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U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ROYAL MEEKER, Commissioner

MONTHLY REVIEW

OF THE

U. S. BUREAU OF LABOR STATISTICS

VOLUME II—MAY, 1916—NUMBER 5



WASHINGTON
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1916

SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

[The publication of the Annual and Special Reports and of the bimonthly Bulletin has been discontinued, and since July, 1912, a Bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These Bulletins are numbered consecutively in each series and also carry a consecutive whole number, beginning with No. 101. A list of the series, together with the individual Bulletins falling under each, is given below. A list of the Reports and Bulletins of the Bureau issued prior to July 1, 1912, will be furnished on application.]

Wholesale Prices.

- No. 1. Wholesale prices, 1890 to 1912. (Bul. 114.)
- No. 2. Wholesale prices, 1890 to 1913. (Bul. 139.)
- No. 3. Index numbers of wholesale prices in the United States and foreign countries. (Bul. 173.)
- No. 4. Wholesale prices, 1890 to 1914. (Bul. 181.)
- No. 5. Wholesale prices, 1890 to 1915. (Bul. 200.) [In press.]

Retail Prices and Cost of Living.

- No. 1. Retail prices, 1890 to 1911: Part I. (Bul. 105: Part I.)
Retail prices, 1890 to 1911: Part II—General tables. (Bul. 105: Part II.)
- No. 2. Retail prices, 1890 to June, 1912: Part I. (Bul. 106: Part I.)
Retail prices, 1890 to June, 1912: Part II—General tables. (Bul. 106: Part II.)
- No. 3. Retail prices, 1890 to August, 1912. (Bul. 108.)
- No. 4. Retail prices, 1890 to October, 1912. (Bul. 110.)
- No. 5. Retail prices, 1890 to December, 1912. (Bul. 113.)
- No. 6. Retail prices, 1890 to February, 1913. (Bul. 115.)
- No. 7. Sugar prices, from refiner to consumer. (Bul. 121.)
- No. 8. Retail prices, 1890 to April, 1913. (Bul. 125.)
- No. 9. Wheat and flour prices, from farmer to consumer. (Bul. 130.)
- No. 10. Retail prices, 1890 to June, 1913. (Bul. 132.)
- No. 11. Retail prices, 1890 to August, 1913. (Bul. 136.)
- No. 12. Retail prices, 1890 to October, 1913. (Bul. 138.)
- No. 13. Retail prices, 1890 to December, 1913. (Bul. 140.)
- No. 14. Retail prices, 1907 to December, 1914. (Bul. 156.)
- No. 15. Butter prices, from producer to consumer. (Bul. 161.)
- No. 16. Retail prices, 1907 to June, 1915. (Bul. 184.)
- No. 17. Retail prices, 1907 to December, 1915. (Bul. 197.) [In press.]

Wages and Hours of Labor.

- No. 1. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912. (Bul. 128.)
- No. 2. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912. (Bul. 129.)
- No. 3. Union scale of wages and hours of labor, 1907 to 1912. (Bul. 131.)
- No. 4. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912. (Bul. 134.)
- No. 5. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912. (Bul. 135.)
- No. 6. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912. (Bul. 137.)
- No. 7. Union scale of wages and hours of labor, May 15, 1913. (Bul. 143.)
- No. 8. Wages and regularity of employment in the dress and waist industry of New York City. (Bul. 146.)
- No. 9. Wages and regularity of employment in the cloak, suit, and skirt industry. (Bul. 147.)
- No. 10. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913. (Bul. 150.)
- No. 11. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912. (Bul. 151.)
- No. 12. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913. (Bul. 153.)
- No. 13. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913. (Bul. 154.)
- No. 14. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913. (Bul. 161.)
- No. 15. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913. (Bul. 163.)
- No. 16. Wages and hours of labor in the iron and steel industry, 1907 to 1913. (Bul. 168.)
- No. 17. Union scale of wages and hours of labor, May 1, 1914. (Bul. 171.)
- No. 18. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914. (Bul. 177.)
- No. 19. Wages and hours of labor in the boot and shoe industry, 1907 to 1914. (Bul. 178.)
- No. 20. Wages and hours of labor in the men's clothing industry, 1911 to 1914. (Bul. 187.) [In press.]
- No. 21. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914. (Bul. 190.) [In press.]
- No. 22. Union scale of wages and hours of labor, May 1, 1915. (Bul. 194.) [In press.]

Employment and Unemployment.

- No. 1. Proceedings of the American Association of Public Employment Offices. (Bul. 192.) [In press.]
- No. 2. Unemployment in the United States. (Bul. 195.) [In press.]
- No. 3. Proceedings of Employment Managers' Conference. (Bul. 196.) [In press.]

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Women in Industry.

- No. 1. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. (Bul. No. 116.)
- No. 2. Working hours of women in the pea canneries of Wisconsin. (Bul. No. 119.)
- No. 3. Employment of women in power laundries in Milwaukee. (Bul. No. 122.)
- No. 4. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. (Bul. No. 160.)
- No. 5. Summary of the report on condition of woman and child wage earners in the United States. (Bul. No. 175.)
- No. 6. Effect of minimum-wage determinations in Oregon. (Bul. No. 176.)
- No. 7. Women in the boot and shoe industry in Massachusetts. (Bul. No. 180.)
- No. 8. Unemployment among women in department and other retail stores of Boston, Mass. (Bul. No. 182.)
- No. 9. Dressmaking as a trade for women. (Bul. No. 193.)

Workmen's Insurance and Compensation (including laws relating thereto).

- No. 1. Care of tuberculous wage earners in Germany. (Bul. No. 101.)
- No. 2. British National Insurance Act, 1911. (Bul. No. 102.)
- No. 3. Sickness and accident insurance law of Switzerland. (Bul. No. 103.)
- No. 4. Law relating to insurance of salaried employees in Germany. (Bul. No. 107.)
- No. 5. Workmen's compensation laws of the United States and foreign countries. (Bul. No. 126.)
- No. 6. Compensation for accidents to employees of the United States. (Bul. No. 155.)
- No. 7. Compensation legislation of 1914 and 1915. (Bul. No. 185.)

Industrial Accidents and Hygiene.

- No. 1. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories. (Bul. No. 104.)
- No. 2. Hygiene of the painters' trade. (Bul. No. 120.)
- No. 3. Dangers to workers from dusts and fumes, and methods of protection. (Bul. No. 127.)
- No. 4. Lead poisoning in the smelting and refining of lead. (Bul. No. 141.)
- No. 5. Industrial accident statistics. (Bul. No. 157.)
- No. 6. Lead poisoning in the manufacture of storage batteries. (Bul. No. 165.)
- No. 7. Industrial poisons used in the rubber industry. (Bul. No. 179.)
- No. 8. Report of British departmental committee on the danger in the use of lead in the painting of buildings. (Bul. No. 188.) [In press.]

Conciliation and Arbitration (including strikes and lockouts).

- No. 1. Conciliation and arbitration in the building trades of Greater New York. (Bul. No. 124.)
- No. 2. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. (Bul. No. 133.)
- No. 3. Michigan copper district strike. (Bul. No. 139.)
- No. 4. Industrial court of the cloak, suit, and skirt industry of New York City. (Bul. No. 144.)
- No. 5. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. (Bul. No. 145.)
- No. 6. Collective bargaining in the anthracite coal industry. (Bul. No. 191.)

Labor Laws of the United States (including decisions of courts relating to labor).

- No. 1. Labor legislation of 1912. (Bul. No. 111.)
- No. 2. Decisions of courts and opinions affecting labor, 1912. (Bul. No. 112.)
- No. 3. Labor laws of the United States, with decisions of courts relating thereto. (Bul. No. 148.)
- No. 4. Decisions of courts and opinions affecting labor, 1913. (Bul. No. 152.)
- No. 5. Labor legislation of 1914. (Bul. No. 163.)
- No. 6. Decisions of courts affecting labor, 1914. (Bul. No. 169.)
- No. 7. Labor legislation of 1915. (Bul. No. 186.)
- No. 8. Decisions of courts affecting labor, 1915. (Bul. No. 189.) [In press.]

Foreign Labor Laws.

- No. 1. Administration of labor laws and factory inspection in certain European countries. (Bul. No. 142.)

Miscellaneous Series.

- No. 1. Statistics of unemployment and the work of employment offices in the United States. (Bul. No. 109.)
- No. 2. Prohibition of night work of young persons. (Bul. No. 117.)
- No. 3. Ten-hour maximum working-day for women and young persons. (Bul. No. 118.)
- No. 4. Employers' welfare work. (Bul. No. 123.)
- No. 5. Government aid to home owning and housing of working people in foreign countries. (Bul. No. 158.)
- No. 6. Short-unit courses for wage earners, and a factory school experiment. (Bul. No. 159.)
- No. 7. Vocational education survey of Richmond, Va. (Bul. No. 162.)
- No. 8. Minimum-wage legislation in the United States and foreign countries. (Bul. No. 167.)
- No. 9. Foreign food prices as affected by the war. (Bul. No. 170.)
- No. 10. Unemployment in New York City, N. Y. (Bul. No. 172.)
- No. 11. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915. (Bul. No. 174.)
- No. 12. Regularity of employment in the women's ready-to-wear garment industry. (Bul. No. 183.)

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THE LONGSHOREMAN.¹

The lack of public interest in the longshoreman, reflected in the dearth of literature and current mention, led to a study of this industry in 1912 by Charles B. Barnes, director of the New York City public employment bureau, who has given the results of his investigation in a volume issued in 1915 by the Russell Sage Foundation. The study was concentrated upon conditions in Manhattan, Brooklyn, and Hoboken, and its aim was to give a picture of the men, of the conditions of labor which affect them, of the relations existing between them and their employers and bosses, and of their own efforts to improve their lot in life.

It is estimated, in the absence of accurate figures, that in 1914 there were 35,000 longshoremen in the port of New York City. Since practically all of them are casual or intermittent workers, the necessity and social value of an extensive study of the occupation seemed apparent.

It is estimated that as late as 1880, 95 per cent of the longshoremen in both foreign and coastwise commerce were Irish and Irish-Americans, the remaining 5 per cent being Germans, English, and Scandinavians. At the time of the investigation Irishmen had been superseded largely by Italians, who made up about two-thirds of the total. Many Polaks, Jews, and Negroes have also taken the place of the Irishmen. This shifting of races has been a factor in bringing about what the author characterizes as a "deterioration in efficiency among longshoremen of the port," but he adds that "the readiness of foremen and stevedores to engage a poorer grade of labor, and the general lack of consideration on the part of the employers for the safety and well-being of their employees, must not be disregarded as contributing causes."

The author takes occasion to correct what he believes to be a general impression—that these workers are industrial outcasts, shiftless drunkards, and unworthy of serious attention personally and socially, as well as industrially. A distinction is drawn between the "regular" longshoreman and the "shenango," who does the odd work

¹ The Longshoreman, by Charles B. Barnes. New York Survey Associates, Inc., 1915. 287 pp. Illustrated.

on lighters and barges and who is characterized as the parasite of the trade. It was found that the majority of the regular longshoremen are sturdy, well-built, muscular men; that they are shy but independent, and hate toadyism; that nine-tenths of them are supporters of families; that they are ashamed to be known as longshoremen because of the unsavory reputation the trade has gained; that they are honest, as a rule; have little appreciation of the value of money; are gregariously inclined; and lack thrift. Drunkenness is prevalent but seems to be diminishing. They have few opportunities for advancement. An effort has been made to provide shelter for them while waiting for opportunity to work, but it has resulted in the establishment of only one longshoremen's rest, which was opened on June 15, 1910. During the year 1914 a daily average of 424 people visited the shelter. Up to the date of the report no other provision had been made to shelter these men, and the author concludes that "the facts seem to show that some suitable provision should be made if only in the interest of better citizenship."

Shipping in the port of New York City falls into three divisions—(1) foreign commerce, (2) coastwise trade, and (3) local trade—and it is estimated that three-fourths of the longshoremen are working on vessels which sail to foreign ports. Every phase of the work of longshoremen is described in minute detail, emphasis being given to the lack of standardization of the work and the irregularity of employment. The essential differences between foreign commerce and coastwise and local trade are suggested. Special mention is made of the banana trade, which is a "branch of foreign commerce so different fundamentally from all other types of work which pass under that head that it requires separate treatment." The author concludes, from his detailed analysis of the work performed by the "pier" men, the "deck" men, and the "hold" men, that "longshore work can by no means be classed as unskilled labor."

As a rule longshoremen are hired by the steamship companies themselves, although many are given work by contracting stevedores. The men are engaged either by individuals and gangs or by hundreds. If by the first method, selection may be made by the foreman because of some previous knowledge of them or because they look strong and capable, and they are then given numbered checks of brass to keep until the work is done. By the latter method these brass checks are issued indiscriminately and the men are selected in groups of 100 or less. Those holding the lowest numbers are the first selected and are thus always assured of employment.

It is stated that the rate of pay for longshoremen in foreign commerce has varied many times during the past 50 years, and there has never been complete uniformity throughout the port. Before the

Civil War they were paid \$1.50 per day of 10 hours. Later the rate was raised to 25 cents per hour, then to 30 cents, then to 33 cents, and finally to 40 cents per hour. In 1872 they were paid 80 cents per hour for nightwork and \$1 per hour for Sunday work, the day rate remaining at 40 cents. This schedule was reduced in 1874 and the men went on strike, but lost. Thirty cents per hour for daywork and 45 cents for nightwork and Sunday work was then paid. Later the men were paid extra for work during the meal hour. These frequent fluctuations in wage rates have characterized the industry. On September 2, 1912, the present schedule was arranged—33 cents per hour for daywork, 50 cents for nightwork and on holidays, and 60 cents on Sundays, Christmas, July 4, and for work during mealtime. Foremen are generally paid by the day or week, the usual weekly wage being about \$24. In the coastwise trade the prevailing wage is 30 cents per hour for daywork, 30 to 45 cents for nightwork, and 35 to 50 cents for Sunday work. There is little opportunity for deductions for fines, although instances are given where such have occurred. Some cases of graft among foremen are mentioned. It is stated that earnings of men who work in the local traffic are even more precarious and difficult to estimate than those of the foreign commerce or coastwise men because their work is still more haphazard. Records kept by some of the longshoremen indicate that—

The work is uncertain for even the best men. Stability of income is therefore impossible. In the case of four exceptional men who kept wage records average weekly earnings ranged from \$10.57 to \$21.78, and in order to attain the higher average the men were obliged to work much at night. There is absolutely no way of knowing the average earnings of the less regularly employed.

Men familiar with longshore work estimate the average yearly earnings of longshoremen at from \$520 to \$624 a year. Other men of equal experience place this average considerably lower—at less than \$500.

There is no guaranty of permanency of employment when obtained; it depends entirely upon the time the ship docks and the urgency of immediate discharge or loading of cargo. Often the men work through the meal hour, at night, and on Sundays and holidays, and it was found that these long stretches are exceedingly exhausting, resulting in increased risk of accidents and liability to disease due to physical depletion. Men are discharged without notice whenever a job is finished, or turned off for an hour or two without pay when a delay in the work occurs. This irregularity of employment is illustrated by the diary record of a certain longshoreman which shows that on 298 days out of 602, or nearly one-half (49.5 per cent), he did no work. Assuming that the longshoreman, like any other workman, should normally rest one day in seven, his abnormal unemployment would be represented by 298 days minus 86 days, or 212

days, which is only 35.2 per cent of the total of 602 days. Moreover, on 73 of the 304 days when he was at work his time was five hours or less. Yet there were 53 days on which he worked from 13 to 22 hours, and on four of these days his work continued more than 20 hours. There were 15 weeks (not consecutive) in which there was lack of employment throughout the entire week.

The demoralizing effect of this irregularity of employment is emphasized. Hanging about the piers in the hope of obtaining work—and being frequently turned away without securing it—has given the longshoreman the reputation for loafing and shiftlessness and has tended directly to encourage irregular habits and drinking and to discourage thrift. The maladjustment of available labor along the water front, due to lack of cooperation among employers, works to the disadvantage of the men, meaning for many unemployment or chronic underemployment. It was developed that the greatest evil of this work is its casual or intermittent character, which, if it cannot be entirely eradicated, should be minimized. How dock labor has been largely decasualized in Europe is described in great detail in appendixes giving the results achieved, particularly in London and Liverpool.

Numerous disputes have arisen between these workers and the steamship companies, but only three strikes of any consequence have occurred—in 1874, 1887, and 1907. In each case the matter of wages was the chief grievance, the strike being caused by a rejection on the part of the companies of definite demands by the men or being called as a protest by the men against reductions in rates of wages initiated by the companies.

The great strikes left in their wake decreased vitality, dissensions, or utter ruin. After the strike of 1887 the unions entirely died out and it was 10 years before they were again organized. The result of the strike of 1907 was the division of the unions into two separate bodies with all the evil that attends such division. The loss of the first two strikes resulted in a decrease of wages, while after the strike of 1907 the wages remained the same. Whenever an advance in wages has been secured it has been the result of a demand presented with calm determination to the companies. In some cases the companies seeing the justice of the demand have acceded; at other times they have been forced to yield by the united resolution of the men to hinder the work in all possible ways until they won their point. Thus, quiet persistence and not the strike has been the road to success.

Longshoremen's unions have existed since the middle of the last century. They have had an active and stormy history. But the slight advantages won after the strikes have usually been lost again. The unions have never been strong enough to exact their demands from the employers, nor have they been sufficiently united in spirit and purpose to maintain any consistent policy. Poor judgment, stubbornness, dishonesty among the leaders, jealousies, antagonisms among the men and between locals have prevented any effective use of the power at their disposal.

In the author's opinion it is probable that there is no other heavy physical work which is accompanied with so much overtime and such long stretches of toil without interruption as the work of the longshoreman.

Efforts to secure definite information as to accidents were almost a failure, but data were obtained concerning 309 authentic cases. Of these 96 were fatal and 213 nonfatal. The exact places where the accidents happened were ascertained in 191 cases and indicated that the work in the hold entails greater risk by far than that in any other position. "Yet it must be remembered that although the majority of accidents are reported as occurring in the hold, it is not always the hold men who are hurt. The deck men may be thrown down the hatchway. It is questionable whether they or the hold men are the most exposed of the entire hatch gang."

Of the nonfatal injuries it is stated that "there is practically no part of the human frame that is not in danger of fracture, laceration, or contusion." The leg and the foot were most often hurt. The loss of time varied from a few weeks to several months, with five cases in which the men were laid off two years or more. The average age of those whose ages were learned was 39 years, and of the 153 men whose conjugal condition was ascertained, two-thirds were married. In 65 fatal accidents the circumstances of which were ascertained, not one was found to be due to the carelessness of the victim himself. Three were attributed to the carelessness of fellow workmen, 30 were classed as due to defective equipment or faulty methods, and 32 resulted from sudden dangers which could not be foreseen by the men, "which goes far to prove the extrahazardous nature of the occupation." Of the 97 nonfatal accidents studied, at least 56 were preventable, it is stated, and only 4 of these were due to carelessness of the person injured.

The difficulty of discovering the compensation paid to dependents when a longshoreman is killed at work is alluded to. In the 96 fatal cases compensation ranging from \$400 to \$1,000 was awarded in five instances. In 27 cases, almost 30 per cent, it is stated that there is evidence that no damages were paid, and in 64 cases it was impossible to learn whether or not payment had been made. In nonfatal cases it was found that indemnity ranging from a wooden leg to \$1,000 was given in 20 cases. In several instances amounts ranging from \$25 to \$75 were paid for fractures or other injuries when the victim through no fault of his own had lost from one to four months' time. The author points out that the workers themselves are quick to respond to calls for help for fellow workers and the collections which have been taken ranged in amount from \$40 to \$78.

In Europe, where more definite and accurate information is available, in the ratings of the English and Continental insurance companies water-front work heads the list or is a close second among all the hazardous occupations.

The British statistics showing mortality in 105 occupation groups from specific causes other than accidents indicate that during the period 1900-1902 the deaths among dock and wharf laborers in a standard population of 71,005 were 632 from phthisis, pneumonia, and bronchitis combined, or a decrease of 34.1 per cent over the period 1890-1892. The mortality among these laborers was greater than that of any other occupation group dealt with, being in the latter period more than twice that of coal miners and only slightly less than twice that of stone and slate quarriers, and bricklayers, masons, and builders.

In view of excessive mortality among longshoremen, the author points out that this country "has the unenviable reputation of being practically the only nation with a large foreign commerce which has absolutely no regulations for the protection of men engaged in longshore work"; and to illustrate the extent to which safety regulations have been adopted in certain foreign ports the full text of the British statutory rules and orders of 1904, and the revised accident prevention regulations of the accident insurance association of the stevedoring industry for 1905 governing the work in British ports, and the regulations for prevention of accidents issued by the harbor inspection department of Hamburg are presented in the appendixes. The author is strong in his suggestion that radical changes are necessary in order to secure protection to workmen in the New York City port. Some improvements are noted, but they have been improvements in machinery and "have tended chiefly toward increased efficiency so that the work may be done with greater rapidity and on a larger scale." Emphasis is placed on the necessity for the proper inspection of gear and machinery, and the installation of proper safeguards, and the prohibition of careless habits of work.

Based on the results achieved in European ports and other ports of this country where public interest has been aroused, the author sees possibilities for bettering the condition of these workmen. In Europe the great attainment of employers has been the decasualization of labor by the establishment of preference classes and by pooling of labor over a large area, thus reducing to a minimum the irregularity of employment. How this has been done is described in the appendixes. It is pointed out in the report and elaborated in an appendix that in efficiency and organization Hamburg is pre-eminent, but its "system under which contract laborers are employed is arbitrary and oppressive."

What has been done can be done again. England and Germany have blazed a trail which is of immense service in pointing the direction our own progress should take. This direction is toward increased good will, greater cooperation of supposed conflicting interests, an enlarged sense of legislative responsibility, and a more farseeing application of the principle of efficiency throughout all phases of the industry of the port.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, MARCH 16 TO APRIL 15, 1916.

On the authority contained in the organic act of the department to mediate in labor disputes and to appoint commissioners of conciliation in its discretion, the Secretary of Labor, through the commissioners of conciliation, exercised his good offices in eight labor disputes between March 16 and April 15, 1916.

The companies involved in the eight controversies, the number of employees affected, and the results secured, as far as available, are shown in the following statement:

NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION, MAR. 16 TO APR. 15, 1916.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Haynes Automobile Co., Kokomo, Ind.—lockout.....	25	1,075	Adjusted.
Grand Central Terminal Co., New York—controversy.....			Pending.
Texas & Pacific Ry. Co. and clerks—controversy.....	700	8,000	Do.
Pullman Car Cleaners—strike.....	800		Adjusted.
Anderson Drop Forge Co., Detroit, Mich.—strike of machinists.....			Pending.
Hancock Knitting Mills, Philadelphia—strike.....			Do.
Cramp Ship Building Yards, Philadelphia—strike of boiler makers and ship builders.....	1,500		Do.
Chicago & Alton R. R. and its maintenance of way employees—controversy.....			Do.

There has been an adjustment in the following cases which were noted as pending in the statement submitted March 15, 1916, and published in last month's REVIEW:

Controversy, New York, New Haven & Hartford Railroad and its mechanical forces.

Strike of machinists, Edwards Valve Co., East Chicago, Ind.

New York, Ontario & Western Railway, Middletown, N. Y.

FEDERAL EMPLOYMENT WORK OF THE DEPARTMENT OF LABOR.

During March, 1916, the Division of Information of the Department of Labor placed 7,030 persons in employment as compared

with 4,185 during February, 1916. As there were 19,484 applications for work, 36.08 per cent were therefore placed, as compared with 29.35 per cent for February. The operations of the division by months since May, 1915, when fuller reports began to be made, are contained in the following statement:

OPERATIONS OF THE DIVISION OF INFORMATION, BUREAU OF IMMIGRATION, DURING THE MONTHS OF MAY, 1915, TO MARCH, 1916.

Month.	Number of applications for help.	Number of persons applied for.	Number of applicants for places.	Number referred to employment.	Number actually employed.	Per cent of applicants placed.
1915.						
May	638	3,826	12,132	3,752	3,495	28.81
June	1,249	3,601	14,530	5,131	4,646	31.98
July	1,160	8,665	18,061	6,360	6,035	33.41
August	1,279	7,931	17,827	7,321	6,757	37.90
September	1,201	4,551	13,334	5,671	5,405	40.54
October	1,104	5,423	12,215	5,460	5,006	40.98
November	847	4,650	11,908	4,459	4,146	34.82
December	698	3,588	11,902	2,622	2,170	18.23
1916.						
January	933	5,063	15,015	4,300	3,419	22.78
February	1,423	6,413	14,257	5,036	4,185	29.35
March	3,443	10,209	19,484	8,113	7,030	36.08

The following statement of the employment work of the 18 separate zones of operation covering the whole country gives the usual details for February and March, 1916:

SUMMARY OF ACTIVITIES FOR THE MONTHS OF FEBRUARY AND MARCH, 1916.

Zone.	Opportunities received.				Applications for employment.					
	Applications for help.		Persons applied for.		Applications received.		Referred to employment.		Number actually employed.	
	February.	March.	February.	March.	February.	March.	February.	March.	February.	March.
1. Boston, Mass	1	2	1	50	26	73	.....	10	.....	6
Portland, Me .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	1	2	1	50	26	73	.....	10	.....	6
2. New York, N. Y	106	157	1,189	789	1,122	1,229	500	785	363	637
Buffalo, N. Y	50	60	1,787	791	855	811	638	703	498	600
Total	156	217	2,976	1,580	1,977	2,040	1,138	1,488	861	1,237
3. Philadelphia, Pa	93	113	117	1,371	412	413	227	384	166	230
Pittsburgh, Pa	8	30	18	176	508	774	206	319	88	148
Total	101	143	135	1,547	920	1,187	433	703	254	378
4. Baltimore, Md	24	15	47	17	233	158	173	137	173	137
5. Norfolk, Va	25	20	29	215	95	104	18	25	22	59
6. Jacksonville, Fla .....	.....	2	.....	6	9	16	.....	1	.....	.....
Charleston, S. C	5	3	40	226	74	52	58	54	56	28
Miami, Fla	16	8	25	16	98	98	21	18	13	7
Mobile, Ala	1	.....	1	.....	7	6	.....	.....	.....	.....
Savannah, Ga	5	3	374	30	72	37	44	30	30	20
Total	27	16	440	278	260	209	123	103	99	55

SUMMARY OF ACTIVITIES FOR THE MONTHS OF FEBRUARY AND MARCH, 1916—Contd.

Zone.	Opportunities received.				Applications for employment.					
	Applications for help.		Persons applied for.		Applications received.		Referred to employment.		Number actually employed.	
	February.	March.	February.	March.	February.	March.	February.	March.	February.	March.
7. New Orleans, La.....	3	3	3	5	96	214	20	17	1	2
Gulfport, Miss.....	1	3	1	3	47	64	.....	3	.....	.....
Memphis, Tenn.....	2	1	22	20	38	23	1	2	1	2
Total.....	6	7	26	28	181	301	21	22	2	4
8. Galveston, Tex.....	6	3	13	9	70	64	19	13	11	8
Amarillo, Tex.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....
Eagle Pass, Tex.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Albuquerque, N. Mex.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....
Houston, Tex.....	8	1	10	1	155	78	5	.....	5	.....
Laredo, Tex.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
San Angelo, Tex.....	.....	1	.....	1	.....	5	.....	1	.....	.....
Total.....	14	5	23	11	234	148	24	14	16	8
9. Cleveland, Ohio.....	33	90	365	100	197	113	124	88	42	34
10. Chicago, Ill.....	95	138	156	952	2,503	6,152	850	950	840	924
Detroit, Mich.....	64	158	147	523	137	376	82	288	79	288
Indianapolis, Ind.....	33	51	235	225	309	257	250	247	250	247
Saulte Ste. Marie, Mich.....	7	5	54	33	45	64	35	46	34	42
Total.....	199	352	592	1,733	2,994	6,849	1,217	1,531	1,203	1,501
11. Minneapolis, Minn.....	103	156	114	164	63	162	31	69	29	69
12. St. Louis, Mo.....	13	29	31	610	237	227	29	61	23	49
Kansas City, Mo.....	41	61	93	125	493	591	45	203	40	97
Total.....	54	90	124	735	730	818	74	264	63	146
13. Denver, Colo.....	15	12	17	15	126	70	50	40	11	7
Salt Lake City, Utah.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	15	12	17	15	126	70	50	40	11	7
14. Helena, Mont.....	2	3	5	4	18	11	11	7	1	.....
Moscow, Idaho.....	2	.....	2	.....	.....	.....	5	.....	2	.....
Total.....	4	3	7	4	18	11	16	7	3	.....
15. Seattle, Wash.....	26	72	40	120	322	512	29	110	28	101
Aberdeen, Wash.....	10	33	41	98	175	230	41	98	41	98
Bellingham, Wash.....	9	26	11	63	94	179	9	59	8	50
Everett, Wash.....	5	15	8	21	25	53	8	21	8	16
North Yakima, Wash.....	122	352	168	563	487	980	165	542	164	512
Spokane, Wash.....	57	81	65	110	137	139	38	100	38	97
Takoma, Wash.....	53	162	111	465	538	1,421	110	465	109	465
Walla Walla, Wash.....	58	138	77	235	308	343	64	180	60	179
Total.....	340	879	521	1,675	2,086	3,857	464	1,575	456	1,518
16. Portland, Oreg.....	8	946	13	1,043	126	783	8	910	8	906
17. San Francisco, Cal.....	174	216	215	281	2,180	1,286	308	305	184	248
Fresno, Cal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	174	216	215	281	2,180	1,286	308	305	184	248
18. Los Angeles, Cal.....	1	1	1	2	540	557	1	1	1	1
Bakersfield, Cal.....	1	.....	5	.....	29	3	5	.....	5	.....
San Diego, Cal.....	136	273	761	731	1,241	753	808	821	753	716
Tucson, Ariz.....	1	.....	1	.....	1	2	.....	.....	.....	.....
Total.....	139	274	768	733	1,811	1,315	814	822	759	717
Total for month.....	1,423	3,443	6,413	10,209	14,257	19,484	5,036	8,113	4,185	7,030

WORK OF STATE AND MUNICIPAL EMPLOYMENT BUREAUS.

In continuation of the publication of data relative to the operations of free public employment offices, begun in the January, 1916, issue of the REVIEW, the following table is presented. In this table, information is given for State employment bureaus in 11 States, municipal employment bureaus in 8 States, State-city employment bureaus in 2 States, and a city-private employment bureau in 1 State. Data are given for February, 1915, and February, 1916, from bureaus not included in the April issue of the REVIEW, but which have furnished such information since the publication of that number. Figures for March, 1916, are given for all bureaus that have reported those data, and figures for March, 1915, are also presented for comparative purposes in cases where reports for that month have been received.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY AND MARCH, 1915 AND 1916.

State and city.	Number of—					Positions filled.
	Applica- tions from employ- ers.	Persons asked for by employ- ers.	Persons applying for work.		Persons referred to posi- tions.	
			New registra- tions.	Re- newals.		
<i>California (municipal).</i>						
Berkeley:						
March, 1915.....	271	306	197	705	306	306
March, 1916.....	240	259	104	554	259	259
Los Angeles ¹ : March, 1916.....	(²)	7,366	1,972	(²)	7,468	6,879
Sacramento:						
March, 1915.....	170	(²)	113	(²)	313	313
March, 1916.....	182	(²)	82	(²)	312	312
<i>Colorado (State).</i>						
Colorado Springs:						
March, 1915.....	(²)	322	(²)	(²)	(²)	304
March, 1916.....	(²)	552	681	(²)	509	(²)
Denver No. 1:						
March, 1915.....	(²)	3 104	(²)	(²)	(²)	164
March, 1916.....	(²)	196	214	(²)	146	(²)
Denver No. 2:						
March, 1915.....	(²)	217	(²)	(²)	(²)	217
March, 1916.....	(²)	260	446	(²)	233	(²)
Pueblo:						
March, 1915.....	(²)	51	(²)	(²)	(²)	49
March, 1916.....	(²)	243	253	(²)	223	(²)
<i>Connecticut (State).</i>						
Bridgeport:						
February, 1915.....	169	(²)	(²)	(²)	(²)	155
February, 1916.....	383	(²)	(²)	(²)	(²)	335
March, 1915.....	233	(²)	(²)	(²)	(²)	207
March, 1916.....	541	(²)	(²)	(²)	(²)	482
Hartford:						
February, 1915.....	181	(²)	(²)	(²)	(²)	162
February, 1916.....	550	(²)	(²)	(²)	(²)	440
March, 1915.....	210	(²)	(²)	(²)	(²)	166
March, 1916.....	562	(²)	(²)	(²)	(²)	427
New Haven:						
February, 1915.....	146	(²)	(²)	(²)	(²)	119
February, 1916.....	451	(²)	(²)	(²)	(²)	325
March, 1915.....	180	(²)	(²)	(²)	(²)	133
March, 1916.....	510	(²)	(²)	(²)	(²)	403
Norwich:						
February, 1915.....	32	(²)	(²)	(²)	(²)	27
February, 1916.....	161	(²)	(²)	(²)	(²)	156
March, 1915.....	40	(²)	(²)	(²)	(²)	32
March, 1916.....	213	(²)	(²)	(²)	(²)	201

¹ State-city.² Not reported.³ Not reported for males.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY AND MARCH, 1915 AND 1916—Continued.

State and city.	Number of—					Positions filled.
	Applications from employers.	Persons asked for by employers.	Persons applying for work.		Persons referred to positions.	
			New registrations.	Re-nials.		
<i>Connecticut (State)—Concluded.</i>						
Waterbury:						
February, 1915.....	123	(1)	(1)	(1)	(1)	93
February, 1916.....	179	(1)	(1)	(1)	(1)	92
March, 1915.....	175	(1)	(1)	(1)	(1)	143
March, 1916.....	202	(1)	(1)	(1)	(1)	110
<i>Georgia (municipal).</i>						
Atlanta: March, 1916.....	99	113	214	130	125	79
<i>Illinois (municipal).</i>						
Chicago: March, 1916.....	2 67	1,624	350	(1)	1,624	912
<i>Indiana (State).</i>						
Evansville:						
March, 1915.....	(1)	125	2 289	(1)	132	122
March, 1916.....	(1)	178	2 268	(1)	184	159
Fort Wayne:						
March, 1915.....	(1)	132	2 348	(1)	148	127
March, 1916.....	(1)	301	2 290	(1)	273	259
Indianapolis:						
March, 1915.....	(1)	154	2 367	(1)	160	152
March, 1916.....	(1)	356	2 425	(1)	367	338
South Bend:						
March, 1915.....	(1)	174	2 587	(1)	182	172
March, 1916.....	(1)	430	2 482	(1)	344	322
Terre Haute:						
March, 1915.....	(1)	245	2 397	(1)	242	223
March, 1916.....	(1)	(1)	(1)	(1)	(1)	(1)
<i>Kansas (State).</i>						
Topeka:						
March, 1915.....	10	10	58	5	10	7
March, 1916.....	21	21	86	6	16	16
<i>Kentucky (city-private).</i>						
Louisville: March, 1916.....	(1)	174	331	713	183	88
<i>Massachusetts (State).</i>						
Boston:						
March, 1915.....	1,179	1,350	4 770	(1)	5 2,367	1,134
March, 1916.....	1,984	2,341	4 1,419	(1)	5 3,955	1,701
Fall River:						
March, 1915.....	120	132	4 29	(1)	5 114	100
March, 1916.....	127	143	4 38	(1)	5 133	110
Springfield:						
March, 1915.....	688	724	4 246	(1)	5 882	547
March, 1916.....	786	962	4 334	(1)	5 1,133	727
Worcester:						
March, 1915.....	477	562	4 565	(1)	5 834	379
March, 1916.....	956	1,191	4 703	(1)	5 1,483	735
<i>Michigan (State).</i>						
Detroit:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	2,064
March, 1916.....	5,733	6,000	(1)	(1)	5,849	5,189
Kalamazoo:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	250
March, 1916.....	550	620	2 600	(1)	(1)	406
Saginaw: March, 1916.....	670	670	2 640	(1)	640	640
<i>Minnesota (State).</i>						
Duluth:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	408
March, 1916.....	(1)	(1)	(1)	(1)	(1)	650
Minneapolis:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	1,156
March, 1916.....	(1)	(1)	(1)	(1)	(1)	1,251
St. Paul:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	571
March, 1916.....	(1)	(1)	(1)	(1)	(1)	708

¹ Not reported.

