5	142.5	41.4	138.9
May	5.3	176.7	9.5	109.2	4.3	252.9	6.3	114.5	77.5	142.5	40.9	137.2
June	5.3	176.7	9.5	109.2	4.2	247.1	6.1	110.9	77.8	143.0	40.6	136.2
July	5.3	176.7	9.5	109.2	3.3	194.1	6.1	110.9	77.6	142.6	40.4	135.6
August	5.3	176.7	9.5	109.2	3.1	182.4	6.1	110.9	77.4	142.3	40.1	134.6
September	5.3	176.7	9.6	110.3	3.2	188.2	5.9	107.3	77.3	142.1	39.5	132.6
October	5.3	176.7	9.5	109.2	3.1	182.4	5.8	105.7	77.2	141.9	39.1	131.2
November	5.2	173.3	9.3	106.9	2.9	170.6	5.9	107.3	76.9	141.9	38.7	129.9
December	5.2	173.3	9.2	105.8	2.9	170.6	5.9	107.3	76.9	141.4	38.5	129.2
1931: January	5.1	170.0	8.9	102.3	2.9	170.6	5.9	107.3	76.7	141.0	37.8	126.8
February	5.0	166.7	8.9	102.3	2.7	158.8	5.9	107.3	76.5	140.6	37.3	125.2
March	5.0	166.7	8.6	98.9	2.7	158.8	5.8	105.5	76.0	139.7	36.3	121.8
April	4.8	163.3	8.4	96.6	2.8	164.7	5.7	103.6	75.2	138.2	34.6	116.1
May	4.6	153.3	8.3	95.4	2.8	164.7	5.6	101.8	74.5	136.9	33.5	112.4
June	4.5	150.0	8.2	94.3	2.4	141.2	5.6	101.8	74.4	136.8	33.1	111.1
July	4.5	150.0	8.1	93.1	2.3	135.3	5.6	101.8	74.7	137.3	32.5	109.1
August	4.5	150.0	8.1	93.1	2.2	129.4	5.7	103.6	75.4	138.6	32.4	108.7
September	4.5	150.0	8.0	92.0	2.0	117.6	5.7	103.6	75.8	139.3	32.4	108.7
October	4.4	146.7	7.8	89.7	1.8	105.9	5.6	101.8	75.6	139.0	32.1	107.7
November	4.2	140.0	7.5	86.2	1.7	100.0	5.6	101.8	75.1	138.1	31.8	106.7
December	4.1	136.7	7.4	85.1	1.8	105.9	5.5	100.0	75.1	138.1	31.5	105.7
1932: January	4.0	133.3	7.4	85.1	1.7	100.0	5.4	98.2	74.1	136.2	31.1	104.4
February	4.0	133.3	7.3	83.9	1.7	100.0	5.3	96.4	73.6	135.3	31.0	104.0
March	3.9	130.0	7.1	81.6	1.7	100.0	5.2	94.5	73.3	134.7	30.8	103.4
April	3.9	130.0	6.9	79.3	1.7	100.0	5.1	92.7	72.4	133.1	30.5	102.3
May	3.9	130.0	6.7	77.0	1.8	105.9	4.9	89.1	72.0	132.4	30.0	100.7
June	3.9	130.0	6.6	75.9	2.0	117.6	4.9	89.1	71.0	130.5	29.7	99.7
July	3.8	126.7	6.6	75.9	1.9	111.8	5.0	90.9	70.3	129.2	29.7	99.7
August	3.8	126.7	6.5	74.7	1.7	100.0	5.1	92.7	70.1	128.9	29.6	99.3
September	3.8	126.7	6.5	74.7	1.5	88.2	5.1	92.7	69.9	128.5	30.1	101.0
October	3.7	123.3	6.4	73.6	1.5	88.2	5.1	92.7	68.5	125.9	30.3	101.7
November	3.6	120.0	6.2	71.3	1.4	82.4	5.1	92.7	68.1	125.2	30.1	101.0
December	3.5	116.7	6.0	69.0	1.5	88.2	5.1	92.7	67.8	124.6	29.7	99.7
1933: January	3.5	116.7	6.0	69.0	1.5	88.2	5.1	92.7	67.1	123.3	28.7	96.3

Table 2 shows the average retail prices of 19 articles of food for the United States, 51 cities combined, for specified years from 1920 through 1932, and by months from January, 1929, through January, 1933. No index numbers are shown for these articles as prices were not secured in 1913.

TABLE 2.—AVERAGE PRICES OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, FOR SPECIFIED YEARS, 1920 TO 1932, INCLUSIVE, AND BY MONTHS, 1929 TO JANUARY, 1933, INCLUSIVE

Year and month	Salmon, red, canned (pound)	Milk, evaporated (16-oz. can)	Margarine (pound)	Vegetable lard substitute (pound)	Rolled oats (pound)	Corn flakes (8-oz. package)	Wheat cereal (28-oz. package)	Macaroni (pound)	Beans, navy (pound)
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1920: Av. for year	38.2	15.4	38.9	35.1	10.8	14.3	30.0	21.1	11.4
1927: Av. for year	33.4	11.5	28.3	25.1	9.0	10.1	25.5	20.1	9.3
1928: Av. for year	34.3	11.3	27.4	24.9	8.9	9.6	25.6	19.8	11.8
1929: Av. for year	31.7	10.9	27.2	24.7	8.9	9.5	25.5	19.7	14.0
1930: Av. for year	32.6	10.1	25.5	24.2	8.7	9.4	25.4	19.3	11.5
1931: Av. for year	32.6	9.1	20.0	23.2	8.1	9.0	24.1	16.9	7.8
1932: Av. for year	24.5	16.9	15.2	20.1	7.4	8.6	22.5	15.3	5.1
1929: January	31.9	11.4	27.6	24.7	8.9	9.5	25.5	19.7	13.2
February	31.7	11.4	27.6	24.7	8.9	9.5	25.5	19.6	13.8
March	31.4	11.4	27.5	24.8	8.9	9.5	25.5	19.6	14.0
April	31.5	11.1	27.4	24.8	8.9	9.5	25.5	19.6	14.2
May	31.3	10.9	27.3	24.9	8.9	9.5	25.5	19.7	14.2
June	31.4	10.9	27.2	24.8	8.9	9.5	25.4	19.7	14.2
July	31.5	10.9	27.2	24.8	8.8	9.5	25.5	19.7	14.3
August	31.7	10.8	27.1	24.8	8.9	9.5	25.5	19.7	14.4
September	31.8	10.7	27.1	24.7	8.9	9.5	25.5	19.6	14.5
October	31.9	10.6	27.0	24.7	8.8	9.5	25.5	19.7	14.2
November	31.9	10.5	26.9	24.6	8.8	9.5	25.5	19.7	13.7
December	32.2	10.4	26.7	24.4	8.8	9.5	25.5	19.6	13.1
1930: January	31.9	10.4	26.4	24.5	8.8	9.4	25.5	19.6	12.7
February	31.9	10.3	26.2	24.4	8.8	9.4	25.6	19.5	12.3
March	31.9	10.3	26.1	24.4	8.7	9.4	25.5	19.5	12.1
April	31.8	10.3	26.0	24.3	8.7	9.4	25.5	19.5	11.8
May	31.8	10.2	25.8	24.3	8.7	9.4	25.4	19.5	11.6
June	31.8	10.1	25.6	24.3	8.7	9.4	25.4	19.4	11.5
July	31.9	10.0	25.7	24.3	8.7	9.4	25.4	19.3	11.5
August	32.6	10.0	25.4	24.2	8.7	9.4	25.4	19.2	11.5
September	33.5	10.0	25.1	24.2	8.7	9.4	25.4	19.2	11.7
October	34.0	9.9	25.0	24.1	8.6	9.3	25.4	19.1	11.3
November	34.3	9.9	24.6	24.0	8.6	9.3	25.3	18.9	10.2
December	34.3	9.9	24.5	23.8	8.6	9.3	25.3	18.6	9.7
1931: January	34.4	9.8	23.7	23.8	8.5	9.3	25.2	18.2	9.2
February	34.3	9.6	22.7	23.7	8.4	9.3	25.2	18.0	8.9
March	34.2	9.5	21.9	23.7	8.3	9.2	24.9	17.7	8.7
April	34.0	9.4	21.2	23.4	8.2	9.1	24.5	17.4	8.4
May	33.8	9.1	19.6	23.3	8.0	9.0	24.1	17.1	8.2
June	33.6	9.2	19.0	23.3	8.0	8.9	24.0	16.9	8.0
July	33.4	9.2	18.4	23.2	8.0	8.8	23.9	16.6	7.9
August	32.9	8.8	18.1	23.3	7.9	8.8	24.0	16.5	7.8
September	31.3	8.7	18.3	23.0	7.9	8.9	23.4	16.4	7.6
October	30.3	8.8	18.8	22.7	7.9	8.9	23.3	16.2	6.7
November	29.9	8.8	18.9	22.4	7.8	8.8	23.1	16.1	6.3
December	29.6	8.8	18.8	22.0	7.9	8.7	23.0	16.0	6.2
1932: January	29.4	18.0	18.0	21.9	7.7	8.6	22.8	16.0	5.8
February	28.9	17.9	16.5	21.7	7.7	8.7	22.8	15.7	5.6
March	28.5	17.6	15.9	21.5	7.7	8.7	22.7	15.6	5.3
April	28.1	17.5	15.4	21.4	7.6	8.7	22.6	15.5	5.2
May	26.9	17.3	15.1	20.7	7.6	8.6	22.5	15.4	5.1
June	25.8	16.8	14.9	19.6	7.6	8.6	22.5	15.4	5.0
July	24.6	16.5	14.5	19.3	7.6	8.5	22.5	15.2	5.0
August	21.8	16.3	14.6	19.1	7.5	8.4	22.5	15.2	4.9
September	20.6	16.1	14.5	19.0	7.4	8.4	22.5	15.1	5.0
October	20.0	16.1	14.3	19.1	7.4	8.5	22.4	15.1	4.9
November	19.6	16.0	14.3	18.9	7.3	8.5	22.4	14.9	4.6
December	19.5	16.5	14.5	18.8	5.9	8.5	22.3	14.8	4.4
1933: January	19.4	16.6	13.4	18.7	5.7	8.5	22.4	14.7	4.3

<sup>1</sup> 14½-ounce can.



TABLE 2.—AVERAGE PRICES OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, FOR SPECIFIED YEARS, 1920 TO 1932, INCLUSIVE, AND BY MONTHS, 1929 TO JANUARY, 1933, INCLUSIVE—Continued

