

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ROYAL MEEKER, Commissioner

MONTHLY
LABOR REVIEW

VOLUME IX

NUMBER 3



SEPTEMBER, 1919

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

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Industrial Hazards.¹

By ROYAL MEEKER, UNITED STATES COMMISSIONER OF LABOR STATISTICS.

Introduction.

THE term "industrial hazard" means to the ordinary man in the street the danger or chance of accidental injury to the worker while engaged at his accustomed work. This is a needlessly narrow interpretation of industrial hazard and one which blinds us to evils other than the so-called "industrial accident," evils which are even more disastrous and far reaching in their effects than the accidents connected with employment. The proper and accurate definition of industrial hazard is, "anything occurring within an industry which impairs the earning power of a worker." This definition includes industrial accidents, sickness growing out of occupations, and above all, unemployment. It is this broader concept of industrial hazard that I shall discuss.

Industrial Accidents.

Attention was first quite naturally directed to accidental injuries connected with employment. The safety movement was at first exclusively a movement to cut down the heavy toll of deaths and maiming due to such accidents. There is, however, no clear line of distinction marking off injuries due to sudden occurrences which are universally recognized as accidents, and injuries resulting from the slower action of poisons, general fatigue, nervous strain, eyestrain, and the like.

The industrial safety movement to-day includes the hazards of disabilities due to sickness as well as disabilities due to accidents. The safety movement thus far has laid too much emphasis upon the fault of the employee. I do not minimize the importance of educating the employee to a full comprehension of his personal responsibility for his own safety and the safety of his fellow workers. That

¹ Address prepared for the convention of the Association of Governmental Labor Officials of the United States and Canada, Madison, Wis., June 2-4, 1919. A brief account of this convention was given in the MONTHLY LABOR REVIEW for August, 1919, pp. 256 and 257.

is proper and necessary training for fitness for the job. The studies into causes and results of accidents made by the United States Bureau of Labor Statistics have demonstrated pretty conclusively, however, that the more severe accidents which cause death and severe permanent injuries are due more to defects in the layout of plants, location of transportation lines, and similar defects in construction than to negligence or faults of the employees. The slogan "Be careful" can not prevent accidents in a steel mill where thousands of employees are obliged to cross dangerous railway lines within the plant every time they enter or leave the establishment or go from one building to another. A few thousand dollars expended in building overhead or underground passageways will do more to cut down the time loss due to accidents than ten times that amount spent in admonitions to the workers to stop, look, and listen. Now I do not suggest that the education of the workers in the art of being careful should be discontinued or diminished. On the contrary, this educational propaganda should be intensified, but at the same time the attention of employers should be directed emphatically and insistently to the fact that most of their serious accidents are beyond the power of individual employees to prevent. Neither can these accidents for the most part be eliminated by putting up tin and wire guards to belts, flywheels and gears. Much more fundamental changes in construction must be instituted in the layout of the plant, location of machinery, location of railway lines within the plant, and the location of the plant itself with reference to railway lines and other hazards outside the plant. As I see it, the function of the State is first to assist employers to understand the horrible wastefulness of industrial accidents and then to indicate the causes of these accidents and the best ways of preventing them. The State labor bureaus and departments have a most important function to perform in educating employers and employees in the causes, consequences, and cures for industrial accidents.

Industrial Poisons and Diseases.

As remarked before, there is no clear line of demarcation between industrial accident and industrial poisoning or disease. The loss of the use of a hand affects the health of the worker just as vitally whether his disability is caused by an exposed gear or by lead poisoning. The economic effects of disabilities are the same no matter how produced. It is most encouraging to learn that there is an increasing tendency to put industrial poisoning and sickness on the same footing as industrial accidents. Unquestionably illness due to unhealthful conditions in industry should be compensated in the same manner as disabilities due to so-called accidents.

In 41 of the States of the Union the legislatures have given tardy and only half-hearted recognition to the principle that accidental injuries to workers in industry constitute a part of the cost of production in that industry just as damage to machinery, tools and material is a part of the cost of production, regardless of the fault or negligence of either the employer or the employee. It has taken more than 20 years of the most strenuous battling to win even partial recognition for the principle of compensation as against the principle of liability for industrial accidents. Industrial illness, so far as industry can be held responsible for it, should come under the same compensation laws.

The extent to which industry is a contributing factor in sickness is almost unrecognized even by industrial physicians. In my opinion, the industrial hazard of ill health is vastly greater than the industrial hazard from accidents. It is much more difficult, however, to determine responsibility for illness because home conditions, bad food, bad housing, insufficient sleep, bad social conditions, infected water supply, and other conditions outside of the plant are contributing causes to the breakdown of health. Nevertheless, industries can not disclaim responsibility for illness because factors outside industry are contributing causes of ill health. The factory inspectors can perform a much-needed service by insisting that factories and workshops shall be lighted according to the best standards laid down in lighting codes and that industrial establishments shall be provided with sufficient toilet and washroom facilities and with proper locker rooms for street and work clothes, abundant, pure, and cooled drinking water, pure air free from dangerous and discomforting dust, smoke, and fumes. The temperature and humidity have been demonstrated as having a most important effect upon the health and efficiency of workers. So far as these are within control they should be regulated so as to enable the workers to perform their tasks with the minimum amount of fatigue and loss of vitality.