² Number of requisitions.

³ Number applying for work.

⁴ Number who were registered.

⁵ Number of offers of positions.

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OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY AND MARCH, 1915 AND 1916—Continued.

State and city.	Number of—					Positions filled.
	Applications from employers.	Persons asked for by employers.	Persons applying for work.		Persons referred to positions.	
			New registrations.	Re-n renewals.		
<i>Montana (municipal).</i>						
Butte:						
March, 1915.....	(1)	(1)	² 359	(1)	146	130
March, 1916.....	(1)	(1)	² 660	(1)	(1)	357
<i>New York (municipal).</i>						
New York City:						
March, 1915 ³	360	1,168	2,645	(1)	1,233	402
March, 1916 ⁴	2,279	2,502	2,316	(1)	2,761	1,926
<i>Ohio (State-city).</i>						
Akron: March, 1916.....	(1)	1,789	586	1,445	1,360	1,110
Cincinnati:						
March, 1915.....	(1)	1,009	1,387	6,676	1,066	761
March, 1916.....	(1)	2,286	1,790	4,130	2,020	1,356
Cleveland:						
March, 1915.....	(1)	3,832	3,265	12,711	3,715	3,273
March, 1916.....	(1)	7,209	1,984	7,819	5,151	4,377
Columbus:						
March, 1915.....	(1)	1,947	758	4,695	1,989	1,751
March, 1916.....	(1)	2,223	900	2,601	2,128	1,604
Dayton:						
March, 1915.....	(1)	525	465	1,908	548	396
March, 1916.....	(1)	1,235	518	1,214	1,013	845
Toledo:						
March, 1915.....	(1)	771	1,115	2,749	709	672
March, 1916.....	(1)	3,008	1,227	2,267	2,414	1,999
Youngstown: March, 1916.....	(1)	1,115	816	1,191	1,170	908
<i>Oklahoma (State).</i>						
Enid:						
March, 1915.....	47	(1)	² 112	(1)	(1)	51
March, 1916.....	239	(1)	² 265	(1)	(1)	237
Muskogee:						
March, 1915.....	83	(1)	² 118	(1)	(1)	60
March, 1916.....	254	(1)	² 187	(1)	(1)	150
Oklahoma City:						
March, 1915.....	222	(1)	² 462	(1)	(1)	211
March, 1916.....	267	(1)	² 271	(1)	(1)	220
Tulsa:						
March, 1915.....	(1)	(1)	(1)	(1)	(1)	(1)
March, 1916.....	362	(1)	² 324	(1)	(1)	320
<i>Pennsylvania (State).</i>						
Harrisburg: March, 1916.....	(1)	320	316	118	336	221
Johnstown: March, 1916.....	(1)	264	82	17	66	42
Philadelphia: March, 1916.....	(1)	647	761	350	589	391
Pittsburgh: March, 1916.....	(1)	2,959	1,170	37	708	668
<i>Rhode Island (State).</i>						
Providence:						
March, 1915.....	396	691	578	133	(1)	691
March, 1916.....	258	268	196	150	(1)	268
<i>Texas (municipal).</i>						
Dallas:						
March, 1915.....	70	84	153	20	93	84
March, 1916.....	188	238	86	6	284	238
Fort Worth:						
March, 1915.....	103	138	² 1,088	(1)	146	133
March, 1916.....	160	217	239	63	201	185
<i>Virginia (municipal).</i>						
Richmond:						
March, 1915.....	128	505	² 851	(1)	454	333
March, 1916.....	237	380	555	(1)	489	171

¹ Not reported.

² Number applying for work.

³ Does not include branches.

⁴ Includes branches.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, FEBRUARY AND MARCH, 1915
 AND 1916—Concluded.

State and city.	Number of—					Positions filled.
	Applica- tions from employ- ers.	Persons asked for by employ- ers.	Persons applying for work.		Persons referred to posi- tions.	
			New registra- tions.	Re- newals.		
<i>Washington (municipal).</i>						
Seattle: March, 1916.....	972	2,900	(1)	(1)	2,870	965
Spokane:						
March, 1915.....	(1)	(1)	(1)	(1)	1,011	804
March, 1916.....	960	1,250	100	50	1,194	1,194
<i>Wisconsin (State).</i>						
La Crosse:						
March, 1915.....	136	164	2 307	(1)	147	59
March, 1916.....	164	173	2 290	(1)	159	82
Milwaukee:						
March, 1915.....	1,364	1,558	2 2,757	(1)	1,581	970
March, 1916.....	1,757	3,053	2 2,602	(1)	2,669	1,948
Oshkosh:						
March, 1915.....	114	133	2 448	(1)	101	91
March, 1916.....	152	166	2 242	.....	149	103
Superior:						
March, 1915.....	175	212	2 506	(1)	276	161
March, 1916.....	246	399	2 452	(1)	449	344

1 Not reported.

2 Registrations.

EMPLOYMENT IN SELECTED INDUSTRIES IN MARCH, 1916.

The changes in the amount of employment in March, 1916, as compared with February, 1916, and with March, 1915, are given in two tables presented below. While these tables are in continuation of those first presented in the *January Review*, it should be borne in mind that establishments which furnished comparable information for March, 1916, and February, 1916, are not in all cases the same ones which furnished comparable figures for March, 1916, and March, 1915. The scope of the work has been enlarged by the addition of the industry of cigar manufacturing.

The table for February, 1916, and March, 1916, shows that the number of employees in all industries, except cotton manufacturing and woolen, was greater in March, 1916, than in February, 1916. The decrease in both of these industries is negligible, being less than one-tenth of 1 per cent in the woolen industry, while in the cotton manufacturing industry the decrease is only 0.2 per cent. The amount of money paid to employees was greater in all industries in March, 1916, than in February, 1916, ranging from 1 per cent increase in the woolen industry to 7.9 per cent in the car building and repairing industry.

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COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN FEBRUARY, 1916, AND MARCH, 1916.

Industry.	Estab-lishments to which in-quiries were sent.	Estab-lishments report- ing for Feb-ruary and March.	Period of pay roll.	Employees.			Earnings.		
				Number on pay roll in—		Per cent of in-crease (+) or de-crease (-).	Amount of pay roll in—		Per cent of in-crease (+) or de-crease (-).
				Febru-ary, 1916.	March, 1916.		Febru-ary, 1916.	March, 1916.	
Boots and shoes.....	88	65	1 week.....	53,779	53,928	+0.3	699,067	710,423	+1.6
Cotton manufacturing...	92	60	...do.....	56,759	56,647	-.2	516,943	525,010	+1.6
Cotton finishing.....	19	17	...do.....	14,191	14,451	+1.8	162,114	165,538	+2.1
Hosiery and underwear..	83	56	...do.....	29,265	29,973	+2.4	277,102	285,827	+3.1
Woolen.....	26	19	...do.....	19,443	19,438	-(1)	211,661	213,695	+1.0
Silk.....	64	47	2 weeks....	22,027	22,578	+2.5	478,798	496,633	+3.7
Men's ready-made cloth- ing.	86	29	1 week.....	13,630	13,633	+(1)	168,420	172,311	+2.3
Iron and steel.....	139	95	½ month....	118,268	120,901	+2.2	4,211,272	4,272,717	+1.5
Car building and repair- ing.	74	40	...do.....	48,172	49,221	+2.2	1,482,969	1,600,734	+7.9

¹ Less than one-tenth of 1 per cent.

From an examination of the table giving number of employees and their earnings for March, 1916, and March, 1915, it will be noted that the number of employees in March, 1916, was greater in all industries than in March, 1915, except in the cotton manufacturing and cigar manufacturing industries. The greatest increase shown in the number of employees on the pay roll in March, 1916, over March, 1915, was in the car building and repairing industry, where the increase was 36.9 per cent. More money was paid out to employees in all the industries listed, in March, 1916, than in March, 1915. The greatest increase in the amount of the pay roll was in the iron and steel industry, where employees received 60.3 per cent more money in March, 1916, than in March, 1915. The smallest increase shown is 4.6 per cent for the cotton-manufacturing industry.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MARCH, 1915, AND MARCH, 1916.

Industry.	Estab-lishments to which in-quiries were sent.	Estab-lishments report- ing for March, both years.	Period of pay roll.	Employees.			Earnings.		
				Number on pay roll in—		Per cent of in-crease (+) or de-crease (-).	Amount of pay roll in—		Per cent of in-crease (+) or de-crease (-).
				March, 1915.	March, 1916.		March, 1915.	March, 1916.	
Boots and shoes.....	88	72	1 week.....	49,377	59,552	+20.6	\$554,671	\$786,363	+41.8
Cotton manufacturing...	92	63	...do.....	61,244	60,311	- 1.5	530,040	554,163	+ 4.6
Cotton finishing.....	19	17	...do.....	12,873	14,451	+12.3	137,347	165,538	+20.5
Hosiery and underwear..	83	59	...do.....	28,970	32,742	+13.0	241,230	307,188	+27.3
Woolen.....	26	20	...do.....	17,547	19,660	+12.0	168,014	216,461	+28.8
Silk.....	64	48	2 weeks....	20,179	21,695	+7.5	397,783	473,706	+19.1
Men's ready-made cloth- ing.	86	39	1 week.....	17,299	18,849	+9.0	199,575	246,158	+23.3
Iron and steel.....	139	103	½ mon.h....	105,190	143,318	+36.2	3,223,996	5,167,920	+60.3
Car building and repair- ing.	74	51	...do.....	44,449	60,839	+36.9	1,293,637	1,963,810	+51.8
Cigar manufacturing.....	107	74	1 week.....	24,086	22,432	- 6.9	224,736	240,616	+ 7.1

In addition to the data presented in the above tables for number of employees on the pay roll, 85 plants in the iron and steel industry reported 112,475 employees as actually working on the last full day of the pay period reported for in March, 1916, as against 81,546 for the reported pay-roll period in March, 1915, an increase of 37.9 per cent. Returns furnished by 83 establishments in the same industry for March, 1916, and February, 1916, show that 97,002 employees were actually working on the last full day of the pay period reported for in March, 1916, as against 94,474 for the reported period in February, 1916, an increase of 2.7 per cent.

EMPLOYMENT IN THE STATE OF NEW YORK IN MARCH, 1916.

The New York State Industrial Commission receives monthly reports concerning the number of employees and wages paid in the principal manufacturing establishments of the State. As this State ranks first in manufacturing, the returns are of much significance. A statement concerning conditions in March, 1916, issued by the commission, reads as follows:

The factories of New York State in March paid out 2 per cent more in wages than in February of this year and 30 per cent more than in the corresponding month of 1915. Although March made only a small gain over the record volume of business transacted the previous month, nothing is disclosed by the pay rolls of February or March to indicate that the tremendous boom in manufacturing in this State has reached its height. These facts are brought out by * * * reports received from 1,275 representative manufacturing establishments, with nearly a half million employees, scattered throughout the State. * * * Each industry group in the State did a larger volume of business in March of this year than in March of 1915, the greatest gain over a year ago being in the metals, machinery, and conveyances group.

The stone, clay, and glass products group paid 10 per cent more wages in March than in February, the increase being mostly in the glass industry and in the miscellaneous stone and mineral products industry.

The metals, machinery, and conveyances group showed practically no change in volume of business between February and March. The group as a whole in March employed 35 per cent more operatives and paid out 51 per cent more wages than one year ago. Marked increase in activity between February and March was shown by the gold, silver, and precious stones industry, by rolling mills and steel works, by concerns fabricating structural and architectural iron, by establishments manufacturing cutlery, tools, and firearms, by manufacturers of general machinery, and by railway repair shops and manufacturers of railway equipment. Less business was recorded by concerns manufacturing automobiles and parts and by boat and ship builders. A large part of the decrease in the automobile industry was due to a serious labor dispute in Buffalo. The metals group as a whole is maintaining the marked gain over last year in volume of business made during the winter.

The wood manufactures group paid 4 per cent more wages in March than in February. The improvement was most marked in the sawmill and planing mill

industry. The group as a whole was 20 per cent more active in March of this year than in March of 1915.

The furs, leather, and rubber goods group reveals a slight increase in activity between February and March, the improvement being largely among boot and shoe manufacturers, among manufacturers of miscellaneous leather and canvas goods and in the fur-working industry. The only decrease in activity was reported by concerns tanning leather. The group as a whole paid out in March 35 per cent more in wages than a year ago.

Although the chemicals, oils, and paints group recorded practically no change in volume of business between February and March, the group is doing a fourth more business than one year ago.

The paper-making industry was slightly less active in March than in February. The printing and paper goods group in March paid 5 per cent more wages than in February and 11 per cent more than in March of 1915.

The textiles industry showed almost no change between February and March, still employing a sixth more operatives and paying a fourth more wages than one year ago. The clothing, millinery, and laundering group recorded a most important increase in volume of business between February and March, total wages paid being 4 per cent greater. The most important gains within the group were recorded by the women's clothing industry, by the women's underwear and furnishings industry, and by the miscellaneous sewing industry. In March the clothing group was employing 4 per cent more operatives and paying 12 per cent more wages than one year ago. The improvement over last year was most striking in the men's clothing industry, in the men's shirts and furnishings industry, and in the miscellaneous sewing industry.

The food, liquors, and tobacco group paid in March 5 per cent more wages than in February. The most marked increase in business was shown by the miscellaneous grocery industry, inclusive of salt and sugar refining, by bakeries, and by confectionery establishments. Decreases in volume of business were reported by the flour, feed, and cereal industry, and by the slaughtering industry. The group, as a whole, in March did 12 per cent more business than one year ago.

REPORT OF THE MAYOR'S COMMITTEE ON UNEMPLOYMENT, NEW YORK CITY.¹

The Mayor's Committee on Unemployment, appointed on December 2, 1914, seeks, in its report, to summarize its experience with unemployment during the winter of 1914-15. It also presents information regarding similar efforts elsewhere, and discusses various constructive measures tried in Europe and America to reduce the evil of unemployment and to minimize its distressing effect. This report is divided into four parts: (1) Work accomplished, (2) program for dealing with unemployment in New York City, (3) constructive proposals for an immediate program, and (4) appendixes. Subcommittees considered particular phases of the program, as follows:

1. Facts regarding existing unemployment.
2. Immediate private and public employment opportunities.

¹ New York City. Report of Mayor's Committee on Unemployment. January, 1916. 109 pp. Illustrated.

3. Relief needs and measures.
4. Unemployment among women.
5. Cooperation of business and industry to promote employment.
6. National, State, and municipal policies.
7. Emergency workrooms for men.

For the purpose of ascertaining the number of persons employed on full time and on part time during the week ending December 19, 1914, as compared with the corresponding week in December, 1913, the committee sent a questionnaire to representative employers in all branches of industry in the city. The results of this inquiry were summarized in Bulletin 172 of this bureau, "Unemployment in New York City."

The demands upon relief societies for care and support are suggested as an index of general unemployment conditions. Summing up the comparative data for the fiscal years 1912-13, 1913-14, and 1914-15, the figures show that the average monthly number of families cared for by the four large relief societies in the city was 8,192, 10,108, and 12,915, respectively. The amount expended for material relief for each of these fiscal years was \$433,684, \$495,458, and \$668,575. The average number of families under care in 1913-14 and 1914-15 was 23 per cent and 57 per cent, respectively, more than the number cared for in 1912-13, while the expenditures for relief increased 14 per cent and 70 per cent, respectively.

In order to relieve, by offering emergency employment, the acute distress of the winter of 1914-15, the mayor's committee opened 22 workrooms in which employment was given to as many as 5,000 persons daily, the expense being met by funds raised and administered by the committee. In these workrooms those who could not be placed for the time being in regular employment were given jobs for five days a week, the hours being from 10 to 3. A "tide over" wage of 50 cents a day and a noonday lunch were received by the men; 60 cents was paid to each woman worker. All thus employed were encouraged to seek regular employment. The men were engaged in rolling bandages, making other surgical supplies, chair-caning, cabinetmaking, cobbling, furniture repairing, raffia weaving, rug weaving, basketry, in the manufacture of flytraps for the health department, and in the making of toys and other wooden articles. The women made women's and children's garments by hand, including blouses, petticoats, small dresses, kimonos, and boys' blouses. A rummage committee collected old paper, discarded furniture, and other household supplies. The paper and other marketable waste were sorted and baled. The furniture and other material having a salable value were repaired by the unemployed. The revenue from the sale of paper, furniture, and miscellaneous articles, amounting to \$1,103.92, was used to employ more men in the remunerative

branches of the work. Nothing made in these workrooms was sold in the market. Many of the garments made by the women went to the families of those who worked on them. Hospitals, settlements, and relief societies received a share of what was made. The report thus summarizes the work accomplished:

The 13 men's workrooms employed 8,558 different men for a total of 138,686 days' work from January 28, 1915, to April 16, 1915. The four women's workrooms employed a daily average of 886 women for a total of 51,720 days' work from January 21, 1915, to April 30, 1915. These totals include a daily average of 26 women employed for a total of 5,642 days' work as supervisors, cutters, forewomen, and helpers who, except for three individuals, were themselves among the unemployed who would otherwise have been in distress. The five workrooms conducted by the rummage committee employed 1,629 men and women for a total of 25,023 days. The 22 workrooms gave a total of 215,429 days' work over the period during which the workrooms were operated.

Training classes, covering instruction in stenography, office work, bookkeeping, clerical work, the trades, needlework, and domestic science, were organized for the benefit of girls out of work in order to render them more efficient in the employment to which they might be sent. "Scholarships" of 60 cents a day for a 5-day week were provided so that the girls might be "tided over" while being trained. Over 1,000 different girls were reached in the various classes; 448 were placed in regular employment, "some at double their former wages, because of the additional training received." Six thousand dollars was appropriated by the mayor's committee to pay for the scholarships.

A special study made of the records of 305 (30.7 per cent) of these girls indicated that 59 per cent were unemployed because of business conditions; that 37 per cent were between 16 and 18 years of age, 43 per cent of those in the trades being between these ages and 30 per cent being less than 16 years of age; and that 45 per cent had left school at or below the eighth grade. It was found that 23 per cent had been engaged in manufacturing and mercantile pursuits, 15 per cent in domestic and personal service, and 56 per cent in clerical work. The greatest handicap under which the girls were suffering appeared to be poverty. Only 8 per cent boarded. Of those living at home, 67 per cent contributed all of their earnings to the support of the family.

In only 13, or 5 per cent, of the families of the girls living at home was the girl the only wage earner. Thirty-two per cent of the families had one other wage earner, 37 per cent two others, and 25 per cent three or more others. In 25 per cent, however, of the families with one other wage earner, that one was unemployed; in 35 per cent of the families with two other wage earners one of these two was unemployed, and in 7 per cent both were unemployed; of the families with three or more wage earners 37 per cent had one unemployed, 18 per cent two unemployed, 12 per cent three unemployed, and 3 per cent four unemployed. Of all the families for whom information was obtained, 16 per

cent had no wage earner employed, and 30 per cent had one or more wage earners out of employment. The importance of the contribution of the girl to the support of her family is evidenced by these figures.

That a system of training classes for unemployed girls can help to remove some of these handicaps seems a self-evident fact. Insufficient general education can be supplemented. Lack of technical education can be supplied. Information can be given as to industrial conditions and opportunities, and proper facilities for securing employment can be provided in connection with the classes.

The successful placement by the Young Women's Christian Association of 76 per cent of the girls who went through their scholarship classes last winter, with one-third of that number placed at a higher wage than they had formerly earned, is an indication of the real value of this form of continuation class, and a proof that they fulfill a need for supplementary training which is disclosed upon examination of the records of a majority of the girls studied.¹

Over 2,000,000 articles of clothing were distributed to approximately 300,000 persons in Manhattan and The Bronx as a result of bundle day on February 4, 1915. In this connection an emergency workshop was conducted where 400 workers were paid \$1 per day. The committee received and disbursed \$15,526.48.

In discussing the securing of regular employment, mention is made of the city and State public employment bureaus, the former being opened in November, 1914. From the date of opening to January 1, 1916, 66,043 persons were registered for employment and 12,306 jobs were filled. Employers called for 19,494 persons, of whom the number given above (12,306) are known to have been definitely employed. An appropriation of \$800 was made by the mayor's committee to assist the municipal bureau in its advertising and publicity work.

In order to stimulate employment or mitigate unemployment, appeals were made by the committee to private employers and also to the Building Trades Employers' Association urging its members to distribute among the largest number of individuals practicable the work then available by working them in shifts or in alternate weeks rather than permitting some men to become wholly unemployed, and to give preference of employment to married men. The effect of this appeal was that about four weeks later 2,400 more men were employed under this arrangement than previously. Supplementing the work of the other agencies, the report states that the police department found places for 2,811 men and women in 103 different occupations. Only 11 per cent of the jobs, it is believed, were temporary. The mayor's committee succeeded in federating representatives of public and private noncommercial employment bureaus with a view to working out a cooperative program for the correlation of the work and the

¹The report of the committee for vocational scholarships of the Henry Street Settlement for 1915 shows that "the amount of wages earned by scholarship children averages twice that earned by an equal number of children of the same age who have received no special training."

prevention of duplication and overlapping. A meeting of a group of executives responsible for the employment policies of some of the largest business and industrial establishments in the city was arranged, the purpose being to talk over their relation to problems of management in industry as they affect the securing, training, and maintaining of a regular labor force. Many churches conducted emergency workshops both independently and in conjunction with the mayor's committee, and Sunday, January 31, 1915, was observed as "unemployment Sunday," when the clergymen of the city preached on this general subject.

In presenting the program for dealing with unemployment, the committee recognized the prime necessity of taking steps to prevent such a condition, for "after employment has been lost it is obviously more difficult to prevent the distress that follows." The unemployed are placed in four classes "sufficiently accurate to afford a sound basis for a constructive policy."

1. Those who have recently been and normally are in long-time jobs—who have "steady jobs," such as engineers, railway employees, clerks in wholesale and retail trade, etc.

2. Those who, when employed, shift from job to job, or from employer to employer—the seasonal workers, such as those in the building trades, contractor's laborers, and in similar occupations.

3. Those whose employment is from day to day, or from hour to hour, who do not work by the week, but are subject to dismissal on a moment's notice—the casual laborers, such as workers along the docks, handy men, and odd-job men of all kinds.

4. Those who are unable to perform regular labor, whether because of sickness, old age, or some physical handicap, and those who have drifted into becoming tramps or loafers, "can't-works," and "won't-works"—the so-called unemployables.

The report states that the first and most important need for preventing unemployment among those out of long-time jobs is the proper development of efficient machinery for making known the needs of employers in all parts of the city and of the country for workers and bringing such employers and workers together. To this end public employment exchanges are suggested, which must not only meet the problems of seasonal employment and decasualization of labor but must exercise the real function of an employment bureau, namely, organizing the employment market so as to prevent seasonality in industry from resulting in seasonal unemployment. The subject of the development of public employment bureaus was thoroughly considered by a conference called by the mayor's committee, and the following statement briefly summarizes the conclusions and recommendations of this conference:

Public bureaus can perform a most useful and necessary function in centralizing and pooling the demands of all employers, particularly in casual and seasonal occupations, thereby stabilizing employment and concentrating regular

employment for the largest number of weeks throughout the year on individual workmen, so that they may become regular employees in the industry though not always regularly employed by a single employer. The bureaus when performing their function as the central organized labor market of a community will prevent much unemployment by making prompt connections between the job and the worker.

The State and municipal bureaus should keep in daily contact with each other by the interchange of information as to unfilled employment opportunities in either bureau and as to such other matters as experience may prove expedient.

In the extension of the work of both the municipal and State bureaus throughout the greater city, there should be kept constantly in mind the desirability of all the employment bureaus within the city of New York being operated ultimately as part of a single system under a single management.

The management of both bureaus should work out, in conference, a plan for the development and extension of the work of each, the territory in which each will operate, the establishment of branches and cooperating centers, in accordance with the needs of the city and the ability of each bureau to serve a particular section or accomplish a given result.

The public employment bureau must be promoted from the public point of view on business principles. Its approach must be that it seeks to place workmen in employment because they are industrially capable for some particular industrial opportunity, not merely because they are unemployed. To both employer and employee it acts as a time saver and an acceptable medium of approach. The city and State governments are justified in investing money in this enterprise because it will work in the interests of business and social efficiency and economy.

Public employment bureaus should be located so as to be readily accessible to employers in the various centers of business and industry.

The close cooperation of all noncommercial employment agencies, both public and private, will result in the development of effective cooperative methods, such as the clearing (preferably through the public bureaus) of all unfilled orders from employers and a unified policy of solicitation of employers, publicity, etc.

Steps should be taken as promptly as possible to develop the juvenile departments of the public exchanges.

There should be an advisory committee of employers and employees whose duty should be to make the bureaus known to a wider circle and to insure their fuller development.

There should be a national system of employment exchanges to act as a coordinating and correlating agency to link up the city and State bureaus with each other and to supplement and standardize activities of local communities.

To offset any falling off in employment as a result of business depression, the committee strongly recommends a serious effort to promote a method of planning public employment and expenditure for a period of from 7 to 10 years so that a certain percentage each year shall be postponed to be undertaken in years of extraordinary unemployment. How this plan has been worked out in foreign countries is briefly described.

A study of individual industries where attempts have been made by employers to cut down fluctuations in employment led the committee to conclude that it is not at all impossible to regularize employ-

ment and that this is more particularly true in the highly organized industries in which facilities exist for study of the conditions of manufacture, the state of the trade, and means of marketing the product. It is only necessary to plan for steadiness of employment, it is asserted.

Unemployment insurance, it is suggested, may exert a great influence in preventing unemployment, and the report outlines briefly how this has been worked out in England. It is believed that this subject should be brought forcibly to the attention of leaders of opinion in industry, politics, and government, and that information should be gathered as to the operation of out-of-work benefits among trade-unions in this country. Unemployment insurance is suggested as a relief measure also.

The various systems in Europe are here grouped under three heads:

Compulsory insurance, the insurance being compulsory for certain classes of workers.

Provided voluntary insurance, the insurance being provided by public authority or somebody other than the insured persons, and being usually open to workers in general.

Autonomous voluntary insurance, the insurance being organized and administered by the insured themselves, such insurance associations being generally restricted to persons following the same or allied trades.

A somewhat detailed description of the British National Insurance Act of 1911 and of the Unemployed Workmen Act of 1905 are included in the report. The experience of other European countries and of cities in this country in providing relief measures for unemployment are briefly recited.

Part III of the report is devoted to constructive proposals for an immediate program. Believing that irregularity of employment and unemployment should receive constant attention and study, it is recommended that a new mayor's committee be appointed¹ to deal constructively with the problem of unemployment and prepare against a recurrence of unemployment crises. The plan of organization suggested is as follows:

Central committee: Consisting of about 20 members.

Executive committee: Consisting of general chairman, general secretary and chairman of subcommittees.

Subcommittees dealing with definite phases of the problem:

1. Investigations—

a. Securing facts.

Special studies and investigations of irregularity of employment and seasonal employment and casual labor should be made, and a fact center on employment data maintained.

b. Supervising investigations.

Supervise special investigations, required by other committees (if desired) and initiate studies and inquiries related to unemployment made by public, educational, civic and other investigating bodies.

¹ A new committee was appointed by the mayor on Jan. 25, 1916.

Subcommittees dealing with definite phases of the problem—Continued.

2. Seasonality and irregularity of employment—

- a. Seasonal industries.
- b. Irregularity of employment.

These subjects should receive special attention as among the most important aspects of the problem of unemployment as it affects industry. This subcommittee should be representative of influential interests in industry, particularly "seasonal industries." It should study, with constructive ends in view, the problem of seasonality and irregularity of employment in the more important industries of the city.

c. Employment policies in representative industries.

Special effort should be made to cooperate with the new Society for the Study of Employment Problems (employment managers' association), bringing to the attention of the employers of New York the desirability of studying their own employment problems, of cutting down the labor "turn over" and of developing regularity and continuity in the labor force.

3. Public policy—

a. Developing public employment bureaus.

Special consideration should be given to assisting in developing the public employment bureaus, encouraging and assisting them in securing cooperation from the employing public, and in obtaining adequate financial support.

b. Organizing schemes for decasualizing casual labor.

Preliminary inquiries have been made of representatives of the International Longshoremen's Association and of employing interests, in part, from which we believe that an organized employment scheme for dock laborers in New York is possible of achievement. Steps in this direction should be undertaken. This proposal suggests efforts which can be made in other industries employing casual labor.

c. Federating noncommercial employment agencies.

A study has been made of the private noncommercial employment bureaus as the basis of the coordination and correlation of the placement work now being done by all these agencies. Conferences are being held between bureaus serving similar classes of applicants to promote the best methods of cooperation.

d. Planning public expenditures to compensate for decreased private employment during trade crises.

At a conference of mayors of New York State, held in June, 1915, the general secretary of the mayor's committee introduced a resolution for the appointment of a committee of five mayors to report a practical program for carrying out this suggestion.

e. Unemployment insurance.

The basis upon which unemployment insurance can be undertaken in New York City and New York State, as well as the nation at large, should receive careful consideration. * * * Knowledge of unemployment insurance of other countries should be brought to the attention of the citizens of New York.

Subcommittees dealing with definite phases of the problem—Concluded.

4. Industrial training and vocational guidance—¹

a. Industrial training.

An industrial survey of the city to precede the adoption of a general scheme of industrial education, has been authorized.

This survey, it is urged, will enable the board of education, in planning the course of study in industrial subjects, to take fully into account existing employment opportunities.

b. Study of private commercial schools and their effect on unemployment.

The decidedly superficial character of the training received by unemployed girls in these schools suggests the necessity of a study of the effect on unemployment of turning out a horde of ill-equipped commercial workers.

c. Vocational help to minors.

The opening up of constructive employment opportunities for minors through vocational guidance is an extremely important aspect of the problem of preventing unemployment.

d. Training the unemployed.

5. Relief and emergency employment—

a. Cooperation and coordination of relief.

A permanent association or federation of relief and appropriate public welfare agencies should be organized to function promptly in unemployment crises. The general program of such an emergency body and the part assigned to each cooperating organization in such a program, should be worked out as far as practicable in advance. The example of the National Red Cross, with existing relief societies as auxiliaries and working units, illustrates the advantage of preparedness when emergencies arise. Organizations other than the large relief societies should be brought into this plan, as complete success will depend upon a unified city-wide program supported by all agencies capable of participation.

b. Emergency employment.

A satisfactory plan of emergency employment would be one of the problems to be worked out by the proposed federation of relief and welfare agencies.

c. Loan fund and credit union.

An attempt should be made to promote a central loan or credit union plan which would be self-sustaining and self-perpetuating.

d. Homeless men and vagrancy.

The knitting together of various voluntary religious and philanthropic organizations and the municipal lodging house in dealing with homeless men, and the further development of plans already under way for industrial work in the municipal lodging house may need the cooperation of this committee.

Under the direction of the mayor's committee a study was made of the relation between children and unemployment, based on information secured from the department of health, under whose supervision work certificates are granted. In the period from January 1 to

¹ Specific recommendations on this subject are presented on p. 25.

April 15, 1914, 4,020 children applied for work papers and in the corresponding period of 1915 the number was 4,505, an increase of 12 per cent. Of 1,011 children interviewed, 42.4 per cent reported that the head of the family was unemployed at the time of the investigation, while of 2,167 wage earners in the families represented, 24.6 per cent were unemployed. Only 36 per cent of 805 children who had attended public school were graduated. Two-thirds of the children urged the necessity of their earnings, either in the family support or in self-support, as the reason for their not continuing in school. It was found that most of the idleness among wage earners in these families occurred in January and February and affected the clothing and building trades. The committee concluded that, notwithstanding other factors, financial hardships in the families caused by the existing crisis were responsible for taking so many children from school for the purpose of contributing to the family income.

In Appendix II are presented recommendations of the conference on methods and means of training the unemployed:

1. Establishment of a juvenile department of the municipal employment bureau to work in close cooperation with the public schools.

2. Enlargement of opportunities for vocational training before children enter upon any kind of work, so that all possible guidance and training may be given previous to the taking of a job.

3. Establishment of trade annexes (or continuation schools) for three types of workers:

a. For wholly unskilled workers, especially adolescents, who alternate between odd jobs and periods of drifting about. Not only should training be provided for these children, but they should be required to be in school during periods of unemployment.

b. For those who are out of work because they find themselves unfit for or imperfectly adjusted to their chosen work. Such schools should offer opportunity for new lines of training.

c. For workers who are temporarily unemployed because of shifting business conditions (seasonal work, contraction of industry due to business crises, etc.) both in commercial and industrial lines. Such schools should provide supplementary training in accordance with the different trades and commercial pursuits to enable workers to utilize their periods of unemployment for industrial and commercial advancement.

4. Further development of a system of tests * * * for the purpose of determining the relation between employment and temperamental, educational, and physical qualifications of seekers after positions. Schools giving such tests should work in close affiliation with employment agencies, so that the agencies might have their applicants for positions tested, to determine their fitness for the type of work desired. All organized effort for special training, tests, etc., as a means of permanently bettering conditions of unemployment should be under the department of education.

5. Organization of a cooperating social-service committee representing the private noncommercial employment agencies and other philanthropic groups

which will provide funds for "scholarships" and "student aid." The amount of "scholarships" and "student aid" should be flexible and administered in accordance with the needs of the student.

The committee recommends immediate action along certain specific lines outlined above, and the report suggests that steps are being taken to carry out the above plan in full. A beginning has been made.

REPORT ON UNEMPLOYMENT IN ONTARIO.¹

The Ontario commission on unemployment, which was appointed to examine into the permanent causes of recurring unemployment in the Province and to recommend measures to mitigate or abolish the evil, made inquiries into the extent and character of unemployment, the work of public and private employment offices, the methods adopted by municipal authorities in dealing with unemployment, and unemployment in women's occupations. In a report recently issued the results of these inquiries are presented in four parts: (1) Conclusions and recommendations. (2) Data in regard to unemployment in Ontario. (3) Studies in representative women's employments. (4) Evidence taken before the commission. Nearly half of the report is devoted to a presentation of conclusions and recommendations.