Year and month	Onions (pound)	Cab- bage (pound)	Pork and beans, No. 2 can	Corn, canned, No. 2 can	Peas, canned, No. 2 can	Toma- toes, canned, No. 2 can	Prunes (pound)	Raisins (pound)	Bana- nas (dozen)	Or- anges (dozen)
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1920: Av. for year	7.1	6.4	16.8	18.5	19.1	14.8	28.1	28.6	44.2	63.2
1927: Av. for year	6.4	5.3	11.5	15.7	16.8	12.0	15.3	14.2	34.0	50.9
1928: Av. for year	6.2	5.0	11.5	15.9	16.8	11.7	13.7	13.2	33.2	58.0
1929: Av. for year	6.8	5.1	11.8	15.8	16.7	13.0	15.4	11.8	32.3	43.3
1930: Av. for year	5.0	5.5	11.0	15.3	16.2	12.3	16.4	11.9	30.4	57.3
1931: Av. for year	4.3	3.8	10.2	13.4	14.2	10.3	11.8	11.3	26.2	35.1
1932: Av. for year	5.2	4.0	<sup>2</sup> 7.4	10.7	12.9	9.3	9.4	11.1	22.9	31.0
1929: January	7.6	5.8	11.7	16.0	16.8	12.3	14.2	11.7	33.9	46.4
February	8.2	5.9	11.8	15.9	16.7	12.7	14.2	11.6	33.3	43.6
March	8.4	5.7	11.9	15.9	16.7	13.0	14.3	11.6	32.1	38.7
April	8.2	5.2	11.9	15.8	16.7	13.1	14.3	11.5	31.8	39.8
May	7.4	5.2	11.9	15.9	16.7	13.2	14.4	11.6	31.9	41.3
June	7.0	4.8	11.9	15.8	16.6	13.4	14.6	11.6	31.7	44.0
July	7.0	4.8	11.9	15.8	16.6	13.8	14.7	11.7	32.1	44.9
August	6.4	5.6	11.9	15.8	16.6	13.8	15.0	11.8	31.9	45.6
September	5.7	5.1	11.8	15.8	16.6	12.9	15.9	12.0	32.1	44.2
October	5.3	4.5	11.7	15.8	16.7	12.6	17.1	12.2	32.4	44.9
November	5.0	4.2	11.7	15.7	16.6	12.6	17.9	12.4	32.7	43.0
December	5.0	4.4	11.5	15.7	16.5	12.5	18.2	12.3	32.2	43.5
1930: January	5.1	5.1	11.4	15.6	16.5	12.6	18.4	12.3	32.1	46.7
February	5.1	6.7	11.3	15.5	16.5	12.6	18.3	12.2	31.3	49.4
March	5.0	8.5	11.2	15.4	16.4	12.6	18.2	12.2	31.4	52.1
April	5.6	9.8	11.1	15.4	16.4	12.6	18.1	12.1	30.6	60.9
May	6.0	7.3	11.0	15.4	16.3	12.8	17.4	12.0	30.6	66.7
June	5.9	5.6	11.0	15.4	16.3	12.4	17.0	12.0	31.0	67.2
July	5.8	4.4	11.0	15.3	16.2	12.4	16.5	11.9	30.6	64.0
August	5.2	4.3	10.9	15.3	16.1	12.4	16.1	11.9	29.9	63.7
September	4.7	3.9	10.9	15.3	16.1	12.3	15.5	11.9	29.7	63.3
October	4.2	3.6	10.8	15.2	16.0	12.1	14.5	11.7	29.4	66.8
November	3.9	3.4	10.7	15.1	15.9	11.7	13.6	11.5	29.3	51.1
December	3.9	3.7	10.7	14.9	15.7	11.5	13.1	11.4	29.0	51.7
1931: January	3.9	4.3	10.5	14.7	15.5	11.2	12.9	11.3	29.1	32.5
February	3.6	4.3	10.3	14.5	15.4	11.1	12.7	11.3	28.7	31.5
March	3.5	4.1	10.0	14.3	15.0	10.8	12.4	11.3	28.7	32.3
April	3.6	4.1	9.7	13.9	14.6	10.5	12.1	11.2	27.8	33.1
May	4.6	4.1	9.4	13.6	14.1	10.2	12.1	11.0	26.6	37.8
June	4.8	4.0	10.3	13.3	13.9	10.1	11.8	11.1	26.1	37.6
July	4.9	3.7	10.3	13.2	13.9	10.1	11.8	11.3	25.7	38.2
August	4.3	4.0	10.4	13.2	13.9	10.0	11.7	11.2	24.1	37.3
September	4.3	3.6	10.4	13.0	13.8	9.9	11.6	11.3	23.9	36.5
October	4.3	3.2	10.3	12.6	13.7	9.8	11.1	11.4	24.0	37.2
November	4.4	3.0	10.2	12.1	13.6	9.7	10.7	11.4	24.4	35.3
December	5.2	3.4	10.2	11.9	13.5	9.6	10.5	11.5	24.8	31.3
1932: January	6.6	4.1	<sup>2</sup> 8.5	11.5	13.4	9.5	10.3	11.5	23.8	29.6
February	7.1	4.3	<sup>2</sup> 8.3	11.3	13.2	9.5	10.2	11.5	23.7	30.1
March	8.6	5.6	<sup>2</sup> 8.0	11.1	13.1	9.6	9.9	11.5	23.5	30.7
April	10.3	6.4	<sup>2</sup> 7.9	10.8	13.1	9.5	9.6	11.5	23.6	31.9
May	6.7	6.6	<sup>2</sup> 7.4	10.8	12.9	9.5	9.4	11.5	23.2	33.0
June	4.7	5.4	<sup>2</sup> 7.2	10.6	12.8	9.5	9.4	11.4	22.9	33.5
July	4.2	3.3	<sup>2</sup> 7.0	10.5	12.7	9.5	9.4	11.5	23.0	32.8
August	3.6	3.0	<sup>2</sup> 7.0	10.5	12.7	9.4	9.3	11.6	22.7	30.7
September	3.0	2.6	<sup>2</sup> 7.0	10.4	12.7	9.1	9.1	11.4	22.2	30.4
October	2.8	2.4	<sup>2</sup> 6.9	10.3	12.6	9.0	8.9	10.7	21.7	30.5
November	2.6	2.3	<sup>2</sup> 6.8	10.2	12.7	8.8	8.8	9.9	21.9	30.7
December	2.7	2.5	<sup>2</sup> 6.8	10.2	12.6	8.7	8.9	9.6	22.9	28.5
1933: January	2.7	2.9	<sup>2</sup> 6.6	10.0	12.6	8.6	8.9	9.5	23.0	27.1

\* 16-ounce can.

Table 3 shows index numbers of the weighted cost of three important groups of food, viz, cereals, meats, and dairy products, based on the year 1913 as 100.0, and changes in January, 1933, compared with January, 1932, and December, 1932. The list of articles included in these groups will be found in the May, 1932, issue of this publication, and monthly indexes for the year 1932 in the December, 1932, issue.

TABLE 3.—INDEX NUMBERS OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES AND PER CENT OF CHANGE ON JANUARY 15, 1933, COMPARED WITH JANUARY 15 AND DECEMBER 15, 1932

Article	Index (1913=100.0)			Per cent of change Jan. 15, 1933, compared with—	
	Jan. 15, 1932	Dec. 15, 1932	Jan. 15, 1933	Jan. 15, 1932	Dec. 15, 1932
Cereals.....	126.4	114.8	112.4	-11.1	-2.1
Meats.....	123.4	103.2	99.9	-19.0	-3.2
Dairy products.....	106.5	95.9	93.0	-12.7	-3.0

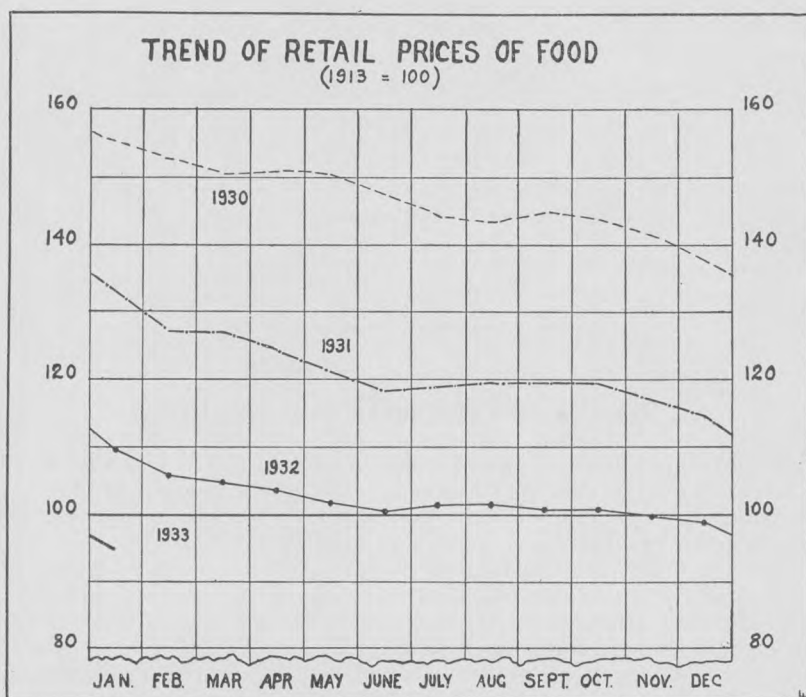


Table 4 shows index numbers of the weighted cost of food for the United States and 39 cities, based on the year 1913 as 100.0. The per cent of change in January, 1933, compared with January, 1932, and December, 1932, is also given for these cities and the United States, and in addition for 12 other cities from which prices were not secured in 1913.

TABLE 4.—INDEX NUMBERS OF THE WEIGHTED COST OF FOOD AND PER CENT OF CHANGE JANUARY 15, 1933, COMPARED WITH JANUARY 15, 1932, AND DECEMBER 15, 1932, BY CITIES AND FOR THE UNITED STATES

City	Index (1913=100.0)			Per cent of change January, 1933, compared with—		City	Index (1913=100.0)			Per cent of change January, 1933, compared with—	
	January, 1932	December, 1932	January, 1933	January, 1932	December, 1932		January, 1932	December, 1932	January, 1933	January, 1932	December, 1932
United States.....	109.3	98.7	94.8	-13.2	-3.9	Minneapolis.....	110.4	98.1	92.7	-16.1	-5.5
Atlanta.....	106.0	95.1	92.0	-13.3	-3.3	Mobile.....	-----	-----	-----	-12.5	-3.2
Baltimore.....	113.9	103.2	99.2	-12.9	-3.8	Newark.....	109.6	102.0	98.5	-10.1	-3.4
Birmingham.....	107.1	99.1	92.6	-13.6	-6.6	New Haven.....	118.8	104.5	101.6	-14.5	-2.8
Boston.....	109.7	101.6	98.1	-10.6	-3.5	New Orleans.....	109.3	98.9	96.2	-11.9	-2.7
Bridgeport.....	-----	-----	-----	-11.8	-2.2	New York.....	115.6	106.3	103.1	-10.8	-3.1
Buffalo.....	107.6	103.8	98.0	-8.9	-5.6	Norfolk.....	-----	-----	-----	-15.9	-2.3
Butte.....	-----	-----	-----	-17.1	-1.4	Omaha.....	103.7	91.0	85.4	-17.6	-6.2
Charleston, S. C.....	114.9	100.1	97.2	-15.4	-2.9	Peoria.....	-----	-----	-----	-12.8	-5.0
Chicago.....	119.0	102.3	97.7	-17.9	-4.5	Philadelphia.....	111.6	100.5	94.9	-14.9	-5.6
Cincinnati.....	113.1	97.4	95.1	-15.9	-2.4	Pittsburgh.....	106.3	96.5	90.7	-14.7	-6.0
Cleveland.....	104.3	91.8	88.1	-15.5	-4.0	Portland, Me.....	-----	-----	-----	-11.8	-3.3
Columbus.....	-----	-----	-----	-14.7	-3.5	Portland, Ore.....	100.3	94.2	90.3	-10.0	-4.2
Dallas.....	105.9	96.2	90.3	-14.7	-6.1	Providence.....	110.4	99.9	98.7	-10.6	-1.3
Denver.....	99.2	94.8	92.9	-6.3	-2.0	Richmond.....	113.2	101.1	99.1	-12.5	-2.0
Detroit.....	105.1	91.5	89.6	-14.7	-2.1	Rochester.....	-----	-----	-----	-13.7	-4.0
Fall River.....	107.7	97.3	93.9	-12.8	-3.4	St. Louis.....	110.7	98.2	94.1	-15.0	-4.3
Houston.....	-----	-----	-----	-18.7	-2.8	St. Paul.....	-----	-----	-----	-14.7	-3.1
Indianapolis.....	102.5	93.4	87.8	-14.4	-6.0	Salt Lake City.....	94.4	86.9	82.2	-12.9	-5.4
Jacksonville.....	101.4	90.9	86.0	-15.2	-5.4	San Francisco.....	112.2	107.2	102.2	-8.8	-4.6
Kansas City.....	106.6	98.5	93.9	-12.0	-4.7	Savannah.....	-----	-----	-----	-12.7	-3.4
Little Rock.....	98.0	87.4	81.3	-17.1	-7.0	Scranton.....	115.4	104.9	101.2	-12.3	-3.5
Los Angeles.....	102.7	93.8	91.8	-10.6	-2.2	Seattle.....	106.9	98.7	95.1	-11.1	-3.6
Louisville.....	103.1	93.2	88.5	-14.1	-5.1	Springfield, Ill.....	-----	-----	-----	-12.1	-3.8
Manchester.....	107.3	100.2	96.3	-10.3	-3.9	Washington.....	115.1	102.3	101.2	-12.0	-1.0
Memphis.....	101.2	90.4	86.1	-15.0	-4.8	Hawaii:	-----	-----	-----	-----	-----
Milwaukee.....	113.7	100.6	95.4	-16.0	-5.1	Honolulu.....	-----	-----	-----	-14.7	(1)
						Other localities.....	-----	-----	-----	-14.4	-9

<sup>1</sup> No change.

### Retail Prices of Coal in January, 1933

RETAIL prices of coal are secured in each of the 51 cities in which retail food prices are obtained. The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or bins where an extra handling is necessary.

Average prices for the United States for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite are computed from the quotations received from retail dealers in all cities where these coals are sold for household use.

Table 1 shows the average prices of coal per ton of 2,000 pounds and index numbers for the United States on January 15, 1933, in comparison with the average prices on January 15, 1932, and December 15, 1932, together with the percentage change in the year and in the month.