Based on the returns on employment during 1914 received from 651 Ontario manufacturers, showing that the decrease in the volume of employment was equal to the full working time of at least 30,000 persons, not including unskilled labor and the building trades, the commission arrived at the following general conclusion:

General well-being is dependent upon the largest possible production with a fair distribution of rewards. This would increase the demand for manufactured goods and increase the manufacturers' profit, for his success depends upon the purchasing power of the public. It appears, therefore, (1) that the cutting down of production, which means the power to purchase, is detrimental both to capital and labor; (2) that the larger the power to purchase possessed by labor, the greater will be the ultimate advantage of the manufacturer who caters to his wants; (3) that the greater the prosperity of the laborer (as illustrated by the ownership of his own home) the less necessity will there be for him to overwork, and consequently the greater will become the demand for the labor of others.

In taking up provisions dealing with the prevention of unemployment, the report states that the proper adjustment between work and the number and qualification of the workers is the one genuine remedy; and to this end the greater recognition of the general problem of proportionate national development as a means of securing

¹ Canada. Report of the Ontario Commission on Unemployment, Toronto, 1916. 334 pp.

stability of labor conditions is urged. "Individual effort is necessarily inadequate to cope successfully with economic tendencies and organized influences. The more widely a division of responsibility is recognized, the more speedily will that united action be secured, through which alone can be found effective remedies." The commission believes that public work and expenditures should be so planned as to compensate for a lessened private demand for labor. It is pointed out, however, that employers themselves may largely regularize their staffs of workers—

(1) By improved methods of employment and training, which will lessen the present large "turn over" of employees; (2) by adding new lines of products to insure greater continuity of employment; (3) by standardizing a portion of products, thereby making it feasible to manufacture for stock more largely in slack seasons; (4) by securing orders from customers longer in advance than is now the practice, so that the factory output may be made more uniform; and (5) by developing export trade, which would not only stabilize the labor market and employ our excessive industrial plant, but would help to redress an adverse balance of trade and at the same time stimulate production for home consumption.

The commission recommends a policy of community and assisted land settlement in order to develop natural resources and assist in restoring industrial activities. The establishment of provincial farms and training schools for agricultural laborers is suggested as a means of lessening unemployment and of training for employment, and this contemplates a plan by which settlers may devote part time to their own work and part time to wage earning in the employ of the Government. These plans, it is believed, would not involve uneconomic expenditures; on the contrary, the whole settlement policy would be to link closer together all expenditures—public and private—in order to insure economic and speedy units of production.

In a chapter on provisions dealing with the mobility of labor, the commission recommends the establishment of a system of provincial labor bureaus and outlines some of the services which would thus be rendered to workmen. A provincial labor commission, upon which workmen and employers should be fairly represented, is recommended, its duties being—

(1) To administer a system of free public employment bureaus; (2) to control private employment offices; (3) to cooperate with rural and urban committees in regard to vocational guidance, extension of the school age, development of local rural interests, and the extension of technical, trade, agricultural, and domestic training; (4) to develop an adequate system of statistics; (5) to interpret these statistics so that the causes of unemployment and other features of labor problems may be more generally understood, and that constructive measures of prevention may be brought to the attention of workmen, employers, and the public authorities; (6) to bring the knowledge and experience

of other countries to bear upon Canadian labor problems; (7) to further the organization of provincial employment bureaus throughout Canada with a view to their ultimate linking together in an effective national system.

Declaring that the volume of immigration has an important influence upon conditions of labor in every industry, the report emphasizes the need of further controlling, guiding, and stimulating it, and of taking advantage of the present slackening of immigration to organize effectively all agencies which will insure the reception of those only who are fitted and required to supplement existing activities, and thus preserve the labor market from future serious disorganization. Certain proposals, intended to perfect the work of the department of immigration, are presented; also proposals relating to an imperial migration board to be organized in London (England), whose primary duty would be to distribute information regarding opportunities in the Dominions, their demand for labor, and the facilities and cost of transport.

The commission made a survey of unemployment in six women's occupations, namely, the house worker, the factory worker, saleswomen, stenographers, trained nurses, and women who work by the day, these groups representing about 135,000 employees. Estimating that other employments bring the total up to about 175,000 the report states that unemployment in 1914-15 was experienced by between 8,000 and 10,000 women workers, judging from the amount of unemployment found in the occupations studied. The reasons ascribed for this condition are lack of training, indifference, and inefficiency. Reference is made to the work of employment bureaus, the general unanimity of opinion as to the need for vocational guidance, the importance of health as a factor in satisfactory employment, the advantage of domestic training, mothers' pensions, and the necessity for instruction in the management and spending of the family income. Considerable emphasis is placed on the importance of the care of children as an employment for women, the result of which, it is asserted, would be to reduce infant mortality by at least one-half. The commission urges a careful statistical study of the state of employment for women in the country. All women are strongly urged to interest themselves, both as individuals and in organizations, in such matters as the practical education of girls, vocational guidance, after-care committees for young workers, women workers' associations, the training and organization of house workers, the advocacy of thrift, the use of small gardens, and the recognition of home making and the care of children as occupations. The commission believes that the important position in paid employments now occupied by women is imperfectly appreciated, that the effect of this employment upon home life and the care of children is far-

reaching, and that there is necessity, therefore, to train women both for wage-earning occupations and home duties.

The commission is of the opinion that much unemployment occurs in the transition from the school to paid employment. Improved juvenile training and vocational guidance under the direction of education authorities are given as important measures of prevention. By amending the act regulating attendance at school and by providing for vocational guidance, it is believed that much may be done to lessen the number of misfits and improve the position and future outlook of many industrial workers. It is proposed that all primary schools supported by the public funds be required to provide facilities for domestic and manual or agricultural instruction, and that the school age be raised so as to leave with the parent the choice either (*a*) of leaving the child in school until the fifteenth birthday; or (*b*) of placing the child in an industrial, agricultural, or domestic school from the fourteenth to the fifteenth birthday; or (*c*) of removing the child from school at the present school age, for an industrial, agricultural, or domestic pursuit, to be combined with part-time industrial, agricultural, or domestic instruction until the sixteenth birthday.

Asserting that it is the fringe of the unemployed which directly thwarts the effort constantly made by labor to secure a fair remuneration and greater certainty of regular employment, the commission recommends industrial centers for the physically handicapped, for whom specially designed occupations may be developed, and for the aged, but not infirm, capable in proper surroundings of earning at least a measure of self-support. Similar provision is suggested for the destitute casual laborer. An extension of the present system of industrial prison farms is proposed for vagrants and for the indolent who prefer casual labor.

In presenting provisions for the relief of unemployment it is stated that workmen connected chiefly with building trades are subject to irregular employment, owing to the seasons, and for these unemployment insurance, with Government assistance, is advocated. This assistance should be open to all voluntary associations of workmen organized for the purpose of securing unemployment benefit. "The scheme must be contributory, for only by insisting rigorously, as a necessary qualification for benefit, that a sufficient number of weeks' contribution shall have been paid by each recipient can we possibly hope to put limits on the exceptionally bad risks." The British national insurance act is suggested as a model. A better organization of charitable activities is recommended, with a view to coordinating all preventive and remedial efforts.

In Part II data regarding unemployment in Ontario are presented in six chapters: (1) Extent and duration of unemployment, (2) vagrancy, (3) distribution of labor, (4) public employment bureaus, (5) the control of public expenditures, and (6) the land problem of Ontario. Of 1,637¹ factories to which schedules were sent on May 20, 1915, 651 tabulatable replies were received, covering three years, 1912 to 1914, inclusive. It was found that the average number employed in the 651 factories was 73,259 in 1912, 78,077 in 1913, and 65,698 in 1914, indicating a decline of 15.8 per cent in the volume of employment in 1914. Estimates are given of the average number employed in all factories in 14 groups of industries, and these show a weighted average decline of 11.8 per cent in 1914. The largest decline, 27.1 per cent, was in iron and steel products; food products and tobacco and its manufactures showed an increase in employment of 10.2 per cent and 50 per cent, respectively. The distribution of employment by sex is represented in the following table, the figures being estimated:

DISTRIBUTION OF EMPLOYMENT BY SEX, SHOWING THE PER CENT OF INCREASE, 1913 OVER 1912, AND THE PER CENT OF DECREASE, 1914 OVER 1913.

Sex.	Number employed.		Per cent of increase, 1913 over 1912.	Number employed, 1914.	Per cent of decrease, 1914 over 1913.
	1912	1913			
Males.....	166,013	175,069	5.4	152,372	12.4
Females.....	56,421	58,478	3.7	53,734	8.1
Total.....	222,434	233,547	5.0	206,106	11.8

From the above it appears that the greater risk of unemployment is among the men, which is due to large fluctuations in industries in which very few women are employed, particularly in the iron and steel industry.

Conditions of employment in every branch of industry have been affected by the war, but the difficulty of indicating to what extent unemployment has resulted from the war, from restriction of credit which began more than a year before war was declared, and from industrial depression due to other causes is recognized. A table is presented showing that in the 651 factories tabulated the average number employed in the last six months of 1914, during which the war was in progress, was 14.5 per cent less than the average number employed in the first six months of that year, indicating the effect of the war. On the other hand, the average number employed,

¹ The report suggests that one possibility of error must be noted and allowed for before the results can be taken as an index of actual conditions. The number of industrial establishments in Ontario, which had increased since 1901, was, excluding hand trades, 7,780 in 1911. Thus, the 1,637 factories to which the request was sent by the commission represent only 21 per cent of all industrial establishments in the Province.

January to June, 1914, was 11.4 per cent less than the average number employed in the first six months of 1913, and 6.9 per cent less than the average number employed in the last half of 1913, indicating the effect of causes other than the war. It is explained, however, that the conditions in the latter half of 1914 can not be taken as an index of the distress existing at that time, since of about 45,000 workers who had been discharged from the factories many had enlisted. It is concluded that had there been no war, with its concomitant distress, the volume of unemployment in manufacturing industries alone would have equalled the full working time of more than 20,000 persons, which does not necessarily mean that this number was continuously out of work. No special study was made of the duration of unemployment, but based upon admittedly inaccurate and incomplete data collected in three previous inquiries the commission reports that the average period of unemployment was from 12 to 15 weeks, this being uniformly true where skilled workers predominated and where laborers formed the great majority.

In its study of vagrancy as related to unemployment, the commission classified 670 men found in the shelters in Toronto, Ottawa, Hamilton, and London as (1) bona fide workmen traveling in search of employment, (2) those willing to undertake casual labor but who object to or are not fitted for any continued work, (3) the habitual vagrant, and (4) old and infirm persons, many of whom are crazy and all of whom live by begging. Of the 670 only a few were placed in the first class, conservatively estimated at 5 per cent; the "proportion belonging to the fourth class is by no means small." Conditions in the four cities are compared, the ratio of vagrancy per 1,000 population for each specified age being shown. The following statement indicates the conclusion of the commission:

It appears that the vagrants do not form a homogeneous body, but consist of several kinds of men, calling for separate treatment; that the bulk of them are unwilling to take up steady work; and that, in general, they are somewhat older and less capable of self-support than the normal population. * * * It appears that their numbers are continuously recruited by immigration and industrial depression and that good workers in the prime of life are driven downwards into vagrancy; that the vagrant is nobody's business, wanders from place to place, and does not get proper treatment anywhere; that public opinion opposes a more stringent application of the law, perhaps because it is felt that there is not yet adequate provision for the vagrant class.

In its investigation of the distribution of labor in Ontario the commission found that the six agencies which attempted to find work for those without employment secured more than 70,000 situations in 1914, about 85 per cent of the work being done by private effort through agencies working for profit; some of it is philanthropic. The employment secured by these six groups of agencies, two being

Federal, two provincial, one municipal, and one private, is distributed as follows:

NUMBER AND PER CENT OF THOSE OUT OF EMPLOYMENT WHO RECEIVED AID THROUGH FEDERAL, PROVINCIAL, MUNICIPAL, AND PRIVATE EMPLOYMENT AGENCIES, 1914.

Agency.	Number.	Per cent.
Salaried immigration officials.....	6,007	8.5
Canadian Government employment agents.....	¹ 2,136	.....
Provincial employment offices.....	1,933	2.7
Department of colonization.....	1,835	2.6
Toronto registration bureau.....	861	1.2
Private employment agencies.....	60,000	84.9
Total.....	70,636	100.0

¹ This number is included in the 6,007 above and is therefore omitted in arriving at the total.

The Federal Government agents work on a commission and almost three-fourths of the work was done by one-fourth of the agents. The provincial government agents receive a salary of \$300, and like the other agents are permitted to do other work. The department of colonization places farm laborers almost entirely and its system is declared to be the most complete. The commission states that the Toronto employment bureau "has departed from the first condition of the successful working of any employment office—that of sending the men best fitted to the job, instead of sending the man whose need appears to be the greatest. Only by following the former policy can the confidence of employers be secured." In so far as private agencies deal with immigrants they are under the control of the Dominion Government; others are not under Government supervision. It is estimated that the cost to the Province of the 98 philanthropic and commercial private agencies was about \$57,000, while the joint income of the 55 which reported was, in 1914, approximately \$38,000. Under an order in council passed in May, 1913, these agencies are regulated as follows:

1. A license must be obtained from the superintendent of immigrants.
2. These licenses, for which no fee is charged, are not transferrable and may be revoked by the superintendent.
3. Every holder of a license shall keep in a book the full name and address in Canada, and home address of every immigrant with whom he deals, reporting date of immigrant's arrival, name of steamship or railway by which he came, name and address of his next of kin, name and address of the employer to whom he goes, nature of the work, and rate of wages and other terms of employment.
4. The fee charged shall in no case exceed \$1.
5. No engagement shall be made unless the agent has a written and dated order from the employer stating exactly his demands.
6. If any license holder be convicted of an indictable offense, his license shall, ipso facto, be canceled.

7. If any holder of this license fail to comply with these regulations he shall be liable, on summary conviction, to a penalty of not more than \$100, or three months' imprisonment.

The report cites several instances of fraud practiced by these private agencies, chiefly upon immigrants.

In a chapter on public employment bureaus, the report presents in detail a description of the systems in Germany, Great Britain, and Massachusetts, asserting that two things are vital to the good service of a system of labor exchanges, namely, that they shall command the confidence of both employers and employees, and that they shall be administered by men and women of real devotion and business ability who can turn the system to good account. A general policy is advocated, followed by an outline of the methods of selecting officials, and the plan by which the agencies are controlled.

In support of the statement that unemployment can in a measure be prevented by the judicious control of public expenditures, the commission undertakes to show that if spent with this end in view they would help materially to counterbalance the falling off in the demand for labor when ordinary business declines. It is explained that in England the first economic effect of the outbreak of war was a large increase in unemployment which was partly met by the use of a fund available for road building.

The prevention of unemployment in this country by the control of public expenditure will therefore depend, in part, on the machinery for measuring local changes in employment. When this shows that conditions are abnormal, such public works as are available can at once be started. It does not follow, however, that useful public work will be available in quantities sufficient to absorb all idle workers. In so far as trade depressions, coming at irregular intervals, and with uncertain intensity, prevent the systematic planning of expenditure in future years, all measurements of changes in the volume of employment, whatever their usefulness in other directions may prove to be, will be found useless for this purpose.

After presenting tables showing that periods of industrial depression and consequent unemployment have recurred about every seven years, both in England and Canada, the commission concludes that plans should be made to meet this condition by a proper control of public expenditure.

As a means of relieving the embarrassment created by a condition of unemployment in industrial centers, the commission emphasizes the value of adopting a policy of encouraging land settlement by immigrants. It is stated that a surprisingly large number of foreigners with farm experience, upon landing in Canada, secure employment as laborers without knowledge of the opportunities offered them by the immense farm areas in the Dominion. How best to meet this situation is discussed in a chapter on land settlement, in which

are outlined several schemes that have been tried with varying success. Considerable attention is given to policies adopted in Australia and New Zealand, the statement being made that in the former country, during 20 years following 1891, a great mass of land-settlement legislation was enacted by every State making it possible for intending settlers to secure land on easy-term payment, borrowing from the Government a large part of their working capital. As a result of this policy the population in the capital cities in 1911 was only 39 per cent of the total, while the population in the rural districts has materially increased.

Part III of the report is devoted to studies of representative women's occupations, including the house worker, the factory worker, the saleswoman, the trained nurse, and women working by the day. A concluding chapter presents replies and statistics from reformatory and penal institutions for girls and women. It is perhaps sufficient to present here the recommendations made by the commission as a result of its findings in connection with each employment. The conditions disclosed by these inquiries may be deduced, in part at least, from the nature of the recommendations which are intended to be corrective as well as constructive.

The houseworker.—(a) Training schools to be established in connection with existing welcome hostels for immigrant women intending to be houseworkers and certificates granted to competent workers. (b) Training classes (with certificates to graduates) to be established in connection with technical schools and in other schools where such arrangements are possible. (c) Part-time courses of training, with certificates, to be arranged for houseworkers in positions. (d) The provincial employment bureau to cooperate with these training schools and classes.

The factory girl.—Your commissioners recommend that the provincial labor commission undertake the following work: (1) An inquiry into seasonal employments. (2) A study of factory employment with a view to learning how far the training obtained from work in factories gives skill that insures employment, along with other conclusions as to the desirability of factory employments for women; an inquiry to be made as to what special training for factory workers can be provided in schools. (3) To cooperate with the employment departments of factories for the purpose of improving employment methods. (4) To require factories to furnish statistics regarding number of employees and such other matters as may be considered desirable by the commission.

The saleswoman.—Your commissioners recommend that the government pass legislation to secure the following: Classes in salesmanship in technical schools; and that the provincial labor commission undertake the following work: (1) To cooperate with the employment departments of stores for the purpose of improving employment methods. (2) To require stores to furnish statistics regarding number of employees and such other matters as may be considered desirable by the commission.

The stenographer.—Your commissioners recommend that the Government should pass legislation to secure the following: No business college to be allowed to teach without license from the department of education. Such schools and

colleges to be inspected and required to maintain a standard of teaching to be fixed by the department; and that the provincial labor commission undertake the following work: To require private employment offices for stenographers to maintain a uniform test in proficiency before registering applicants, and a minimum standard in age.

The trained nurse.—Your commissioners recommend that the provincial labor commission undertake the following work: An inquiry as to whether the nursing profession is becoming overcrowded, and if hospitals should continue to graduate trained nurses at the present rate. Data to be collected as to the number of Canadian nurses trained in the United States who return to practice in Canada.

Women who work by the day.—Your commissioners recommend that the provincial labor commission undertake the following work: A study of the employment of women who work by the day, with a special view to the effect on the workers' children; the employment of office cleaners to be studied with a view to determining whether it may not be a more suitable and advantageous employment for men.

Reformatory and penal institutions for girls and women.—Your commissioners recommend that the prison-farm system, which has been begun for women prisoners, be extended as speedily and widely as practicable, with an indeterminate sentence, and that inmates of reformatories who have no trade receive training in some skilled occupation.

The appendixes include special studies on the subjects of labor exchanges in the United Kingdom, calculations of probability, the regularization of industry by employers, local government in Great Britain and Canada, mental defect as a cause of unemployment, relief and philanthropy, immigration, unemployment and thrift, unemployment and the liquor problem, immigration and employment, and unemployment.

There are also tables showing the number of manufacturing operatives employed during three years in 651 factories in Ontario and tables relating to vagrancy in Toronto, Hamilton, Ottawa, and London.

STRIKES AND LOCKOUTS FROM SEPTEMBER, 1915, THROUGH MARCH, 1916.

According to data compiled from various sources by the United States Bureau of Labor Statistics, the number of strikes and lockouts during the six months September, 1915, to February, 1916, inclusive, was 845, and for the six months October, 1915, to March, 1916, inclusive, 805.

The following table, which has been corrected for months previous to March, 1916, as reports have come in during the latter month, shows the number of strikes and lockouts begun in each of the months of September, 1915, to March, 1916, inclusive, but excluding 36 strikes and 6 lockouts which started during months not

specified. The strikes and lockouts were distributed among the months as follows:

NUMBER OF STRIKES AND LOCKOUTS, SEPTEMBER, 1915, THROUGH MARCH, 1916, BY MONTHS.

Kind of dispute.	Septem-ber.	October.	Novem-ber.	Decem-ber.	January.	Febru-ary.	March.
Strikes.....	146	102	102	70	147	148	180
Lockouts.....	14	7	10	8	8	4	7
Total.....	160	109	112	78	155	152	187

A brief account of the character of the strikes occurring from September, 1915, to January, 1916, may be found in preceding numbers of the REVIEW.

Though the number of strikes reported during the two months of February and March is large, the importance of the strikes is much less than usual. Munitions strikes still continue to occur, nearly all of which have been for increase in wages. Though a general increase in wages was secured last fall and in the early part of the winter, the increase in the cost of living has been the main argument urged in favor of a still further increase in wages, many of the strikes having occurred in establishments where increases had been recently voluntarily made by employers. This was especially true in Massachusetts, where the mill strikes have been short and participated in by comparatively small numbers of unorganized men, who were generally foreigners. In Buffalo, N. Y., there have been several strikes of machinists. In Chicago and cities in Indiana and Michigan strikes against leading band instrument makers have been made. The Alaskan railroad strike called attention to the efforts that the Government is making to connect the mines of the Matanuska region with civilization. That the substitution of a new agreement in place of the protocol in the cloak, suit, and skirt industry in New York last spring has not tended to keep peace in that industry is evidenced by the series of strikes in February, involving upwards of 75,000 persons. In Colorado the enactment of a statute requiring 30 days' notice to be given before a strike can be legally called resulted in the quick ending of two strikes of smeltermen called in ignorance of the existence of the law.

The data in the tables which follow relate to 402 strikes and lockouts concerning which information was received by the bureau during the months of February and March, as follows: One hundred and eighty strikes and 7 lockouts occurring in March, 148 strikes and 4 lockouts in February, 38 strikes and 3 lockouts in January, 2 strikes and 1 lockout in December, and 16 strikes and 3 lockouts, for which the dates of commencement were not reported. In the tables

that follow 9 strikes and 1 lockout are counted with the March strikes and lockouts, and the rest are counted with those of February, making 197 considered in the former month and 205 in the latter. Inasmuch as strikes which start toward the end of a month are frequently not brought to the attention of the bureau until after the report for the month has been prepared, it is probable that the corrected figures for the month of March will show a material increase over the number of strikes herein reported for that month.

Most of the disputes reported during February and March were in the northeastern section of the country, and all but 31 in each month were in States east of the Mississippi and north of the Potomac and Ohio Rivers.

STATES IN WHICH FIVE OR MORE STRIKES AND LOCKOUTS OCCURRED DURING EITHER FEBRUARY OR MARCH, 1916.

State.	February.			March.		
	Strikes.	Lockouts.	Total.	Strikes.	Lockouts.	Total.
New York.....	37	.....	37	43	2	45
Pennsylvania.....	29	1	30	17	1	18
New Jersey.....	21	1	22	17	.....	17
Massachusetts.....	19	.....	19	23	.....	23
Ohio.....	17	1	18	11	2	13
Connecticut.....	11	.....	11	9	.....	9
Missouri.....	8	2	10	7	.....	7
Illinois.....	8	1	9	9	.....	9
Indiana.....	4	3	7	4	.....	4
Michigan.....	5	.....	5	7	.....	7
Rhode Island.....	2	1	3	5	.....	5
Washington.....	3	.....	3	5	.....	5
Wisconsin.....	3	.....	3	4	1	5
Other States.....	28	.....	28	28	2	30
Total.....	195	10	205	189	8	197

In February, 12 strikes were confined to women and 15 included both men and women; in March, 14 strikes were confined to women and 8 included both men and women, as did also one lockout.

The industries in which five or more strikes and lockouts were reported were as follows:

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED INDUSTRIES, REPORTED DURING FEBRUARY AND MARCH, 1916.

Industry.	February.			March.		
	Strikes.	Lockouts.	Total.	Strikes.	Lockouts.	Total.
Building trades.....	8	3	11	13	.....	13
Cigar makers.....	7	.....	7	.....	1	1
Clothing industries.....	20	.....	20	21	.....	24
Iron and steel mills.....	8	.....	8	5	.....	5
Metal trades.....	36	.....	36	32	3	35
Mining.....	22	.....	22	5	.....	5
Printing trades.....	4	2	6	1	.....	1
Railroads.....	14	1	15	15	.....	15
Street railways.....	2	.....	2	4	1	5
Stoneworkers.....	4	1	5	11	.....	11
Teamsters.....	11	1	12	1	.....	1
Textile workers.....	17	.....	17	14	.....	14
Miscellaneous.....	42	2	44	64	3	67
Total.....	195	10	205	189	8	197

Included in the above are: For February, 6 strikes of machinists, 18 of molders, and 18 of coal miners; and for March, 19 strikes and 1 lockout of machinists and 8 strikes and 1 lockout of molders.

In February the employees in 126 strikes and 8 lockouts were connected with unions; in 26 strikes they were not so connected; and in 10 strikes they were not connected with unions at the time of striking, but organized themselves into unions as a result of the strike. In March the employees in 93 strikes and 7 lockouts were connected with unions; in 10 strikes and 1 lockout they were not so connected; and in 10 strikes they were not connected with unions at the time of striking, but organized themselves into unions as a result of the strike. In the remaining strikes and lockouts it was not stated whether the employees had union affiliations or not.

In 168 disturbances in February and in 182 in March the causes were given. In about 72 per cent each month the question of wages or hours or both was the main issue in dispute. The leading causes are shown in the following table:

PRINCIPAL CAUSES OF STRIKES AND LOCKOUTS REPORTED DURING FEBRUARY AND MARCH, 1916.

Cause.	February.			March.		
	Strikes.	Lockouts.	Total.	Strikes.	Lockouts.	Total.
Increase of wages.....	69	4	73	80	1	81
Decrease of wages.....	2		2	4	1	5
Decrease of hours.....	2		2	4		4
Wages and hours.....	19		19	23		23
General conditions.....	12		12	7		7
Conditions and wages.....	10	1	11	6		6
Conditions, wages, and hours.....	4		4	4		4
Recognition of the union.....	8	2	10	9	2	11
Recognition and wages.....	4		4	5		5
Recognition, wages, and hours.....	4	1	5	4		4
Open or closed shop.....	3		3	3		3
Discharge of employees.....	6		6	11	1	12
Because nonunion men employed.....	2		2	5		5
In regard to the agreement.....	3		3	3		3
Jurisdictional.....	3		3			
Sympathetic.....	2		2			
Miscellaneous.....	7		7	8	1	9
Not reported.....	35	2	37	13	2	15
Total.....	195	10	205	189	8	197

In 90 of the strikes in February the number of persons involved was reported to be 150,837, an average of 1,676 per strike. In 18 strikes, in each of which the number involved was over 1,000, the strikers numbered 134,800 persons, thus leaving 16,037 involved in the remaining 72 strikes, or an average of 223 each. In 3 lockouts the number of persons involved was reported as 425, or an average of 142 each. In 88 of the strikes in March the number of persons involved was reported to be 45,570, an average of 518 per strike. In 13 strikes, in each of which the number involved was over 1,000, the strikers numbered 29,950 persons, thus leaving 15,620 involved in

the remaining 75 strikes, or an average of 208 to each. In 6 lockouts the number of persons involved was reported as 1,353, or an average of 226 in each.

Only one employer was concerned in each of 157 strikes and 7 lockouts in February, while in 17 strikes the number of employers struck against was more than 1. In March only 1 employer was concerned in each of 155 strikes and 8 lockouts, while in 9 strikes the number of employers struck against was more than 1.

Sixty-seven strikes and 6 lockouts were reported as ending in February. The duration of 46 strikes was given as 1,160 days, or an average length of 25 days for each strike. If 6 strikes are omitted from consideration, each of which lasted for more than 3 months, the average length of the remaining 40 strikes was 11 days. Three lockouts lasted 369 days, or an average of 123 days each. Sixty-one strikes were reported as ending in March. The duration of 45 strikes was given as 1,276 days, or an average length of 28 days for each strike. If 2 strikes are omitted from consideration, each of which lasted for nearly a year, the average length of the remaining 43 strikes was 13 days. The results in 55 strikes and 5 lockouts ending in February and 52 strikes ending in March were given as follows:

RESULTS OF STRIKES AND LOCKOUTS ENDING IN FEBRUARY AND MARCH, 1916.

	February.			March.		
	Strikes.	Lockouts.	Total.	Strikes.	Lockouts.	Total.
Won.....	12	.....	12	23	.....	23
Compromised.....	25	1	26	21	.....	21
Lost.....	15	4	19	2	.....	2
Employees returned pending arbitration..	3	.....	3	6	.....	6
Total.....	55	5	60	52	.....	52

RETAIL PRICES OF FOOD IN THE UNITED STATES.

Reports to the Bureau of Labor Statistics from approximately 725 retail dealers in 44 of the principal industrial cities of the United States covering the principal staple articles of food show that for the month from January 15 to February 15, 1916, the price of food, taken as a whole, declined 2 per cent. This drop was almost entirely due to a sharp decline in the price of eggs, which are of great importance in the consumption of the average family, and are therefore heavily weighted in the food index. The only other article to decline in price from January to February was butter.

A table showing the relative retail prices of food on January 15, 1915, and on February 15, 1916, is given herewith. The relative numbers given are simply percentages in which the average price for the entire year 1915 is taken as the base, or 100 per cent.

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RELATIVE RETAIL PRICES OF FOOD ON JAN. 15 AND ON FEB. 15, 1916.

[Average price for the year 1915=100.]

	Jan. 15, 1916.	Feb. 15, 1916.		Jan. 15, 1916.	Feb. 15, 1916.
Sirloin steak.....	100	100	Milk, fresh.....	101	101
Round steak.....	99	99	Flour, wheat.....	95	99
Rib roast.....	100	100	Corn meal.....	99	99
Chuck roast.....	99	99	Rice.....	100	100
Plate boiling beef.....	99	100	Potatoes.....	153	158
Pork chops.....	93	96	Onions.....	117	127
Bacon, smoked.....	101	101	Beans, navy.....	117	119
Ham, smoked.....	104	105	Prunes.....	98	98
Lard, pure.....	99	100	Raisins, seeded.....	101	101
Hens.....	104	107	Sugar, granulated.....	102	104
Salmon, canned.....	100	100	Coffee.....	100	100
Eggs, strictly fresh.....	124	102	Tea.....	100	100
Butter, creamery.....	107	106			
Cheese.....	105	107	All articles combined...	106	104

Another table shows the relative prices on January 15 each year from 1912 to 1916, with the average for the year 1915 taken as the base.

RELATIVE RETAIL PRICES OF FOOD IN FEBRUARY OF EACH YEAR, 1912 TO 1916, AS COMPARED WITH AVERAGE PRICES FOR THE YEAR 1915.

[Average price for the year 1915=100.]

	Feb. 15, 1912.	Feb. 15, 1913.	Feb. 15, 1914.	Feb. 15, 1915.	Feb. 15, 1916.
Sirloin steak.....	81	93	98	97	100
Round steak.....	78	90	100	97	99
Rib roast.....	85	94	100	98	100
Chuck roast.....			104	99	99
Plate boiling beef.....			102	101	100
Pork chops.....	80	93	104	88	96
Bacon, smoked.....	85	95	99	99	101
Ham, smoked.....	89	97	101	99	105
Lard, pure.....	92	104	106	104	100
Hens.....	93	100	107	100	107
Salmon, canned.....				100	100
Eggs, strictly fresh.....	118	93	107	99	102
Butter, creamery.....	111	115	100	105	106
Cheese.....				101	107
Milk, fresh.....	98	101	103	101	101
Flour, wheat.....	83	80	78	110	99
Corn meal.....	90	91	95	101	99
Rice.....				100	100
Potatoes.....	171	102	122	94	158
Onions.....				97	127
Beans, navy.....				98	119
Prunes.....				101	98
Raisins, seeded.....				100	101
Sugar, granulated.....	101	84	78	98	104
Coffee.....				100	100
Tea.....				100	100
All articles combined.....	95	95	99	99	104

All meats for which information was secured for the five years from February, 1912, to February, 1916, were higher in February, 1916, than in February, 1912; also lard, milk, flour, corn meal, and sugar. Food as a whole was 9 per cent higher in February, 1916, than in February, 1912.

Between February, 1915, and February, 1916, only five articles—plate boiling beef, lard, flour, corn meal, and prunes—declined in

price. Potatoes, which showed the greatest advance from February, 1915, to February, 1916, were still 8 per cent lower in February, 1916, than in February, 1912.

While the price of food as a whole was the same in February, 1912, and February, 1913, it advanced 4 per cent as between that date and February, 1914. It was the same in February, 1914, and February, 1915, with another advance, 5 per cent, between February, 1915, and February, 1916.

LIVING CONDITIONS OF SELF-SUPPORTING WOMEN IN NEW YORK CITY.¹

Before entering upon the building of a boarding home or hotel for girls in the Borough of Manhattan, New York City, the Metropolitan Board of the Young Woman's Christian Association, in March, April, and May, 1915, made a study of living conditions of self-supporting women, including those residing in organized homes, in furnished rooms, with private families, or in apartments of their own, the purpose being to find an answer to each of the following questions:

1. To what extent is the need for such a boarding place met by the houses already in existence?
2. What results are accomplished by these houses in terms of their social and economic influence, and in connection with this test, of their work, what are the advantages and disadvantages of their policies?
3. What is the need which is not now being met? How do girls live who are alone in New York and who are not living in one of these homes?
4. What type of girl ought to be reached in the Young Women's Christian Association plan? In general, what range of wages ought the directors of the house to have in mind, and what proportion of such wages might be expected to be paid in board?
5. In what district or districts of the city are such houses needed?
6. Is a fair-sized hotel the most desirable from the point of view of its social results, or would it be more desirable to have several smaller houses in the nature of clubs, similar to the Eleanor Association in Chicago?
7. What are the most successful experiments in this line in other cities?

The results of this study and certain conclusions and recommendations are presented in a 96-page pamphlet recently issued, which includes also an appendix detailing life in 15 organized homes as experienced by a trained investigator who spent from three days to two weeks in each home in an effort to ascertain from the girls themselves just to what extent these places are meeting the need of the

¹ A Study of Living Conditions of Self-supporting Women in New York City, by Esther Packard. Metropolitan Board of the Young Women's Christian Association, 1915. 96 pp. Illustrated.

girls away from home and in what respect they are failing in this purpose. The investigation included 54 organized, noncommercial¹ homes capable of accommodating 3,599 girls. The report says:

The good which these homes do in providing safe and comfortable living places for girls who would otherwise have to live in furnished-room houses can hardly be estimated. They have proved of vital service in the lives of hundreds of girls, and the testimony which many residents, especially the younger girls, offer as to the effect of the congenial surroundings must indeed be gratifying to the boards of managers and house superintendents. Those parents who see their daughters start off to the city to begin their "research magnificent" must feel a cause for serious anxiety removed, when they know that these daughters are safely located in a home with pleasant surroundings and congenial associates.

From only 140 girls in 7 homes was it possible to secure data through personal interview, but this was supplemented by the records of the homes which, although incomplete, or not open to inspection, furnished considerable data concerning several hundred girls. As to living conditions of girls not reached by these homes a certain amount of information was secured for 842, of whom 535 were personally seen, 206 living in furnished rooms or boarding houses, 292 boarding with private families, and 37 housed in small apartments of their own. The following table presents the nationality, ages, occupations, and wages of the girls in the homes and those adrift, showing the per cent under each specified item.

NATIONALITY, AGES, OCCUPATION, AND WAGES OF GIRLS IN THE HOMES AND THOSE ADRIPT, SHOWING NUMBER AND PER CENT UNDER EACH SPECIFIED ITEM.

Item.	Girls in homes.		Girls adrift.	
	Number.	Per cent.	Number.	Per cent.
Nationality:				
American.....	232	28.0	133	15.8
English.....	205	24.7	14	1.7
German.....	119	14.4	38	4.5
Irish.....	104	12.5	59	7.0
Italian.....	6	.7	114	13.5
All others.....	163	19.7	484	57.5
Total.....	829	100.0	842	100.0
Age:				
Under 16 years.....	2	.6		
16 and less than 19.....	44	12.3	97	11.5
19 and less than 22.....	80	22.3	150	17.8
22 and less than 26.....	86	24.0	138	16.4
26 and less than 31.....	72	20.1	128	15.2
31 and less than 36.....	31	8.7	46	5.5
36 and less than 41.....	14	3.9	19	2.3
41 and over.....	29	8.1	10	1.2
Not reported.....			254	30.2
Total.....	358	100.0	842	100.0

¹ This term is used in an informal sense. A few homes make a profit and pay dividends of 4 per cent or 5 per cent to stockholders. Their aim, however, is social, not commercial, and in that lies the difference between them and the ordinary furnished room or boarding house.

NATIONALITY, AGES, OCCUPATION, AND WAGES OF GIRLS IN THE HOMES AND THOSE ADRIPT, SHOWING NUMBER AND PER CENT UNDER EACH SPECIFIED ITEM—Con.

Item.	Girls in homes.		Girls adrift.	
	Number.	Per cent.	Number.	Per cent.
Occupation:				
Office workers, stenographers.....	252	21.0	107	12.7
Servants, domestic helpers, etc.....	249	20.7	172	20.4
Teachers, kindergartners, governesses.....	207	17.2	17	2.0
Nurses.....	114	9.5	15	1.8
Factory workers.....	71	5.9	199	23.6
Department store employees.....	62	5.2	194	23.0
All others.....	246	20.5	138	16.4
Total.....	1,201	100.0	842	100.0
Wages:				
Under \$4.....	7	2.2	6	.7
\$4 and less than \$7.....	73	23.2	167	19.8
\$7 and less than \$10.....	102	32.5	355	42.2
\$10 and less than \$13.....	83	26.4	169	20.1
\$13 and less than \$16.....	31	9.9	63	7.5
\$16 and less than \$21.....	17	5.4	37	4.4
\$21 and over.....	1	.3	20	2.4
Not reported.....			25	3.0
Total.....	314	100.0	842	100.0

In addition to the more personal information secured by interviews with the girls, investigation was made of 500 furnished rooms in order to afford a more thorough understanding of the work and opportunity of the organized homes. It was found that many of the homes have certain restrictions as to age, nationality, wage, and occupation of the girls admitted, and the time during which they may remain in the home. Some have religious restrictions. The whole problem of closing hours, rules, and regulations was found to be one of the most difficult which the homes have to meet. The girls appear to recognize the need for certain restrictions, but object to definite rules "stuck up in your face all the time." In several homes a spirit of self-government prevails, but the investigation seems to show that it can not be forced upon the girls, and in some cases where it was tried the plan broke down utterly.

Of 51 homes reporting, 27 have no age restrictions, 2 have an age limit of 25 years, 3 of below 25, 5 of 30, 13 of 35, and 1 of 40. Of 358 girls in 8 homes, 12.9 per cent were less than 19 years of age, 66.4 per cent were 19 and less than 31, and 20.7 per cent were 31 and over. Two of the homes will not take girls who earn more than \$8 a week, 1 has a limit of \$9, 5 limit the wage to \$10, 7 to \$12, 3 to \$15, 1 to \$17, and 2 to \$18, while 30 have no wage restriction. Data obtained for 314 girls in 12 homes show that 182, or 57.9 per cent, were receiving less than \$10 a week, while 80, or 25.4 per cent, were receiving less than \$7. Twenty-eight per cent of the girls scheduled are American, with English (24.7 per cent), German (14.4 per cent), and Irish (12.5 per cent) following in the order named; the remainder (20.4 per cent)

represent 20 other nationalities. Of 1,201 girls in 15 homes, 252 (21 per cent) were office workers and stenographers, 249 (20.7 per cent) were servants, and 207 (17.2 per cent) were teachers, kindergartners, and governesses, the remainder (41.1 per cent) being scattered among 20 other occupations.

It was found that only 5 of the 54 organized homes were entirely self-supporting. Most of the homes frankly appeal to the public for help, and, although intended primarily for the girl earning low wages, admit girls "earning well above what economists say is a living wage." For instance, in 10 subsidized homes the investigation showed that 41.6 per cent of 286 girls were earning above \$10 a week. The price the girls are required to pay for board and room in these homes varies from \$2.80 to \$12 a week. Where the house is subsidized and thus able to offer board at a price far below the ordinary commercial rate, the claim is advanced by some that the effect on the girls is detrimental, since it tends directly to reduce their wages. Testimony is offered in support of this view. The girls themselves, feeling that a subsidy is in the nature of a charity, appear to be opposed to the plan, although some were found who took the attitude expressed by one girl, who said: "A home should not depend for support on the earnings of hard-working girls. The homes are advertised as charity. Let us, therefore, get as much out of them as we can." The ability of a house to meet expenses depends very largely, it is pointed out, upon the management; the number accommodated and the price paid have comparatively little to do with it. Mention is made of three entirely self-supporting houses accommodating 38, 40, and 45 girls, respectively, where the prices are from \$4 to \$6 a week for three meals a day, while one heavily subsidized place accommodates many hundred girls and charges from \$4.25 to \$10. Detailed expenditures of three self-supporting homes are presented, the following apportionment being typical:

	Per cent.
Rent.....	23
Salary and wages.....	21
Food.....	40
Light and heat.....	8
Repairs and replenishing.....	5
Sundries.....	1
Balance.....	2
Total.....	100

The receipts and disbursements for one month and for the year 1914-15 of the Eleanor Associations, a similar enterprise in Chicago, are given in full, showing the percentage of expenditure and cost per capita.

In order to determine why many girls fail to take advantage of these homes, why they apparently prefer ordinary commercial rooming houses, what class or classes of girls need accommodations the most, and in short, what need is not now being met, an investigation of living conditions of girls adrift was planned. The inquiry was not confined to any one class nor to any wage level. As already suggested, 842 schedules¹ were secured representing diverse nationalities and occupations, almost every wage level and ages from 14 to 55. The kind of firms cooperating in this study resulted in a preponderance of factory workers (23.6 per cent) and department-store employees (23 per cent). Approximately 16.4 per cent of these girls were in the 22 to 26 age group, and 513 (60.9 per cent) were under 31 years of age. Nearly 63 per cent were receiving less than \$10 a week and more than 20 per cent were receiving less than \$7. Of the 535 girls who were personally interviewed those living in furnished rooms received a higher wage than those living with private families. Also, it was found that of 159 in the group receiving less than \$7 a week by far the largest proportion, 144, or 90.5 per cent, were compelled to live with private families, relatives, or friends who were willing to "knock off on the price." The following table indicates the weekly wage of 535 girls living away from home:

WEEKLY WAGE OF 535 GIRLS LIVING AWAY FROM HOME IN NEW YORK CITY, CLASSIFIED BY MODE OF LIVING.

Weekly wage.	Living in furnished rooms.		Living with private families.		Living in apartments.		Total.	
	Number.	Per cent. ¹	Number.	Per cent. ¹	Number.	Per cent. ¹	Number.	Per cent. ¹
Less than \$4.....			3	1.0	3	8.1	6	1.1
\$4 and less than \$7.....	10	4.9	141	48.3	2	5.4	153	28.6
\$7 and less than \$10.....	103	50.0	105	36.0	9	24.3	217	40.6
\$10 and less than \$13.....	53	25.7	30	10.3	12	32.4	95	17.8
\$13 and less than \$16.....	19	9.2	6	2.1	6	16.2	31	5.8
\$16 and less than \$20.....	11	5.3	1	.3	3	8.1	15	2.8
\$20 and over.....	1	.5					1	.2
Not reported.....	9	4.4	6	2.1	2	5.4	17	3.2
Total.....	206	100.0	292	100.0	37	100.0	535	100.0

¹ Although this table is taken from the report, the per cents have been changed in some instances because of inaccuracy of original figures.

Of 119 living in furnished rooms and reporting, the largest number (28.6 per cent) paid \$6 and less than \$7 for room and board, while of 205 living with private families and reporting, the largest number (37.6 per cent) paid less than \$4 a week. It was found, however, that the low-wage girl had to pay a higher per cent of her wages for board and room than the girl earning a better wage.

¹ See table on pp. 42 and 43.

Of 423 girls, 260, or 61.5 per cent, spent more than 50 per cent of their wages for room and board. Of this number 132, or 50.8 per cent, were receiving less than \$10 a week, and 85, or 32.7 per cent, were receiving less than \$7.

The report discloses conditions in 500 furnished-room houses. It was found that preference is given to men roomers, that in only 26 houses was there a public parlor where the roomers could entertain their friends; that houses changed hands many times in brief periods, making it dangerous to recommend them unless an investigation is made frequently, and in general, that, as one landlady expressed it, "Danger obviously lurks everywhere in a furnished room locality. With the system of subletting flourishing, with roomers coming and going, with no public parlor in which to entertain friends, is it any wonder that the moral conditions in many rooming houses are decidedly bad?" The testimony of several girls is given, indicating the loneliness of furnished-room life. It was found that accommodations vary greatly for the same price. The price for single rooms ranges from \$2 to \$6 a week, with the average about \$3, which secures a very good room in some sections of the city, and "a tiny hall bedroom, shabbily and meagerly furnished," in other sections.

One of the features of the investigation was to discover why girls are not living in the homes. The one reason heard most frequently was the fear of restrictions. "I don't know which is worse," declared one girl, "the cramped and awful loneliness of a hall bedroom or the humiliating and soul-depressing charity and rules of a home." Another reason was the "fear of gossip and everybody knowing your own personal affairs." The testimony of the girls may be thus summed up—

Tell the Y. W. C. A. to build a place where girls like me can feel they really belong, where we can have one or two rooms by ourselves and a place, no matter how small, that's really our own. I guess I'd stay there forever if they'd let me. I'm so tired of this drifting around.

Of those living with private families the report says:

It would be quite misleading to convey the impression that all low-wage girls who live with private families are better situated than if they were living in homes. Living conditions, almost indecent, and moral dangers, certainly very grave, oftentimes confront girls boarding with strangers.

Living in small apartments was found to be the most ideal for these girls. The report says:

For real economy in living, economy combined not with shocking overcrowding and evil conditions, but with a normal and happy mode of life, one must turn to the woman who rents an apartment, does her own work, and buys her food at the lowest possible prices.

Of the 37 girls interviewed who were keeping house it is declared that not one would change her way of living. These apartments may be had for as low as \$2.25 a week, and the cost of food for those girls who bought their own supplies and cooked their own meals was \$2 to \$2.50 a week for two meals a day.

From this investigation of living conditions it is definitely concluded that—

1. There is need for further suitable housing accommodations for self-supporting women.
2. There is need for a house where meals would be optional.
3. The institutional atmosphere which is bound to result when even 40 girls live together offers no real, permanently satisfying solution of the problem of living.
4. The blind but nevertheless very real prejudice against organized homes in the minds of no small number of girls brought out the fact that if a new home were built there would always be a considerable class whom no amount of argument could induce to live in such a place.
5. There was constantly shown throughout the investigation the deep longing on the part of wage-earning women for "a home of their own."

These facts, declares the report, point "toward a socialized apartment house for women, with apartments ranging in size from one room and kitchenette to several rooms; a cafeteria open to the public as well as to residents of the house; a large reception room on the main floor, surrounded by several smaller and more private reception rooms; and a socially minded woman superintendent in charge." It is believed that the training which such a place would offer in real home making is no minor argument in its favor. "The home instinct is strong in nearly all women; and if it is a precious thing, as so many people would have us believe, is it not right that it should have some means of expression? It may even be that the restlessness among wage-earning women, of which we hear so much nowadays, can in some part be laid to inadequate living accommodations. Certainly if women are increasingly entering industry, to be there permanently, there should be some adequate provision made for them. Such an undertaking as the proposed socialized apartment house will be, if it proves nothing else, a valuable social experiment."

Examples furnished in the course of the investigation by the numerous model tenement buildings which have apartments designed for families renting as low as \$2.25 a week per room, and which pay dividends to stockholders of 4 per cent and 5 per cent, led to the conclusion that apartments in this proposed building could be rented at a price within the range of wage-earning women and still be entirely self-supporting.

REPORT OF NEW YORK STATE COMMISSION ON VENTILATION.

This commission was appointed in June, 1913, and began actual experimental work in the following December. Its duty was "to examine and investigate the subject of ventilating systems in the public schools and other public buildings of the State and the proper installation of the same, to the end that a thorough and effective system, which will assure an adequate supply of fresh air under the best conditions, will be maintained." The need for such a commission was suggested by the governor, who in appointing it said:

Even the most fundamental facts which must lie at the basis of any efforts to ventilate our school buildings have not been scientifically determined by any experiments which have been made thus far. It is not known, for example, and can not be known without more adequate experiments than have been possible up to this time, what temperature should be maintained in public-school buildings. Indeed, it has not even been proven whether a constant temperature or a varying temperature is more beneficial. We do not know scientifically what degree of humidity should be maintained in our schoolrooms.

All of these questions in regard to school ventilation are equally important as to factory ventilation.

The efforts of the commission during the first year were devoted mainly to a study of the effect on the body of temperature and chemical purity of the air.¹ This was the initial step in carrying out the program of determining the relative importance of the different factors in ventilation, namely, temperature, humidity, air motion, chemical composition, odor, dust, and bacteria. The commission realized that four atmospheric conditions produce, or are supposed to produce, unfavorable effects upon those exposed to them: High heat, alone or combined with high humidity, chemical effluvia of various sorts resulting from human occupancy, drafts or exposure to cold air, and air of unduly low humidity, and it determined to make a careful study of the physiological effect of all four of these conditions. Experiments were carried on in the College of the City of New York, four subjects being placed in the observation room for periods varying from three and one-half to eight hours a day. In all, 93 different subjects were under observation. Describing the plan pursued, the commission says:

The physiological condition of the subjects was determined at the beginning and the end of the day's routine and at intermediate periods by observations of body temperature, blood pressure and pulse, standing and reclining, and rate of respiration. During certain of the experiments more elaborate studies were

¹ Some results of the first year's work of the New York State Commission on Ventilation—a paper read before Joint Session Laboratory and Sanitary Engineering Sections, American Public Health Association, Jacksonville, Fla., Dec. 3, 1914. Reprinted from American Journal of Public Health, vol. 5, No. 2. Boston, 1915. 34 pp. Illustrated, 9 charts.

made of the return of the pulse to its normal rate after physical work, of the respiratory quotient, of the carbohydrate and protein metabolism, of the size of the dead space of the respiratory passages, of the amount of heat produced by the body, of the constitution of the air in the alveoli of the lungs and hence of the acidosis of the blood, of the duration of digestion, of the dissociation of the oxyhemoglobin of the blood, and of the specific gravity and the freezing point of the urine.

The amount of physical work performed under various conditions was measured by the use of a Krogh bicycle ergometer and by a simple apparatus in which dumb-bells were successively raised and lowered through a known height, the completion of each excursion being recorded by a lever attached to the counter.

The quantity and quality of intellectual product per unit of time under different air conditions was exhaustively studied by a long series of psychological tests, including naming of colors, and opposites, cancellation, addition, mental multiplication, typewriting and grading specimens of handwriting, poetry, and English composition.

Finally in two series of experiments the effect of air conditions upon appetite was studied by serving standard lunches to the subjects in the observation room and determining the number of calories consumed.

In the pamphlet outlining the results of the first year's work of the commission numerous charts are presented and each experiment is described in detail. In general, all the experiments tended to show that as compared with chemical purity of the air temperature is by far the more important item in determining comfort in an occupied room. It was found that even slight differences in temperature produce characteristic physiological responses in the body, and affect the output of physical work and likewise the inclination to do mental work. In only one respect did the chemical quality of the air breathed seem to show any characteristic effect on the body mechanism, this effect appearing in the slightly diminished appetite for food in a stale, unventilated atmosphere.

Based on these experiments the commission reached the following conclusions:

1. A very high room temperature, such as 86° F., with 80 per cent relative humidity, produces slight but distinct elevation of body temperature, an increase in reclining heart rate, an increase in the excess of standing over reclining heart rate, a very slight lowering of systolic blood pressure, and a marked fall in the Crampton value.

2. A moderately high room temperature, 75°, with 50 per cent relative humidity, has all the effects noted above, although, of course, in less degree than the extreme temperature condition.

3. Even the extreme room temperature of 86°, with 80 per cent relative humidity, shows no effect upon rate of respiration, dead space in the lungs, acidosis of the blood, dissociation of oxyhemoglobin, respiratory quotient, rate of heat production, rate of digestion, carbohydrate or protein metabolism, concentration of the urine, and skin sensitivity.

4. The power to do either mental or physical work, measured by the quantity and quality of the product by subjects doing their utmost, is not all diminished by a room temperature of 86°, with 80 per cent relative humidity.

5. On the other hand, the inclination to do physical work and the inclination to do mental work are diminished by sufficiently high room temperatures. So far as physical work is concerned, our tests show a decrease in actual work performed, when the subject had a choice between working or not working, of 15 per cent under the 75° condition and of 37 per cent under the 86° condition, as compared in each case with 68°.

6. Stagnant air at the same temperature as fresh air, even when it contains 20 or more parts of carbon dioxide and all the organic and other substances in the breathed air of occupied rooms, has, so far, shown no effect on any of the physiological responses listed above under 1 and 3, nor on the power or inclination to do physical or mental work, nor on the sensations of comfort of the subjects breathing it.

7. On the other hand, the appetite for food of subjects exposed to such stagnant air may be slightly reduced.

8. These experiments seem to indicate that overheated rooms are not only uncomfortable, but produce well-marked effects upon the heat regulating and circulatory systems of the body and materially reduce the inclination of occupants to do physical work. The most important effects of "bad air" are due to its high temperature, and the effects of even a slightly elevated room temperature, such as 75°, are sufficiently clear and important to warrant careful precautions against overheating.

9. The chemical changes in the breathed air of occupied rooms are of comparatively minor importance, although the substances present in such air may exert a slight decrease in the appetite for food.

During the year 1915,¹ besides repeating certain of the studies on temperature and stale air, the commission gave attention to (1) the relation of heat and cold to respiratory affections, (2) the influence of humidity on comfort and mental work, (3) methods for determining the dust content of the air, (4) the comparative effects of different types of natural and mechanical ventilation on comfort, mental efficiency, and physical condition, and (5) the course taken by air currents in a fan-ventilated room. It was thought desirable to determine, if stale air is bad, what particular element of staleness is bad, whether it is the odor, the increase of carbon dioxide, or of organic poisons which dull the appetite. As to the relation of heat and cold to respiratory affections, the commission experimented with nearly 150 subjects exposed to varied conditions of heat, cold, and humidity. It was found that heat causes a swelling of the inferior turbinates of the nose, tending to diminish the size of the breathing space, and increased secretion and reddening of the membranes, while the action of cold as a rule is just the opposite. These experiments also led the commission to conclude that chilling and overheating tend to diminish the body's resistance to infection.

¹ An outline of the activities of the New York State Commission on Ventilation, for the year 1915, presented at the annual meeting of the American Society of Heating and Ventilating Engineers, New York City, Jan. 20, 1916, by George T. Palmer, Chief of Investigating Staff, New York State Commission on Ventilation. 18 pp. Illustrated. 11 charts.

In its study of the influence of humidity on comfort and mental work, the experiments, based on a dry-schoolroom condition of 75° and 20 per cent relative humidity, seemed to indicate that intermediate humidities around 35 per cent are at least more comfortable than either the extreme dryness or the 50 per cent humidity which feels quite moist. The effect of dryness in increasing the steadiness of the hand, the eye, or the arm or in causing confusion of mind or distraction, if indicated at all, appeared to be very slight. As measured by the saturation deficit the dryness of 20 per cent humidity at 75° is greater than at 68°, and it is therefore more than probable that dryness at 68° would be even less easily detected if at all.

In considering the dust problem as a ventilation factor, the commission found itself handicapped by lack of satisfactory devices for collecting and analyzing dust, and the results of experiments of this character are reserved for a future report.

The commission made a study of the comparative efficiency of natural ventilation and the more complex mechanical ventilation, desiring to find out whether there is an appreciable advantage to comfort in admitting air to a schoolroom directly from open windows, and, if such an advantage exists, to determine whether it is of such moment as to influence the physical and mental development of pupils.

Much of the work of the commission, it is explained, is being repeated for verification, the result of which may influence the interpretation of the preceding efforts, and many of the experiments have not yet been concluded.

RECENT REPORTS RELATING TO WORKMEN'S COMPENSATION AND INDUSTRIAL ACCIDENTS.

CALIFORNIA.¹

The report of the industrial accident commission of California presents the activities of the five departments—compensation, permanent disability rating, medical, insurance, and safety—and gives statistics for the year ending December 31, 1914. On June 30, 1915, 6,858 employers had filed with the commission written acceptances of the compensation provisions of the law; the number of employees given protection is not stated. Of the 1,269 cases filed with the commission for adjudication during the fiscal year, 939 were decided, of which 598 involved awards as follows:

¹ California. Report of the industrial accident commission, July 1, 1914, to June 30, 1915. San Francisco [1915]. 140 pp. Illustrated.

VALUE OF AWARDS IN DECIDED CASES, JULY 1, 1914, TO JUNE 30, 1915.

Nature of injury.	Number.	Amount of award.
Fatal.....	133	\$310,898.48
Permanent disabilities.....	121	141,945.51
Temporary disabilities.....	344	31,041.00
Total.....	598	482,884.99

The insurance department reports that "it has now been demonstrated beyond a doubt that it is possible for the State permanently and economically to conduct an insurance enterprise," and adds that at the close of the first year the "fund" had written \$547,161.24 in net compensation insurance premiums, or approximately \$144,000 in excess of the writings of its nearest competitor. On June 30, 1915, a refund to policyholders, amounting to 15 per cent of the earned premiums, was declared. From January 1, 1914, to June 30, 1915, 5,861 cases of accidental injuries were reported to the "fund;" 5,392 of these cases resulted in temporary total disability, 83 resulted in permanent partial disability, and 37 resulted in death. Of the total cases reported, 349 were rejected as creating no liability on the part of the State compensation insurance fund. The financial statement of the fund as of June 30, 1915, covering 18 months, is as follows:

State compensation insurance fund.

RECEIPTS.

Appropriation.....	\$100,000.00
Premiums written, less premiums returned.....	928,152.09
Interest received, due and accrued.....	24,840.26
Total.....	\$1,052,992.35

DISBURSEMENTS.

Expenses and salaries (other than claim department).....	\$76,651.62
Expenses and salaries (claim department).....	31,216.34
Compensation and statutory medical payment.....	162,488.73
Statutory reserve for outstanding liabilities.....	385,796.84
Unearned premiums.....	145,041.40
Total.....	801,194.93
Total surplus.....	\$251,797.42
Less refund allowed policyholders.....	65,866.85
Net surplus.....	185,930.57
Appropriation.....	100,000.00
Net accumulated surplus (unapportioned).....	85,930.57

The above statement, it is explained, is based on the statutory reserve of \$385,796.84 to cover outstanding liabilities. If the indicated amount of such liabilities (\$171,920.77, including liberal estimates for all undetermined cases) were used the surplus would be as follows:

Total surplus.....	\$465, 673. 49
Less refund allowed policyholders.....	65, 866. 85
Net surplus.....	399, 806. 64

The safety department reports 746 inspections affecting 76,843 employees. In these visits emphasis was laid upon the importance of employers purchasing machinery properly protected. There is one safety museum in San Francisco which received a large number of additional exhibits during the year. A branch safety museum is located at Los Angeles. The value of these museums is emphasized.

The reporting of industrial accidents in California is obligatory, even farmers and employers of domestic and casual labor, who are exempted from liability for compensation, being required to submit reports. Failure to report or give intelligence of industrial accidents is, upon conviction, punishable by a fine. It is stated that this power to punish has never yet been invoked by the commission. In those industries where accident compensation is not paid, it is fair to assume that the total accidents reported will be considerably below the number which actually occurred, for this has been the experience in all countries.

During the year 1914, 62,211² accidents were reported to the commission. Of this number 678 were fatal, 1,292 were permanent, and 60,241 were temporary. Employers and insurance companies paid \$1,861,809.35 to relieve and compensate the injuries resulting from the year's accidents. The following statement indicates the total and average payments for compensation and medical and burial benefits for each class of injury:

AMOUNT PAID IN COMPENSATION, AND MEDICAL AND BURIAL BENEFITS, FOR EACH SPECIFIED CLASS OF INJURY, SHOWING AVERAGE PER CASE, 1914.

Nature of disability.	Number.	Per cent.	Compensation.		Medical aid.		Total benefits.	
			Paid.	Average per case.	Paid.	Average per case.	Paid.	Average per case.
Fatal.....	678	1.1	\$243, 366. 20	\$358. 95	\$34, 751. 29	\$51. 26	\$278, 117. 49	\$41. 02
Permanent.....	1, 292	2.1	283, 521. 59	211. 70	79, 721. 03	61. 70	363, 242. 62	281. 15
Temporary.....	60, 241	96.8	604, 743. 00	10. 04	615, 706. 24	10. 22	1, 220, 449. 24	20. 25
Total.....	62, 211	100.0	1, 131, 630. 79	18. 19	730, 178. 56	11. 74	1, 861, 809. 35	29. 92

¹ This is obtained by substituting \$171,920.77 for \$385,796.84 in the statement of disbursements.
² In all, 62,666 accidents were reported, but 455 are not included in the report since it was impossible to determine whether they were bona fide accidents.
³ Includes burial expenses, the amount of which is not stated.
⁴ Of this number, 12,737 were compensable, that is, caused a time lost of 15 days or more, making the average compensation paid per case \$47.48, the average medical aid \$48.34, and the total average paid \$95.82.

Of the 678 fatal accidents, 226, or 33.33 per cent, occurred in transportation; 121, or 17.85 per cent, in manufacturing; and 115, or 16.96 per cent, in construction work. Nearly 22 per cent were caused by collisions, 20.94 per cent by persons falling, and 20.06 per cent by dangerous substances. The average age of those killed was 39 years, 25.81 per cent falling in the 30 to 39 year group and 67.55 per cent being between the ages of 20 and 50. Approximately 52 per cent were receiving between \$10 and \$19 per week, and 83.19 per cent were receiving \$30 or less a week. Nearly 40 per cent were married men, and 59.14 per cent were native Americans.

In a study of the 1,292 permanently injured, it is shown that during 1914 compensation amounting to \$283,521.59, or about \$219 each, was paid to those so disabled. The average per case in 1913 was \$126.84. More than one-third (37.3 per cent) of these injuries resulted in amputation of one finger. The largest number of permanent injuries (450, or 34.83 per cent) occurred in manufacturing industries, involving compensation and medical benefits amounting to \$87,088.92. Machinery caused 584, or 45.20 per cent, of the accidents, the total compensation and medical benefits being \$122,091.77. More than 55 per cent were receiving between \$10 and \$19 per week in wages. The married men numbered 636, or 49.22 per cent.

The 60,241 accidents which occasioned only temporary disabilities caused a loss in time of 695,394 days, or an average for all cases where disability lasted through the day of injury of 16.8 days. These accidents represent an estimated total wage loss of about \$2,000,000. Against this figure of wage loss is set the sum of \$604,743, which employers and insurance companies paid in compensation, or a total of \$1,220,449.24, if medical benefits be included. Of the entire number, 18,452 caused no time loss, but required medical attention; 27,664 caused time loss of less than 15 days and were not compensable; and 12,737 caused a time loss of 15 days or more and were compensable. Considering only these last cases, the average compensation paid was \$47.48. The amount paid for medical benefits was \$615,706.24, or an average of \$19.74 per case considered. Most of these accidents, 19,004, or 31.55 per cent, occurred in manufacturing; transportation came second with 15,836, or 26.29 per cent. The chief cause of these temporary accidents were falling objects, 17,126 cases, or 28.43 per cent; and dangerous substances, 12,059 cases, or 20.02 per cent.

Considerable space is devoted to detailed studies of these temporary accidents.

MASSACHUSETTS.

In the REVIEW of September, 1915 (p. 37), was given, by industry classifications, the experience under the Massachusetts workmen's compensation act for the period July 1, 1912, to September 30, 1914,

for each classification for which pay rolls of not less than \$500,000 were reported. The losses actually paid and outstanding (estimated) were given so as to show separately payments for death and specified injuries, weekly indemnity, and medical services. The loss rates per \$100 of pay roll were also given for each classification.

The accompanying table shows the experience under the Massachusetts workmen's compensation act from July 1, 1912, to December 31, 1914, on all policies written by each authorized insurance company in the State. The earned premiums are based upon estimated pay rolls, except for those policies which terminated prior to December 31 of the respective years. On these policies the earned premiums are based upon audited pay rolls. These data were compiled from the schedules and records in the office of the Massachusetts insurance department.

The table shows the net premium written and earned, losses paid and incurred, per cent of loss and expense of premiums earned, and amount spent for inspection and accident prevention work for each year.

It will be noted that the total earned premiums for the two and one-half years amounted to \$11,730,971, while the losses incurred were \$5,466,892. The per cent of loss incurred of total premiums earned for the combined companies was for stock companies 37.06 per cent in 1912, 46.45 per cent in 1913, and 57.96 per cent in 1914, while for mutual companies it was 27.63 per cent in 1912, 35.32 per cent in 1913, and 53.35 per cent in 1914. The increase was due to reductions in premium rates on the one hand and increased cost of the act on the other.

The average acquisition expense—that is, the expense of getting business—together with taxes incurred, was for stock companies 19.05 per cent of the premiums earned in 1912, 18.97 per cent in 1913, and 18.72 per cent in 1914, and for mutual companies, nothing in 1912 and 2.43 per cent in 1913 and in 1914.

Expenses other than taxes and commissions for stock companies amounted to 13.77 per cent of earned premiums in 1912, 17.61 per cent in 1913, and 17.61 per cent in 1914, while for mutual companies they amounted to 13.17 per cent in 1912, 14.59 per cent in 1913, and 14.94 per cent in 1914.

The total expense for the stock companies was 32.81 per cent of earned premiums in 1912, 36.58 per cent in 1913, and 36.33 per cent in 1914, while for the mutuals the percentages were 14.17, 17.02, and 17.37 for the same years.

Expenditures for accident inspection and prevention work for the combined companies were \$31,169 in 1912, \$98,123 in 1913, and \$83,671 in 1914, making a total of \$212,963.

MASSACHUSETTS WORKMEN'S COMPENSATION EXPERIENCE, FROM JULY 1, 1912, TO DEC. 31, 1914.

[Compiled from records of Massachusetts Insurance Department.]