Table 2 shows average retail prices of coal on January 15 and December 15, 1932, and January 15, 1933, by cities. In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

TABLE 1.—AVERAGE RETAIL PRICE PER 2,000 POUNDS OF COAL FOR THE UNITED STATES AND PER CENT OF CHANGE ON JANUARY 15, 1933, COMPARED WITH JANUARY 15, 1932, AND DECEMBER 15, 1932

Article	Average retail price on—			Per cent of increase (+) or decrease (—) Jan. 15, 1933, compared with—	
	Jan. 15, 1932	Dec. 15, 1932	Jan. 15, 1933	Jan. 15, 1932	Dec. 15, 1932
Pennsylvania anthracite:					
Stove—					
Average price per 2,000 pounds.....	\$15.00	\$13.87	\$13.82	—7.9	—0.4
Index (1913=100.0).....	194.2	179.5	178.9		
Chestnut—					
Average price per 2,000 pounds.....	\$14.97	\$13.65	\$13.61	—9.1	—3
Index (1913=100.0).....	189.1	172.5	171.9		
Bituminous:					
Average price per 2,000 pounds.....	\$8.17	\$7.51	\$7.46	—8.7	—7
Index (1913=100.0).....	150.3	138.3	137.3		

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND DECEMBER 15, 1932, AND JANUARY 15, 1933

City, and kind of coal	1932		1933	City, and kind of coal	1932		1933
	Jan. 15	Dec. 15	Jan. 15		Jan. 15	Dec. 15	Jan. 15
Atlanta, Ga.:				Columbus, Ohio:			
Bituminous, prepared sizes.....	\$6.46	\$6.22	\$6.12	Bituminous—			
Baltimore, Md.:				Prepared sizes—			
Pennsylvania anthracite—				High volatile.....	\$5.35	\$5.06	\$4.92
Stove.....	14.00	13.25	13.25	Low volatile.....	7.08	6.50	6.50
Chestnut.....	13.75	12.75	12.75	Dallas, Tex.:			
Bituminous, run of mine—				Arkansas anthracite, egg....	14.00	14.00	14.00
High volatile.....	7.36	6.86	6.86	Bituminous, prepared sizes.....	10.50	10.75	10.75
Prepared sizes—				Denver, Colo.:			
Low volatile.....	9.50	9.00	8.75	Colorado anthracite—			
Birmingham, Ala.:				Furnace, 1 and 2 mixed....	15.00	14.50	14.50
Bituminous, prepared sizes.....	6.31	5.00	5.07	Stove, 3 and 5 mixed.....	15.00	14.50	14.50
Boston, Mass.:				Bituminous, prepared sizes.....	8.21	7.02	7.02
Pennsylvania anthracite—				Detroit, Mich.:			
Stove.....	15.00	13.75	13.75	Pennsylvania anthracite—			
Chestnut.....	15.00	13.50	13.50	Stove.....	14.50	13.33	13.33
Bridgeport, Conn.:				Chestnut.....	14.50	13.17	13.17
Pennsylvania anthracite—				Bituminous—			
Stove.....	14.13	12.88	12.75	Prepared sizes—			
Chestnut.....	14.13	12.88	12.75	High volatile.....	6.38	5.80	5.80
Buffalo, N. Y.:				Low volatile.....	7.61	6.93	6.96
Pennsylvania anthracite—				Run of mine—			
Stove.....	13.40	12.42	12.42	Low volatile.....	6.75	6.38	6.38
Chestnut.....	13.40	12.21	12.21	Fall River, Mass.:			
Butte, Mont.:				Pennsylvania anthracite—			
Bituminous, prepared sizes.....	9.98	9.73	9.72	Stove.....	16.00	14.50	14.50
Charleston, S. C.:				Chestnut.....	16.00	14.25	14.25
Bituminous, prepared sizes.....	9.50	8.67	8.67	Houston, Tex.:			
Chicago, Ill.:				Bituminous, prepared sizes.....	10.80	10.00	10.50
Pennsylvania anthracite—				Indianapolis, Ind.:			
Stove.....	16.75	15.75	15.75	Bituminous—			
Chestnut.....	16.75	15.50	15.50	Prepared sizes—			
Bituminous—				High volatile.....	5.71	5.05	5.05
Prepared sizes—				Low volatile.....	8.04	7.71	7.42
High volatile.....	7.92	7.25	7.25	Run of mine—			
Low volatile.....	11.41	9.98	9.98	Low volatile.....	6.60	6.10	6.05
Run of mine—				Jacksonville, Fla.:			
Low volatile.....	7.47	7.19	7.19	Bituminous, prepared sizes.....	10.00	8.50	9.00
Cincinnati, Ohio:				Kansas City, Mo.:			
Bituminous—				Arkansas anthracite—			
Prepared sizes—				Furnace.....	11.38	10.63	10.50
High volatile.....	5.75	5.35	5.25	Stove No. 4.....	12.83	12.17	12.17
Low volatile.....	8.00	7.50	7.50	Bituminous, prepared sizes.....	6.04	5.61	5.59
Cleveland, Ohio:				Little Rock, Ark.:			
Pennsylvania anthracite—				Arkansas anthracite, egg....	12.00	10.75	10.75
Stove.....	14.38	13.69	13.69	Bituminous, prepared sizes.....	9.22	8.39	8.22
Chestnut.....	14.31	13.44	13.44	Los Angeles, Calif.:			
Bituminous—				Bituminous, prepared sizes.....	16.25	16.25	16.25
Prepared sizes—							
High volatile.....	6.61	5.64	5.52				
Low volatile.....	9.14	8.32	8.18				

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND DECEMBER 15, 1932, AND JANUARY 15, 1933—Continued.

City, and kind of coal	1932		1933	City, and kind of coal	1932		1933
	Jan. 15	Dec. 15	Jan. 15		Jan. 15	Dec. 15	Jan. 15
Louisville, Ky.:				Portland, Me.:			
Bituminous—				Pennsylvania anthracite—			
Prepared sizes—				Stove.....	\$16.80	\$15.84	\$15.84
High volatile.....	\$5.23	\$4.64	\$4.64	Chestnut.....	16.80	15.60	15.60
Low volatile.....	8.31	7.25	7.25	Portland, Oreg.:			
Manchester, N. H.:				Bituminous, prepared sizes.....	12.07	11.52	11.52
Pennsylvania anthracite—				Providence, R. I.:			
Stove.....	16.50	14.83	14.83	Pennsylvania anthracite—			
Chestnut.....	16.50	14.83	14.83	Stove.....	15.75	14.75	14.75
Memphis, Tenn.:				Chestnut.....	15.75	14.50	14.50
Bituminous, prepared sizes.....	6.78	5.72	5.68	Richmond, Va.:			
Milwaukee, Wis.:				Pennsylvania anthracite—			
Pennsylvania anthracite—				Stove.....	14.50	13.50	13.50
Stove.....	16.05	15.05	15.05	Chestnut.....	14.50	13.50	13.50
Chestnut.....	16.05	14.80	14.80	Bituminous—			
Bituminous—				Prepared sizes—			
Prepared sizes—				High volatile.....	8.00	6.83	6.83
High volatile.....	7.45	6.99	6.94	Low volatile.....	8.80	8.08	8.08
Low volatile.....	10.01	9.32	9.29	Run of mine—			
Minneapolis, Minn.:				Low volatile.....	7.25	6.75	6.75
Pennsylvania anthracite—				Rochester, N. Y.:			
Stove.....	18.05	17.35	17.35	Pennsylvania anthracite—			
Chestnut.....	18.05	17.10	17.10	Stove.....	14.38	13.38	13.25
Bituminous—				Chestnut.....	14.38	13.13	13.00
Prepared sizes—				St. Louis, Mo.:			
High volatile.....	9.78	9.56	9.56	Pennsylvania anthracite—			
Low volatile.....	12.54	11.85	11.79	Stove.....	16.47	15.22	15.22
Mobile, Ala.:				Chestnut.....	16.47	15.22	15.22
Bituminous, prepared sizes.....	8.88	7.30	7.32	Bituminous, prepared sizes.....	5.57	5.47	5.44
Newark, N. J.:				St. Paul, Minn.:			
Pennsylvania anthracite—				Pennsylvania anthracite—			
Stove.....	13.55	12.25	12.13	Stove.....	18.05	17.35	17.35
Chestnut.....	13.55	12.00	11.88	Chestnut.....	18.05	17.10	17.10
New Haven, Conn.:				Bituminous—			
Pennsylvania anthracite—				Prepared sizes—			
Stove.....	14.90	14.00	13.90	High volatile.....	9.60	9.42	9.40
Chestnut.....	14.90	14.00	13.90	Low volatile.....	12.56	11.87	11.86
New Orleans, La.:				Salt Lake City, Utah:			
Bituminous, prepared sizes.....	9.93	8.57	8.57	Bituminous, prepared sizes.....	7.58	7.17	7.01
New York, N. Y.:				San Francisco, Calif.:			
Pennsylvania anthracite—				New Mexico anthracite—			
Stove.....	13.83	12.54	11.89	Cerrojos egg.....	26.00	-----	25.00
Chestnut.....	13.83	12.29	11.64	Colorado anthracite—			
Norfolk, Va.:				Egg.....	25.50	-----	24.50
Pennsylvania anthracite—				Bituminous, prepared sizes.....	17.00	15.00	15.00
Stove.....	14.50	13.00	13.00	Savannah, Ga.:			
Chestnut.....	14.50	13.00	13.00	Bituminous, prepared sizes.....	2 8.53	2 8.12	2 8.28
Bituminous—				Seranton, Pa.:			
Prepared sizes—				Pennsylvania anthracite—			
High volatile.....	7.00	6.50	6.50	Stove.....	10.05	9.28	8.93
Low volatile.....	9.00	8.00	8.00	Chestnut.....	10.03	9.00	8.68
Run of mine—				Seattle, Wash.:			
Low volatile.....	7.00	6.50	6.50	Bituminous, prepared sizes.....	10.54	9.79	9.79
Omaha, Nebr.:				Springfield, Ill.:			
Bituminous, prepared sizes.....	8.77	8.48	8.35	Bituminous, prepared sizes.....	4.34	3.79	3.68
Peoria, Ill.:				Washington, D. C.:			
Bituminous, prepared sizes.....	6.25	6.02	6.09	Pennsylvania anthracite—			
Philadelphia, Pa.:				Stove.....	3 15.40	3 14.46	3 14.46
Pennsylvania anthracite—				Chestnut.....	3 15.40	3 14.15	3 14.15
Stove.....	13.50	11.75	11.75	Bituminous—			
Chestnut.....	13.50	11.50	11.50	Prepared sizes—			
Pittsburgh, Pa.:				High volatile.....	3 8.46	3 8.29	3 8.18
Pennsylvania anthracite—				Low volatile.....	3 10.54	3 10.21	3 10.13
Chestnut.....	14.00	13.00	12.75	Run of mine—			
Bituminous, prepared sizes.....	4.47	3.50	3.26	Mixed.....	3 7.75	3 7.56	3 7.50

<sup>1</sup> The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bins.

<sup>2</sup> All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

<sup>3</sup> Per ton of 2,240 pounds.

# WHOLESALE PRICES

## Index Numbers of Wholesale Prices, 1913 to January, 1933

THE following table presents the index numbers of wholesale prices by groups of commodities, by years, from 1913 to 1932, inclusive, and by months from January, 1932, to date:

### INDEX NUMBERS OF WHOLESALE PRICES

[1926=100.0]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1913.....	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.3	93.1	69.8
1914.....	71.2	64.7	70.9	54.6	56.6	80.2	52.7	81.4	56.8	89.9	68.1
1915.....	71.5	65.4	75.5	54.1	51.8	86.3	53.5	112.0	56.0	86.9	69.5
1916.....	84.4	75.7	93.4	70.4	74.3	116.5	67.6	160.7	61.4	100.6	85.5
1917.....	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1	117.5
1918.....	148.0	119.1	125.7	137.2	109.2	136.5	98.6	182.3	-93.3	134.4	131.3
1919.....	157.6	129.5	174.1	135.3	104.3	130.9	115.6	157.0	105.9	139.1	138.6
1920.....	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5	154.4
1921.....	88.4	90.6	109.2	94.5	96.8	117.5	97.4	115.0	113.0	109.2	97.6
1922.....	93.8	87.6	104.6	100.2	107.3	102.9	97.3	100.3	103.5	92.8	96.7
1923.....	98.6	92.7	104.2	111.3	97.3	109.3	108.7	101.1	108.9	99.7	100.6
1924.....	100.0	91.0	101.5	106.7	92.0	106.3	102.3	98.9	104.9	93.6	98.1
1925.....	109.8	100.2	105.3	108.3	96.5	103.2	101.7	101.8	103.1	109.0	103.5
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	99.4	96.7	107.7	95.6	88.3	96.3	94.7	96.8	97.5	91.0	95.4
1928.....	105.9	101.0	121.4	95.5	84.3	97.0	94.1	95.6	95.1	85.4	96.7
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6	95.3
1930.....	88.3	90.5	100.0	80.3	78.5	92.1	89.9	89.1	92.7	77.7	86.4
1931.....	64.8	74.6	86.1	66.3	67.5	84.5	79.2	79.3	84.9	69.8	73.0
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.5	75.1	64.4	64.8
1932:											
January.....	52.8	64.7	79.3	59.6	67.9	81.8	74.8	75.7	77.7	65.6	67.3
February.....	50.6	62.5	78.3	59.5	68.3	80.9	73.4	75.5	77.5	64.7	66.3
March.....	50.2	62.3	77.3	58.0	67.9	80.8	73.2	75.3	77.1	64.7	66.0
April.....	49.2	61.0	75.0	56.1	70.2	80.3	72.5	74.4	76.3	64.7	65.5
May.....	46.6	59.3	72.5	54.3	70.7	80.1	71.5	73.6	74.8	64.4	64.4
June.....	45.7	58.8	70.8	52.7	71.6	79.9	70.8	73.1	74.7	64.2	63.9
July.....	47.9	60.9	68.6	51.5	72.3	79.2	69.7	73.0	74.0	64.3	64.5
August.....	49.1	61.8	69.7	52.7	72.1	80.1	69.6	73.3	73.6	64.6	65.2
September.....	49.1	61.8	72.2	55.6	70.8	80.1	70.5	72.9	73.7	64.7	65.3
October.....	46.9	60.5	72.8	55.0	71.1	80.3	70.7	72.7	75.7	64.1	64.4
November.....	46.7	60.6	71.4	53.9	71.4	79.6	70.7	72.4	73.7	63.7	63.9
December.....	44.1	58.3	69.6	53.0	69.3	79.4	70.8	72.3	73.6	63.4	62.6
1933:											
January.....	42.6	55.8	68.9	51.9	66.0	78.2	70.1	71.6	72.9	61.2	61.0