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Companies.	Net premiums written.			Losses paid.			Premiums earned, ¹			Losses incurred.			Per cent of losses incurred of premiums earned.		
	1912	1913	1914	1912	1913	1914	1912	1913	1914	1912	1913	1914	1912	1913	1914
Stock.															
1. Aetna.....	\$204,672	\$264,301	\$220,354	\$13,723	\$73,983	\$112,161	\$105,674	\$285,013	\$215,468	\$50,668	\$156,672	\$132,045	47.94	54.97	61.28
2. American Fidelity.....	62,178	28,875	5,558	4,212	18,277	6,277	31,517	59,530	5,558	13,598	28,527	1,598	43.14	47.90	28.76
3. Casualty Co. of America.....	129,674	190,826	143,807	14,383	46,434	74,771	89,221	172,428	158,307	38,452	109,669	65,550	43.09	63.60	41.41
4. Employers' Indemnity.....			9,150			91			1,525			390			25.57
5. Employers' Liability.....	1,086,547	1,070,397	826,110	58,034	326,556	376,388	562,259	1,233,302	887,362	142,429	519,501	494,108	25.33	42.12	55.70
6. Fidelity and Casualty.....	63,239	64,403	58,726	2,643	18,983	30,579	31,999	72,653	63,577	9,269	39,929	32,022	28.96	54.96	50.36
7. Fidelity and Deposit.....	44,277	49,879	53,281	2,903	17,216	24,181	17,828	56,862	55,223	15,037	44,140	41,267	84.34	77.63	74.90
8. Frankfort General.....	84,459	65,332	40,260	3,702	21,713	20,894	50,574	79,350	45,915	19,110	45,701	13,570	37.78	57.60	29.50
9. General Accident.....	32,031	35,892	32,232	1,464	10,500	17,434	12,423	30,057	43,711	8,990	29,269	28,245	72.37	97.38	64.67
10. Globe Indemnity.....	32,463	52,344	53,208	3,028	14,792	25,147	16,090	51,933	55,394	5,490	25,301	30,526	34.12	48.70	55.10
11. Hartford Accident and Indemnity.....			49,400			9,721			34,384			29,311			85.25
12. London Guarantee and Accident.....	138,674	123,498	81,923	1,964	30,319	39,353	70,871	144,669	87,847	15,104	64,823	65,830	21.31	44.81	74.93
13. London and Lancashire.....		8,172	11,459		714	7,852		2,385	15,640		3,943	13,773		165.30	88.06
14. Maryland Casualty.....	102,217	92,357	63,964	5,796	38,894	39,842	55,364	107,296	72,930	40,463	63,219	50,426	73.09	58.90	69.14
15. Massachusetts Bonding.....	42,758	105,343	126,427	1,695	20,137	58,411	22,005	88,273	123,559	11,194	24,955	101,426	50.87	28.27	82.00
16. New Amsterdam Casualty.....			4,349			1,435			1,862			4,200			225.55
17. New England Casualty.....	67,055	91,929	107,709	1,951	18,183	49,131	23,175	98,877	101,364	9,662	27,208	68,274	41.69	27.52	67.36
18. Ocean Accident and Guarantee.....	55,931	67,107	54,074	2,554	14,614	24,290	32,007	70,336	58,549	15,654	33,124	25,735	48.91	47.10	43.95
19. Prudential Casualty.....			2,507			294			1,076			514			47.79
20. Preferred Accident.....	2,159			12			873			447			51.20		
21. Royal Indemnity.....	114,548	98,960	92,780	6,153	35,971	45,001	61,889	116,569	101,571	16,353	47,953	51,843	26.42	41.14	51.04
22. Standard Accident.....	45,003	35,770	31,900	1,532	10,492	14,472	24,614	43,367	33,208	11,423	20,761	14,095	46.41	47.87	42.44
23. Travelers.....	659,374	688,002	672,041	40,866	211,057	285,590	299,567	786,703	742,636	135,626	320,641	421,521	45.27	40.80	56.76
24. U. S. Casualty.....	52,804	48,310	39,273	2,797	16,425	22,014	22,066	58,685	39,509	7,952	27,530	27,604	36.03	46.90	60.88
25. U. S. Fidelity and Guarantee.....	50,122	60,079	71,250	3,964	21,185	29,206	15,883	75,672	70,967	5,923	47,143	40,593	37.29	62.30	57.20
26. Zurich General Accident.....		19,464	41,894		932	11,416		8,823	39,598		12,204	16,555		138.43	41.81
Total.....	3,070,185	3,261,240	2,893,637	173,376	967,378	1,326,310	1,545,899	3,642,789	3,056,440	572,844	1,692,216	1,771,120	37.06	46.45	57.96
Mutual.															
27. American Mutual.....	725,260	386,486	335,044	20,563	134,006	182,315	342,320	657,953	344,351	67,529	192,029	315,146	19.72	20.18	91.52
28. Contractors' Mutual.....	65,357	145,948	146,896	6,868	31,673	33,639	35,862	137,425	136,323	16,612	52,457	35,044	46.32	38.90	25.70
29. Massachusetts Employees.....	619,257	706,628	817,569	22,759	152,978	253,048	261,319	671,841	842,137	92,584	273,711	367,165	35.42	40.74	43.60
30. Security Mutual.....		94,256				8,499			56,311			18,434			32.73
Total.....	1,409,873	1,239,062	1,393,766	50,190	318,657	477,501	639,501	1,467,219	1,379,123	176,725	518,197	735,790	27.63	35.32	53.35
Grand total.....	4,480,059	4,500,302	4,287,402	223,566	1,286,035	1,803,811	2,185,400	5,110,008	4,435,563	749,569	2,210,413	2,506,910	34.30	43.23	56.53

Companies.	Per cent of acquisition expense incurred of premiums earned.			Per cent of taxes incurred of premiums earned.			Per cent pro rata expenses other than taxes and commissions were of premiums earned.			Per cent of total expense of premiums earned.			Inspection and accident prevention expense.			
	1912	1913	1914	1912	1913	1914	1912	1913	1914	1912	1913	1914	1912	1913	1914	Total.
Stock.																
1. Aetna.....	17.18	17.99	15.26	2	2.24	1.91	11.45	16.38	18.46	30.63	36.61	35.63	\$1,761	\$8,669	\$7,272	\$17,702
2. American Fidelity.....	17.5	17.5	16.65	2	2	2	6.84	21.48	14.87	26.34	40.98	33.52	1,173	1,173	1,173	1,173
3. Casualty Co. of America.....	17.5	17.5	17.57	2	2	2	14.10	15.3	16.87	33.60	34.80	36.44	1,305	2,419	705	4,429
4. Employers' Indemnity.....			5									7				
5. Employers' Liability.....	17.5	17.5	17.5	2	2	2.07	6.93	11.97	12.06	26.43	31.47	31.63	1,413	6,833	8,718	16,964
6. Fidelity and Casualty.....	17.5	16.02	16.6	2	2.12	1.96	21.28	24.36	25.77	40.78	42.5	44.33	965	500	986	2,451
7. Fidelity and Deposit.....	17.5	17.5	17.5	2	2	2	21.21	28.1	21.3	40.71	47.6	40.8	350	550	273	1,173
8. Frankfort General.....	17.5	17.5	17.89	2	2	2	17.95	22.2	28.17	37.45	41.4	48.06	2,585	2,318	2,182	7,085
9. General Accident.....	17.5	17.5	24.11	2	2	2	12.55	17.44	37.11	32.05	36.94	63.22	40	453	385	879
10. Globe Indemnity.....	17.5	17.7	17.5	2	2.1	2.1	31.02	25	21.5	50.52	44.8	41.1	1,000	1,361	1,091	3,452
11. Hartford Accident and Indemnity.....			21.7			1.32						58.3			93	93
12. London Guaranty and Accident.....	17.5	17.5	17.62	2	2	2.06	11.18	14.97	14.84	30.68	34.47	34.52	1,412	1,957	1,311	4,680
13. London and Lancashire.....		17.4	12.9			2.18		57.33	29.85		76.7	44.93				
14. Maryland Casualty.....	17.5	17.2	17.35	2	2	2	18.65	25.1	12.64	38.15	44.3	31.99	409	3,766	4,342	8,517
15. Massachusetts Bonding.....	9.25	9.61	13.98				17.6	15.51	21.91	26.85	25.12	35.89		1,053	1,580	2,634
16. New Amsterdam Casualty.....			17.5			2			28.92			48.42				
17. New England Casualty.....	14.4	14.63	16.66				30.58	18.4	18.54	44.98	33.03	35.2		368	431	799
18. Ocean Accident and Guarantee.....	17.5	17.5	16.4	2	2.1	2	10.17	17.9	16.47	29.67	37.5	34.87	475	608	865	1,948
19. Prudential Casualty.....			17.5			2			23.5			43			75	75
20. Preferred Accident.....	17.42			2			17.21				36.63					
21. Royal Indemnity.....	17.5	16.01	16.53	2	2	2	19.99	32.12	18.26	39.49	50.13	36.79	909	6,164	4,296	11,369
22. Standard Accident.....	10.89	15.81	22.19	2	2	2	15.83	14.75	22.62	28.72	32.56	46.81	895	483	474	1,851
23. Travelers.....	17.04	17.3	16.25	2	2.1	2	21.26	21.3	19.11	40.30	40.7	37.36	11,601	27,061	16,422	55,084
24. U. S. Casualty.....	16.98	17.4	17.01	2	2	1.76	20.71	26.9	27.24	39.69	46.3	46.01	2,003	2,768	2,686	7,457
25. U. S. Fidelity and Guarantee.....	16.84	17	15.65	2	2	2	22.94	17.3	15.52	41.78	36.3	33.17				
26. Zurich General Accident.....		17.5	17.5		2	2		44.46	24.54		63.96	44.04		585	1,491	2,076
Total.....	17.11	² 18.97	² 18.72	1.94	(³)	(³)	13.77	17.61	17.61	32.81	36.58	36.33	27,124	69,089	55,676	151,889
Mutual.																
27. American Mutual.....				1	1	1.24	9.48	8.87	15.67	10.48	9.87	16.91	1,123	3,409	3,995	8,527
28. Contractors' Mutual.....		2.3	4.27	1	1.4	1	23.36	17.3	20.86	24.36	21.5	26.13	615	2,753	2,552	5,919
29. Massachusetts Employes.....		1.55	1.33	1	1.4	1.12	16.61	19.55	14.17	17.61	22.5	16.62	2,307	22,872	20,848	46,028
30. Security Mutual.....						2			7.55			9.55			600	600
Total.....	0	² 2.43	² 2.43	1	(³)	(³)	13.17	14.59	14.94	14.17	17.02	17.37	4,045	29,034	27,995	61,014
Grand total.....	12.10	² 14.42	² 13.42	1.67	(³)	(³)	13.59	16.74	17.28	27.36	31.16	30.7	31,169	98,123	83,671	212,963

¹ The earned premiums are based upon estimated payroll except for those policies which terminated prior to Dec. 31 of the respective years. On these policies earned premiums are based upon audited pay rolls.

² Includes taxes.

³ Included in acquisition expense.

NEW YORK.¹

Since 1901 the New York Department of Labor has published annual reports on industrial accidents occurring within the State. In 1914 employers in factories, mines, and quarries and building and engineering work were required to report to the department all accidents which caused any interruption of work or required any treatment, medical or otherwise. The reports for this year are believed by the department to be more complete than the statistics for previous years, although they are by no means complete.

Of the various causes of nonfatal accidents by far the most significant was power machinery. To this factor were chargeable 26.7 per cent out of a total of 88,314 nonfatal accidents reported during the year ending September 30, 1914. Of this proportion 18.7 per cent were chargeable to machines at which the person injured was working, 5.4 per cent to conveying and hoisting machinery, 2.6 per cent to transmission of power. Next to power machinery as a factor in causing nonfatal accidents stands weights and falling objects, which accounted for 24.4 per cent; hand tools accounted for 10.8 per cent; fall of person, 9.6 per cent; heat and electricity, 6.9 per cent; and vehicles and animals, 2.5 per cent; while miscellaneous causes—including knocking against objects, stepping upon or striking against nails, handling sharp objects, flying objects, whose source is unknown, poisoning gases, etc.—accounted for 19.1 per cent.

Distribution of the causes of accidents within industries showed very similar results as to the importance of power machinery in producing accidents. Thus, in factories, this item accounted for 31.7 per cent of the 64,250 factory accidents reported. In mines and quarries the heaviest factor in producing accidents was that of weights and falling objects, which accounted for 48 per cent of the total of 1,277 accidents. This was also the most important factor in causing accidents in building and engineering operations, accounting for 36 per cent out of a total of 22,787 nonfatal accidents. In each of the three groups of industries the cause to which is attributed the smallest proportion of accidents is vehicles and animals.

The highest accident rates due to power machinery are found in the following factory industries:

	Per cent.
- Printing and paper goods.....	54.9
Wood manufacturing.....	54.5
Furs, leather, and rubber goods.....	54.0
Textiles.....	49.3
Clothing, millinery, etc.....	44.2
Paper.....	37.0

¹ New York Department of Labor, Special Bulletin, issued under the direction of the Industrial Commission, No. 75: Statistics of industrial accidents, 1914. Prepared by the Bureau of Statistics and Information. 77 pp.

On the other hand the following show low rates due to this cause: Stone, clay, and glass products; chemicals, oils, paints, etc.; food, liquor, and tobacco; and water, light, and power.

These facts are, of course, in keeping with the character of the industry and are determined very largely by the proportion of power machinery in use.

High proportions of accidents due to fall of person are shown for chemicals, oils, paints, etc.; paper, clothing, millinery, laundry, etc.; food, liquor, and tobacco; and water, light, and power. This is explained as due to the fact that a number of employees work on wet and slippery floors in many of these industries.

Compared with factories, the report declares, the industries in the building and engineering group show a low proportion of accidents due to power machinery.

To show in greater detail the percentage distribution of the non-fatal accidents classified according to their cause, the following table has been taken from the report:

NONFATAL ACCIDENTS DURING YEAR ENDING SEPT. 30, 1914, REPORTED PRIOR TO NOV. 1, 1914, BY INDUSTRIES AND CAUSES.

Industry.	Total reported non-fatal accidents.	Percentage of nonfatal accidents due to—										Total.
		Machinery.				Heat and electric-ity.	Fall of per-son.	Weights and falling objects.	Vehi-cles and ani-mals.	Hand tools.	Miscel-laneous.	
		Power trans-mission ma-chin-ery.	Con-vey-ing and hoist-ing ma-chin-ery.	Work-ing ma-chines.	To-tal.							
Factories.												
Stone, clay, and glass products.....	2,077	5.7	6.3	8.6	20.6	12.4	7.9	23.8	4.6	9.9	20.8	100.0
Metals, machines, and conveyances.....	38,786	2.2	3.6	23.7	29.4	7.7	6.1	21.2	1.6	11.6	22.3	100.0
Wood manufactures.....	2,743	4.4	2.7	47.3	54.5	2.5	7.8	15.0	2.7	5.9	11.7	100.0
Furs, leather, and rubber goods.....	2,148	4.6	2.2	47.2	54.0	3.6	5.8	9.1	1.3	12.3	13.9	100.0
Chemicals, oils, paints, etc.....	2,576	2.5	4.5	10.1	17.1	18.5	12.3	20.5	2.4	7.5	21.7	100.0
Paper.....	2,010	5.8	4.1	27.1	37.0	5.6	11.7	23.6	3.1	8.6	19.4	100.0
Printing and paper goods.....	2,364	4.6	2.3	48.0	54.9	2.6	8.2	15.6	1.9	4.1	12.7	100.0
Textiles.....	3,115	10.5	2.0	36.8	49.3	3.9	10.3	11.7	1.9	8.7	14.2	100.0
Clothing, millinery, etc.....	1,048	4.1	2.8	37.3	44.2	4.3	15.9	8.3	1.0	10.5	15.8	100.0
Food, liquors, and tobacco.....	4,617	4.6	6.6	12.1	23.3	6.9	13.9	21.1	5.5	6.8	22.5	100.0
Water, light, and power.....	2,738	2.7	4.5	4.8	12.0	17.0	11.6	21.3	4.0	12.9	21.2	100.0
Miscellaneous.....	48		33.3		33.3	4.2	20.8	29.2		2.1	10.4	100.0
Total.....	64,250	3.3	3.8	24.7	31.7	7.8	7.9	19.8	2.2	10.3	20.2	100.0
Mines and Quarries.												
Mines.....	565	.7	13.4	5.0	19.1	4.1	7.6	52.6	1.8	9.5	5.3	100.0
Quarries.....	712	1.3	12.4	3.2	16.8	5.7	0.0	44.4	2.8	14.5	5.7	100.0
Total.....	1,277	1.0	12.8	4.0	17.9	5.0	8.9	48.0	2.4	12.3	5.6	100.0

NONFATAL ACCIDENTS DURING YEAR ENDING SEPT. 30, 1914, REPORTED PRIOR TO NOV. 1, 1914, BY INDUSTRIES AND CAUSES—Concluded.

Industry.	Total reported non-fatal accidents.	Percentage of nonfatal accidents due to—										Total.	
		Machinery.					Heat and electricity.	Fall of person.	Weights and falling objects.	Vehicles and animals.	Hand tools.		Miscellaneous.
		Power transmission machinery.	Conveying and hoisting machinery.	Working machines.	Total.	Total.							
Building and Engineering.													
Excavating.....	10,984	0.7	11.0	3.2	14.9	4.2	11.1	39.2	4.5	11.5	14.6	100.0	
<i>Thereof shafts and tunnels.....</i>	<i>7,401</i>	<i>.5</i>	<i>10.3</i>	<i>2.9</i>	<i>13.7</i>	<i>3.8</i>	<i>10.2</i>	<i>41.9</i>	<i>4.5</i>	<i>10.3</i>	<i>15.6</i>	<i>100.0</i>	
Erecting and structural work.....	5,481	.4	6.9	2.3	9.6	2.2	19.3	33.7	2.1	9.1	24.0	100.0	
Finishing and furnishing.....	2,649	.3	5.1	2.0	7.4	11.1	24.5	26.8	1.4	10.2	18.6	100.0	
Wrecking and moving.....	71	.....	2.8	1.4	4.2	2.8	16.9	39.4	.....	11.3	25.4	100.0
Other or miscellaneous.....	3,602	.4	11.7	3.9	16.1	4.7	9.6	36.7	4.3	18.8	9.9	100.0	
Total.....	22,787	.6	9.4	2.9	12.9	4.6	14.4	36.0	3.5	11.9	16.7	100.0	
Grand total.....	88,314	2.6	5.4	18.7	26.7	6.9	9.6	24.4	2.5	10.8	19.1	100.0	

That section of the report under review which relates to the causes of fatal industrial accidents is based on the number of accidents (2,819) reported to the department during the years 1911 to 1914. Accidents occurring in connection with three catastrophes which caused 204 deaths are not included.

The greatest proportion of fatal accidents in factories, 42.3 per cent, was caused by mechanical power. Mechanical power is, therefore, the most significant factor in producing fatal accidents, as well as nonfatal ones. Heat and electricity caused 23.9 per cent and fall of person 18.4 per cent of all fatal accidents in factories, 1911 to 1914. The classified number and distribution of the causes of 2,819 fatal industrial accidents, 1911 to 1914, is as follows:

NUMBER AND COMPARATIVE PERCENTAGES OF FATAL ACCIDENTS IN FACTORIES, MINES AND QUARRIES, AND BUILDING AND ENGINEERING, 1911 TO 1914, BY MAIN CAUSES.

Cause.	Number.			Per cent.		
	Factories.	Mines and quarries.	Building and engineering.	Factories.	Mines and quarries.	Building and engineering.
Mechanical power.....	457	26	518	42.3	26.8	31.6
Heat and electricity.....	259	24	239	23.9	24.7	14.6
Fall of person.....	199	8	545	18.4	8.2	33.2
Weights and falling objects.....	81	35	246	7.5	36.1	15.0
Miscellaneous.....	85	4	93	7.9	4.2	5.6
Total.....	1,081	97	1,641	100.0	100.0	100.0

"Assuming the technique of industry to remain substantially the same as it has been during the years from 1911 to 1914, inclusive, the completeness of the reports recorded in the above table justifies the

following tentative conclusions: First, that mechanical power will continue to cause most fatalities in factories, followed in order by heat and electricity, fall of person, weights and falling objects, and miscellaneous causes. With increased knowledge of the cause of accidents some of the fatalities classified now in the last-named group will undoubtedly be shifted to the other groups. Second, that weights and falling objects will continue to be the leading cause of fatalities in mines and quarries, followed in order by mechanical power, heat and electricity, fall of person, and miscellaneous causes. And, third, that fall of person will continue to cause most fatal accidents in building and engineering, followed in order by mechanical power, heat and electricity, weights and falling objects, and miscellaneous causes. Mechanical power may lead fall of person in the number of fatalities, and it is almost certain that the completion of the subways in New York City will reduce the proportion of deaths in the building and engineering group due to weights and falling objects."

The department, in addition to its inquiries regarding the causes of industrial accidents, made a special investigation of 1,571 machinery accidents in factories during the years 1913 and 1914 with a view to ascertaining the relation of the use of guards to the occurrence of accidents. The character of the selection of the accidents investigated does not permit of any conclusions as to the frequency of occurrence of accidents in connection with the use of guards on machinery but does reflect some information concerning the attitude of employers and employees regarding the question of the use of guards, and also throws some light on the extent of our knowledge of practical and effective machine guards.

The results of the investigations, as reported by the investigators who made them, are recorded as follows:

PERCENTAGE DISTRIBUTION OF INVESTIGATED MACHINE ACCIDENTS IN FACTORIES IN RELATION TO GUARDS.

Kind of machinery.	Guard was used.	Guard was provided but not used.	Guard was not practicable.	Guard was practicable but not provided at time of accident.			Un-known. ¹
				Not provided before investigation.	Provided before investigation.	Total.	
Saws.....	48.3	16.4	7.7	15.9	7.7	23.6	4.0
Gearing.....	26.0	10.5	5.6	28.0	26.3	54.3	3.6
Stamping machines.....	21.7	6.6	31.9	18.1	16.3	34.4	5.4
Elevators.....	34.9	.....	1.8	35.8	22.9	58.7	4.6
Planers and jointers.....	44.8	27.6	3.8	8.6	13.3	21.9	1.9
Paper cutting, stitching, and staying machines.....	38.5	16.3	19.2	13.5	9.6	23.1	2.9
Miscellaneous.....	30.2	5.0	31.1	12.3	18.6	30.9	2.8
All machines.....	34.8	10.7	17.0	17.7	16.3	34.0	3.5

¹ Cause of accident no longer existed at time of investigation because machine had been removed or factory was closed, etc.

As no statistics are available to show the number of guarded and of unguarded machines in the State, no conclusion, the report points out, can be drawn concerning the accident hazard of unguarded machines as compared with the accident hazard of the same machines guarded. Furthermore, as the accidents investigated were carefully selected, including only those resulting in death, dismemberment, or long-time disablement, or cases where violation of law might be suspected and were not random samples, the statistics in this table are not therefore representative of all accidents occurring at such machines. Nevertheless, with these limitations in view, the report deems that the table unquestionably shows four significant facts:

(1) In over one-third of all accidents investigated (34 per cent) and in over one-half of those occurring at two kinds of machinery—gearing (54.3 per cent) and elevators (58.7 per cent)—no guards were provided at the time of the accident; (2) in over one-tenth of all accidents investigated and in over one-fourth of those occurring at planers and jointers guards were provided, but were not in use at the time of the accident; (3) over one-third of all accidents investigated and nearly one-half of those occurring at saws, planers, and jointers happened in spite of the fact that machines were guarded as fully as possible at the time of the accident; (4) in over one-sixth of all accidents investigated and in nearly one-third of those occurring at stamping machines and miscellaneous machines guards were not practicable.

“The two outstanding conclusions to be drawn from the above facts are these: First, that neither employers nor employees recognize the necessity of utilizing to the fullest extent the known means of guarding machinery to prevent accidents; and, second, that our knowledge of practicable and effective machine guards is still elementary.”

EMPLOYMENT IN MINES AND QUARRIES IN OHIO, 1914.

A report has recently been issued by the department of investigation of statistics of the industrial commission of Ohio,¹ which presents statistics of employment and, incidentally, of production for the mines and quarries of Ohio during the calendar year 1914. It is very similar in its purpose and scope to a report by the same department on conditions of employment in the general manufacturing industries of the State. This latter report, it is noted, was summarized in the preceding, or April, number of the REVIEW.

The report under review relates to 54,896 employees in mines and quarries, indicating for these the number of days worked, the average wages, total annual wage and salary payments, and accident hazard.

¹ The Industrial Commission of Ohio, Department of Investigation and Statistics, Report No. 19: Statistics of Mines and Quarries in Ohio, 1914. Columbus, Ohio, 1916. 104 pp.

The report is presented in five sections, the first of which deals with coal mines, while the other five deal with fire-clay mines, gypsum mines, iron mines, limestone quarries, and sandstone quarries.

Employment conditions in the coal mines of Ohio in 1914 were marked by a serious strike, which began on April 1, 1914, and terminated generally on July 29 of that year, although in eastern Ohio no settlement was secured until May 22, 1915, and it was not until a yet later date that agreements were reached in some other districts. This strike and the industrial conditions in the State, the report declares, resulted in a very much reduced output of coal—48.4 per cent less than in 1914, 45.6 per cent less than in 1910, and 27.5 per cent less than in 1905.

Progress in mining technique throughout the State, which produced during 1914 approximately 19,000,000 tons of coal, is shown by the fact that the per cent of machine-mined coal, which in 1900 formed 48.7 per cent of the total mined, was 85.4 per cent in 1914.

Regarding conditions of work it is noted that the month of maximum employment was March, while the month of minimum employment was June. This information comes from 795 firms, reporting in these months, respectively, 43,190 and 5,331 men. This is not a normal fluctuation (87.7 per cent), but was caused by the general strike in the coal field.

The annual tonnage per employee was reduced in proportion to the reduced number of days worked, but on the other hand the reduction per employee per day shows very little variation from preceding years. The average number of tons mined per day per pick miner was 3.3 tons, while the production per day for machine runners and helpers was 45.2 tons; the daily output per loader (including driller and shooters) was 6.1 tons per day for the year.

The average rate of wages per day in 1914 for the various occupations is contained in the following statement:

AVERAGE WAGES OF EMPLOYEES IN COAL MINES, BY OCCUPATION, FOR THE YEAR ENDING DEC. 31, 1914.

Occupation.	Number of employees.	Average rate of wages per day.	Occupation.	Number of employees.	Average rate of wages per day.
Pick miners.....	4,985	\$2.59	Motormen.....	622	\$2.83
Machine runners and helpers.....	3,489	4.30	Motormen's helpers.....	432	2.79
Loaders (including drillers and shooters).....	25,677	2.97	Other inside day labor.....	1,281	2.68
Tracklayers.....	643	2.81	Engineers.....	454	2.83
Tracklayer's helpers.....	329	2.63	Firemen.....	292	2.48
Trappers.....	924	1.31	Dynamo men.....	19	2.98
Bottom cagers.....	241	2.71	First blacksmith.....	286	3.02
Drivers.....	2,378	2.74	Second blacksmith.....	114	2.83
Trip rope riders.....	88	2.77	Blacksmiths' helpers.....	41	2.71
Water haulers.....	125	2.77	Carpenters.....	206	2.75
Machine haulers.....	49	2.86	Dumpers.....	461	2.42
Timbermen.....	600	2.77	Trimmers.....	877	2.43
Pumpers.....	276	2.63	Slack haulers.....	34	2.11
Pipemen.....	8	2.73	Greasers.....	151	1.96
Electricians.....	206	3.22	Couplers.....	191	2.02
Electricians' helpers.....	148	2.77	Other outside help.....	1,060	2.37
			Office employees.....	278	2.40

The minimum average rate of wages per day appears to be \$1.31, applicable to 924 trappers, while the maximum is \$4.30, applicable to 3,489 machine runners and helpers.

The total wage and salary payments for 936 mines included in the report for the year 1914 was \$16,095,749, of which amount 98.3 per cent went to wage earners exclusive of office employees, while 1.7 per cent went to pay the office clerical force.

The accident data of the report under review are based on the returns from the inspector of mines and from the workmen's compensation division of the commission. Owing to the lack of data, it has not been possible to ascertain the number of accidents on the basis of the number of full-time workers, and recourse has been had in ascertaining the relative increase or decrease in accidents to the number of men employed per accident and the number of tons of coal mined per accident. In Ohio these comparisons are limited to fatal accidents as reported to the division of mines and to accidents resulting in disability of more than three weeks, as tabulated by the department of investigation and statistics from claims allowed by the industrial commission.

On the basis of the number of persons employed per accident, it appears that in 1913 one man was killed to every 293 employed (3.41 per 1,000), while in 1914 one man was killed to every 810 men employed (1.23 per 1,000). On the tonnage basis, during 1914 one fatal accident occurred to every 323,042 tons of coal mined, while in 1913 one such accident occurred to every 219,912 tons of coal mined. The 10-year average preceding 1914 was one fatal accident to every 228,655 tons mined, the figure for 1914 therefore representing perhaps some real gain.

There were 7 fatal accidents not included in the above presentation because in 4 the award was not determined during the year, 2 were in mines not under the act, and 1 case is still pending.

Judged from awards under the workmen's compensation act, "coal-mine accidents in a year when the output of the State was practically the half of the normal output cost in actual money outlay a quarter of a million dollars." Computed on a time basis, "the time lost as a result of coal-mine accidents for which awards were made during 1914 was equal to the entire time of 1,682 men for one year."

During the year the predominant cause of fatal accidents in the mines was falls of stone, slate, and coal, which accounted for 35 deaths out of 51 tabulated from awards of the commission. Only one accident was reported as resulting in permanent total disability and was due to a fall of slate. Sixty-two awards for accidents resulting in permanent partial disability were made during the year.

For temporary disabilities of more than seven days awards were made in 1,470 instances.

The following comparative data are given for the purpose of contrasting the duration of disability in injuries received in coal mines with those received in all industries, including coal mines:

DURATION OF DISABILITY IN INJURIES RECEIVED IN COAL MINES, AND IN ALL INDUSTRIES.

Classified duration.	Coal mining.		All industries.	
	Number.	Per cent.	Number.	Per cent.
Under 1 week.....	482	24.7	38,666	54.2
1 and under 2 weeks.....	318	16.3	11,267	15.8
2 and under 3 weeks.....	308	15.8	7,699	10.8
3 and under 4 weeks.....	244	12.5	4,406	6.2
4 and under 13 weeks.....	510	26.1	8,183	11.4
13 weeks and over.....	90	4.6	1,122	1.6
Not reported.....			44	(¹)
Total.....	1,952	100.0	71,387	100.0

¹ Less than one-tenth of 1 per cent.

From this statement it appears that 59 per cent of the accidents resulted in disabilities of two weeks or more, while 30.7 per cent resulted in disabilities of five weeks or more. It appears, therefore, that, considering only temporary disabilities, the severity of accidents in coal mines is considerably greater than that in other industries in general, inasmuch as only 30 per cent of the accidents distributed through many industries caused disabilities of two weeks or more and only 13 per cent caused disabilities of five weeks or more.

The total compensation paid for accidents occurring in Ohio coal mines during 1914 was \$242,824.31.

Statistical tables showing the number of employees in the various occupations, number of working days, tons of coal mined per day per employee, by occupations, and average daily wages, causes of accidents resulting in injuries, duration of disability, and character of the injury received are presented.

For coal and other mines and for quarries the annual production, number of employees by months, days of operation, classified wages, and hours of labor per week are reported.

HEALTH OF MUNITION WORKERS, GREAT BRITAIN.¹

The health of munition workers committee, which was appointed in September, 1915, "to consider and advise on questions of industrial fatigue, hours of labor, and other matters affecting the physical health and physical efficiency of workers in munition factories and workshops," in November and December, 1915, submitted three interim reports on special phases of their work, including Sunday labor, welfare supervision, and industrial canteens. Evidence was taken in London and other important centers from employers, representatives of workers, and other interested persons, and a large number of factories and workshops situated in different parts of the country was visited by one or more members of the committee.

It was found that the problem of Sunday labor, as respects munition factories, is primarily a question of the extent to which workers actually require weekly or periodic rest if they are to maintain their health and energy over long periods, since intervals of rest are needed to overcome mental as well as physical fatigue. Account was taken not only of the hours of labor, the environment of the work and the physical strain involved, but also the mental fatigue or boredom resulting from continuous attention to work. The great majority of employers seem to object to Sunday labor, declaring that it interferes with proper supervision and imposes a severe strain on the foremen; that it means high wages often coupled with increased cost of running the works; that it does not always result in a satisfactory individual output; that it is frequently accompanied by bad timekeeping on other days of the week; and, finally, that there is a considerable feeling that the seventh day as a period of rest is good for body and mind. However, Sunday work has been widely adopted, it is stated, on account of heavy demands for output or because employers have been forced into it by a desire of their workpeople to obtain the double, or at least increased, pay. When adopted the hours are often considerably shorter than on other days, overtime is generally dispensed with, Saturday night shifts are frequently abandoned, and Sunday night shifts start at a later hour than usual.

About 50 orders, covering women, girls, and boys, and another 30 for boys only, have been issued permitting Sunday labor by "protected" persons, i. e., women and young persons under 18 years of age, but in these cases, as a rule, Sunday labor has been sanctioned only when the hours of labor on other days of the week are moderate. Even when Sunday work has been allowed certain restrictions have

¹Great Britain. Ministry of munitions. Health of munition workers committee. Memorandum No. 1, Report on Sunday labor; Memorandum No. 2, Welfare supervision; Memorandum No. 3, Report on industrial canteens. London, 1915. 3 pamph. (20 p.)

been imposed: (1) Women and young persons shall not be employed on two consecutive Sundays; (2) they shall have time off on Saturday; (3) they shall only be employed on Sunday in cases of emergency; and (4) they shall be employed for a portion of the day only.

Asserting that statistical evidence in respect to Sunday work is not available, the committee ascertained from many employers that "seven days only produce six days' output; that reductions in Sunday work have not, in fact, involved any appreciable loss of output, and even the least observant of the managers seem to be impressed with the fact that the strain is showing an evil effect. * * * There is undoubtedly some tendency toward a reduction or discontinuance of Sunday labor."

The trade-union officials and representatives of the workers seem clearly of opinion that "the men are beginning to get 'fed up' and are feeling the need of more rest, to which need is attributed much of the lost time."

The committee concludes that if maximum output is to be secured and maintained for any length of time, a weekly period of rest, preferably on Sunday, must be allowed, and that "except for quite short periods, continuous work is a profound mistake and does not pay—output is not increased." It is believed that Sunday work should be confined to sudden emergencies, and to repairs, tending furnaces, etc., the men so employed being given a rest period at some other time during the week. It is further concluded that the need for relief from Sunday labor is more urgent for "protected" persons than for adult males and for men on overtime than for those on double shifts. Should the stoppage of all Sunday work be considered difficult, if not impossible, to bring about, the committee believes that it will at least be practicable to lay down the principle that Sunday labor is an evil which should be steadily and systematically discouraged and restricted. Pending a general discontinuance of such labor, various ways are suggested in which an improvement might be effected:

1. Where two shifts are worked, to discontinue the practice by which the change from one shift to the other is made by requiring the men to work continuously for a period and a half instead of by closing down on Saturday night or during the period of the day shift on Sunday. Closure on Saturday night seems desirable even when the change of shift is made less often than once a week, since the night shift seems to be generally regarded as a greater strain than the day shift.

2. Where three 8-hour shifts are worked to omit one or two shifts on Sunday.

3. Where workers are employed only during the day with overtime, to reduce so far as possible the hours of work on Sunday.

4. To give all workers alternate Sundays off, or at the very least a Sunday off at frequent intervals—

- (a) By allowing a certain number to get off each Sunday.

- (b) By closing completely, say, one Sunday in every two or three.

(c) By closing alternately in particular departments.

5. To give another day off in place of Sunday or, at any rate, to let workers on long hours off early on Saturdays or at other times.

6. To increase the employment of relief gangs where this can be satisfactorily arranged for, by obtaining either—

(a) Relief workers amongst ordinary staff, or

(b) Relief week-end shifts of volunteers.

While the conclusions of the committee have reference to hours of labor of workers, it is urged that foremen and the higher management even more certainly require definite periods of rest. Summarizing, the committee says:

In conclusion the committee desire to emphasize their conviction that some action must be taken in regard to continuous labor and excessive hours of work if it is desired to secure and maintain, over a long period, the maximum output. To secure any large measure of reform it may be necessary to impose certain restrictions on all controlled establishments, since competition and other causes frequently make it difficult for individual employers to act independently of one another.

In its study of welfare supervision among munition workers, the committee found that "almost more important than the immediate or technical environment in which work is carried on and the length of hours during which the workers are employed," are four chief influences which affect industrial efficiency, namely, questions of housing, transit, canteen provision, and individual welfare of the employees. The committee suggests that the influx of workers in certain districts has seriously overtaxed housing accommodation; that many workers, because of inability to obtain housing accommodation near the factory, are compelled to travel to and from work, occasioning much loss of time; that the provision of facilities for obtaining a hot meal at the factory is often inadequate, especially for night workers; and, finally, that without special arrangement by which the management may deal with the numerous problems of labor efficiency and the personal welfare of the employees, there can not fail to be diminished output, discontent, and unsmooth working.

It is stated that welfare supervision has already been undertaken in a number of munition factories and testimony of managers is given commending the services rendered by welfare supervisors. In one factory, where men only are employed, an educated man devotes all his time to matters concerning welfare, in particular supervising safety appliances, organizing first-aid staffs and canteen accommodation, and in cases of injury and sickness visiting the workers at their homes. Instances of the successful work of women supervisors are mentioned, and employers stated to the committee that the presence of a capable woman of broad sympathies has in itself provided the best and quickest aid to the solution of many of the problems affecting women's labor by which they are assailed. The com-

mittee suggests that helpful oversight is especially needed in the case of women and girls if the highest and most enduring efficiency is to be attained, and recommends for this purpose the appointment of a competent woman of experience and sympathy, tactful and sensible in her dealings with others, who should concern herself with the various questions and issues raised in respect of the conduct of forewomen toward women workers, of the character and behavior of fellow women workers, of the maintenance of suitable and sufficient sanitary accommodation, of the worker's own state of health, of her capacity to withstand the physical strain and stress of work, and of her power to endure long hours, overtime, or nightwork. Welfare supervision in factories where not less than 500 men and 100 boys are employed is strongly urged.

The duties of welfare supervision as outlined by the committee include the following:

1. To be in close touch with the engagement of new labor, or, when desired, to engage the labor.
2. To keep a register of available houses and lodgings, to inform the management when housing accommodation is inadequate, and to render assistance to workers seeking accommodation.
3. To ascertain the means of transit used, and the length of time spent in traveling; to indicate the need of increased train, tram, or motor service; or to suggest modification of factory hours to suit existing means of transit.
4. To advise and assist workers in regard to feeding arrangements; to investigate the need for provision of canteen facilities, or any inadequacy in the provision already made; and to supervise the management of such canteens.
5. To investigate records of sickness and broken time arising therefrom; and in cases of sickness to visit, where desired, the homes of workers.
6. To investigate and advise in cases of slow and inefficient work or incapacity arising from conditions of health, fatigue, or physical strain.
7. To consider, particularly for delicate and young workers, all questions of sanitation and hygiene affecting health and physical efficiency, and to supervise the conditions of nightwork, Sunday work, long hours, and overtime.
8. To advise on means of recreation and educational work.
9. To investigate complaints and assist in the maintenance of proper discipline and good order.
10. To keep in touch with responsible organizations having for their object the promotion of the welfare of the worker.

Based upon the proposition that productive output in regard to quality, amount, and speed is largely dependent upon the physical efficiency and health of the workers, which in turn is dependent upon nutrition, and that a dietary containing a sufficient proportion and quantity of nutritive material, suitably mixed, easily digestible, and obtainable at a reasonable cost is essential, the committee expresses the conviction that "in the highest interest of both employer and worker, proper facilities for adequate feeding arrangements should be available in or near, and should form an integral part of, the equipment of all modern factories and workshops." Many em-

ployers, it is pointed out, have established industrial canteens, and this practice "has abundantly justified itself from a business and commercial point of view," and in the opinion of the committee "the time has come for a large extension of this method of solving the problem" of supplying suitable food at a low price for large numbers of persons for specified times. Speaking generally, the accommodation provided accords with one or other of the following types:

(1) An available room for the workers to eat their prepared food; (2) a room furnished with a "hot plate" or "warming cupboard" or provided with hot water; (3) a refreshment barrow to perambulate the workshops at appointed hours (particularly useful for light refreshments during long spells of night shifts); (4) a fixed refreshment bar or buffet; (5) a dining room supplying cheap hot and cold dinners; and (6) such dining room associated with an institute or club with facilities for rest and recreation.

In order to insure effective results of the establishment of industrial canteens, certain essential conditions are suggested and outlined, including accessibility and attractiveness, form, construction, and equipment, food and dietaries with suggested prices, prompt service, convenient hours, methods of payment for meals, and management.

The report indicates that substantial advantages, both to employers and workers, have followed the establishment of effective and well-managed canteens. Marked improvement in the health and physical condition of workers, a reduction of sickness, less absence and broken time, less tendency to alcoholism, an increased efficiency and output, a saving of time of the workmen, greater contentment, and better mid-day ventilation of the workshops are some of the benefits noted.

SOCIAL INSURANCE IN DENMARK.

According to the Danish statistical office, there was paid out by various elements of the population for social insurance during the years 1910 and 1914 the sum of 13,150,000 crowns (\$3,524,200) and 17,500,000 crowns (\$4,690,000), respectively. The various items for this and other forms of insurance were as follows:

INSURANCE PREMIUMS PAID IN DENMARK, 1910, 1914.

Kinds of insurance.	1910	1914
Fire insurance.....	\$3,634,800	\$4,904,400
Life insurance.....	6,217,600	8,710,000
Industrial accident insurance....	1,661,600	2,211,000
Sickness insurance.....	1,331,960	1,742,000
Burial insurance.....	201,000	268,000
Unemployment insurance.....	329,640	469,000
Marine insurance ¹	1,122,920	1,809,000
Live-stock insurance.....	1,013,040	² 1,340,000
Hail insurance.....	32,160	107,200
	15,544,000	21,560,600

¹ Not including special war risks.

² Estimated.

SOCIAL INSURANCE IN GERMANY.

INTRODUCTION.

Germany began its organization of social insurance by the introduction of State compulsory sickness insurance in 1883; its system of workmen's compensation was organized in 1884; and its invalidity and old-age insurance system was begun in 1889. All of these insurance laws were revised and partially codified between the years 1899 and 1903, while a final codification was completed by the law of July 19, 1911.

EXTENT.

Wage earners insured against sickness are workmen, helpers, journeymen, apprentices and servants, establishment officials of various kinds, clerks and apprentices in commercial offices, members of the stage and of orchestras, teachers, home workers, and crews of German seagoing vessels not otherwise provided for. A wage earner is defined as one who works for compensation; salaried workers, of those enumerated above, must not have annual earnings exceeding 2,500 marks (\$595).

The extent of the accident insurance, so far as industries are concerned, is materially greater than that of the sickness insurance system. Under accident insurance are included mining and quarrying of every description, manufacturing plants, building work, communication and transportation, inland navigation and fishing, expressing and hauling, warehousing of every kind, and agricultural employments.

The invalidity and old-age insurance is identical in scope with that of the sickness insurance, save that the average annual earnings of the salaried employees must not exceed 2,000 marks (\$476).

All these three systems have a voluntary feature which permits insurance by persons in the higher-wage classes. There is in addition a special compulsory system (act of December, 1911) which includes salaried employees who do not come within the scope of the code of July, 1911.

Unemployment insurance also prevails in Germany but to a much more limited extent than the forms already indicated. The unemployment insurance system is not imperial in scope but confined to different municipalities. It usually takes three forms—subsidies by the different municipalities to industrial societies, or to savings societies, or public voluntary insurance. The system did not come into vogue until 1909. In 1912, the latest year for which such data are available, it appears that it was found in practice in 18 cities. In Berlin-Schöneberg, Stuttgart, Feuerbach, and Freiburg in Baden

subsidies by the city were made both to industrial societies and to savings societies and individuals.

In proportion to the population of the country the number of persons insured in the accident-insurance system was in 1913 approximately 39 per cent; in the sickness-insurance system, 22 per cent; and in the invalidity and old-age insurance system, 24 per cent. If a more proper comparison were made between the number insured and the total number of wage earners, the extent of the social insurance for the wage earners of the country would appear considerably greater. Calculations made at the time of the industrial census in 1907 show that 91.9 per cent of the wage earners in Germany in 1906 were subject to the invalidity and old-age insurance law. The estimated number of persons insured under the accident-compensation law in 1906 was in excess of the so-called wage earners, a fact due to the duplication of the same persons in agriculture and industry, and in part to the inclusion of a number of employers. Estimates by officials as to the number insured against sickness show that in 1906 the percentage was 80.7, and considering either actual or potential heads of families over 86 per cent were insured against sickness or temporary disability. The insurance code of 1911, which codified the separate, compulsory workmen's insurance laws, extended the system to classes of wage earners hitherto excluded. It is not an exaggeration to say, therefore, that practically the entire industrial population of Germany is protected by a system of compulsory insurance which provides compensation for loss of earning power due to industrial accidents, sickness, invalidity, and old age. Not merely are the wage earners themselves given economic assistance by the State, but their dependents and survivors were especially included in 1912.

BURDEN OF PAYMENT.

As already stated, the system of social insurance in Germany is State organized and compulsory.¹ The burden of payment for its support is distributed between the Government, the employers, and the employees. The figures in the following table show in what proportion the actual contributions toward its support have been distributed among the three parties since the year 1885. The first 13 weeks of accident disability expense for those insured in the accident system are provided for in the sickness-insurance system; to this expense the employer contributes one-third, the employee two-thirds. But after the 13 weeks the whole burden, as the table shows, is upon the employer. In the sickness-insurance system proper the

¹ For a full statement of the provisions of these laws and the benefits conferred by them, reference is made to the Industrial Insurance Code of 1911, which may be found in translation in Bulletin No. 96 of this Bureau.

burden is divided between the employer and the employee in the proportion of one-third for the former and two-thirds for the latter. The fact that the table shows this proportion a trifle less than the one-third prescribed may be explained as due to the inclusion of the voluntary feature of the sickness system in which the insured assumes the entire burden. In the invalidity system, the actual facts in the table are in conformity with the law; the insured pays a share equal to that of the employer, while the State contributes a uniform amount (50 marks or \$11.90) to each pension paid out, except to orphans' pensions, for which the subsidy is 25 marks (\$5.95).

DISTRIBUTION OF THE CONTRIBUTIONS TOWARD THE SUPPORT OF THE GERMAN SOCIAL INSURANCE SYSTEM, 1885 TO 1913.

Items.	Amounts.				Per cent.			
	Accident, 1885-1913.	Sickness, 1885-1913.	Invalidity and old age, 1891-1913.	Total.	Acci- dent.	Sick- ness.	In- valid- ity and old age.	Total.
Contributions by em- ployers.....	\$709,059,663	\$460,471,761	\$418,026,865	\$1,587,558,289	100	31.6	40.7	49.7
Contributions of in- sured persons.....		997,922,005	418,026,865	1,415,948,870		68.4	40.7	44.3
Subsidy by Empire.....			191,981,177	191,981,177			18.6	16.0
Total.....	709,059,668	1,458,393,766	1,028,034,907	3,195,488,336	100	100.0	100.0	100.0

¹ For an exact showing the share of the Empire should include the administrative expenses which are largely borne by it, but in what proportions can not be stated.

BENEFITS PAID.

The maximum and minimum benefits of the insurance system can not be stated definitely as they are proportional to the earnings of the insured person. Under the accident system, in case of death, funeral benefits are paid, equivalent to one-fifteenth of the annual earnings of the deceased, but not less than 50 marks (\$11.90); and pensions are paid to dependent heirs not exceeding 60 per cent of the annual earnings of the deceased. Compensation for disability consists of free medical and surgical treatment; for temporary or permanent total disability 50 per cent of the daily wages, but not exceeding 3 marks (71 cents) per day, paid from the beginning of the fourth day to the end of the fourth week, increased after the fourth week to 66 $\frac{2}{3}$ per cent of the average annual earnings of the injured. For complete helplessness payments may be increased to 100 per cent of the annual earnings, and for partial disability a corresponding reduction in payments is made. In calculating both the death and the disability benefits, if the annual earnings exceed 1,800 marks (\$424.40), only one-third of the excess is considered in computing disability or pension payments.

The sickness insurance system provides free medical care and pecuniary benefits up to 50 per cent of the earnings of the insured during 26 weeks, or in lieu of the above free hospital treatment for the insured and one-half of the pecuniary benefits for the dependents. Similar benefits are paid in maternity cases during eight weeks. Funeral benefits are paid up to twenty times the average daily wages.

Under the invalidity and old-age insurance system, for the purpose of assessing contributions, one-half of which are paid by the insured, one-half by the employer, while the State pays an annual subsidy of 50 marks (\$11.90) to each pensioner, all wage earners are placed in five wage-earning classes, based upon estimated average annual earnings, and not, it should be noted, on actual earnings. The contributions are graded according to these classes. The wage classes and the weekly contributions are as follows:

Wage class.	Annual earnings.	Weekly contributions.
I	351 marks or under (\$83.30 or under).....	16 pfennigs (3.8 cents).
II	351 to 550 marks (\$83.30 to \$130.90).....	24 pfennigs (5.7 cents).
III	551 to 850 marks (\$130.90 to \$202.30).....	32 pfennigs (7.6 cents).
IV	851 to 1,150 marks (\$202.30 to \$273.70).....	40 pfennigs (9.5 cents).
V	1,151 marks or over (\$273.70 or over).....	48 pfennigs (11.4 cents).

The benefits provided by the system are two: (1) Pensions, i. e., invalidity pensions for permanent disability and sickness, pensions for temporary disability, and old-age pensions and pensions to survivors; (2) certain miscellaneous benefits, such as medical treatment or care in institutions, etc.

To become entitled to the benefits of the insurance, the insured person must have paid the regular dues or contributions for specified periods of time, designated as the "waiting time." For invalidity pensions this period is 200 weeks, provided that during this time at least 100 weekly contributions have been made; otherwise the waiting time is 500 weeks. For old-age pensions the waiting time is 1,200 weeks of contributions.

The annual amount of old-age pension payable at age of 70 to those insured in each of the five classes of wage earners is as follows:

Wage class.	Insurance pension.	State subsidy.	Total.
I	60 marks (\$14.28).....	50 marks (\$11.90).....	110 marks (\$26.18).
II	90 marks (\$21.42).....	50 marks (\$11.90).....	140 marks (\$33.32).
III	120 marks (\$28.56).....	50 marks (\$11.90).....	170 marks (\$40.46).
IV	150 marks (\$35.70).....	50 marks (\$11.90).....	200 marks (\$47.60).
V	180 marks (\$42.84).....	50 marks (\$11.90).....	230 marks (\$54.74).

As the wage earners during the time when they are paying pension premiums are probably shifting from one wage-earning group to another, no particular individual will receive any one of the indicated amounts of pension, but will be in receipt of some different amount, varying from the highest to the lowest.

The calculation of the amounts of the invalidity and temporary disability pensions is somewhat complex. The amount provided by the insurance consists of two parts, the basic amount and the supplementary amount. The basic amount of the invalidity pension varies from 60 marks (\$14.28) for the lowest wage-earning class up to 100 marks (\$23.80) for the highest or fifth class. The amount of the supplementary increase is dependent upon the number of weeks for which contributions have been paid. To these two sums, then, the basic and the supplementary amounts, is added the imperial subsidy to each pension of 50 marks (\$11.90), so that the minimum amount of invalidity pension for each of the classes of wage-earners would be as follows:

Wage class.	Minimum pension.
I-----	116.4 marks (\$27.70).
II-----	126.0 marks (\$29.99).
III-----	134.4 marks (\$31.99).
IV-----	142.2 marks (\$33.84).
V-----	150.0 marks (\$35.70).

STATISTICS OF OPERATION.

The study of the social insurance system of Germany, which appeared as a part of the Twenty-Fourth Annual Report of the Commissioner of Labor, 1909, included data extending through the year 1908. The following tables present summarized statistics of operation for the years 1911, 1912, and 1913.

The table which follows shows the number insured in the different systems in proportion to the estimated average population for the years 1909 to 1913, inclusive. It shows, among other things, that a very much larger proportion of the population is covered by accident insurance than by either of the other two forms, due to the fact that a larger number of industries are included under the accident insurance system.

TABLE 1.—NUMBER AND PER CENT OF POPULATION IN GERMANY COVERED BY EACH CLASS OF SOCIAL INSURANCE, 1909 TO 1913.

[Source: Statistisches Jahrbuch für das Deutsche Reich, vols. 32 to 36. Berlin, 1911-1915.]

Year.	Average total population.	Accident insurance.		Sickness insurance.		Invalidity and old-age insurance.	
		Number of persons insured. ¹	Per cent of population.	Number of persons insured. ²	Per cent of population.	Number of persons insured.	Per cent of population.
1909.....	63,879,000	23,767,000	37.2	13,404,298	21.0	15,444,300	24.2
1910.....	64,551,000	24,154,000	37.4	13,954,973	21.6	15,659,700	24.3
1911.....	65,429,000	24,627,000	37.6	14,518,764	22.2	15,878,000	24.3
1912.....	66,096,000	24,990,000	37.8	15,110,046	22.9	16,099,400	24.4
1913.....	66,835,000	25,800,000	38.6	14,555,669	21.8	16,323,800	24.4

¹ After deduction of duplications for persons insured in more than one trade accident association, estimated to number 3,400,000.

² Including miners' sick funds.

Table 2, which relates to the accident insurance system, shows that the compensation payments for each accident subject to compensation during 1913 amounted to \$41.60, and that the cost of administration per accident compensated was \$7.60.

Table 3, relating to the sickness insurance system, shows that the cost of sickness per member was \$7.36 in 1913. The cost of administration per member for the same year was 50 cents.

Tables 4 and 5 relate to the system of invalidity and old-age insurance, Table 4 showing the actual amounts of the different items for the years 1911 to 1913 and for the period 1891 to 1913, while Table 5 shows the average amount of the different kinds of pensions paid. That the different forms of pensions granted are not very large, measured by American standards, is quite apparent. The average invalidity pension in 1913 was \$46.51, with no material change since 1909; the average sickness pension amounted to \$48.45, and the average old-age pension to \$39.75. The pensions to survivors were even smaller, averaging a trifle less than \$19.

TABLE 2.—STATISTICS OF THE GERMAN ACCIDENT INSURANCE SYSTEM, 1885 TO 1913.

[Source: Statistisches Jahrbuch für das Deutsche Reich, vol. 36, 1915. Berlin, 1915.]

Items.	1885 to 1913	1911	1912	1913	Amount per accident compensated.		
					1911	1912	1913
Accidents compensated.....	2,681,966	1,018,075	1,014,122	1,010,495			
Accidents compensated for the first time during the year.....		132,114	137,089	139,633			
Ordinary receipts:							
Contributions of employers.....	\$709,059,668	\$46,848,420	\$55,877,832	\$46,333,583	\$46.02	\$45.24	\$45.85
Interest, etc.....	99,418,883	7,343,942	7,784,671	8,231,920	7.21	7.68	8.15
Total ordinary receipts.....	808,478,551	54,192,362	63,662,503	54,565,503	53.23	52.92	54.00
Ordinary disbursements:							
Total compensations.....	1,591,736,068	39,653,394	40,532,019	42,039,868	38.95	39.97	41.60
Sickness care included in total compensations.....	44,968,125	2,741,665	2,901,339	3,118,395	2.70	2.86	3.09
Costs of administration.....	105,001,530	7,085,118	7,315,834	7,674,786	6.96	7.21	7.60
Total ordinary disbursements.....	1,666,186,681	48,211,184	49,312,315	51,206,771	47.35	48.63	50.67
Net assets.....		134,582,550	138,932,738	142,291,870	132.19	137.00	140.81

¹ In 1909 the Post Office Department paid out compensations amounting to \$38,056,200, for the account of the insurers, which were not refunded by the latter. By the law of July 15, 1909, the above advance was commuted into a floating debt which is to be refunded with 3 per cent each year and bears 3 per cent interest. In the present table the entire amount of the floating debt is included in the compensation paid during the period 1885-1913, but not in the total ordinary disbursements. There is included in the total ordinary disbursements for each year, 1911, 1912, and 1913, so much of it as is paid on account each year, including principal and interest.

TABLE 2.—STATISTICS OF THE GERMAN ACCIDENT INSURANCE SYSTEM, 1885 TO 1913—
Concluded.

Items.	1885 to 1913	1911	1912	1913	Amount per accident compensated.		
					1911	1912	1913
Compensation payments:							
Medical treatment.....	14,271,503	864,630	901,734	981,201	.85	.89	.97
Care during waiting time.....	3,707,611	295,168	323,870	305,401	.29	.32	.30
Hospital treatment.....	21,162,984	1,230,246	1,306,001	1,421,088	1.21	1.29	1.41
Benefits to dependents during treatment.....	5,826,026	351,621	369,733	406,694	.35	.36	.40
Disability benefits.....	423,222,381	28,085,785	28,160,684	28,500,310	27.59	27.77	28.20
Lump-sum settlements.....	5,967,422	572,937	772,096	1,214,776	.56	.76	1.20
Funeral benefits.....	3,215,689	173,193	196,540	207,227	.17	.19	.21
Survivors' pensions.....	109,179,454	7,770,367	8,139,973	8,615,124	7.63	8.05	8.53
Lump-sum payments to widows.....	3,947,682	241,427	270,892	285,957	.24	.27	.28
Lump-sum payments to aliens.....	1,235,196	68,020	70,496	98,080	.07	.07	.10
Total disbursements for compensations.....	591,736,068	39,653,394	40,532,019	42,039,868	38.95	39.97	41.60

TABLE 3.—STATISTICS OF GERMAN SICKNESS INSURANCE INCLUSIVE OF MINERS' FUNDS¹ FOR THE YEARS 1911, 1912, AND 1913 AND FOR THE PERIOD 1885 TO 1913.

[Source: Statistisches Jahrbuch für das Deutsche Reich, vol. 36, 1915. Berlin, 1915.]

Items.	Total, all funds.				Per member.		
	1885-1913	1911	1912	1913	1911	1912	1913
Number of funds.....		22,937	22,499	22,238			
Average membership.....		14,518,764	14,150,582	14,555,669			
Cases of sickness involving disability.....	112,047,026	6,308,009	6,525,858	6,630,840			
Days of sickness involving payment of pecuniary benefits or hospital treatment.....	2,065,991,736	124,372,461	128,381,213	133,685,017			
Ordinary receipts (interest, entrance fees, contributions, subsidies, and miscellaneous receipts exclusive of receipts for invalidity insurance).....	\$1,526,371,207	\$106,621,626	\$115,577,084	\$121,259,239	\$7.34	\$8.17	\$8.33
Contributions of employers.....	460,471,761	33,428,052	36,274,633	38,246,695	2.30	2.56	2.63
Contributions of insured persons.....	997,922,005	68,776,502	74,056,437	77,662,565	4.73	5.23	5.34
Ordinary disbursements (costs of sickness, refund of contributions and entrance fees, costs of administration exclusive of those for invalidity insurance, miscellaneous disbursements).....	1,423,794,350	100,745,067	107,493,224	116,700,587	6.94	7.60	8.02
Costs of sickness.....	1,319,237,142	93,204,275	99,241,883	106,983,257	6.42	7.01	7.36
Costs of administration (exclusive of those for invalidity insurance).....	82,277,100	5,693,341	6,201,376	7,246,933	.39	.44	.50
Net assets.....		\$80,509,022	\$86,251,105	\$88,974,872	5.55	6.10	6.11

¹ The sickness insurance statistics of miners' funds included here are according to the official statement somewhat inaccurate by reason of the fact that sickness and invalidity insurance are jointly administered in some miners' funds so that the financial data relating to these two kinds of insurance can not always be separated and must be estimated.

² Exclusive of auxiliary funds (*Hilfskassen*) abolished by the law of Dec. 20, 1911.

³ Refunds by sick funds and trade accident associations as well as refunds of contributions and entrance fees were deducted from the ordinary receipts.

⁴ Ordinary receipts and disbursements as shown here include only cash items. The net assets as shown here include also book items and therefore do not represent the excess of receipts over disbursements.

TABLE 4.—STATISTICS OF THE INVALIDITY AND OLD-AGE STATE COMPULSORY INSURANCE SYSTEM IN GERMANY, 1891 TO 1913.

[Source: Statistisches Jahrbuch für das Deutsche Reich, vol. 36, 1915. Berlin, 1915.]

Items.	1891—1913	1911	1912	1913
Number of invalidity pensions in force.....	2, 239, 932	1, 036, 893	1, 065, 700	1, 099, 783
Number of sickness pensions in force.....	¹ 150, 610	28, 747	27, 383	27, 711
Number of old-age pensions in force.....	528, 599	109, 924	105, 480	101, 977
Number of widows and widowers' pensions in force.....	² 12, 285	.....	3, 811	11, 500
Number of widows' sickness pensions in force.....	413	.....	110	350
Number of orphans' pensions.....	39, 881	.....	13, 962	37, 000
Number of widows' moneys paid.....	.....	.....	4, 118	8, 022
Number of orphans' settlements paid.....	.....	.....	108	460
Ordinary receipts:				
Contributions of employers.....	\$418, 026, 865	\$24, 966, 866	\$32, 536, 813	\$34, 504, 359
Contributions of insured persons.....	418, 026, 865	24, 966, 866	32, 536, 813	34, 504, 359
Subsidy of the Empire.....	191, 981, 177	12, 681, 378	13, 106, 494	13, 929, 212
Interest, etc.....	185, 817, 810	14, 363, 086	17, 005, 148	16, 866, 275
Total ordinary receipts.....	1, 213, 852, 717	76, 978, 196	95, 185, 268	99, 804, 205
Ordinary disbursements:				
Total disbursements for benefits.....	641, 606, 802	48, 520, 179	48, 835, 672	51, 964, 111
Sick benefits (included in total benefits).....	56, 647, 570	5, 649, 001	6, 060, 123	6, 805, 872
Costs of administration.....	71, 139, 890	5, 334, 461	5, 942, 265	5, 858, 727
Total ordinary disbursements.....	712, 746, 692	53, 854, 640	54, 777, 937	57, 822, 838
Net assets.....	.....	418, 728, 180	459, 124, 681	501, 107, 001
Benefit payments:				
Medical treatment.....	53, 503, 804	5, 254, 873	5, 633, 341	6, 303, 501
Additional sick benefits.....	3, 143, 766	394, 128	428, 782	502, 470
Care in institutions.....	1, 650, 173	216, 841	286, 846	298, 714
Invalidity pensions.....	430, 502, 087	36, 016, 564	37, 749, 513	39, 816, 115
Sickness pensions.....	9, 300, 731	755, 721	761, 505	822, 338
Old-age pensions.....	114, 427, 425	3, 443, 455	3, 344, 543	3, 269, 573
Other benefit payments.....	29, 078, 816	2, 438, 667	658, 332	951, 570
Total disbursements for benefits.....	641, 606, 802	48, 520, 179	48, 835, 672	51, 964, 111

¹ Sickness pensions paid only since 1900.² Survivors' insurance has been applicable only since 1912.

TABLE 5.—NUMBER AND AVERAGE AMOUNT OF PENSIONS NEWLY AWARDED UNDER THE INVALIDITY AND OLD-AGE INSURANCE LAW, 1909 TO 1913.

[Source: Amtliche Nachrichten das Reichs-Versicherungs-Amt. Berlin.]

Year.	Invalidity pensions.		Sickness pensions.		Old-age pensions.		Widows' and widowers' pensions.		Widows' sickness pensions.		Orphans' pensions.	
	Num-ber.	Aver-age amt.	Num-ber.	Aver-age amt.	Num-ber.	Aver-age amt.	Num-ber.	Aver-age amt.	Num-ber.	Aver-age amt.	Num-ber.	Aver-age amt.
1909.....	116, 294	\$41. 60	12, 884	\$41. 45	11, 036	\$38. 93	.....	.....	.....	.....	.....	.....
1910.....	114, 755	42. 11	12, 287	41. 83	11, 625	39. 11	.....	.....	.....	.....	.....	.....
1911.....	118, 158	42. 86	11, 789	42. 24	11, 585	39. 34	.....	.....	.....	.....	.....	.....
1912.....	124, 825	44. 50	17, 570	45. 76	12, 111	39. 54	3, 811	\$18. 34	110	\$18. 46	13, 962	\$19. 25
1913.....	134, 161	46. 51	11, 809	48. 45	11, 905	39. 75	8, 479	18. 49	303	18. 59	25, 916	19. 07

MINERS' ACCIDENT INSURANCE STATISTICS IN GERMANY, 1914.

In its thirtieth annual report for the year 1914¹ the Miners' Trade Accident Association (*Knappschafts-Berufsgenossenschaft*), the carrier of the German workmen's accident insurance for the mining industry, notes that like other industries the mining industry has suffered greatly from the war. During the year the number of persons employed in mining decreased by 8.5 per cent, and the total wages paid to insured persons in the industry in 1914 was 13 per cent less than in 1913. The amount of assessments levied upon employers for the support of the insurance system decreased 5 per cent, due, it is explained, not to a decrease of the amount of compensation paid, but to the fact that a desired increase of 2,500,000 marks (\$595,000) in the capital of the accident association which had been made in 1913 and was contemplated in 1914 had to be foregone on account of the disorganization caused by the war.

The development in the number of establishments and workmen employed during the period 1886 to 1914 for the Miners' Trade Accident Association is shown in the table which follows:

NUMBER OF ESTABLISHMENTS, INSURED WORKMEN, AND AMOUNT OF WAGES PAID MINERS' ACCIDENT INSURANCE ASSOCIATION, 1886 TO 1914.

[Source: Dreissigster Bericht der Knappschafts-Berufsgenossenschaft, p. 30.]

Industry.	Year.	Number of—		Wages earned per workman.	Industry.	Year.	Number of—		Wages earned per workman.
		Establishments.	Workmen.				Establishments.	Workmen.	
Coal mining.....	1886	357	221,364	\$182.96	Salt mining.....	1886	50	8,713	\$226.50
	1896	337	311,233	235.48		1896	70	12,794	239.63
	1906	342	505,509	326.13		1906	128	30,358	293.54
	1914	340	642,908	373.34		1914	275	37,520	340.22
Lignite mining.....	1886	423	28,950	165.96	Extraction of other minerals.....	1886	254	4,991	142.28
	1896	534	41,391	191.43		1896	307	6,592	168.09
	1906	528	63,363	259.85		1906	439	8,121	226.05
	1914	484	72,640	307.76		1914	387	11,515	266.06
Ore mining and smelting.....	1886	574	79,691	146.84	Total.....	1886	1,658	343,709	173.67
	1896	574	74,332	185.30		1896	1,822	446,342	222.16
	1906	749	81,897	244.69		1906	2,186	689,248	307.74
	1914	410	76,535	310.05		1914	1,896	841,118	358.97

¹ Dreissigster Bericht über die Verwaltung der Knappschafts-Berufsgenossenschaft für das Jahr 1914. Berlin, 1915. 69 pp.

The absolute and relative number of all accidents reported, as well as of the compensated accidents and their results, and the amount of compensation paid by industries represented in the Miners' Trade Accident Insurance Association are shown in the following table:

NUMBER OF ACCIDENTS AND THEIR RESULTS, AND TOTAL COMPENSATION PAID MINERS' TRADE ACCIDENT INSURANCE ASSOCIATION, 1913 AND 1914.

[Source: Dreissigster Bericht der Knappschafts-Berufsgenossenschaft, pp. 36 to 39.]

Industry.	Year.	Insured persons injured in accidents.		Number of compensated accidents.	Compensated accidents resulting in—			Compensated accidents per 10,000 insured persons, resulting in—			Compensations paid.		
		Number.	Per 1,000.		Death.	Perma- nent total dis-abil-ity.	Tempo- rary dis-abil-ity.	Death.	Perma- nent dis-abil-ity.	Tempo- rary dis-abil-ity.	Amount.	Per \$10,000 wages.	
Coal mining....	1913	112,180	162.73	11,212	1,680	48	1,917	7,137	24.37	28.51	109.78	\$5,475,692	\$200.34
	1914	105,327	163.83	10,412	1,549	57	1,669	7,567	24.09	26.85	111.01	5,686,268	236.91
Lignite mining.	1913	9,063	116.38	890	126	5	376	389	16.18	48.92	49.18	445,234	183.71
	1914	8,147	112.16	874	155	2	325	392	21.34	45.02	53.96	477,196	213.46
Ore mining and smelting.....	1913	7,830	88.58	936	160	7	250	519	18.10	29.07	58.71	600,381	210.56
	1914	6,219	81.26	816	133	6	202	475	17.38	27.18	62.06	611,737	257.80
Salt mining.....	1913	4,074	81.70	599	138	7	213	241	27.68	44.12	48.33	260,746	150.22
	1914	2,753	73.37	464	102	7	160	195	27.19	44.51	51.97	283,714	222.26
Extraction of other minerals.....	1913	563	42.26	126	17	1	38	70	12.76	29.28	52.55	67,877	182.00
	1914	536	46.55	106	13	.....	36	57	11.29	31.26	49.50	71,202	232.41
Total.....	1913	133,710	145.53	13,763	2,121	68	2,794	8,780	23.08	31.15	95.56	6,849,930	197.33
	1914	122,982	146.21	12,672	1,952	72	2,392	8,256	23.21	29.29	98.16	7,130,117	236.15

From this table there is noted a decrease in the number of accidents, which is due to a decrease in the number of persons insured, indicated by the fact that the accident rate per 1,000 insured persons shows a slight increase over 1913; and a decrease in the number of compensated accidents would naturally follow a decrease in the number of accidents reported. The death rate of insured persons has remained stationary, but the rate for permanent disability has decreased, while the rate for temporary disability has increased. This would suggest increased efficiency in first aid and general medical care. The amount of compensation paid has increased 4.1 per cent, and the rate of compensation per \$10,000 of wages earned has increased from \$197.33 to \$236.15, or 19.7 per cent, due to the fact that the number of insured persons, and consequently the total amount of wages earned by them, decreased during the year.

As to the fault of accidents it is reported for 1913 and 1914 that practically two-thirds have been due to occupational risk, that a trifle

over one-fourth have been due to the fault of the workman himself, and the remaining one-twelfth have been due to special defects in operation and fault of fellow workmen.

In 1914 the Miners' Accident Association reported 12,672 accidents, distributed by causes, as follows:

NUMBER AND PER CENT OF ACCIDENTS REPORTED BY THE MINERS' ACCIDENT ASSOCIATION IN 1914, BY CAUSES.

Cause of accidents.	Number.	Per cent.	Cause of accidents.	Number.	Per cent.
Motors and transmission of power, machinery.....	403	3.2	Teaming, vehicles.....	113	0.9
Lifts and cranes.....	1,271	10.0	Railroads.....	2,915	23.0
Boiler and steam pipe explosions..	24	.2	Animals.....	51	.4
Explosives.....	320	2.5	Tools.....	266	2.1
Heat, acids, steam, gases, etc.....	214	1.7	Electric currents.....	69	.6
Collapses or breakdowns.....	4,412	34.8	Miscellaneous causes.....	687	5.4
Falls from ladders, stairs, etc.....	947	7.5	Total.....	12,672	100.0
Loading and unloading by hand, lifting, carrying, etc.....	980	7.7			

In the course of a year there were paid out 29,958,475.06 marks (\$7,130,117.06) for compensation, of which 7.9 per cent was paid for medical treatment, sick benefits, etc.; 55.3 per cent for pensions and lump-sum settlement to injured persons; 0.7 per cent for funeral benefits; and 36.1 per cent for pensions and lump-sum payments to survivors. The total costs of the miners' accident insurance computed per workman and per \$1,000 wages for selected years during the period of 1886-1914 were as follows:

COSTS OF INSURANCE PER WORKMAN AND PER \$1,000 WAGES IN THE MINERS' TRADE ACCIDENT INSURANCE ASSOCIATION, FOR SELECTED YEARS, DURING THE PERIOD 1886 TO 1914.

[Source: Dreissigster Bericht der Knappschafts-Berufsgenossenschaft, p. 26.]

Year.	Costs of insurance per—		Year.	Costs of insurance per—	
	Workman.	\$1,000 wages.		Workman.	\$1,000 wages.
1886.....	\$1.80	\$8.20	1905.....	\$7.92	\$27.98
1890.....	3.57	16.65	1910.....	9.10	28.44
1895.....	4.85	22.76	1913.....	8.51	22.51
1900.....	4.54	17.23	1914.....	8.83	24.59

As compared with 1913 the cost of insurance in 1914 increased 1.34 marks (31.9 cents) per workman and \$2.08 per \$1,000 wages earned. The report under review notes that this increase has taken place in spite of the fact that the total assessments levied were 1,500,000 marks (\$357,000), or 5 per cent less than in the last preceding year, and that it is to be explained by the fact that on account of the war the

number of insured persons has decreased, as already noted, by 8.5 per cent, and the total wages paid by 13 per cent.

INTERNATIONAL TRADE-UNION STATISTICS.

This bureau has prepared the following two tables from the latest official sources available, showing the membership in trade-unions in the years 1912, 1913, and 1914 in each of 14 principal countries, including the United States. It should be said that these figures are by no means complete, and, furthermore, that they are not comparable as between the different countries except in the most general way. They serve, however, as an indication of the development of the trade-union movement within the respective countries.

The table relating to the distribution of the annual disbursements of trade-unions in various countries relates to the year 1912, the latest for which information with any degree of completeness is available.

MEMBERSHIP OF TRADE-UNIONS IN VARIOUS COUNTRIES FOR THE YEARS 1912, 1913, AND 1914.¹

Country.	Membership.					
	1912		1913		1914	
	Total.	Number of women.	Total.	Number of women.	Total.	Number of women.
Australia (Commonwealth).....	497,925	20,204	.....	.....	.....	.....
Austria.....	692,681	69,340	748,760	65,652	.....	.....
Belgium.....	231,835	.....	202,746	.....	.....	.....
Denmark.....	139,012	15,896	152,787	.....	155,783	.....
France.....	1,027,059	96,008	1,026,302	89,346	.....	.....
Germany.....	3,753,807	318,868	3,835,660	332,567	.....	.....
Great Britain.....	3,281,003	318,443	3,928,191	357,783	3,959,863	352,944
Italy.....	971,667	.....	.....	.....	.....	.....
Netherlands (Dec. 31).....	189,030	8,394	220,275	8,309	.....	.....
New Zealand.....	60,622	.....	71,544	.....	.....	.....
Norway.....	60,975	.....	64,108	4,156	67,235	4,809
Sweden (Dec. 31).....	87,024	.....	97,252	.....	101,207	.....
Switzerland.....	131,380	16,487	.....	.....	.....	.....
United States.....	2,389,723	.....	2,604,701	.....	.....	.....