### INDEX NUMBERS OF SPECIFIED GROUPS OF COMMODITIES, JANUARY AND DECEMBER, 1932, AND JANUARY, 1933

[1926=100.0]

Group	January, 1932	December, 1932	January, 1933
Raw materials.....	58.3	52.1	50.2
Semimanufactured articles.....	63.1	57.7	56.9
Finished products.....	72.1	68.4	66.7
Nonagricultural commodities.....	70.3	66.5	64.9
All commodities other than farm products and foods.....	71.7	69.0	67.3



## Weekly Index Numbers of Wholesale Prices

A SUMMARIZATION of the weekly index numbers for the 10 major groups of commodities and for all commodities combined as issued during the month of January will be found in the following statement:

INDEX NUMBERS OF WHOLESALE PRICES FOR WEEKS OF JANUARY 7, 14, 21, AND 28, 1933

[1926=100.0]

Group	Week ending—			
	Jan. 7	Jan. 14	Jan. 21	Jan. 28
All commodities .....	61.9	62.0	61.2	60.4
Farm products .....	43.8	45.2	43.0	41.3
Foods .....	58.1	58.2	56.0	54.1
Hides and leather products .....	68.9	69.2	69.0	68.6
Textile products .....	52.7	52.3	51.9	51.8
Fuel and lighting .....	68.1	67.8	67.6	65.2
Metals and metal products .....	79.1	79.0	78.2	78.2
Building materials .....	70.7	70.6	70.3	70.2
Chemicals and drugs .....	72.0	72.1	71.9	71.9
Housefurnishing goods .....	73.3	73.3	72.8	72.8
Miscellaneous .....	61.4	61.5	60.8	60.8

## Wholesale Price Trends During January, 1933

THE index number of wholesale commodity prices as computed by the Bureau of Labor Statistics of the United States Department of Labor shows a decrease from December, 1932, to January, 1933. This index number which includes 784 commodities or price series weighted according to the importance of each commodity and based on the average prices for the year 1926 as 100, averaged 61.0 for January as compared with 62.6 for December, showing a decrease of 2½ per cent between the two months. When compared with January, 1932, with an index number of 67.3 a decrease of over 9 per cent has been recorded in the 12 months.

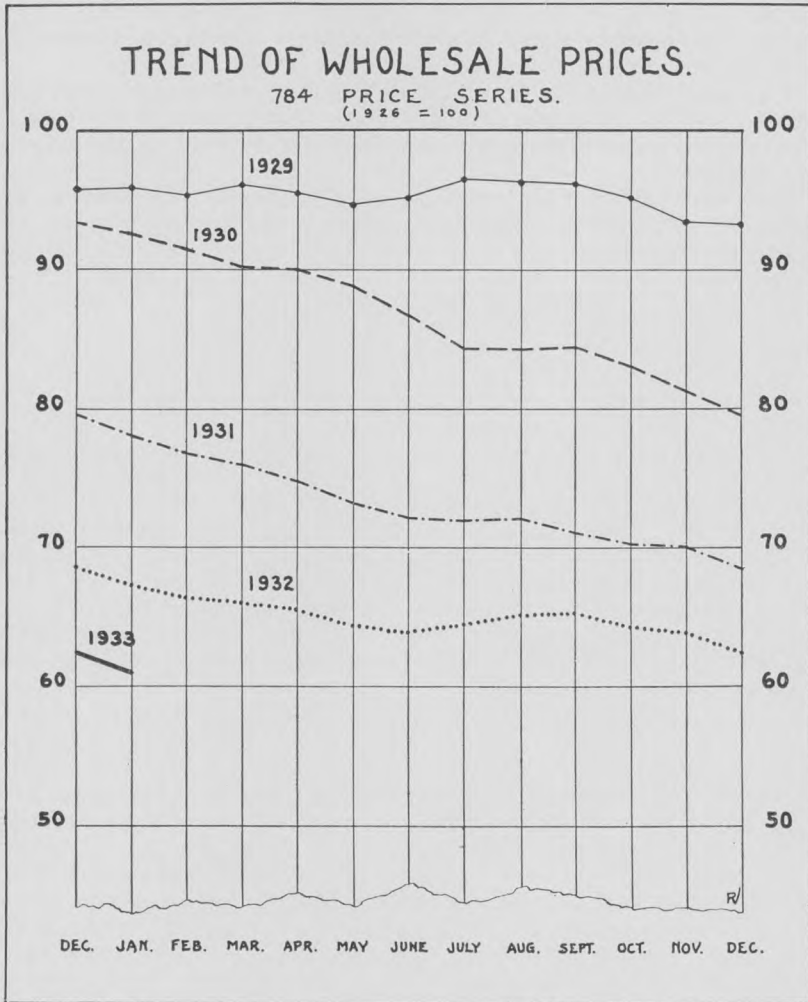
In the group of farm products decreases in the average price of barley, steers, hogs, live poultry, eggs, lemons, hay, fresh milk in New York, and wool caused the group as a whole to decrease slightly less than 3½ per cent from the previous month. Increases were recorded in the average prices of corn, oats, rye, wheat, calves, cows, sheep, cotton, oranges, and sweetpotatoes.

Among foods price decreases during the month were reported for butter, cheese, rice, cured and fresh beef, ham, coffee, cocoa beans, lard, and granulated and raw sugar. On the other hand, canned tomatoes, rye flour, fresh lamb, mutton, fresh pork, veal, and dressed poultry averaged higher than in the month before. The group as a whole decreased about 4¼ per cent in January when compared with December.

The hides and leather products group decreased 1 per cent during the month due to further decreases in boots and shoes, leather, and other leather products. The subgroup of hides and skins increased during the month. Textile products as a whole decreased slightly more than 2 per cent from December to January, all subgroups shared in the decline.

In the group of fuel and lighting materials sharp reductions in the average prices of crude petroleum and petroleum products caused the group as a whole to decline 4¼ per cent during the month. Anthracite and bituminous coals showed minor reductions also, while coke remained at the December level.

Metals and metal products as a whole showed a further downward tendency for January due to decreases in iron and steel products,



motor vehicles, nonferrous metals, and plumbing and heating fixtures. Practically no change took place in average prices of agricultural implements. In the group of building materials the average price of cement moved upward during the month. Brick and tile, lumber, paint and paint materials, and other building materials moved downward, while structural steel showed no change during the month. The group as a whole recorded a decrease of 1 per cent for the month.

Mixed fertilizers, fertilizer materials, and chemicals showed slight recessions during January causing the group to decline practically 1 per cent from the month before. Drugs and pharmaceuticals increased slightly during the month. As a whole the house-furnishing-goods group decreased about 1 per cent from the previous month, both furniture and furnishings shared in the decline.

The group of miscellaneous commodities decreased approximately  $3\frac{1}{2}$  per cent between December and January due to declining prices of paper and pulp, crude rubber, and other miscellaneous articles. Cattle feed showed a slight increase during the month and automobile tires and tubes remained at the December level.

The January averages for all the special groups of commodities were below those for December ranging from  $1\frac{1}{3}$  per cent in the case of semimanufactured articles to more than  $3\frac{1}{2}$  per cent in the case of raw materials.

Between December and January price decreases took place in 262 instances, increases in 84 instances, while in 438 instances no change in price occurred.

## INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Group and subgroup	January, 1932	December, 1932	January, 1933	Purchasing power of dollar January, 1933
All commodities.....	67.3	62.6	61.0	\$1.639
Farm products.....	52.8	44.1	42.6	2.347
Grains.....	46.7	31.7	32.9	3.040
Livestock and poultry.....	53.4	38.7	37.8	2.646
Other farm products.....	54.8	51.3	48.7	2.053
Foods.....	64.7	58.3	55.8	1.792
Butter, cheese, and milk.....	67.8	59.5	55.2	1.812
Cereal products.....	71.0	61.7	60.9	1.642
Fruits and vegetables.....	62.2	52.8	53.0	1.887
Meats.....	61.9	49.4	49.5	2.020
Other foods.....	61.9	66.1	60.1	1.664
Hides and leather products.....	79.3	69.6	68.9	1.451
Boots and shoes.....	88.8	83.8	83.3	1.200
Hides and skins.....	49.0	41.7	43.0	2.326
Leather.....	77.5	59.2	57.1	1.751
Other leather products.....	98.9	81.9	78.2	1.279
Textile products.....	59.6	53.0	51.9	1.927
Clothing.....	69.6	62.5	61.9	1.616
Cotton goods.....	55.8	51.7	50.1	1.996
Knit goods.....	55.8	49.3	48.4	2.066
Silk and rayon.....	37.7	29.3	27.0	3.704
Woolen and worsted goods.....	63.3	54.2	53.4	1.873
Other textile products.....	70.7	66.6	66.3	1.508
Fuel and lighting materials.....	67.9	69.3	66.0	1.515
Anthracite coal.....	94.8	88.7	88.7	1.127
Bituminous coal.....	84.4	80.2	79.8	1.253
Coke.....	80.5	75.3	75.3	1.328
Electricity.....	107.5	104.1	(1)	
Gas.....	98.6	96.5	(1)	
Petroleum products.....	38.8	45.0	38.7	2.584
Metals and metal products.....	81.8	79.4	78.2	1.279
Agricultural implements.....	85.5	84.5	84.5	1.183
Iron and steel.....	79.9	78.8	78.5	1.274
Motor vehicles.....	95.3	93.0	91.3	1.095
Nonferrous metals.....	55.4	48.3	46.4	2.155
Plumbing and heating.....	74.1	67.5	62.8	1.592
Building materials.....	74.8	70.8	70.1	1.427
Brick and tile.....	79.3	75.1	74.9	1.335
Lumber.....	75.2	81.1	81.2	1.232
Paint and paint materials.....	65.6	56.5	55.9	1.789
Plumbing and heating.....	75.4	68.1	68.1	1.468
Structural steel.....	74.1	67.5	62.8	1.592
Other building materials.....	77.3	81.7	81.7	1.224
Chemicals and drugs.....	81.0	80.1	79.4	1.259
Chemicals.....	75.7	72.3	71.6	1.397
Drugs and pharmaceuticals.....	80.6	79.7	79.3	1.261
Fertilizer materials.....	60.6	54.7	54.9	1.821
Mixed fertilizers.....	69.9	63.1	62.3	1.605
House-furnishing goods.....	75.5	65.6	62.7	1.595
Furnishings.....	77.7	73.6	72.9	1.372
Furniture.....	76.1	74.7	73.5	1.361
Miscellaneous.....	79.5	72.7	72.3	1.383
Automobile tires and tubes.....	65.6	63.4	61.2	1.634
Cattle feed.....	39.7	44.6	44.6	2.242
Paper and pulp.....	53.0	37.1	38.2	2.618
Rubber, crude.....	78.0	73.0	72.0	1.389
Other miscellaneous.....	9.3	6.8	6.5	15.385
Raw materials.....	85.2	81.3	76.8	1.302
Semimanufactured articles.....	60.6	52.1	50.2	1.992
Finished products.....	63.1	57.7	56.9	1.757
Nonagricultural commodities.....	72.1	68.4	66.7	1.499
All commodities other than farm products and foods.....	70.3	66.5	64.9	1.541
	71.7	69.0	67.3	1.486

<sup>1</sup> Data not yet available.