¹ The official publications from which figures were taken are as follows: Australia.—Commonwealth Bureau of Census and Statistics, Labor and Industrial Branch, Report No. 5, p. 7. Austria.—Die Arbeits-einstellungen und Aussperrungen in Oesterreich während des Jahres 1912. Herausgegeben vom k. k. Arbeitsstatistischen Amte im Handelsministerium. Appendix, pp. 102 ff.; 1913, pp. 80 ff. Belgium.—Revue du Travail 1914, p. 754. Denmark.—Statistisk Aarbog, 1913, p. 130; 1914, p. 132; 1915, p. 140. France.—Bulletin du Ministère du Travail et de la Prévoyance Sociale, 1913, p. 1173; 1915, p. 29. Germany.—Statistisches Jahrbuch für das Deutsche Reich, 1915, p. 79*; annual average. Great Britain.—The Board of Trade Labor Gazette, 1914, p. 123; 1915, p. 318. Italy.—Bollettino dell' Ufficio del Lavoro, 1914, p. 71. Netherlands.—Bijdragen tot de Statistiek van Nederland, Nieuwe volgrees, Beknopt overzicht van den omvang der Vakbeweging op 1 Januari, 1914, p. 7. New Zealand.—Twenty-third Annual Report of the Department of Labor, 1914, p. 7. Norway.—Arbeidernes faglige Landsorganisation Beretning, 1913, 1914. Sweden.—Sociala Meddelanden, 1913, p. 741; 1914, p. 1049; 1915, p. 1254. Switzerland.—Schweizerischer Gewerkschaftsbund, Jahresbericht, 1912. United States.—Bulletin of the Department of Labor, State of New York, 1913, No. 56, p. 407; exclusive of membership in Canada and including only those unions from which actual returns were received; No. 67, p. 1.

DISTRIBUTION OF THE ANNUAL DISBURSEMENTS OF TRADE UNIONS IN VARIOUS COUNTRIES FOR THE YEAR 1912.

[Source: Supplement 11 to the Reichsarbeitsblatt, pt. 2, pp. 68, 69, Berlin, 1915.]

Country.	Membership.		Total disbursements.	Unemployment and traveling benefits.		Sickness, invalidity, funeral, and other social benefits.		Strike and lock-out benefits.		Administration, propaganda, legal aid, publications, libraries, etc.	
	Number.	Per cent of total.		Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
Germany.....	13,007,074	80.1	\$16,375,933	\$2,330,744	14.23	\$3,721,861	22.73	\$3,465,914	21.16	\$6,857,414	41.88
	529,040	14.1	2,941,481	14,238	.....	341,988	.....	75,281	.....	509,974	.....
Great Britain.	2,000,102	61.0	18,562,775	2,901,769	15.63	5,571,298	30.02	6,675,337	35.96	3,414,371	18.39
Austria.....	580,279	83.8	2,703,498	401,958	14.87	590,680	21.85	324,996	12.02	1,385,864	51.26
Sweden.....	119,866	98.4	505,927	64,228	12.69	26,130	5.17	138,283	27.33	277,286	54.81
Netherlands..	60,414	32.0	326,254	23,532	7.21	58,084	17.81	68,467	20.98	176,171	54.00
Denmark.....	130,638	94.0	746,406	418,197	56.03	47,454	6.36	66,878	8.96	213,879	28.65
Switzerland..	86,313	65.7	307,477	27,058	8.80	97,060	31.57	73,442	23.88	109,917	35.75
Norway.....	60,975	90.6	431,553	39,662	9.19	167,787	38.88	141,861	32.87	82,243	19.06
United States	1,770,145	70.1	.....	255,867	.....	2,500,074	.....	.....	.....	.....	.....

¹ Social-democratic, Christian, and Hirsch-Duncker trade unions.² Independent trade societies and nonmilitant workmen's federations and societies.³ Bulletin of the Department of Labor, State of New York, 1913, p. 413; only data relating to benefit expenditures are discussed in the Bulletin.

IMMIGRATION IN FEBRUARY, 1916.

During the month of February there were 7,447, or 43.1 per cent, more immigrant aliens admitted to the United States than in the preceding month. Compared with February, 1915, there was an increase of 10,867, or 78.3 per cent, in the number admitted; but there were 22,133, or 47.2 per cent, fewer persons admitted than in February, 1914. The following table shows the total number of immigrant aliens admitted during December, January, February, and March, 1914-15, and the three last-named months in 1916:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS, 1914, 1915, AND 1916.

Month.	1914	1915	1916
December.....	20,944	18,901	.....
January.....	44,708	15,481	17,293
February.....	46,873	13,873	24,740
March.....	92,621	19,263	27,616

The largest number of immigrants for some months past has come from Italy, England, and the Scandinavian countries, in the order named.

Classified by races, the immigrant aliens admitted into and emigrant aliens departing from the United States during February, 1915 and 1916, were as follows:

IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTING FROM THE UNITED STATES, FEBRUARY, 1915 AND 1916.

Races.	Admitted.		Departed.	
	1915	1916	1915	1916
African (black).....	89	129	70	42
Armenian.....	25	68	14	15
Bohemian and Moravian.....	70	51	3	2
Bulgarian, Servian, Montenegrin.....	82	124	181	1
Chinese.....	138	90	76	110
Croatian and Slavonian.....	51	27	6	12
Cuban.....	70	57	69	104
Dalmatian, Bosnian, and Herzegovinian.....	5	1	1	.....
Dutch and Flemish.....	553	410	40	29
East Indian.....	5	5	4	3
English.....	2,137	2,579	554	423
Finnish.....	155	835	39	31
French.....	695	1,164	125	145
German.....	860	823	43	50
Greek.....	313	647	356	324
Hebrew.....	641	1,103	32	27
Irish.....	923	1,153	120	64
Italian (north).....	657	402	238	178
Italian (south).....	2,448	3,871	2,813	799
Japanese.....	668	494	59	57
Korean.....	.....	12	.....	5
Lithuanian.....	15	50	13	.....
Magyar.....	38	98	16	32
Mexican.....	484	4,175	30	43
Pacific Islander.....	2	.....	.....	.....
Polish.....	101	368	47	18
Portuguese.....	70	2,454	133	57
Roumanian.....	6	59	5	9
Russian.....	128	514	566	155
Ruthenian (Russniak).....	28	42	.....	2
Scandinavian.....	1,107	1,164	96	233
Scotch.....	731	908	148	95
Slovak.....	25	46	.....	2
Spanish.....	270	493	124	152
Spanish-American.....	56	97	33	73
Syrian.....	46	34	16	.....
Turkish.....	21	6	4	3
Welsh.....	74	70	13	9
West Indian (except Cuban).....	30	32	24	39
Other peoples.....	56	85	22	16
Not specified.....	.....	.....	953	676
Total.....	13,873	24,740	7,086	4,035
Per cent increase, 1916.....	.....	78.3	.....	¹ 43.1

¹ Decrease.

OFFICIAL REPORTS RELATING TO LABOR.

UNITED STATES.

California.—*Commission of Immigration and Housing. The home teacher: The act, with a working plan and 40 lessons in English. Sacramento, 1915. 50 pp.*

Contains a copy of the act which became effective August 8, 1915, an act which permits boards of education to employ home teachers to work in the homes of the pupils, instructing children and adults in matters relating to school attendance; also in sanitation, in the English language, in household duties, and in the fundamental principles of the American system of government and the rights and duties of citizenship. This pamphlet contains a plan of 40 tentative lessons in English.

California.—*Industrial Accident Commission. Decisions of the Industrial Accident Commission of California. Vol. II, Nos. 12, 13. San Francisco, [1915].*

Illinois.—*Miners' and Mechanics' Institutes. First annual report of the director for the year 1914. Urbana, Ill., the University of Illinois. [1915.] 34 pp. (University of Illinois bulletin, vol. 12, No. 26.)*

Miners' and mechanics' institutes were created by special law in 1910 for the purpose of investigating and preventing accidents in mines and other industrial plants and to conserve the resources of the State. They are authorized to promote the education and training of all classes of industrial workers. They have conducted classes of mine employees, instructing them regarding the maintenance of safety in their work.

Two-year courses have been organized in 13 different towns, of which an aggregate of 464 sessions were held with a total attendance of 11,897. A short course of six weeks' instruction at the University of Illinois is also provided for. At this course 132 lectures were delivered and 43 laboratory sessions conducted, the total attendance being 1,213 for a total enrollment of 33.

The report recommends an increased appropriation (\$15,000 to \$55,000) and an increased extension of its work both by organizing more classes and by establishing correspondence courses.

Illinois.—*Miners' and Mechanics' Institutes.*

Mine gases and safety lamps, by R. Y. Williams and H. E. Smith. Urbana, Ill. [1914.] 58 pp. (Instruction pamphlet No. 2; University of Illinois bulletin, vol. 12, No. 9.)

Ventilation. Urbana, Ill. [1914.] 64 pp. (Instruction pamphlet No. 3; University of Illinois bulletin, vol. 11, No. 49.)

— *State Mining Board. Thirty-fourth annual report of Illinois State Mining Board, 1915. [Springfield, 1915.] 295 pp.*

The following summary table shows the principal totals of operations for the years 1914 and 1915.

SUMMARY OF COAL-MINE OPERATIONS FOR THE YEARS 1914 AND 1915.

Summary items.	1914	1915
Number of mines and openings	796	779
Output (tons of 2,000 lbs.).....	60,715,795	57,601,694
Tons shipped	45,038,119	41,461,218
Tons sold to railroad companies.....	10,096,939	11,090,377
Tons sold to local trade.....	2,400,985	2,184,853
Tons sold or wasted at plants.....	2,470,161	2,249,347
Average days of active operation (shipping mines).....	174	172
Average days of active operation all mines.....	162	158
Number of mining machines in use.....	1,828	1,686
Number of tons undercut by machines.....	31,446,823	34,037,426
Number of tons mined by hand.....	29,268,972	23,564,268
Average number of miners employed during the year.....	32,262	29,560
Average number of other employees underground (men).....	39,281	38,622
Average number of boys employed underground.....	1,492	1,190
Average number of employees above ground.....	7,000	6,235
Total number of employees (average).....	80,035	75,607
Average price paid per gross ton for hand mining (shipping mines).....	\$0.6575	\$0.666
Average price paid per gross ton machine mining.....	\$0.524	\$0.52
Number of men accidentally killed.....	159	180
Number of men injured, incapacity 1 month or more.....	1,071	1,013
Number of gross tons mined to each life lost.....	381,860	320,009
Number of employees to each life lost.....	503	420
Number of deaths per 1,000 employees.....	1.99	2.38
Number of tons mined to each man injured.....	56,691	56,862
Number of employees to each man injured.....	75	75

Detailed tables relative to output, days of operation, number employed, expenses, machine production, pick mine production, etc., are given for the State and for each of the 12 mining districts separately.

Michigan.—*Annual report of the inspector of mines, Gogebic County, 1913-14 and 1914-15.* 68 pp.

Gives the amount of ore mined and number of men employed in each mine in the county; also detailed description of each fatal accident, including the name of injured miner and the circumstances of the injury. During 1914-15, 3,154,124 tons of ore were mined, as against 4,209,267 in 1913-14. There were 23 fatal accidents in 1913-14 and 8 in 1914-15.

Missouri.—*Bureau of Labor Statistics. Missouri Red Book, 1914. Jefferson City, 1915.* 222 pp., folder. *Illus.*

Statistical details and information relating to all departments of labor, and especially in relation to the commercial, industrial, social, educational, and sanitary conditions of the laboring classes. The following is a statement taken from a table based upon the reports received by mail from employers:

Reports were received from 2,237 factories and workshops, employing 184,098 persons, of whom 25,959 were injured by accidents, 82 resulting fatally, 82 in partial recovery only, and 25,795 in full recovery. Insurance as a protection to employees was carried by 2,015 employers for which \$534,595 was paid in premiums. The reports of 514 public-service corporations—telephone, electric railway, steam railroad, or mining companies—showed a total of 76,813 employees, among whom occurred 3,096 accidents, of which 127 resulted fatally. Only four of these corporations carried accident insurance, for which they paid in premiums \$4,065.

The operations of the State free employment exchanges during the year were as follows: Applications for employment, 37,047; Vacancies reported by employers, 33,526; Positions secured, 27,637.

Considerable data are given relative to organized labor, membership, wages, hours of labor and yearly earnings, out-of-work benefits paid, strike, sickness, etc., benefits; union scale of wages and hours of labor and overtime pay in St. Louis and Kansas City.

Missouri.—*Laws of Missouri, labor, industrial, and statistical, including certain session acts of 1913; * * * also certain factory-inspection regulations, 1913-1914. Prepared and published by the bureau of labor statistics. Jefferson City, Mo. [1915?] 99 pp. (Supplementary to the 1913 Red Book.)*

Nevada.—*Bureau of Industry, Agriculture, and Irrigation. Biennial report, 1913-14. Carson city, 1915. 22 pp.*

Discusses the agricultural development of the State, and reports acreage and value of the most important crops grown.

New York.—*Bureau of Statistics and Information. Statistics of industrial accidents, 1914, prepared by the bureau of statistics and information. [Albany, 1916] 77 pp. (Department of labor. Special bulletin, issued under the direction of the industrial commission. No. 75.)*

This bulletin consists of three parts: (1) Statistics of industrial accidents reported to the department of labor during the year ending September 30, 1914; (2) discussion of the relation of safeguards to accidents in a selected number of cases investigated; (3) discussion of the causes of fatal accidents reported to the department for the five years ending September 30, 1914. The statistics, it is stated, are designed chiefly to throw light on the causes of industrial accidents. An analysis of this bulletin will be found elsewhere in this number of the Review. (See pp. 58 to 62.)

— — — — — *European regulations for prevention of occupational diseases. Prepared by the bureau of statistics and information. [Albany, 1916] 77 pp. (Department of labor. Special bulletin issued under the direction of the industrial commission. No. 76.)*

There are presented in this bulletin a collection of regulations, in force in leading industrial European countries, which are designed to minimize and to protect employees from the dangers of occupational diseases. The collection does not claim to be complete either as to industries or as to countries. The collection includes regulations most recently adopted for a number of industries, each of which is also represented in New York State, and cover five industrial diseases: Poisoning by lead, brass, and mercury; compressed-air illness; and anthrax. The countries included are Great Britain, Germany, France, Austria, and the Netherlands.

— — — — — *New York City. Department of Education. Part-time cooperative and continuation classes. Presented to the board of education Nov. 10, 1915. [New York City, 1915.] 141 pp., folded table. (17th annual report of the city superintendent of schools, 1914-15.)*

On September 16, 1914, the board of education of New York City authorized an experiment in the conduct of continuation cooperative and part-time classes in conjunction with the high schools. This report is a result of that experiment. Some definitions are perhaps necessary. The cooperative system is based on an agreement between a group of manufacturers and a school system whereby the manufacturers agree to institute and carry on a thorough and comprehensive apprentice course in the particular trades, and whereby the school agrees to give both general and specialized instruction to the apprentices. The shop course must be approved by the school authorities, and in most cases the amount of school instruction is made equal to the amount of shopwork. The apprentices are generally divided into sections which alternate with each other so that one section is at the shop while the other is at school. A special teacher, called a coordinator, is employed to coordinate the work of the shop with the instruction in the schools. Under the continuation system the employer releases his employee of school age for a certain period of time each week in order that the latter may continue his academic or mental instruction.

The experiment in question was carried on in 10 high schools during the spring term of 1915 and through August 1, 1915. There were 341 students

enrolled. As a result of the experiment of less than a year the report concludes as follows concerning the cooperative system: (1) Employment will be given to high-school pupils in pairs for alternate periods; (2) industry profits by the arrangement; (3) cooperative schools are applicable in industry, as well as in salesrooms and business offices; (4) suitable programs may be arranged; (5) the supplemental instruction is valuable; (6) the period required for graduation is not necessarily prolonged; (7) the plan provides for completing the students' education; (8) permanent business and industrial positions are opened to students; (9) the interest of the pupils is increased; (10) proper supervision is a valuable feature of the plan.

North Carolina.—*Department of Labor and Printing. Twenty-ninth annual report. Raleigh, 1915. 477 pp.*

Except for a brief introduction, and a classification of industries covering 68 pages, the report is largely statistical, including tables showing the condition of farmers, the trades, miscellaneous factories, cotton, woolen and silk mills, furniture factories, newspapers, and railroads and employees. The highest average wage paid to male laborers on the farms was \$1.06 per day, and to female laborers, 67 cents. The average wage of children under 16 years of age was 37 cents. In the trades, wages showed a slight decrease as compared with 1914, due, it is explained, to a falling off in employment which resulted from the low price of cotton, the influence of which was to stagnate business. Plumbers received the highest average wage, \$4.50, and electric engineers the lowest average wage, \$1.42. The following table shows the number of mill and factory operatives and the total pay roll and estimated yearly output for each specified industry:

NUMBER OF EMPLOYEES, TOTAL PAY ROLL, AND ESTIMATED VALUE OF YEARLY OUTPUT IN EACH SPECIFIED INDUSTRY IN 1915.

Industry.	Number.	Estimated value of yearly output.	Employees.					Pay roll.	
			Wage earners. ¹				Salaried.	Wage earners.	Salaried employees.
			Male.	Per cent.	Female.	Per cent.			
Cordage mills.....	4	\$1,139,306	260	61.0	166	39.0	10	\$192,506	\$9,475
Cotton mills.....	318	84,349,678	31,841	61.8	19,653	38.1	1,137	16,542,121	1,427,539
Furniture factories.....	102	10,595,959	5,622	99.6	22	.4	403	1,866,910	472,114
Knitting mills.....	81	11,960,362	2,562	36.3	24,498	63.7	240	2,001,628	248,430
Silk mills.....	4	585,887	230	31.3	506	68.7	2	268,246	1,661
Woolen mills.....	4	750,764	304	60.0	203	40.0	16	198,452	21,430
Other factories.....	3,706	136,066,168	55,568	89.3	6,691	10.7	4,624	23,470,581	5,117,478
Total.....	4,221	245,458,124	296,387	75.2	231,739	24.8	6,437	44,540,444	7,298,127

¹ Including 7,417 persons under 16 years of age. ² Not including 206 wage earners, sex not reported.

The report shows 326 newspapers in the State, employing 1,466 persons, with an aggregate yearly pay roll of \$785,802. The highest average daily wage reported was \$2.51, and the lowest was \$1.09. A railroad mileage of 4,919.57 is reported. The average daily wage paid to railroad employees was \$2.36 received by general office clerks, and the lowest was \$1.10 paid to watchmen and switch tenders.

Pennsylvania.—*Department of Labor and Industry. Safety standards of the industrial board: Boilers. Operative on and after July 1, 1916. [Harrisburg, 1915] 104 pp. (Vol. I, No. 12.) Consists of the safety standards adopted by the industrial board and outlines the regulations which will be insisted upon by the department in its inspection of boilers.*

Texas.—*State Mine Inspector. Fourth annual report, Austin, 1915. 24 pp., folded table.*

During the year 1914, 48 mines were in operation. Of these 19 were bituminous coal mines and 28 lignite mines. The average number of days of operation

of the bituminous mines during the year was 222, and of the lignite mines 207 days. The total bituminous tonnage for the year was 1,123,220, and of the lignite coal it was approximately 732,000 tons. The total number of workers in bituminous coal mines was 3,430, of whom 3,180 were employed underground. The total number of workers in the lignite field was approximately 1,300.

The total number of fatal accidents reported during the year was 11, and of nonfatal accidents of a serious nature, 19.

As shown by a diminished output and a decrease in the number of days of operation during the year, there was a considerable industrial depression in the Texas coal fields during the year, explained as due to the competition with oil and gas, the development of which is increasing.

Virginia.—*Richmond. Board of Public Employment Bureau Commissioners. First annual report of the public employment bureau of the city of Richmond, Va., for the year ending December 31, 1915. [Richmond, 1916] 5 pp.*

The report covers the period February 8 to December 31, 1915, during which 1,909 employers filed applications calling for 4,277 persons, and 7,222 persons registered for work, while 4,235 were sent out and 2,179 were known to have been given employment.

The expenses of the bureau amounted to \$3,768.79 for the period February 8 to December 31, 1915.

United States.—*Bureau of Foreign and Domestic Commerce (Department of Commerce). Wholesale prices of leading articles in United States markets, January, 1913, to December, 1915. Washington, 1916. 14 pp.*

— *Bureau of Mines (Department of the Interior). Accidents at metallurgical works in the United States during the calendar years 1913 and 1914. Washington, 1915. 28 pp. (Technical Paper 124.)*

This paper is the first report of the Bureau of Mines on this subject. It shows that during these two years 119 men were killed, 2,285 seriously injured, and 11,046 slightly injured at smelters and mills, representing rates of 1.56, 29.67, and 143.44, respectively, per 1,000 men employed. In this report a serious injury is one disabling a man and keeping him from duty 20 days or more. The total number of men reported employed in the 390 metallurgical works, both smelters and ore-dressing plants, was in 1913, 35,549, while in 1914 the total number employed in 578 such plants was 41,461. Detailed tables are presented showing the number of fatal, serious, and slight accidents, by States and by causes, at smelters and ore-dressing plants for each year. In the ore-dressing plants machinery was responsible for 25.6 per cent of the fatalities, and in the smelters haulage was responsible for the greatest number of fatalities, 25 per cent. The following table presents a summary of these accidents, by years:

NUMBER OF MEN EMPLOYED, NUMBER OF DAYS WORKED, AND NUMBER OF MEN KILLED AND INJURED IN METALLURGICAL WORKS IN THE UNITED STATES IN THE YEARS 1913 AND 1914.

Year.	Number of employees.	Total days worked.	Average active days.	Killed.		Seriously injured.		Slightly injured.	
				Total.	Per 1,000 employed.	Total.	Per 1,000 employed.	Total.	Per 1,000 employed.
1913.....	35,549	12,139,104	341	63	1.78	1,047	29.45	5,177	145.63
1914.....	41,461	13,787,956	333	56	1.35	1,238	29.86	5,869	141.55
Total...	77,010	25,927,060	336	119	1.56	2,285	29.67	11,046	143.44

United States.—*Bureau of Mines (Department of the Interior). Metal mining accidents in the United States during the calendar year 1914. Washington, 1916. 96 pp. (Technical Paper 129.)*

This report is largely statistical. It shows that the death rate in the metal mines of the United States (excepting coal mines) in 1914 was slightly less than in any of the three previous years, the fatality rate being 3.54 per 1,000 men employed as against 3.57 per 1,000 in 1913, 3.91 in 1912, and 4.19 in 1911. These reductions from year to year, it is explained, are due largely to the introduction of safety appliances, better supervision, stricter enforcement of rules and regulations, and closer observance of State laws. The following table gives a summary of the accidents occurring in these mines:

NUMBER OF EMPLOYEES, DAYS WORKED, AND ACCIDENTS, SHOWING ACCIDENT RATE PER 1,000 EMPLOYED UNDER EACH SPECIFIED GROUP OF MINES, 1914.

Kind of mine.	Number of active operators.	Employees.			Days' work done.		Killed.		Seriously injured. ¹		Slightly injured. ²	
		Under-ground.	Sur-face.	Total.	Total.	Average.	Number.	Rate per 1,000 employed.	Number.	Rate per 1,000 employed.	Number.	Rate per 1,000 employed.
Copper.....	585	31,265	13,421	44,686	12,845,058	287	165	3.69	2,037	45.58	11,330	253.55
Gold and miscellaneous metal.....	3,536	35,432	13,006	48,438	13,241,280	273	179	3.70	911	18.81	4,690	96.82
Iron.....	196	24,847	19,960	44,807	11,745,978	262	148	3.30	1,851	41.31	6,922	154.48
Lead and zinc ³	248	7,609	3,326	10,935	2,779,109	254	40	3.66	146	13.35	1,605	146.78
Miscellaneous mineral.....	240	2,465	6,784	9,249	2,177,306	235	27	2.92	128	13.84	596	64.44
Total...	4,805	101,618	56,497	158,115	42,788,731	271	559	3.54	5,073	32.08	25,143	159.02

¹ Involving loss of 20 days or more.

² Involving loss of less than 20 days, but more than 1 day.

³ Mississippi Valley only.

Of all fatalities, 37.56 per cent were due to falls of ore or rock from roof, wall, or bank. Of 361 fatal accidents reported by 258 companies employing 75,453 men, by far the largest death rate per 1,000 employed, 5.76, was in 41 of the mines where the room-and-pillar method of mining prevails, while of 3,899 serious injuries reported by 258 companies, the highest rate per 1,000 employed was 62.89 occurring in 53 of the mines where a caving system is used. A comparison of metal mine, coal mine, and quarry accidents is given, showing that on a 300-day basis the fatality rate per 1,000 300-day workers is, respectively, 3.92, 4.67, and 2.64. The report closes with a brief summary of various State laws relating to reporting of accidents.

— How a miner can avoid some dangerous diseases. Washington, 1916. 22 pp. (*Miners' Circular 20.*)

One of a series of publications on health and sanitation in the mineral industry, prepared for miners as a result of studies by representatives of the Bureau of Mines and the Bureau of the Public Health Service. It describes briefly the causes and symptoms of some of the more deadly diseases found in mine towns and the means by which these diseases can be largely avoided if not entirely prevented. Emphasis is laid upon proper sanitation, pure water, and pure air. The diseases for which preventive measures are specifically given

are tuberculosis, typhoid fever, smallpox, and pneumonia. The pamphlet concludes:

Sickness is the miner's worst foe, but much of it can be avoided by observance of rules aimed to prevent rather than cure disease. Keep the home and its surroundings clean; keep the privy clean; keep your working place clean; don't spit carelessly; avoid needless exposure; breathe as little dust as possible and you will avoid much sickness and useless suffering to yourself and to others.

United States.—*Bureau of Mines (Department of the Interior). Monthly statement of coal-mine fatalities in the United States. January, 1916. Washington, 1916. 13 pp.*

Report is based upon returns received from State mine inspectors. Comparable data show that in January, 1915, there were 159 fatalities reported, while in 1916 there were 180. During the year 1915 there were 2,226 fatalities as compared with 2,454 during 1914, or a decrease of 8 per cent.

Of the 180 fatalities in January, 1916, 161 occurred underground, 8 in shafts, and 11 on the surface; January, 1915, the numbers were 141 underground, 8 in shafts, and 17 on the surface.

The copy of the report form adopted by the Bureau of Mines for use after January 1, 1916, is appended.

The following statement summarizes the situation for the years 1910 to 1915:

STATISTICS OF COAL PRODUCTION, NUMBER EMPLOYED, AND COAL-MINE FATALITIES IN THE UNITED STATES, 1910 TO 1915.

Year.	Production (short tons).	Number employed.	Number killed.			Production per death (short tons).	Days worked.	Average tonnage per man.	
			Total.	Per 1,000 employed.	Per 1,000,000 tons mined.			Per year.	Per day.
1910	501,596,378	725,030	2,821	3.89	5.62	177,808	220	692	3.15
1911	496,371,126	728,348	2,656	3.65	5.35	186,887	220	682	3.10
1912	534,466,580	722,662	2,419	3.35	4.53	220,945	225	740	3.29
1913	570,048,125	747,644	2,785	3.73	4.89	204,685	238	762	3.20
1914	513,525,477	763,185	2,454	3.22	4.78	209,261	207	673	3.25
1915 ¹	518,000,000	767,553	2,266	2.95	4.37	228,597	.....	.....	.....

¹ Subject to revision.

— *Congress. House. Committee on Immigration and Naturalization. Restriction of immigration. Hearings before the Committee on Immigration and Naturalization, House of Representatives, Sixty-fourth Congress, first session, on H. R. 558. January 20, 21, 1916. Ten parts. Washington [1916].*

— *Senate. Committee on the Judiciary. Accident compensation to Government employees. Hearing before the subcommittee of the Committee on the Judiciary, United States Senate. February 26, 1916. Washington, 1916. 57 pp. (64th Cong., 1st sess.)*

These hearings relate to a bill (S. 2846) to provide compensation for accidental injuries to employees of the United States resulting in disability or death. The bill is commonly known as the Sutherland bill.

— *Public Health Service (Treasury Department). Health insurance: Its relation to the public health. Prepared under the direction of the Surgeon General. Washington, 1916. 76 pp. (Public Health Bul. No. 76.)*

This bulletin is a presentation of the economic claims and data underlying a system of sickness insurance for wage earners. There have been brought together here in systematic form those facts and figures compiled by official and

private investigators having a bearing on the prevalence and cost of sickness and the conditions causing sickness among wageworkers, such as occupational diseases, irregularity of employment, unhealthful conditions of living, employment of women, inadequate earnings, and poverty. An attempt is made to apportion the responsibility for these conditions as between employer and employee and the general public.

Cooperative action for relief is considered necessary, and analogies are drawn from foreign experiences in dealing with the problem. The plain remedy is held to be some system of State-administered compulsory sickness insurance. On this point the summary and conclusions of the point are as follows:

Health insurance is the most feasible measure, because (a) it is a method by which the cost of sickness is distributed among those responsible for conditions causing sickness and whereby the burden upon the individual is lightened, and (b) it gives a financial incentive for the prevention of sickness to those who are responsible for conditions causing sickness.

Health insurance in its most highly developed form (a) provides for adequate cash and medical benefits to all wage earners in times of sickness; (b) distributes the cost among employers, the public, and wage earners according to their responsibilities; (c) becomes an effective health measure by stimulating the cooperative effort of the three responsible groups and by linking their efforts with those of national, State, and local health agencies; (d) correlates all the forces at work in the prevention of disease, and (e) affords a better basis for the cooperation of the medical profession.

Under an efficient health insurance system a contribution of approximately 50 cents per week per insured person (25 cents by employees, 20 cents by employers, and 5 cents by Government) should enable the insured person to receive: (a) \$7 per week when disabled on account of sickness or nonindustrial accident for a period as long as 26 weeks in one year; (b) adequate medical and surgical care during disability; (c) medical and surgical care of wife of insured person during confinement; (d) a death benefit of \$100. Budgetary studies of large numbers of workingmen's families show that many workers pay as high as 90 cents per week and receive little more than actual funeral expenses.

A governmental system of health insurance can be adapted to American conditions, and when adapted will prove to be a health measure of extraordinary value.

The fact that under such a system the employee has such a large measure of ownership and control will remove all elements of paternalism. The employee will then regard the benefits as rights, not charities.

Adequate medical relief will be placed within the reach of even the lowest-paid worker, and provide for him and his family during sickness.

It will give to those responsible for conditions causing sickness a financial incentive to prevent disease.

Its administration must be closely coordinated with public health agencies if it is to attain the greatest degree of success as a preventive measure.

FOREIGN COUNTRIES.

Australia (Commonwealth).—*Bureau of Census and Statistics.*—*The Australian Commonwealth, its resources and production, 1915.* [Melbourne, 1915.] 112 pp. Illustrated.

A descriptive yearbook for the Commonwealth, indicating such matters as physical features, history, climate, commerce, finances, and social conditions.

Austria.—*Arbeitsstatistisches Amt.* *Arbeitszeitverlängerungen (Überstunden) in Jahre 1913 in fabrikmässigen Betrieben Oesterreichs.* Vienna, 1914. 28 pp.

The Austrian Labor Code fixes the normal hours of labor at 11 per day, but permits overtime in certain instances. The report here listed is one which is annually submitted to parliament by the factory-inspection service, reporting

the amount of permissible overtime worked in 1913. The principal data of the report, with the figures for 1912 in parenthesis, are as follows:

During the year under review 471 (688) establishments, or 2.8 (3.9) per cent of the 17,034 (16,929) factories existing in 1913 worked overtime (in the meaning of the law). These 471 establishments worked in excess of the 11-hour legal limit in 940 (1,276) instances; in 186 (247) instances (involving not more than 3 days in one month) this was done by merely reporting the proposed overtime work to the industrial authorities, while in 754 (1,029) instances of longer periods of overtime, work permits were obtained from the provincial political authorities. The total hours worked in excess of the legal limit during the year by all workmen affected were 1,891,796 (2,744,341). Of this total the textile industry contributed 680,367 (1,184,268) hours; the stone, earthenware, and glass industries, 261,786 (345,458) hours; and the foodstuff industry, 249,901 (300,431) hours. These data are shown for the year 1913 in four tables: By provinces, by industries, and by provinces and industries combined; and for the 5 years, 1909-1913, by provinces.

Austria.—*Arbeitsstatistisches Amt. Die kollektiven Arbeits- und Lohnverträge in Oesterreich. Abschlüsse und Erneuerungen des Jahres 1912. Vienna, 1914. 358 pp.*

The present report on collective agreements entered into in Austria during 1912 continues a series begun in 1906 by the Austrian bureau of labor statistics. During the year 1912, 822 collective agreements, covering 13,336 establishments and affecting 180,382 workmen, were concluded. Out of this total 298 agreements, affecting 145,228 workmen, were local agreements, while 524, affecting 35,124 workmen, were shop agreements. Of the total agreements concluded during the year, 56 per cent were new agreements and 44 per cent were renewals.

The report states that its data concerning the number of agreements in force during the year are defective because many agreements are broken or terminated by notice before their actual expiration, without this fact being reported to the bureau, and partly because agreements of indeterminate duration, which form about 15 per cent of all agreements in force, were not included in the compilation, as no information could be obtained as to whether or not these agreements were still in force. The data obtained concerning the duration of agreements in force in 1912 have been summarized in the table following:

CLASSIFIED DURATION OF COLLECTIVE AGREEMENTS IN FORCE IN AUSTRIA, 1912.

Duration. ¹	Agreements.	Establishments covered.	Workmen covered.
Less than one year.....	21	41	2,095
One year but not over two.....	159	1,090	10,138
Two years but not over three.....	229	4,695	25,106
Three years but not over four.....	199	2,325	71,843
Four years but not over five.....	52	1,200	27,514
Five years and over.....	29	1,065	9,613
Total.....	689	10,416	146,309

¹ The duration is unreported in 133 cases, covering 2,920 establishments and 34,073 persons.

The following table shows the total number of collective agreements in force, with the number of establishments included and number of employees affected, on December 31, 1912, by industries:

COLLECTIVE AGREEMENTS CLASSIFIED BY INDUSTRIES IN FORCE IN AUSTRIA DECEMBER 31, 1912.

Industry and occupational groups.	Number of agreements.	Number of establishments covered.	Number of workmen covered.
Agriculture and gardening.....	2	2	127
Mining.....	2	41	39,200
Stone, earthenware, glass, and china.....	180	901	27,579
Metal working, machinery, apparatus, instruments, and vehicle industries.....	477	3,102	78,154
Woodworking industry.....	170	3,299	24,976
Rubber and celluloid industries.....	1	1	35
Leather industry.....	50	233	3,564
Textile industry.....	53	179	21,868
Upholstering.....	18	627	1,857
Clothing.....	187	17,033	64,743
Paper.....	29	1,093	9,052
Foodstuffs.....	174	2,427	27,538
Hotels, restaurants, cafés, etc.....	9	1,915	5,526
Chemical industry.....	22	22	2,636
Building trades.....	259	6,978	99,655
Printing trades.....	25	1,969	24,000
Commerce, transportation.....	75	2,669	18,973
Engineers and firemen.....	16	46	323
Other occupations.....	17	19	419
Total.....	1,766	42,556	450,225

The principal regulations in agreements entered into in 1912 relate to the hours of labor (81 per cent of all agreements) and to wages (99 per cent). The principal facts in regard to hours and wages as reflected in collective agreements are disclosed in the table following:

NUMBER AND PER CENT OF AGREEMENTS, ESTABLISHMENTS COVERED, AND WORKMEN AFFECTED, CLASSIFIED ACCORDING TO NORMAL HOURS OF LABOR ON THE FIRST FIVE DAYS OF THE WEEK.