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## Wholesale Prices in the United States and in Foreign Countries

IN THE following table the index numbers of wholesale prices of the Bureau of Labor Statistics of the United States Department of Labor, and those in certain foreign countries, have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the original sources from which the information has been drawn, in certain cases being the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, and the kind and number of articles included, there are important differences in the composition of the index numbers themselves. Indexes are shown for the years 1926 to 1931, inclusive, and by months since January, 1931.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

Country.....	United States	Australia	Austria	Belgium	Bulgaria	Canada	Chile	China
Computing agency....	Bureau of Labor Statistics	Bureau of Census and Statistics	Federal Statistical Bureau	Ministry of Industry and Labor	General Statistical Bureau	Dominion Bureau of Statistics	General Statistical Bureau	National Tariff Commission, Shanghai
Base period.....	1926 (100)	1911 (1,000)	January-June, 1914 (100)	April, 1914 (100)	1926 (100)	1926 (100)	1913 (100)	1926 (100)
Commodities.....	784	92	(Gold) 47	(Paper) 126	(Gold) 55	502	(Paper)	(Silver) 155
1926.....	100.0	1,832	123	744	100.0	100.0	-----	100.0
1927.....	95.4	1,817	133	847	102.4	97.7	-----	104.4
1928.....	96.7	1,792	130	843	109.8	96.4	192.5	101.7
1929.....	95.3	1,803	130	851	117.0	95.6	192.4	104.5
1930.....	86.4	1,596	117	744	94.6	86.6	166.9	114.8
1931.....	73.0	1,428	108	626	79.1	72.1	152.2	126.7
1931								
January.....	78.2	1,454	105	661	83.6	75.9	149.7	119.7
February.....	76.8	1,448	107	658	80.6	75.5	152.2	127.4
March.....	76.0	1,456	107	660	79.1	74.5	155.7	126.1
April.....	74.8	1,447	108	652	79.5	73.9	159.2	126.2
May.....	73.2	1,440	107	640	78.9	72.5	159.7	127.5
June.....	72.1	1,425	110	642	78.7	71.8	158.6	129.2
July.....	72.0	1,428	114	635	79.7	71.3	154.0	127.4
August.....	72.1	1,399	110	616	77.4	70.5	149.5	130.3
September.....	71.2	1,391	108	597	77.1	69.7	146.2	129.2
October.....	70.3	1,402	109	591	78.7	69.9	142.3	126.9
November.....	70.2	1,428	112	584	78.9	70.7	148.1	124.8
December.....	68.6	1,425	112	573	77.5	70.4	150.9	121.8
1932								
January.....	67.3	1,414	114	557	75.7	69.4	146.5	119.3
February.....	66.3	1,449	112	554	75.9	69.2	151.9	-----
March.....	66.0	1,438	113	548	75.9	69.1	164.2	-----
April.....	65.5	1,431	112	539	72.4	68.4	189.8	116.7
May.....	64.4	1,408	116	526	71.7	67.7	213.6	115.7
June.....	63.0	1,390	115	514	71.7	66.6	226.6	113.6
July.....	64.5	1,397	112	512	69.2	66.6	230.2	111.8
August.....	65.2	1,415	112	524	67.9	66.8	239.6	111.3
September.....	65.3	1,441	110	533	67.4	66.9	281.6	109.8
October.....	64.4	1,404	111	529	67.7	65.0	293.9	108.7
November.....	63.9	-----	111	525	-----	64.8	-----	106.9
December.....	62.6	-----	108	522	-----	64.0	-----	107.5

## INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country.....	Czecho- slovakia	Den- mark	Finland	France	Ger- many	India	Italy	Japan
Computing agency...	Central Bureau of Sta- tistics	Statisti- cal De- part- ment	Central Bureau of Sta- tistics	General Statisti- cal Bu- reau	Federal Statisti- cal Bu- reau	Depart- ment, etc., <sup>1</sup> Calcutta	Riccardo Bachi	Bank of Japan, Tokyo
Base period.....	July, 1914 (100)	1913 (100)	1926 (100)	1913 (100)	1913 (100)	July, 1914 (100)	1913 (100)	October, 1900 (100)
Commodities.....	(Gold) 69	118	120	(Paper) 126	400	(Paper) 72	(Paper) 140	56
1926.....	139.2	163	100	695	134.4	148	602.0	236.7
1927.....	143.1	153	101	642	137.6	148	495.3	224.6
1928.....	143.1	153	102	645	140.0	145	461.6	226.1
1929.....	135.0	150	98	627	137.2	141	445.3	219.8
1930.....	118.6	130	90	554	124.6	116	383.0	181.0
1931.....	107.5	114	84	502	110.9	96	328.4	153.0
1931								
January.....	110.1	118	86	541	115.2	98	341.7	158.5
February.....	108.9	117	86	538	114.0	99	338.1	158.0
March.....	108.8	116	86	539	113.9	100	339.3	158.3
April.....	110.5	115	85	540	113.7	98	337.0	157.9
May.....	110.3	113	84	520	113.3	97	331.7	154.0
June.....	108.7	110	83	518	112.3	93	326.5	150.7
July.....	112.1	110	82	500	111.7	93	324.3	152.8
August.....	107.8	109	81	488	110.2	92	321.6	151.8
September.....	105.1	109	79	473	108.6	91	319.1	149.6
October.....	104.6	113	82	457	107.1	96	322.2	146.9
November.....	104.3	117	87	447	106.6	97	320.4	147.0
December.....	103.8	119	92	442	103.7	98	318.9	151.0
1932								
January.....	102.3	118	94	439	100.0	97	316.6	159.5
February.....	101.4	119	93	446	99.8	97	314.4	161.4
March.....	101.4	117	92	444	99.8	94	315.0	158.5
April.....	100.7	115	89	439	98.4	92	311.3	154.1
May.....	99.5	114	88	438	97.2	89	305.1	150.3
June.....	97.3	113	87	425	96.2	86	297.4	146.4
July.....	98.0	115	89	430	95.9	87	295.7	147.7
August.....	97.9	117	89	415	95.4	91	295.9	155.8
September.....	100.1	119	90	413	95.1	91	298.6	167.4
October.....	99.5	118	90	412	94.3	91	298.6	169.1
November.....	99.1	120	91	413	93.9	90	298.2	177.9
December.....	99.0	119	-----	413	92.4	88	295.8	184.6

<sup>1</sup> Department of Commercial Intelligence and Statistics.



## INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Jugoslavia	Netherlands	New Zealand revised	Norway	Poland	South Africa	Spain	Sweden	Switzerland	United Kingdom
Computing agency	National Bank	Central Bureau of Statistics	Census and Statistics Office	Central Bureau of Statistics	Central Office of Statistics	Office of Census and Statistics	Bureau of Labor Statistics	Board of Trade	Federal Labor Department	Board of Trade
Base period	1926 (100)	1913 (100)	1909-13 (1,000)	1913 (100)	1927 (100)	1910 (1,000)	1913 (100)	1913 (100)	July, 1914 (100)	1924 (100)
Commodities	55	48	180	95	-----	188	74	160	121	150
1926	100.0	145	1553	-----	88.7	1387	181	149	144.5	89.1
1927	103.4	148	1478	-----	100.0	1395	172	146	142.2	85.2
1928	106.2	149	1492	157	101.0	1354	167	148	144.6	84.4
1929	100.6	142	1488	149	95.7	1305	171	140	141.2	82.1
1930	86.6	117	1449	137	82.3	1155	172	122	126.5	71.9
1931	72.9	97	1336	122	70.5	1119	174	111	109.7	62.6
1931										
January	75.7	105	-----	128	71.6	1148	173	115	115.2	64.3
February	74.8	104	-----	126	72.1	-----	175	114	114.7	63.9
March	74.6	103	-----	124	72.5	-----	174	113	113.6	63.7
April	75.5	102	-----	123	74.1	1115	172	112	112.2	63.6
May	75.4	102	-----	121	74.8	-----	169	111	110.8	62.8
June	73.8	100	1334	120	73.2	-----	170	110	110.4	62.1
July	74.4	97	1319	120	70.3	1104	175	110	109.5	61.5
August	73.6	94	1323	120	69.0	-----	177	109	108.1	59.9
September	71.6	91	1323	117	67.0	-----	178	107	106.3	59.7
October	69.5	89	1327	119	66.3	1109	175	108	106.4	62.8
November	68.6	89	1335	119	68.2	-----	176	110	106.2	64.0
December	67.2	85	1333	122	66.4	-----	177	111	103.1	63.7
1932										
January	67.8	84	1335	123	63.9	1083	176	109	101.4	63.7
February	67.3	83	1321	123	64.6	-----	178	110	99.6	63.4
March	67.8	82	1316	122	63.8	-----	180	109	98.7	63.0
April	66.1	80	1307	120	65.3	1062	181	109	97.7	61.6
May	65.4	79	1304	120	66.1	-----	177	109	95.6	60.6
June	64.9	78	1299	120	61.8	-----	174	108	94.5	59.0
July	65.6	76	1299	122	60.4	1002	172	108	93.6	58.8
August	62.6	75	1299	123	60.2	-----	171	108	95.0	59.9
September	61.8	76	1302	123	60.2	-----	170	110	94.8	61.4
October	63.9	77	1295	123	58.8	978	169	110	94.8	60.8
November	64.7	77	1277	124	58.5	-----	170	109	94.2	60.8
December	64.8	-----	-----	123	56.2	-----	-----	108	91.8	60.8

# IMMIGRATION AND EMIGRATION

## Statistics of Immigration for December, 1932

By J. J. KUNNA, CHIEF STATISTICIAN, UNITED STATES BUREAU OF IMMIGRATION

**D**URING December 1,846 immigrant aliens were admitted, 1,124 coming from Europe, 645 from the Western Hemisphere, and 77 from other countries. The countries supplying the largest number were Canada with 394, Italy with 294, Germany with 178, Poland with 163, and Mexico with 154. In the same month 8,040 emigrant aliens departed, 4,463 going to Europe, principally Great Britain, Italy, and Germany; 2,274 were destined to Mexico, and 1,303 to other countries.

In the semiannual period from July to December last, 90,376 aliens (14,167 immigrants and 76,209 nonimmigrants) were admitted, and 155,417 (52,826 emigrants and 102,591 nonemigrants) departed, resulting in a decrease in the alien population of the country of 65,041. This is slightly larger than the 63,992 decrease for the corresponding period of the previous year, when 106,630 aliens were admitted (including 21,735 immigrants and 84,895 nonimmigrants) and 170,622 departed—58,604 emigrants and 112,018 nonemigrants.

Of the 90,376 aliens entering the country from July to December last, 42,165 were admitted as returning residents, 19,469 as temporary visitors for business or pleasure, 11,439 were passing through the country on their way elsewhere, 5,069 were aliens charged to the quota, 4,731 were natives of nonquota countries, 3,911 were husbands, wives, and unmarried children of American citizens, and 2,050 were Government officials, their families, attendants, servants, and employees. The remaining 1,542 were students, ministers, professors, and other miscellaneous classes. Over four-fifths of the total were born overseas, 65,580 in Europe, 6,185 in Asia, and 1,381 in Africa, Australia, and the Pacific Islands, while 17,230 were natives of Canada, Mexico, and other America.

During the six months ending December 31, last, 10,978 aliens were deported from the United States for various causes under the immigration laws, as against 9,234 for the corresponding period of the preceding year, an increase of 18.9 per cent. Of the 10,978 deportees, 3,460 were sent to European countries, 3,902 to Mexico, 1,478 to China, 1,312 to Canada, and 826 to other countries. In the semiannual period July to December, 1932, a total of 1,128 indigent aliens were returned to their native land at their own request, practically all being destined to European countries.

Since 1820, when official records were first made of the influx of foreign population to this country, the figures for each of the first three decades, from 1821 to 1850, show Ireland as the principal source of immigration; in the following four decades, from 1851 to 1890, it

was Germany; from 1891 to 1900, Italy; and from 1901 to 1910, Austria-Hungary. Italy again contributed the largest number of immigrants during the 10-year period from 1911 to 1920, while Canada was the principal source from 1921 to 1930.

Immigration from France and Ireland was at its peak in 1851; from Germany, Denmark, Norway, Sweden, and the Netherlands, in 1882; from England in 1888; from Austria-Hungary, Italy, and Greece, in 1907; from Russia in 1913; from Portugal and Spain in 1921; and from Scotland, Canada, Mexico, the West Indies, and Central and South America, in 1924. Immigration from China was the largest in 1882; from Japan in 1907; and from India in 1910.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1 TO DECEMBER 31,  
1932

Period	Inward					Aliens de- barred from enter- ing <sup>1</sup>	Outward					Aliens de- ported after land- ing <sup>2</sup>
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens departed	Total	
	Immigrant	Non-immigrant	Total				Emigrant	Non-emigrant	Total			
July, 1932	2,079	10,534	12,613	28,006	40,619	561	11,328	24,089	35,417	59,298	94,715	2,100
August, 1932	2,719	14,107	16,826	54,070	70,896	605	8,783	20,141	28,924	57,887	86,811	1,946
September, 1932	3,129	21,348	24,477	60,258	84,735	596	8,856	17,290	26,146	38,368	64,514	1,645
October, 1932	2,388	14,407	16,795	28,058	44,853	590	7,788	14,776	22,564	28,854	51,418	2,103
November 1932	2,006	8,681	10,687	14,879	25,566	428	8,031	13,062	21,093	22,129	43,222	1,580
December, 1932	1,846	7,132	8,978	13,259	22,237	424	8,040	13,233	21,273	20,461	41,734	1,604
Total	14,167	76,209	90,376	198,530	288,906	3,204	52,826	102,591	155,417	226,997	382,414	10,978

<sup>1</sup> These aliens are not included among arrivals, as they were not permitted to enter the United States.

<sup>2</sup> These aliens (exclusive of visitors across land borders) are included among aliens departed, they having entered the United States, legally or illegally, and later departed.

### Occupational Trends in Immigration to the United States, 1928 to 1932

IT HAS been over a century since the number of immigrant aliens admitted in one year to this country was lower than in the fiscal year 1931-32.<sup>1</sup> The decline in admissions has been marked in the last two years of the present industrial depression and is of special economic interest when considered in connection with the number of emigrant aliens departing in this period and the occupations of the incoming and outgoing aliens.

The following table, compiled from the annual reports of the United States Commissioner General of Immigration, 1928 to 1932, shows the ebbing tide of alien labor. The contrast between 1928 and 1932 is particularly striking. For example, in the year preceding the 1929 stock-market crash 307,255 immigrant aliens were admitted. After deducting the emigrant aliens departing, the net increase in the population was 229,798. In the fiscal year 1932, however, only 35,576 immigrant aliens were admitted and the departures outbalanced the admissions by 67,719, of whom 10,470 were skilled workers.

<sup>1</sup> United States. Department of Labor. Commissioner General of Immigration. Annual report, fiscal year ended June 30, 1932. Washington, 1932, p. 1.

While in 1928 the number of servants coming in exceeded the number going out by 24,498, in 1932 there were 4,085 more departures than admissions. The reduction in farm laborers was also conspicuous, the excess of admissions over departures being 23,920 in 1928, the departures outstripping the admissions by 1,069 in 1932.

Indeed, in 1932 the only occupations or occupational groups in which the departures did not outnumber the admissions were the clergy with 212 more admissions than departures, engineers (professional) with 3, officials (Government) with 232, physicians with 38, and "other professional" persons with 42.

In 1928 the number of bakers admitted was 1,197 more than the number who left; in 1932 those departing exceeded those admitted by 336. There were 4,615 carpenters and joiners admitted to the country in 1928, or 3,456 above the number who departed. In 1932 the departures outweighed the admissions by 1,132. In 1928 the clerks and accountants permitted to enter outnumbered those departing by 12,884. Last year 1,383 more left than were allowed to come in.

IMMIGRANT ALIENS ADMITTED, EMIGRANT ALIENS DEPARTED, AND CHANGE IN POPULATION ON ACCOUNT OF IMMIGRATION AND EMIGRATION, 1929 TO 1932, BY OCCUPATION

Occupation	Immigrant aliens admitted					Emigrant aliens departed					Increase (+) or decrease (-) in population resulting from immigration and emigration				
	1928	1929	1930	1931	1932	1928	1929	1930	1931	1932	1928	1929	1930	1931	1932
<b>Professional:</b>															
Actors.....	196	222	256	148	82	280	348	162	116	151	-84	-126	+94	+32	-69
Architects.....	237	200	204	100	26	75	127	89	109	131	+162	+73	+115	-9	-105
Clergy.....	1,130	915	893	651	542	376	373	282	249	330	+754	+542	+611	+402	+212
Editors.....	30	29	41	49	8	14	7	12	24	51	+16	+22	+29	+25	-43
Electricians.....	1,327	1,105	922	241	43	160	142	143	168	218	+1,167	+963	+779	+73	-175
Engineers (professional).....	1,655	1,604	1,584	443	168	668	651	440	426	165	+987	+953	+1,144	+17	+3
Lawyers.....	346	305	141	92	39	80	59	57	42	70	+51	+46	+84	+50	-31
Literary and scientific persons.....	131	105	381	221	126	159	234	139	95	185	+187	+144	+242	+126	-59
Musicians.....	627	575	443	159	70	177	138	129	118	175	+450	+437	+314	+41	-105
Officials (Government).....	478	394	514	466	412	245	185	240	174	180	+233	+209	+274	+292	+232
Physicians.....	454	398	390	329	259	207	196	176	167	221	+247	+202	+214	+162	+38
Sculptors and artists.....	140	78	87	34	76	74	138	160	162	162	+56	+66	-60	-73	-128
Teachers.....	2,391	2,036	1,792	972	437	564	499	415	339	538	+1,827	+1,537	+1,377	+633	-101
Other professional.....	1,797	2,037	2,249	815	292	563	647	362	176	250	+1,234	+1,390	+1,887	+639	+42
<b>Total.....</b>	<b>10,931</b>	<b>10,138</b>	<b>9,888</b>	<b>4,773</b>	<b>2,538</b>	<b>3,644</b>	<b>3,680</b>	<b>2,784</b>	<b>2,363</b>	<b>2,827</b>	<b>+7,287</b>	<b>+6,458</b>	<b>+7,104</b>	<b>+2,410</b>	<b>-289</b>
<b>Skilled:</b>															
Bakers.....	1,489	1,622	1,083	397	60	292	289	229	229	396	+1,197	+1,333	+854	+168	-336
Barbers and hairdressers.....	1,128	1,176	998	346	109	249	253	178	163	233	+879	+923	+820	+183	-124
Blacksmiths.....	839	634	411	90	22	86	71	75	82	151	+753	+563	+336	+8	-129
Bookbinders.....	75	43	74	16	4	10	9	8	13	18	+65	+34	+66	+3	-14
Brewers.....	10	6	8	3	1	9	2	1	1	1	+9	-3	+6	+3	-1
Butchers.....	1,066	1,008	824	273	57	181	147	154	147	191	+885	+861	+670	+126	-134
Cabinetmakers.....	168	154	167	39	13	128	54	63	63	105	+40	+100	+104	-24	-92
Carpenters and joiners.....	4,615	3,505	2,616	804	164	1,159	859	708	882	1,296	+3,456	+2,646	+1,908	-78	-1,132
Cigarette makers.....	11	11	5	3	1	3	1	6	3	3	+5	+11	+4	-3	-3
Cigar makers.....	146	147	83	6	5	321	227	214	197	156	-175	-80	-131	-191	-151
Cigar packers.....	23	18	17	5	1	6	3	5	3	3	+17	+15	+12	+5	-3
Clerks and accountants.....	15,122	13,927	12,559	3,481	648	2,238	2,024	1,543	1,524	2,031	+12,884	+11,903	+11,016	+1,957	-1,383
Dressmakers.....	1,437	1,346	1,277	540	87	219	193	187	148	204	+1,218	+1,153	+1,090	+392	-117
Engineers (locomotive, marine, and stationary).....	810	421	585	328	130	60	116	342	415	887	+750	+305	+243	-87	-757
Furriers and fur workers.....	119	147	144	42	11	62	52	33	35	44	+57	+95	+111	+7	-33
Gardeners.....	735	636	610	200	27	176	148	119	141	198	+488	+491	+491	+59	-171
Hat and cap makers.....	75	59	48	19	1	3	5	4	2	4	+72	+54	+44	+17	-3
Iron and steel workers.....	1,857	1,440	1,380	216	26	326	164	118	196	226	+1,531	+1,276	+1,202	+20	-200
Jewelers.....	270	155	101	49	6	52	26	37	20	42	+218	+129	+64	+29	-36
Locksmiths.....	1,985	1,730	885	306	22	13	18	29	17	40	+1,972	+1,712	+856	+289	-18
Machinists.....	2,032	1,629	1,802	323	69	632	472	434	557	725	+1,400	+1,157	+1,368	-234	-656
Mariners.....	1,093	1,414	1,146	628	225	706	611	600	1,082	1,439	+387	+803	+546	-454	-1,214

Masons.....	1,377	1,129	786	193	44	255	241	164	210	321	+1,122	+888	+622	-17	-277
Mechanics (not specified).....	3,888	3,227	2,555	743	112	511	518	503	614	989	+3,377	+2,709	+2,052	+129	-877
Metal workers (other than iron, steel, and tin).....	517	328	309	67	16	153	22	26	34	80	+364	+306	+283	+33	-64
Millers.....	211	256	208	12	3	103	56	28	30	73	+108	+200	+180	-18	-70
Milliners.....	318	333	240	101	8	23	31	22	26	26	+295	+302	+218	+75	-18
Miners.....	1,830	1,844	1,634	196	21	573	508	336	503	607	+1,257	+1,836	+1,298	-307	-586
Painters and glaziers.....	1,681	1,569	1,193	289	66	232	283	263	354	554	+1,449	+1,286	+930	-65	-488
Patternmakers.....	80	56	78	11	2	14	6	17	22	29	+66	+50	+61	-11	-27
Photographers.....	206	153	133	54	17	32	34	17	13	50	+174	+119	+116	+41	-33
Plasterers.....	249	201	178	37	11	74	65	37	84	94	+175	+136	+141	-47	-83
Plumbers.....	557	356	550	78	12	82	66	67	80	112	+475	+290	+483	-2	-100
Printers.....	631	527	432	131	25	57	63	72	85	106	+574	+464	+360	+46	-81
Saddlers and harness makers.....	163	106	47	23	1	3	7	1	2	9	+160	+99	+46	+21	-8
Seamstresses.....	1,328	1,006	617	252	37	46	54	36	49	53	+1,282	+952	+551	+203	-16
Shoemakers.....	1,190	976	705	275	92	255	202	116	94	168	+935	+774	+589	+181	-76
Stokers.....	264	147	111	5	5	11	21	40	64	193	+253	+126	+71	-59	-188
Stonecutters.....	168	144	100	31	13	28	10	12	23	46	+140	+134	+88	+8	-33
Tailors.....	1,695	1,569	1,307	446	129	361	278	175	175	280	+1,334	+1,291	+1,132	+271	-151
Tanners and curriers.....	82	63	37	12	5	9	10	28	17	18	+73	+53	+9	-6	-12
Textile workers (not specified).....	195	203	400	205	32	16	60	37	30	50	+179	+143	+363	+175	-18
Tinners.....	298	219	158	43	5	34	26	16	15	17	+264	+193	+142	+28	-12
Tobacco workers.....	12	23	11	4	1	2	-----	-----	3	1	+10	+23	+11	+1	0
Upholsterers.....	159	147	121	31	9	23	21	16	14	32	+136	+126	+105	+17	-23
Watch and clock makers.....	218	215	148	47	7	12	32	17	24	26	+206	+183	+131	+25	-19
Weavers and spinners.....	689	692	850	129	11	182	167	91	76	105	+507	+525	+759	+53	-94
Wheelwrights.....	19	7	7	6	-----	2	2	2	4	4	+17	+5	+5	+4	-4
Woodworkers (not specified).....	149	90	175	143	-----	54	75	22	20	22	+95	+15	+153	+123	-22
Other skilled.....	5,649	4,527	5,659	1,871	461	451	510	665	698	844	+5,198	+4,017	+4,994	+1,173	-383
Total.....	58,928	51,341	45,572	13,549	2,831	10,524	9,118	7,909	9,281	13,301	+48,404	+42,223	+37,663	+4,268	-10,470
Miscellaneous:															
Agents.....	1,222	1,427	1,855	748	271	160	463	476	461	617	+1,062	+964	+1,379	+287	-346
Bankers.....	107	87	123	98	62	143	145	118	107	112	-36	-58	+5	-9	-50
Draymen, hackmen, and team- sters.....	767	891	1,104	119	37	26	55	58	54	78	+741	+836	+1,046	+65	-41
Farmers.....	8,773	8,309	8,375	2,743	403	1,523	1,332	1,311	1,471	2,115	+7,250	+6,977	+7,064	+1,272	-1,712
Farm laborers.....	24,161	19,849	13,736	3,422	254	241	300	389	807	1,323	+23,920	+19,549	+13,347	+2,615	-1,069
Fishermen.....	951	1,045	1,023	103	12	114	102	48	65	94	+837	+943	+975	+38	-82
Hotel keepers.....	93	81	98	42	25	169	141	141	99	121	-76	-60	-43	-57	-96
Laborers.....	36,218	26,192	16,447	4,503	1,118	29,396	23,027	12,157	17,242	34,296	+6,822	+3,165	+4,290	-12,739	-33,178
Manufacturers.....	165	255	329	60	31	126	172	72	59	62	+39	+83	+257	+1	-31
Merchants and dealers.....	3,378	2,884	2,732	1,445	744	2,284	1,911	1,794	1,417	1,859	+1,094	+973	+938	+28	-1,115
Servants.....	28,751	31,841	29,073	9,740	1,232	4,253	4,313	3,992	5,317	3,956	+24,498	+27,528	+25,081	+5,784	+1,085
Other miscellaneous.....	7,718	5,644	5,751	2,782	954	2,798	2,151	2,110	2,702	3,162	+4,920	+3,493	+3,641	+80	-2,208
Total.....	112,304	98,505	80,646	25,805	5,143	41,233	34,112	22,666	28,440	49,156	+71,071	+64,393	+57,980	-2,635	-44,013
No occupation (including women and children).....	125,092	119,694	105,694	53,012	25,064	22,056	22,293	17,302	21,798	38,011	+103,036	+97,401	+88,292	+31,214	-12,947
All occupations.....	307,255	279,678	241,700	97,139	35,576	77,457	69,203	50,661	61,882	103,295	+229,798	+210,475	+191,039	+35,257	-67,719



# PUBLICATIONS RELATING TO LABOR

## Official—United States

ALASKA.—Governor. *Annual report, for the fiscal year ended June 30, 1932.* Washington, Department of the Interior, 1932. 144 pp., charts, illus.

Data on labor conditions, taken from this report, are given in this issue of the Review.

CALIFORNIA.—Unemployment Commission. *Report and recommendations.* San Francisco, 1932. 810 pp., charts, illus.

A summary of the recommendations of the commission is given in this issue of the Review.