Normal hours of labor on the first five days of the week.	Agreements.		Establishments covered.		Workmen covered.		Earlier closing on Saturdays. ¹		
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Agreements.	Estab-lishments covered.	Workmen covered.
7.....	1	0.2	1	(²)	10	(²)	.....	.....	.....
8.....	4	.6	5	(²)	127	0.1	1	1	16
8½.....	11	1.7	179	1.7	1,182	1.1	7	170	925
8¾.....	6	.9	9	.1	259	.3	1	1	40
9.....	146	22.4	1,961	18.5	40,744	39.5	80	1,245	15,950
9½.....	24	3.7	45	.4	1,538	1.5	21	42	1,237
9¾.....	154	23.8	1,005	9.5	17,239	16.7	134	818	15,300
9¾.....	49	7.6	135	1.3	3,569	3.5	46	122	3,303
10.....	201	31.0	2,467	23.3	24,610	23.9	135	550	13,095
10½.....	2	.3	31	.3	88	.1	1	1	26
10¾.....	19	2.9	2,659	25.1	6,427	6.2	8	28	207
10¾.....	1	.2	8	.1	17	(²)	1	8	17
11.....	22	3.4	1,041	9.8	4,699	4.6	2	17	145
12.....	7	1.1	1,010	9.6	2,179	2.1	1	25	17
13.....	1	.2	31	.3	450	.4	.....	.....	.....
Total.....	648	100.0	10,587	100.0	103,138	100.0	³ 438	3,028	50,278

¹ Of the agreements shown here 16, covering 36 establishments and 836 workmen, also provide for earlier closing on Mondays, 1 covering 1 establishment with 39 workmen for earlier closing on Mondays and Tuesdays; 3 agreements covering 10 establishments with 477 workmen provide for earlier closing on Saturdays and longer hours on Fridays; 1 agreement for 9 establishments with 16 workmen provides for earlier closing on Mondays instead of on Saturdays.

² Less than 0.05 per cent.

³ In addition 11 agreements covering 76 establishments and 13,308 workmen provide for earlier closing on Saturdays without regulating the daily hours of labor.

Austria.—*Arbeitsstatistisches Amt. Sitzungsprotokolle des ständigen Arbeitsbeirates, 1913 and 1914. Vienna, 1914, xii, 224 pp.*

Contains the program and minutes of the meetings in 1913 and 1914 of the Austrian permanent advisory labor council. The meeting discussed the following matters: Homework in clothing, shoe, and lingerie industries; insurance of miners; working and wage conditions in the Austrian iron and steel industry; vacations for all workers in industrial establishments; congress on labor legislation in Berne; draft of decree relating to the application of several provisions of the Industrial Code and of the law on factory inspection to specified service conditions regulated in the mercantile employees' law; draft of a law amending articles 79 to 81 of the Industrial Code (workmen's pass books); and day nurseries in factories.

Canada.—*Imperial Yearbook, 1915-16. Second year of publication. Montreal, 1915. 663 pp.*

The widespread approval and circulation, suggests the editor of this yearbook, which were accorded the first edition encouraged the preparation of this edition in which a rearrangement of form, including curtailments and additions due entirely to war, have been made. The aim appears to be to give statistics of Canada and the Empire and to show relations between them. By the presentation of special tables added to the trade and commercial and imperial sections, an effort has been made to show the existing extent of Canada's trade and "to help the Canadian citizen to gauge the possibilities arising from the cessation of Germany's enormous trade with the Empire and Canada." Thirty-two pages are devoted to a review of the war, followed by such general information about Canada as is usually found in a publication of this kind.

—*Superintendent of immigration. Report on immigration. Ottawa. 1915. 93 pp. (Department of the Interior, Part II annual report, 1915.)*

The total immigration into Canada for the year ending March 31, 1915, was 144,789, a decrease of 240,089 over the preceding year. Immigration from the United States into Canada fell from 107,530 in the fiscal year 1913-14 to 59,779 in the year 1914-15. Of the 59,779 persons 21,819 were reported as farmers (12,780 males, 4,321 females, and 4,718 children). The report notes that every American State contributed to the immigration to Canada, the largest contributor being Massachusetts, with 9,697.

Denmark.—*Statens Statistiske Departement. Statistiske meddelelser. Fjerde Række, ni og fyrretyvende bind. Copenhagen, 1916. (Danmarks Statistik.)*

The forty-ninth volume of the fourth series of general statistics for Denmark. The report consists of four parts: Cooperative dairies, 1914; Collective agreements between employer and employees in Denmark, August 1, 1915; State taxes on incomes and property, 1915-1916; Agricultural production in 1915.

The following table summarizes the collective agreements in force on August 1, 1915:

COLLECTIVE AGREEMENTS IN FORCE IN DENMARK AUG. 1, 1915.

Occupations.	Agreements in force.	Number of employers.	Number of employees.		
			Males.	Females.	Total.
Laborers (unskilled).....	397	4,268	32,054	3,441	35,495
Woodworkers.....	16	310	1,373	.....	1,373
Butchers.....	42	155	2,667	345	3,012
Bakers.....	44	1,644	2,391	.....	2,391
Brewers and distillers.....	106	75	2,442	1,342	3,784
Carpenters.....	15	1,558	4,075	4,075

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COLLECTIVE AGREEMENTS IN FORCE IN DENMARK AUG. 1, 1915—Continued.

Occupations.	Agreements in force.	Number of employers.	Number of employees.		
			Males.	Females.	Total.
Firemen, marine.....	17	54	1,840	.....	1,840
Shoemakers.....	7	765	2,758	.....	2,758
Tinsmiths.....	3	660	1,045	.....	1,045
Blacksmiths, sawyers, and machinists.....	40	956	8,709	.....	8,709
Masons.....	21	1,654	6,012	.....	6,012
Seamen.....	29	67	2,538	.....	2,538
Furniture makers.....	10	2,133	4,760	.....	4,760
Millers.....	31	71	537	7	544
Paper makers.....	3	3	743	318	1,061
Painters.....	9	953	3,378	.....	3,378
Saddle makers and upholsterers.....	43	504	1,506	.....	1,506
Tailors.....	7	340	5,810	1,500	7,310
Tobacco workers.....	3	91	2,587	3,312	5,899
Textile workers.....	12	66	1,853	2,353	4,236
Printing, etc.....	3	295	3,412	595	4,007
Other skilled occupations.....	269	(1)	13,099	2,106	15,205
Total.....	1,127	.....	105,589	15,346	120,938

¹ Not reported.

Of the agreements, 70, affecting 1,768 employees, run for less than 1 year; 186, affecting 11,309 employees, 1 year but less than 2 years; 272, affecting 32,350 employees, from 2 to less than 3 years; 195, affecting 19,399 employees, from 3 to less than 4 years; 250, affecting 40,802 employees, from 4 to less than 5 years; and 41, affecting 8,439 employees, for a period exceeding 5 years.

Agreements in 48 cases, affecting 53,800 employees, covered the entire country, but of which 14 are not applicable to the capital; 36, affecting 4,680 employees, a Province or two or more cities; 317, affecting 37,900 employees, a city; and 726, affecting 24,512 employees, an establishment only.

France.—*Préfecture de Police. Rapport sur les Opérations du Service d'Inspection des Établissements Classés dans le Département de la Seine, 1914. Paris, 1915. 87 pp.*

This volume constitutes the report of the factory inspectors for the district of Paris during the year 1914. The number of classified establishments subject to inspection on December 31, 1914, was 6,659, and of so-called nonclassified establishments 313, making a total of 6,972. The number of inspections made was 12,518.

Great Britain.—*Board of Trade. Railway accidents. Summary of accidents and casualties reported to the Board of Trade by the several railway companies during the three months ending 30th September, 1915; reports to the Board of Trade by the inspecting officers of the railway department upon certain accidents which were inquired into. London, 1916. 50 pp.*

—*Home Department. Explosions in Mines Committee. Seventh report of the explosions in mines committee, submitting a report on the effects of inhaling dusts applicable for stone dusting in coal mines. London, 1915. 22 pp.*

The explosions in mines committee has already submitted six reports upon the effect of inert dust in preventing or limiting the explosions of coal dust. At the same time that these incombustible dusts were found to be of value in suppressing or limiting coal-dust explosions it was incidentally apparent that they might also give rise to additional danger on their own account, particularly if such dusts contain silica.

This particular investigation on the effects of inhaling dust used in coal mines was conducted by Dr. J. S. Haldane, of Manchester. A summary of his conclusions is as follows:

(1) Both from human experience in coal mines and from experiments on animals there is clear evidence that shale dust, when inhaled, is no more deleterious than coal dust, so that shale dust may be used quite safely for stone dusting in coal mines; (2) flue dust, when inhaled, produces in animals effects which point to the conclusion that it may be unwise to employ it for stone dusting in mines; (3) indications are given as to what varieties of stone-dusting material may be used in mines without detriment to health; (4) it is desirable from the point of view of health to reduce, as far as practicable, the inhalation of any kind of dust in mines.

Great Britain.—*Ministry of munitions. Health of munition workers committee. Memorandum No. 1, Report on Sunday labor; Memorandum No. 2, Welfare supervision; Memorandum No. 3, Report on industrial canteens, London, 1915. 3 pamphlets.*

India (Bombay).—*Factory Department. Annual factory report, 1914. [Bombay], 1915. 8, xxiv pp.*

A report of the factory-inspection service in Bombay Presidency on sanitation, ventilation, wages, employment of women and children, guarding dangerous machinery, and accidents.

There were 777 factories subject to inspection, 71 of which were closed during the entire year. The 706 factories in operation employed 265,975 persons, of which number 206,350 were engaged in the cotton industry.

Netherlands (Amsterdam).—*Bureau van Statistiek. Catalogus van boeken en brochures, en de bibliotheek van het Bureau van statistiek, ten Stadhuize. Amsterdam, 1915. 22 pp. (Statistische mededeelingen, No. 46.)*

A catalogue of books and pamphlets in the municipal library at Amsterdam on the protection of nursing infants and mothers and on infant mortality.

Norway (Christiania).—*Arbeidskontor. Aarsberetning [Christiania, 1916. 27 pp.] (Norges Offentlige Arbeidsformidling.)*

This pamphlet contains the annual report of the labor exchange of Christiania which functions as a central body for the Kingdom. It is administered by an equi-partisan board representing employers and employees with a State appointed director. During 1915, 41,627 applications for work were filed with it, 35,231 vacancies, reported 30,994 applicants given work, and 31,078 situations filled. This represents an increase over 1914 of 17 per cent in the number of applicants for work, of 23.7 per cent in the number of vacancies reported, and 26 per cent in the number of situations filled. Classified by sex, there was an increase in all items except as respects the woman's division.

——— *Statistiske kontor. Husholdningsregnskaper fort av endel mindre bemidlede familier i Kristiania, Bergen, Trondhjem, Drammen, Kristiansand og Hamar i aaret 1912-13. Utgit ved Kristiania kommunes statistiske kontor. Christiania, 1915. LXXIX, (1). 179 pp. (Special Undersøkelser, 4.)*

This volume presents the results of an inquiry into the cost of living in six principal cities in Norway, based on 174 family budget books kept for one year (1912-13) under the supervision of the city authorities. The tables in general present the results of a study of the budgets of 171 families, having a range from 1,186.06 crowns (\$317.86) to 3,795.92 crowns (\$1,017.31) for the year, while special study is made of the three families having an income in excess of 4,000 crowns (\$1,072).

The largest single proportion of families, or 25.3 per cent, was found in income group 1,750 to 2,000 crowns (\$469 to \$536); 23.6 per cent, 2,000 to 2,500 crowns (\$536 to \$670); 20.7 per cent, 1,500 to 1,750 crowns (\$402 to \$469); 14.9 per cent, 1,200 to 1,500 crowns (\$322 to \$402); 7.5 per cent, 3,000 to 4,000 crowns (\$804 to \$1,072); and 1.7 per cent, over 4,000 crowns (\$1,072). The average income for all 171 families was 2,021 crowns (\$542).

As to occupation of 168 heads of families, 65 per cent were ordinary workmen, 35 per cent commercial and office employees, and three worked on their own account. The average size of the 171 families was 5.23 persons for those having incomes ranging from 1,200 to 4,000 crowns (\$322 to \$1,072), and 6.33 persons for the three with incomes exceeding 4,000 crowns (\$1,072) annually. It is noticeable that in general there was a gradual increase in the size of the family as the income increased up to 3,000 crowns (\$804), the maximum, or 6.45 persons per family, being found in the income group 2,500 to 3,000 crowns (\$670 to \$804), with a decline to 6.31 per family in the next highest income group of 3,000 to 4,000 crowns (\$804 to \$1,072).

NUMBER OF FAMILIES BY CLASSIFIED INCOME.

	From 1,200 to 4,000 crowns (\$321.60 to \$1,072).							Over 4,000 crowns (\$1,072).	Total.
	1,200 to 1,500 crowns (\$321.60 to \$402).	1,500 to 1,750 crowns (\$402 to \$469).	1,750 to 2,000 crowns (\$469 to \$536).	2,000 to 2,500 crowns (\$536 to \$670).	2,500 to 3,000 crowns (\$670 to \$804).	3,000 to 4,000 crowns (\$804 to \$1,072).	Total.		
Number of families.....	26	36	44	41	11	13	171	3	174
Average number of persons per family.....	4.58	4.97	5.18	5.27	6.45	6.31	5.23	6.33	(1)

¹ Not reported.

The sources of income of the different income classes for the 171 households having an income under 4,000 crowns (\$1,072) and for the three having an income in excess of that amount are set forth in the first table following, while the distribution of the expenditures is shown in the second statement.

SOURCES OF INCOME OF FAMILIES, BY CLASSIFIED INCOME.

Sources of income.	Amount of income of families having an income of—					Per cent of earnings from each source of families having an income of—				
	\$321.60 to \$1,072 (171 families).	\$321.60 to \$469.	\$469 to \$670.	\$670 to \$1,072.	\$1,072 to \$1,608 (3 families).	\$321.60 to \$1,072 (171 families).	\$321.60 to \$469.	\$469 to \$670.	\$670 to \$1,072.	\$1,072 to \$1,608 (3 families).
Total income.....	\$541.53	\$423.25	\$553.67	\$804.14	\$1,235.87	100.00	100.00	100.00	100.00	100.00
Earnings of—	489.97	398.87	499.13	692.89	1,148.32	90.48	94.24	90.14	86.17	92.92
Husband, wages....	443.55	369.92	456.93	586.36	808.61	81.91	87.40	85.52	72.92	65.43
Husband, other than wages.....	16.30	12.61	14.91	30.77	201.89	3.01	2.98	2.69	3.83	16.34
Wife.....	10.89	13.17	8.03	15.10	.....	2.01	3.11	1.45	1.88	.....
Children.....	19.23	3.17	19.25	60.66	137.82	3.55	.75	3.48	7.54	11.15
Lodgings and boarders...	21.10	11.59	22.69	40.04	.....	3.90	2.74	4.10	4.98	.....
Insurance.....	2.94	2.60	3.09	3.30	.....	1.54	.61	.56	.41	.....
Gifts, etc.....	7.53	5.36	5.84	19.12	34.55	1.39	1.27	1.06	2.38	2.80
Other.....	19.99	4.83	22.92	48.79	53.00	3.69	1.14	4.14	6.06	4.28

AVERAGE EXPENDITURE PER FAMILY, FOR VARIOUS ITEMS.

Items of expenditure.	Average expenditure per family, having an expenditure of—					Per cent of total expenditure for each item of expenditure per family having an expenditure of—				
	\$321.60 to \$1,072 (171 families).	\$321.60 to \$469.	\$469 to \$670.	\$670 to \$1,072.	\$1,072 to \$1,608 (3 families).	\$321.60 to \$469.	\$349 to \$670.	\$670 to \$1,072.	\$670 to \$1,608 (3 families).	\$1,072 to \$1,608 (3 families).
Food.....	\$234.76	\$196.41	\$238.60	\$320.26	\$403.89	44.13	47.95	43.97	39.44	31.49
Beverages and tobacco.....	10.45	8.37	11.47	12.15	25.50	1.96	2.05	2.12	1.50	1.99
Clothing.....	77.06	51.83	82.59	122.60	174.25	14.48	12.66	15.23	15.10	13.59
Rent.....	85.57	64.12	89.62	126.61	218.43	16.08	15.65	16.52	15.59	17.03
Heat and light.....	26.80	22.04	27.10	38.07	58.11	5.03	5.38	5.00	4.68	4.53
Laundry.....	9.31	6.49	9.12	17.29	22.80	1.75	1.58	1.68	2.14	1.78
Furniture.....	10.35	8.14	10.30	16.23	107.28	1.94	1.99	1.90	1.99	8.37
Medicine and medical treatment.....	6.71	4.57	5.04	18.15	31.45	1.26	1.11	.93	2.23	2.45
Servants.....	1.89	.44	1.78	5.03	35.22	.36	.11	.33	.74	2.75
Society dues, and insurance premiums.....	23.16	18.68	19.81	43.58	54.03	4.35	4.56	3.65	5.74	4.21
Taxes.....	8.67	5.42	8.73	16.89	45.09	1.64	1.32	1.61	2.08	3.52
Gifts, etc.....	5.67	4.49	5.44	9.51	13.13	1.07	1.10	1.00	1.16	1.02
Education, etc.....	9.01	5.49	8.56	19.71	29.12	1.69	1.34	1.58	2.43	2.27
Amusements.....	4.50	2.98	4.81	7.32	14.14	.84	.73	.89	.90	1.10
Lottery tickets.....	1.63	.90	1.79	2.98	4.96	.31	.22	.33	.37	.39
Travel.....	11.96	6.78	12.81	22.33	31.47	2.24	1.65	2.36	2.75	2.45
Other expenses.....	4.62	2.43	4.86	9.41	13.59	.87	.60	.90	1.16	1.06
Total.....	532.12	409.51	542.45	812.13	1,282.45	100.00	100.00	100.00	100.00	100.00

Nova Scotia.—*Department of Public Works and Mines. Annual report of the mines, 1915. Halifax, 1916. 181 pp.*

Report of the production of minerals in the Province for the fiscal year ending September 30, 1915; Equipment, working conditions, and development in the collieries; Regulations for installing and operating electricity in the mines. Tables are given showing the number of accidents in mines. The report includes brick kilns and quarrying.

The average daily force employed in the coal mines of Nova Scotia for the year ending September 30, 1915, was 16,626, and the total number of days worked by this force during the year was 3,310,934.

Victoria (Australia).—*Chief Inspector of Factories. Report of the chief inspector of factories, Melbourne, on antistriker legislation in operation throughout the Australasian States; and recommendations regarding such legislation for Victoria. Melbourne, 1915. 30 pp.*

This document consists principally of a digest of the various laws on strikes and on the settlement of industrial disputes in the various States of the Commonwealth of Australia. It briefly describes the results obtained by such legislation.

As applicable to the State of Victoria, it is recommended that the system of wage boards in that State be extended; that the determinations of the wage board be automatically suspended upon the occurrence of a strike; that legislation be enacted requiring notice of intention to strike or lockout; that any determination of a strike should be preceded by a secret ballot on the question, such a vote to be carried by a majority of the voters on the rolls of the wage board; that 7 days' notice be given to an employer preceding the declaration of a strike; that penalties be automatic and become a charge on the property, earnings, and wages of the parties concerned until recovered; and, finally, that the prerogative of the Crown to pardon offenders or remit fines be abrogated.

PERIODICAL PUBLICATIONS RELATING TO LABOR.

LABOR DEPARTMENTS AND BUREAUS.

Austria.—*Soziale Rundschau, herausgegeben vom K. K. Arbeitsstatistischen Amt im Handelsministerium. Vienna.*

October-November, 1915.—General labor legislation: Norway, law, September 19, 1915, relating to the protection of workmen in industrial establishments; Austria, Decrees of the minister of commerce, of September 11 and October 21, 1915, relating to night and overtime work of women and juvenile workers; Industrial inspection in Austria, 1914. Special labor legislation: Spain, proposed prohibition of nightwork in bakeries; France, law of July 10, 1915, regulating the wages of female home workers in the clothing industry; Norway, proposed regulation of home work; Austria, Imperial decree, October 3, 1915, extending the term of office of officers of mine guilds. Labor disputes: Norway, law, August 6, 1915, relating to labor disputes; Sweden, statistics of labor disputes, 1914. Employment bureaus and unemployment: Austria, measures for the employment of war invalids; Measures for the aid of unemployed salaried workers; Statistics of employment offices, July and August, 1915; Unemployment in Austrian trade unions, June-September, 1915; Germany, compulsory reporting by free employment offices; Bulgaria, unemployment during 1914. Labor offices: Activities of the Austrian bureau of labor statistics, 1914. Workmen's insurance: Germany, Insurance of salaried employees during the war; Extension of the Prussian miners' funds war law to Austro-Hungarian citizens; Netherlands, introduction of compulsory sickness insurance. Social measures: Austria, Decree, October 21, 1915, regulating the cultivation of fallow lands; Decree, September 29, 1915, prohibiting the use of potatoes and restricting the use of sugar beets in the manufacture of spirits; Decree, October 30, 1915, regulating the sale of legumes; Extension of furloughs for engineers and firemen employed in operating agricultural machinery; Financial aid by the Government to dependents of men called in for army service, to invalid enlisted men and their dependents, and to survivors of enlisted men fallen in the war; Denmark, investigation into the social consequences of the war; Review of social and economic literature.

Brazil. SÃO PAULO (*State*).—*Boletim do Departamento Estadual do Trabalho, São Paulo.*

Vol. 4, No. 15, (2d quarter, 1915).—Accidents to employees in industrial, commercial, and transportation establishments and enterprises in São Paulo, Brazil, in 1914; Proposed labor contract law, Italy, March 18, 1915; Proceedings of the seven conventions of the International Association for Labor Legislation; Proposed law on industrial accidents; Safety and hygienic regulations for manufacturing establishments, and for operations in which poisonous substances are employed; Immigration to America, 1904-1913; Eight-hour day and nightwork; Colonization of North Paulista; Portuguese legislation (hours of labor in commercial and industrial establishments, and employment of women and minors); Detailed statistics of accidents in the State capital; Prices of necessities; Wages on coffee plantations; Immigration, 1915; Immigrants provided for by the State; Labor exchange, Department of Labor; Publications received.

Denmark.—*Statistiske Efterretninger udgivet af det Statistiske Department, Copenhagen.*

March 6, 1916 (Vol. 8, No. 4).—Production and sale of sugar in Denmark, 1915; Exports of dairy products; Imports of hides and skins, 1915; Imports of lumber from coniferous trees; Growth of the Danish merchant marine; The

index numbers of the Economist; Population of Denmark, February, 1916, and other brief notices.

France.—*Bulletin du Ministère du Travail et de la Prévoyance Sociale. Paris.*

November–December, 1915. (Vol. 22, Nos. 11 and 12.)—Social movement—France: Inquiry concerning industrial and social activities October, 1915; Mine labor, October and November, 1915; Strikes in November and December, 1915; Work of the mixed commissions in the departments for the securing of employment; Unemployment relief, 1913; Operations of the national unemployment fund for Paris; Central employment exchange; British inquiry on conditions of labor in munition factories in France; Determination of the average wage of agricultural laborers for purposes of accident compensation; Appointment of a central wage board for home workers; Savings banks, 1912, 1913; Economic situation expressed in index number, third quarter 1915. Foreign countries: Cost of living since the outbreak of the war; Reports on labor and labor conditions, Germany, Spain, United States, Great Britain, Italy, Norway, the Netherlands, Switzerland. Miscellaneous reports: Wholesale prices, Paris, November–December, 1915. Foreign commerce of France, 1914, 1915; Railroad receipts, August and October; Production of sugar and alcohol. Court decisions, legislative reports, laws, official documents, etc.

Germany.—*Reichs-Arbeitsblatt, herausgegeben vom Kaiserlichen Statistischen Amte, Abteilung für Arbeiterstatistik. Berlin.*

February, 1916.—Labor market in Germany, January, 1916; Labor market in foreign countries (Great Britain, Switzerland, New York, Canada); Employment in January, 1916, according to reports of industrial establishments and sick funds; Unemployment in German trade unions, January, 1916; Unemployment in foreign countries (Sweden, third quarter, 1915; Denmark, September and October, 1915; Netherlands, November, 1915). Labor market from the middle of January to the middle of February, 1916, according to reports of public employment offices; New form for the compulsory monthly reports of public employment offices; Activities of public employment offices, January, 1916; War measures of the maritime trade accident insurance association; Labor shortage, wage increases, and high cost of living in Great Britain during the year 1915; Wage statistics of the Leipzig local sick fund; Universal old-age pensions in Sweden; Prussian regulations of December 16, 1915, for the compulsory monthly reporting of public employment offices to the Imperial statistical office; Statistical tables of the labor market.

Great Britain.—*Board of Trade Labor Gazette. London.*

March, 1916.—Employment chart; The labor market; Special articles on employment of women; Employment in Germany; Retail food prices in the United Kingdom, Berlin, and Australia; Rise in the cost of living in Copenhagen; New Norwegian factory act; Reports on employment in the principal industries; Labor in the British dominions over-sea and foreign countries—Canada, Australia, Holland, Denmark, Austria-Hungary, Norway, United States; Board of Trade labor exchanges. Statistical tables: Trade disputes; Changes in rates of wages; Prices of wheat, flour, and bread; Diseases of occupations; Distress committees; Fatal industrial accidents; Unemployment insurance; Pauperism; Foreign trade; Cooperative wholesale societies. Legal cases, official notices, etc.

Italy.—*Bollettino dell'Ufficio del Lavoro, Ministero di Agricoltura, Industria e Commercio. Rome. (Semimonthly.)*

March 1, 1916.—Labor market by localities and industries; Labor disputes, January and first half of February, 1916; Retail prices (actual and relative)

of foodstuffs in Italian cities, first six months 1914 and January, 1916; Retail prices of foodstuffs in foreign countries; Great Britain (July, 1914, and February 1, 1916); Germany, Berlin (July, 1914, and December, 1915); Austria, Vienna (July, 1914, and December, 1915); Switzerland (June, 1914, September and December, 1915); Employers' and employees' associations; Congresses and conventions; Activities of the bureau of labor; Decree, February 3, 1916, postponing the election of new members of the superior labor council; The more common diseases among cultivators of hemp; Court decisions relating to labor.

March 16, 1916.—Labor market by localities and industries; Labor disputes, second half of February; Employers' and employees' associations; Congresses and conventions; Interpellation in Parliament as to the employment of war prisoners; Activities of the labor office; Meeting of the permanent labor council, March 2 and 3, 1916; Decree, February 24, 1916, extending agricultural contracts; Decree, February 27, 1916, making provision for the expediting of public works during the war; Decree, February 28, 1916, providing that during the war the national insurance fund shall credit workmen called into the army with the minimum premiums prescribed by law; Decree, March 11, 1916, regulating the prices of domestic grain; Decree, March 11, 1916, regulating the milling of grain; Cases of poisoning by trinitrotoluol; Provisions for the protection of employees of public carriers; Court decisions relating to labor.

Netherlands.—*Maandschrift van het Centraal Bureau voor de Statistiek. The Hague.*

January, 1916.—Review of industrial and social progress, 1915; Labor market, 1915; Dock labor and employment of interned soldiers, January, 1916; Unemployment and unemployment insurance, 1915, and December, 1915; Labor exchanges, December, 1915; Strikes and lockouts, 1914 and December, 1915; Minimum wages and maximum hours on Government work, January, 1916; Collective agreements, 1915; Trade union activity; Wholesale and retail prices, 1915, January, 1916; Immigration and emigration, December, 1915; Decisions of courts; Miscellaneous labor and industrial statistics; Principal war measures in the Netherlands and foreign countries; Reports from foreign countries on the labor market, strikes and lockouts, labor exchanges, prices, etc.; Statistical tables on the labor market, labor exchanges, prices, unemployment, unemployment insurance, building activities, occupational diseases, State finances; Laws, decrees, etc.

New York.—*The Bulletin Issued Monthly by the New York State Industrial Commission. Albany.*

March, 1916, (vol. 1, No. 6).—"New Rule No. 2" (equipment of factory buildings with fire escapes, etc.); Report on anthrax—February 26, 1916; Decisions of the commission; Insurance in the State fund; Fire-alarm hearing; The labor market; Factory inspection; Reports of the bureaus.

Pennsylvania.—*Monthly Bulletin of the Pennsylvania Department of Labor and Industry. Harrisburg.*

February, 1916, (vol. 3, No. 2).—Hazards to health from industrial dust; "Petromortis," a new disease; State regulation of bake shops; Benzol poisoning; Hints for safety and health; Timely hints for foundrymen, bakers, machinists; Hazards of gas works; State and national cooperation for study of unhealthful conditions in industry; Obligation to obey orders of fire inspectors; Inclines as stairways for greater safety in public schools, factories, and halls; Work of the bureau of employment; Women in Pennsylvania industries; Aid of Bryn Mawr alumnæ in reducing fire hazards for women workers;

Cooperation of department in Americanization of immigrants; Immigrant statistics; Compilation of statistics of public-service corporations; Financial statistics of the bureau of statistics and information; Bureau of workmen's compensation; Hearings on tentative rules relating to construction, maintenance, and operation of cereal mills, malt houses, and grain elevators.

Spain.—*Boletín del Instituto de Reformas Sociales. Publicación Mensual. Madrid.*

February, 1916.—Report of the secretary's office and of the special divisions; Accident statistics, 1914; Social conditions in the rice-growing sections in the province of Valencia; Strike and lockout statistics; Cost of living for laborers; Cheap houses; Unemployment; Savings; Legislation and decrees: Proposed law in France relative to the cultivation of lands unused as a result of the war; Proposed eight-hour law in Uruguay; Amendatory war measures of social import adopted by Germany.

Sweden.—*Sociala Meddelanden utgivna av K. Socialstyrelsen. Stockholm.*

No. 1, 1916.—Hours of labor in barber and hairdressing establishments; Labor movement in the merchant marine; Conditions in Denmark arising from the war; Restriction of the sale of spirituous liquors; Work of the labor-inspection service, 1914; Pension bureau, 1914; Recent protective labor legislation in Norway; State subsidies to asylums for inebriates; Instructions for treatment of inebriates; Approval of an asylum for treatment of inebriates; Regulations relating to the bolting of rye flour; Reduction of rates on transportation of wood; Reports of labor inspectors concerning fatal industrial accidents; Registration of sick funds under the new law; Brief notices; Marine ordinances; Public contracts; Sickness and unemployment insurance committee; Benefit funds in Denmark, 1914; Labor market in England, December, 1915; Labor market in Germany, December, 1915; Swedish emigration, 1915; Cooperative union; Cooperation (wholesale) in foreign countries; Housing in Gottenborg, activities of the commune in an effort to provide dwellings in Gottenborg; Regulating house rents in Norway; Inquiry relative to uniform rates of wages in the bureau of State railways, in the postal, telegraph, and customs service, and in the water-power bureau; Municipal measures taken in Denmark relative to high prices; Public labor exchanges in Sweden, December, 1915; Flour and bread prices, 1915; Review of prices of articles of consumption in Sweden, fourth quarter, 1915; Food prices in Sweden, 1904–December, 1915; Food prices in various localities, Sweden, fourth quarter, 1915; Prices of cattle, Sweden, 1914–December, 1915; Prices of cattle, Sweden, fourth quarter, 1915; Prices of fish, Stockholm, December, 1914–December, 1915.

MISCELLANEOUS.

Austria.—*Amtliche Nachrichten des k. k. Ministeriums des Innern betreffend die Unfall- und Krankenversicherung der Arbeiter. Vienna.*

February, 1916.—Accident insurance; Elections and appointments of officers of the workmen's accident insurance institutes and courts of arbitration; Joint decree, January 24, 1916, of the ministers of the interior and of public works relating to the premium tariff of the miners' accident insurance institute; Decisions of the administrative court relating to workmen's accident insurance; Decisions of courts of arbitration. Sickness insurance; New determination of the customary local wages for the territory of Prague; Decisions of the administrative court relating to workmen's sickness insurance.

Germany.—*Amtliche Nachrichten des Reichsversicherungsamts. Berlin.* (Monthly.)

January 15, 1916.—Accident insurance: Financial statistics of the carriers of accident insurance for the year 1914. Sickness, invalidity, and survivors' insurance. Business and financial statistics for the year 1914 of the insurance institutes and special institutes established in pursuance of the Imperial Insurance Code.

Germany.—*Vierteljahrshefte zur Statistik des Deutschen Reichs, herausgegeben vom Kaiserlichen Statistischen Amte. Berlin.*

Fourth quarter, 1915 (vol. 24, No. 4).—Distribution of crop areas, forests, waste lands, etc. Hop crop for 1915. Bankruptcy statistics, third quarter, 1915. Tobacco culture, 1915. Changes in the number and capital of German stock companies. Bankruptcy statistics for the year 1914. Strikes and lock-outs, third quarter, 1915. Price statistics: Live-stock prices in 10 German cities, third quarter, 1911–1915. Cattle and hog prices in 5 German cities, January to September, 1908–1915. Live-stock prices in foreign countries, third quarter, 1911–1915. Meat prices in Berlin, 1910–1914. Retail prices of legumes in 24 German cities 1895–1914. Prices of food stuffs in Strassburg, in Alsace, 1910–1914. Charts.

Italy.—*Bollettino della Emigrazione, Commissariato della Emigrazione. Rome.* (Monthly.)

January, 1916.—Living and working conditions in French coal-mining districts. Law, December 19, 1914, regulating the immigration and naturalization of aliens in the Republic of Panama. Changes in the staff of the commission. Decree, December 23, 1915, regulating expatriation for the purpose of securing work.

February, 1916.—Statistics of the Italian trans-Atlantic emigration for 1914 and 1915, and the supervisory activities of the emigration commission. Living and working conditions in French coal-mining districts (continued). Discussions in the House of Deputies, December, 1915, relating to emigration and labor. Monthly statistics of trans-Atlantic emigration, January, 1916. Changes in the staff of the commission. Decree, January 2, 1916, relating to the issuance of passports to nonresident Italians.

Italy.—*Bollettino dell' Ispettorato dell' Industria e del Lavoro. Ministero di Agricoltura, Industria e Commercio, Ufficio del Lavoro. Rome.* (Bimonthly.)

September–October, 1915.—Personnel of the inspection service; Activities of the inspectors during September and October, 1915; Administrative orders; Production, imports, and exports of raw and partly worked up wool with special reference to the actual needs of Italian wool-combing establishments; Inspection work in rice fields during the polishing season of 1915.

Spain.—*Boletin del Consejo Superior de Emigracion. Madrid.*

November, 1915.—Report of the conditions among Spanish emigrants in the States of Para and Amazonas, and upon the Madeira-Mamore Railroad; Royal decree and regulations of the commission on emigration; Prevention of trachoma; Operations of the emigration commission; Emigration statistics; Spanish cooperative associations in Cuba; Current notes; Bibliographic notes.

December, 1915.—Report of conditions among Spanish emigrants in the States of Para and Amazonas, and upon the Madeira-Mamore Railroad, continued; Report of the finance bureau; Operations of the emigration commission; Rulings of the commission; Emigration statistics; Current notes; Bibliographic notices; and index for Vol. VII.