HAWAII.—Governor. *Annual report for fiscal year ended June 30, 1932.* Washington, Department of the Interior, 1932. 144 pp.

Statistics on sugar-plantation labor, from this publication, are given in this issue of the Review.

MISSOURI.—Workmen's Compensation Commission. *Fifth annual report, for the period from January 1, 1931, through December 31, 1931.* Jefferson City, [1932?]. 256 pp.

Reviewed in this issue.

NEW JERSEY.—Department of Labor. Bureau of Statistics and Records. *Industrial accident report: Compensable cases closed during year ending December 31, 1931.* Trenton, 1932. 15 pp. (Mimeographed.)

Reviewed in this issue.

SOUTH DAKOTA.—Child Welfare Commission. *Fifth biennial report, for the period July 1, 1928, to June 30, 1930.* [Pierre, 1930?] 40 pp.

The report gives some data as to work done in the fiscal year 1930, and includes recommendations as to activities which might well be undertaken.

VIRGIN ISLANDS.—Governor. *Annual report, for fiscal year ended June 30, 1932.* Washington, Department of the Interior, 1932. 41 pp.

Data on economic and social conditions in the Virgin Islands, taken from this report, are given in this issue of the Review.

VIRGINIA.—[Commission on Workmen's Compensation Insurance.] *Workmen's compensation insurance. Report of the commission appointed pursuant to a joint resolution agreed to March 8, 1930.* Richmond, 1932. 25 pp. (House document No. 9.)

The commission recommends continued study of the advisability of creating a State fund and of revising the benefit provisions of the compensation act. It did, however, advise two amendments regarding insurance provisions of the compensation act.

—[Safety Codes Commission.] *Report of the commission appointed to study the advisability of adopting a safety code for employers and employees.* Richmond, 1932. 12 pp. (House document No. 7.)

The adoption of safety codes for the protection of employees is recommended, with enforcement vested in the State department of labor and industry.

WEST VIRGINIA.—Department of Mines. *Annual report, 1931.* Charleston, [1932?]. 193 pp., diagram.

Contains statistics on the production of coal and coke, with a section covering accidents to mine workers from 1883 to 1931.

WYOMING.—Commissioner of Labor and Statistics. *Eighth biennial report, 1931–1932. Cheyenne, 1932. 32 pp.*

Data on wages and hours in Wyoming in 1932, taken from the report, are given in this issue of the Review.

UNITED STATES.—Congress. Senate. Committee on Manufactures. *Conditions in coal fields in Harlan and Bell Counties, Kentucky. Hearings (72d Cong., 1st sess.) on S. Res. 178, a resolution for an investigation of conditions in the coal fields of Harlan and Bell Counties, Kentucky, May 11, 12, 13, and 19, 1932. Washington, 1932. 286 pp.*

— — — — *Conditions in coal fields in Harlan and Bell Counties, Kentucky. Report of Mr. Cutting (to accompany S. Res. 178, 72d Cong., 1st sess.). Washington, 1932. 30 pp.*

— — — — *Emergency financing for unemployed workers. Hearings (72d Cong., 1st sess.) on S. 4947, a bill to provide emergency financing facilities for unemployed workers, to relieve their distress, to increase their purchasing power and employment, and for other purposes, July 6, 1932. Washington, 1932. 20 pp.*

— Department of Commerce. Bureau of Mines. *Bituminous coal tables, 1931, by F. G. Tryon and L. Mann. Washington, 1932. 41 pp. (Mimeographed.)*

An article on labor productivity in the bituminous coal industry in 1931, based on the above report, is given in this issue of the Review.

— — — — *Information Circular 6664: Accident experience and cost in Tennessee coal mines, by F. E. Cash. Washington, 1932. 8 pp. (Mimeographed.)*

Explains the Tennessee workmen's compensation law and analyzes accident experience in 13 representative mines in connection with production, costs, and causes of accidents.

— — — — *Information Circular 6670: The international conference on mine-safety research at Buxton, England, July, 1931, by George S. Rice. Washington, 1932. 19 pp., illus. (Mimeographed.)*

A summary of the demonstrations, formal addresses, and discussions at the conference, which was devoted principally to explosives but also referred briefly to other mine safety subjects.

— — — — *Information Circular 6671: Safety progress in anthracite and bituminous coal fields, by D. Harrington. Washington, 1932. 10 pp. (Mimeographed.)*

A review of the benefits of accident prevention measures, as indicated in accident statistics for 1931.

— — — — *Information Circular 6672: Ten years of fatal accidents and two years of accident costs in Indiana coal mining, by C. A. Herbert. Washington, 1932. 12 pp. (Mimeographed.)*

Stresses the importance of keeping accident records, and gives data on compensable accidents by causes and occupations.

— Bureau of the Census. *Fifteenth census of the United States, 1930: Occupation statistics—children in gainful occupations. Washington, 1933. 61 pp.*

— — — — *Fifteenth Census of the United States, 1930: Occupation statistics—marital condition of occupied women. Washington, 1932. 72 pp. (Reprint of chapter 5, Volume V, Fifteenth Census reports on population.)*

— — — — *Fifteenth Census of the United States, 1930: Occupation statistics—sex and occupation of gainful workers. Washington, 1932. 35 pp. (Reprint of chapter 2, Volume V, Fifteenth Census reports on population.)*

— — — — *Fifteenth Census of the United States, 1930: Unemployment, Vol. II—General report; unemployment by occupation, April, 1930, with returns for the special census of unemployment, January, 1931. Washington, 1932. 618 pp., map, charts.*

Presents unemployment statistics for 1930, by occupation, age, sex, marital condition (females only), and period of idleness, and data on part-time employment. Some of the findings of the Bureau of Census on unemployment were published in the April and September, 1931, issues of the Review.

UNITED STATES.—Department of Labor. Bureau of Labor Statistics. *Bulletin No. 567: Wages and hours of labor in the iron and steel industry, 1931. Washington, 1932. 166 pp.*

Summary figures from this survey were published in the Review for November and December, 1931, and January, 1932.

— — — *Bulletin No. 573: Wages and hours of labor in metalliferous mines, 1924 and 1931. Washington, 1933. 64 pp.*

An advance summary of the data obtained in this survey was published in the Review for June, 1932.

— — — *Bulletin No. 574: Technological changes and employment in the United States Postal Service. Washington, 1932. 69 pp.*

— — — *Bulletin No. 575: Wages and hours of labor in air transportation, 1931. Washington, 1933. 41 pp.*

An advance summary of the results of this study was published in the Review for August, 1932.

— — — Children's Bureau. *Publication No. 211: Welfare of children of maintenance-of-way employees, by Helen Russell Wright. Washington, 1932. 192 pp., illus.*

— — — Women's Bureau. *Bulletin No. 100: The effects on women of changing conditions in the cigar and cigarette industries, by Caroline Manning and Harriet A. Byrne. Washington, 1932. 187 pp., charts.*

— — — Federal Board for Vocational Education. *Bulletin No. 142, Trade and Industrial Series, No. 40: Vocational training for aviation mechanics—suggestions relative to the organization and operation of training courses. Washington, 1932. 286 pp., diagrams, illus. (Revised, 1932.)*

Based on data secured from such authoritative sources as Army, public, and private aviation mechanics' schools, the Naval Aircraft Factory, air transport repair stations, private aircraft factories, aeronautic associations, and the Aeronautics Branch of the United States Department of Commerce.

— — — Government Printing Office. *Annual report of the Public Printer, 1932. Washington, 1933. 164 pp.*

The section of the report on the operation of the 5-day week is summarized in this issue of the Review.

— — — Interstate Commerce Commission. Bureau of Statistics. *List of steam railway occupations or positions in each reporting division together with alphabetical list and index to occupational classification and reporting divisions. Washington, January, 1933. 88 pp. (Mimeographed.)*

### Official—Foreign Countries

AMSTERDAM (NETHERLANDS).—Bureau van Statistiek. *Statistisch Jaarboek, 1931. Part 1, Amsterdam, 1932, 190 pp.; Part 2, Amsterdam, 1933, 174 pp. (In Dutch and French.)*

Statistical yearbook for the city of Amsterdam, containing data for 1931 and earlier years. The subjects covered in Part 1 include hygiene, social-welfare work, etc., and in Part 2, cost of living, employment, unemployment, employment service, labor unions, social insurance, industrial disputes, wages, etc.

AUSTRIA.—Bundesministerium für soziale Verwaltung. *Statistiken zur Arbeitslosenversicherung: II, Vienna, 1931, 41 pp.; III, Vienna, 1932, 24 pp.*

Statistical reports on public insurance against unemployment in Austria during 1930 and 1931, the topics covered including age groups of the unemployed, duration of benefit payments, employment service, etc.

CANADA.—Bureau of Statistics. Internal Trade Branch. *Prices and price indexes, 1913-1931*. Ottawa, 1932. 222 pp., charts.

Gives statistics of domestic and foreign wholesale and retail prices, exchange rates, service prices (including hospital services, street car fares, electricity, gas, and telephone rates), interest rates, and import and export values.

COPENHAGEN (DENMARK).—Hjælpekasse. *Beretning, regnskab og talmæssig oversigt over virksomheden i regnskabsaaret 1. April 1931-31. Marts 1932*. Copenhagen, 1932. 58 pp.

Statistical report on the activities of the Copenhagen relief fund during the period from April 1, 1931, to March 31, 1932.

— Magistat. *Forsørgelsesvæsenet i København, 1931-32*. Copenhagen, 1932. 168 pp., map.

Annual report on the activities of social-welfare institutions in the city of Copenhagen during 1931-32, including data on social insurance; charities; legislation for, and organization of, various welfare institutions, etc.

CZECHOSLOVAKIA.—Institut Social. *Publication No. 57: Politique et prévoyance sociales en Tchécoslovaquie du 1<sup>er</sup> Janvier au 31 Décembre 1931*. Prague, Ministère de la Prévoyance Sociale, 1932. 33 pp., map, charts. (In French.)

This report on the policies and activities of social-welfare institutions in Czechoslovakia in 1931 includes information on welfare work for young, disabled, and aged persons; housing; labor protection; unemployment relief; employment service; labor inspection; emigration; and social insurance.

ESTONIA.—Statistika Keskbüroo. *Eesti põllumajandus, statistiline aastaraamat, 1931*. Tallinn, 1932. 222 pp., maps, charts.

A statistical yearbook on agriculture in Estonia in 1931 and earlier years. The subjects covered include production, prices, and wages of agricultural workers. The table of contents and chapter and table heads are in both Estonian and French.

GREAT BRITAIN.—Registry of Friendly Societies. *Report for the year 1932. Part 4, Trade unions: Section II—Directory and summaries*. London, 1932. 33 pp.

GREATER SHANGHAI (CHINA).—Bureau of Social Affairs. *Industrial disputes (not including strikes and lockouts), Greater Shanghai, 1930*. Shanghai, 1932. Various paging. (In Chinese and English.)

THE HAGUE (NETHERLANDS).—Statistisch Bureau. *Statistiek van het gemeentepersoneel, 1931*. The Hague, 1932. 65 pp., charts.

Contains statistics relating to salaried employees and wage earners employed by the city government of The Hague in 1931 and earlier years, including salaries and wages, sickness, etc. The table of contents and some table heads are in both Dutch and French.

JAPAN.—Department of Finance. *The thirty-second financial and economic annual of Japan, 1932*. Tokyo, 1932. 279 pp., map, charts. (In English.)

Includes statistics of average daily wages in various occupations from 1925 to 1931, inclusive.

LEAGUE OF NATIONS.—Health Organization. *The economic depression and public health. Extract from the Quarterly Bulletin of the Health Organization, Vol. 1, No. 3. Geneva, September, 1932*. 54 pp. (World Peace Foundation, Boston, American agent.)

Mortality and morbidity statistics of a few countries are discussed with regard to the influence of the economic depression upon these rates, and such information as was available regarding the nutrition of the unemployed is also given. The statistical information is so limited that no very definite conclusions were possible.

MOROCCO.—Service de l'Administration Générale, du Travail et de l'Assistance. *Accidents du travail*. [No date, no place.] 31 pp.

This booklet contains a summary of the Moroccan workmen's compensation laws.

NORWAY.—Rikstrygdeverket. *Syketrygden for året, 1931. Oslo, 1932. 76 pp.* (*Norges Offisielle Statistikk, VIII, 198.*)

A report on the operation of sickness insurance in Norway for the year 1931, including legislation, financial statements, mortality rate, and a comparison of financial operation by years during the period 1914 to 1931. Includes a table of contents in French.

ONTARIO (CANADA).—Department of Mines. *Forty-first annual report, 1932. Toronto, 1932. 150 pp., illus. (Volume XLI, Part 1.)*

Statistics of fatal and nonfatal accidents to mine workers in 1931 are included.

POLAND.—Ministerstwo Pracy i Opieki. *Rocznik pracowniczych związków zawodowych w Polsce, 1930. Warsaw, 1932. 86 pp., charts.*

A report on the labor-union movement in Poland during 1928–1930. A list of local and national unions, with their addresses, is appended. In Polish, but including table heads and some text in French.

SWEDEN.—[Socialdepartementet.] Riksförsäkringsanstalten. *Olycksfall i arbete år 1929. Stockholm, 1932. 52 pp.*

Annual report on industrial accidents and compensation therefor during the year 1929, including classification of industries, accident risks and their determination, wages of the injured, declaration of accidents, causes of accidents, etc. Includes table of contents, résumé, and a list of industries and causes of accidents in French.

——— *Riksförsäkringsanstalten år 1931. Stockholm, 1932. 30 pp.*

Annual report on operations of State insurance institutions in Sweden in 1931, including insurance against accidents and old age. A table of contents and a résumé are given in French.

——— Socialstyrelsen. *Arbetsinställelser och kollektivavtal samt förlikningsmännens verksamhet år 1931. Stockholm, 1932. 132 pp.*

A report on industrial disputes, trade agreements, and conciliation in Sweden during 1931. In Swedish, with French table of contents and résumé.

——— *Lönestatistisk årsbok för Sverige, 1931. Stockholm, 1932. 102 pp., map, charts.*

A report on wages in various industries in Sweden from 1913 to 1931.

SWITZERLAND.—Département Fédéral de l'Économie Publique. Office Fédéral de l'Industrie, des Arts et Métiers et du Travail. *Les résultats des statistiques sociales de la Suisse arrêtés à la fin de 1931. [Berne?], 1932. 215 pp.*

Social statistics for Switzerland up to the end of 1931, covering cost of living, retail and wholesale prices and family budgets, housing, unemployment insurance, emigration and immigration, wages, and strikes and lockouts.

TOKYO (JAPAN).—Municipal Office. Bureau of Statistics. *Statistical abstract for Tokyo, 1930. Vol. III. Tokyo, 1932. 185 pp., charts. (In English.)*

Labor statistics are presented in Part VIII.

VICTORIA (AUSTRALIA).—[Court of Industrial Appeals?] *Summary of wages and conditions fixed by wages boards or by Court of Industrial Appeals [up to October 1, 1932]. Melbourne, 1932. 225 pp.*

VIENNA (AUSTRIA).—Kammer für Arbeiter und Angestellte. *Die sozialpolitische Gesetzgebung in Österreich, Band VI: Die Vorschriften über Arbeitslosenversicherung. Vienna, 1932. 840 pp.*

Contains laws, decrees, and regulations concerning unemployment insurance in Austria, and other social-insurance systems as far as they bear upon unemployment insurance.



WARSAW (POLAND).—Magistrat. *Rocznik statystyczny Warszawy, 1930*. Warsaw, 1932. 118 pp., maps.

Statistical yearbook for the city of Warsaw, containing information for 1930 and earlier years. The subjects covered include provisioning of the population, cost of living, employment, wages, social insurance, welfare work, etc. Table of contents and table heads in both Polish and French.

### Unofficial

ALTMAYER, A. J. *The Industrial Commission of Wisconsin. A case study in labor law administration*. Madison, 1932. 324 pp. (*University of Wisconsin Studies in the Social Sciences and History, No. 17.*)

A description and evaluation of the functioning of a particular administrative agency operating in the domain of labor law.

AMERICAN STANDARDS ASSOCIATION. *Does industry need a national standardization agency? Answers to questions raised by an industrial executive*. New York, 29 West 39th Street, [1932?]. 20 pp.

A brief explanation of the functions of the American Standards Association.

— *Safety code for floor and wall openings, railings, and toe boards—American standard*. Approved, American Standards Association, May 3, 1932; sponsor, National Safety Council. New York, 29 West 39th Street, 1932. 21 pp.

Reviewed in this issue.

— *Safety code for the protection of industrial workers in foundries—American standard*. Approved, American Standards Association, April 7, 1932; sponsors, American Foundrymen's Association, National Founders' Association. New York, 29 West 39th Street, 1932. 24 pp., illus.

Reviewed in this issue.

ARKRIGHT, FRANK. *The A B C of technocracy, based on authorized material*. New York, Harper & Bros., 1933. 73 pp.

ASSOCIATION OF CASUALTY AND SURETY EXECUTIVES. *Record of monopolistic State workmen's compensation insurance funds*. New York, 1 Park Avenue, [1932?]. 24 pp. (Revised December, 1932.)

CAHILL, MARION COTTER. *Shorter hours: A study of the movement since the Civil War*. New York, Columbia University Press, 1932. 301 pp. (*Columbia University Studies in History, Economics, and Public Law, No. 380.*)

COMMISSION ON MEDICAL EDUCATION. *Final report*. New York, 630 West 168th Street, 1932. 560 pp.

The main part of the report is concerned with questions of the supply and distribution of physicians, educational requirements and courses of study, and postgraduate education and internship, while the appendixes provide a variety of information, including statements regarding sickness insurance in foreign countries and physical impairments among industrial groups in this country.

COMMITTEE ON THE COSTS OF MEDICAL CARE. *Publication No. 28: Medical care for the American people. Final report of the committee*. Chicago, University of Chicago Press, 1932. 213 pp., diagrams.

Reviewed in this issue.

COMMONWEALTH CLUB OF CALIFORNIA. *Transactions, Vol. XXVII, No. 8: What price old-age security?* (*The Commonwealth, Part 2, Vol. IX, No. 3, San Francisco, January 17, 1933, pp. 337-376.*)

DEVINE, EDWARD T. *Progressive social action*. New York, Macmillan Co., 1933. 225 pp.

The several chapters of this book cover world citizenship; economic citizenship, including sections on industrial democracy, rural problems, and planning and control; and the housing problem, covering the present situation, social policy, and an immediate program.



EDWARDS, PAUL K. *The Southern urban Negro as a consumer.* New York, Prentice-Hall (Inc.), 1932. 323 pp., illus.

A study of the purchasing power of the Negro in 17 of the largest southern cities, of the lines along which it is mainly directed, of the type and quality of goods which he purchases most extensively, and of the kind of advertising which most appeals to him.

FAMILY WELFARE ASSOCIATION OF AMERICA. *Inter-city service, with a selected list of foreign societies.* New York, 130 East 22d Street, January, 1933. 36 pp. 24th ed.

A directory of family-welfare associations in the United States and Canada, which also includes a selected list of such associations abroad.

HAMILTON, HENRY. *The industrial revolution in Scotland.* Oxford, Clarendon Press, 1932. 300 pp., map, illus.

INTERCOLLEGIATE DEBATES. Vol. XIII. New York, Noble and Noble, 1932. 466 pp.

The subjects of these debates included the following: Wage reductions retard business recovery; the centralized control of industry; old-age pensions; unemployment insurance; fixing prices of staple agricultural products.

JONES, F. ROBERTSON. *Ominous abuses threatening the insurability of workmen's compensation.* Address delivered at the annual convention of the International Association of Insurance Counsel at White Sulphur Springs, W. Va., September 8, 1932. New York, Association of Casualty and Surety Executives, 1 Park Avenue, 1932. 27 pp.

KATZENELSON-RUBASHOW, RACHEL, Editor. *The plough woman—records of the pioneer women of Palestine.* (Translated by Maurice Samuel.) New York, Nicholas L. Brown (Inc.), 1932. 306 pp., illus.

A collection of accounts by a number of pioneer woman workers in the Zionist movement in Palestine giving their experiences in the various cooperative colonies and other enterprises there.

LOEB, HAROLD. *Life in a technocracy—what it might be like.* New York, Viking Press, 1933. 209 pp.

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE. *The new survey of London life and labor.* Vol. III, *Survey of social conditions: (1) The eastern area (text).* 475 pp. Vol. IV, *Maps.* London, P. S. King & Son (Ltd.), 1932.

MCCORD, CAREY P., M. D. *Silicosis in the foundry.* Chicago, National Founders Association, 29 South LaSalle Street, 1932. 46 pp.

This pamphlet contains a paper read by Doctor McCord at the annual meeting of the Founders Association held in November, 1932, and a discussion by E. O. Jones. The paper covers the characteristics of silicosis, its control in foundries, and State workmen's compensation laws which include silicosis either specifically or by blanket coverage.

MILLIS, C. T. *Education for trades and industries—a historical survey.* London, Edward Arnold & Co., 1932. 164 pp.

Emphasizes the imperativeness of a wisely directed system of technical education for an industrial nation in a mass production age.

MINNESOTA, UNIVERSITY OF. Employment Stabilization Research Institute. *Bulletins, Volume 1, No. 6: An analysis of three unemployment surveys in Minneapolis, St. Paul, and Duluth, by Alvin H. Hansen, Nelle M. Petrowski, and Richard A. Graves.* Minneapolis, 1932. 19 pp.

The Tri-City survey by the above-mentioned research institute was made in November, 1930. The findings are compared with the United States Census figures on unemployment for April, 1930, for St. Paul, Minneapolis, and Duluth, and with the January, 1931, census of unemployment for the last two mentioned cities.

MINNESOTA, UNIVERSITY OF. Employment Stabilization Research Institute. *Bulletins, Volume 1, No. 7: Operating results of manufacturing plants in Minnesota, 1926-1930, by George Filipetti and others. Minneapolis, 1932. 101 pp., charts.*

Includes information on variations in number of factory workers and in factory pay rolls.

NEF, J. U. *The rise of the British coal industry. London, George Routledge & Sons (Ltd.), 1932. Vol. I, 448 pp.; Vol. II, 490 pp. Maps, illus.*

A history of the development of the coal industry from 1550 to 1700, with a consideration of its relation to the general industrial movement of the period, to the progress of invention, to the ownership of natural resources, and similar allied subjects.

NIKISCH, ARTHUR. *Friedenspflicht, Durchführungspflicht und Realisierungspflicht. Leipzig, 1932. 119 pp. (Schriften des Instituts für Arbeitsrecht an der Universität Leipzig, 29. Heft.)*

Deals with maintenance of and responsibility for industrial peace on the basis of trade agreements, including legal considerations such as binding awards in cases of industrial disputes, etc.

O'CONNOR, JOHN J. *The Supreme Court and labor. Washington, Catholic University of America, 1932. 186 pp.*

PRINCETON UNIVERSITY. Industrial Relations Section. *Dismissal compensation plans in 80 companies. Preliminary report, by Everett D. Hawkins. Princeton, 1932. 14 pp. (Mimeographed.)*

Reviewed in this issue.

RICHTER, LUTZ. *Das Tarifrecht unter der Diktatur. Weimar, 1932. 38 pp. (Schriften des Instituts für Arbeitsrecht an der Universität Leipzig, 30. Heft.)*

Deals with legislation concerning wages and trade agreements affecting wages in Germany under a dictatorship.

ROSS, MALCOLM. *Machine age in the hills. New York, Macmillan Co., 1933. 248 pp., illus.*

RUSSELL SAGE FOUNDATION. Library. *Bulletin No. 116: Unemployment relief in the United States and Canada [a bibliography]. New York, 130 East 22d Street, December, 1932. 12 pp.*

TAYLOR, PAUL S. *Mexican labor in the United States: Migration statistics, II. Berkeley, 1933. 10 pp., chart. (University of California Publications in Economics, Vol. 12, No. 1.)*

According to this report, the great majority of Mexican laborers and a large percentage of the Negro laborers in California are engaged in agricultural work. The statistics on Mexicans especially disclose the ebb and flow of such workers in accordance with the crop-labor requirements in California and Arizona.

UNEMPLOYMENT RESEARCH COMMITTEE OF ONTARIO. *Unemployment and relief in Ontario, 1929-1932: A survey and report, by H. M. Cassidy. Toronto, J. M. Dent & Sons, [Ltd.], 1932. 290, xiii pp.*

According to this report, it is probable that during the first half of 1932 there were over 750,000 unemployed workers throughout Canada, who constituted at least 25 to 30 per cent of the total wage-earning population of the Dominion. For the same period in Ontario more than one-fourth of all those ordinarily working for wages were probably unemployed.

WEBB, SIDNEY AND BEATRICE. *Methods of social study. London and New York, Longmans, Green & Co., 1932. 263 pp.*

WHITE, LEONARD D. *Further contributions to the prestige value of public employment. Chicago, 1932. 88 pp., charts. (University of Chicago, Social Science Research Committee, Social Science Studies, No. XXIV.)*

An extension of a previous investigation by the author into the prestige value of public employment in Chicago. The present volume includes the results of studies along similar lines conducted in 11 cities.

WHITE, R. PROSSER. *The dermatogoses of occupational affections of the skin.* London, H. K. Lewis & Co. (Ltd.), 1928. 734 pp., illus. 3d ed.

This volume covers very completely the field of skin affections resulting from the occupation and includes a review of the present knowledge of the causes of these diseases; the physical agents causing changes in the skin, including chemicals, various dusts, and oils, as well as occupational skin hazards of mixed origin; and discusses precautionary measures and treatment.

WILLIAMS, JAMES M. *Human aspects of unemployment and relief.* Chapel Hill, University of North Carolina Press, 1933. 235 pp.

The material in this volume is based largely on an investigation of unemployment and welfare practices in five cities of New York, and numerous specific examples of the effects of unemployment are used as a basis for the discussion of the general problem.