I am convinced that by far the most important of all industrial diseases is fatigue. Of course not all fatigue is caused by work. The fatigue due to keeping late hours, dancing, drinking and carousing, however, is utterly negligible compared to the accumulated fatigue of hard, monotonous work in factory or store under bad conditions of light, ventilation, temperature, and humidity. It must also be borne in mind that workers are human beings and that amusement and relaxation are just as essential to men as are food and raiment. Most of the dissipation workers are accused of is the result of the monotonous fatiguing character of their daily work. The workers seek relief in the only forms of amusement available to them.

The effects of fatigue are most insidious. Fatigue is cumulative and although a young vigorous man or woman may work long hours under unfavorable conditions for a long period without seemingly suffering any ill effects, in the end a settlement must be made. Most of the nervous disorders suffered by workers come from the employment. An unascertainable amount of disease not usually connected with industry at all is undoubtedly due to the accumulated fatigue of employment which has broken down the victim's power of resistance. I firmly believe that not less than one-half of all illness in the United States originates in and grows directly out of employment. Probably the contribution of industry to the ill health of the nation is much greater than one-half, but I wish to be conservative. The larger part of industrial fatigue is due to bad construction of plants and bad management. Most of it could be eliminated if employers assisted by society working through industrial physicians and labor departments and bureaus would set their minds to the task. Production would be greatly increased thereby and the benefits, social, political, and economic, would be incalculable.

Education in industrial hygiene is a matter mostly for employers. Every intelligent employer has competent machinists to look after the injuries to his machines. If a valuable, universal screw machine meets with a mishap, it is given a vacation, with pay, until the machine surgeon repairs the injury and the machine is fully rehabilitated. If an engine lathe contracts industrial fatigue, it is given a rest and thorough overhauling. The employer must be assisted to comprehend that his workmen deserve at least as humane treatment as his machines and mules. Both the public and employees, however, need a thorough seven-year college and university course in industrial hygiene in its relations to general health, efficiency in production, and national welfare.

Unemployment.

Unemployment is the only purely industrial hazard. It is far and away the most disastrously costly of all hazards. It is the one about which we know least and in regard to which we have done almost nothing. The people of the United States have given almost no attention to the business of directing workmen to employment. We have done nothing at all to furnish employment to the unemployed in dull times on public works, highways, harbor improvements, public buildings, and other construction work for the community. Yet such work has to be done, and it is perfectly practicable to arrange to have these works constructed during dull seasons and in times of depression, so as to relieve the stress of slack work and

unemployment in such periods. The policy of pushing public construction work during the dull season and in times of depression is no new proposition. The experiment has been tried abroad and has worked successfully. In this country, however, when unemployed workmen have clamored for work, we have pointed out to them our stupendous resources, our marvelous economic genius, the majestic magnitude of our industries, and the tremendous velocity of our progress, and we have said, "No man who really wants work need be idle." Long sophomoric essays have been written to prove that the only idle people in our unprecedentedly prosperous country are those who will not work. How otherwise could be explained the numbers of idle men and women in the midst of our plenteous prosperity? In recent years we have begun to distrust this simple explanation of unemployment. The laboring men and women of the country are insisting loudly upon their right to work and earn food, raiment, and shelter for their bodies, as a substitute for the privilege of receiving these indispensable goods as uncertain doles bestowed by the hands of professional philanthropists in the name of organized charity. Who can blame the workers for preferring wages above alms?

Our legislatures have been very slow to recognize the existence of unemployment in our country. When they have recognized it, they have made no attempt to measure its magnitude or deal with it intelligently or effectively. Our efforts to deal with unemployment are still mainly confined to handing out bread and soup indiscriminately to all comers. The Romans dispensed bread and circuses to their unemployed. We have substituted soup for circuses. That has been thus far our contribution toward the ultimate solution of the problem of unemployment. Whether we have improved upon the Roman formula for the treatment of the unemployed may be determined only by a careful statistical study of the relative merits of the Roman circus and of the American soup dispensed to the unemployed.

Some of the States and the Federal Government have set up systems of employment offices to bring together the "jobless man" and the "manless job." It has often been asserted that these offices can not create work for the unemployed. Their work, however, has exactly the same effect if they bring an unemployed man into a job that would have remained unoccupied without their efforts. A public employment office, even a very inefficient one, is a recognition on the part of the public of a solemn, tragic fact and of a great fundamental principle—the fact of unemployment and the principle of public responsibility therefor. These public offices should be vigorously supported by the people until they have driven all competing, profiteering private employment offices out of existence.

The unemployed who want work should be given the opportunity to do productive work through public employment offices; the unemployed who want to live and loaf at the expense of the industrious should be made to work on farm colonies and in penal institutions. The trouble with our public employment offices is the trouble which afflicts many if not most of our institutions. We have recognized the principle and defaulted in the interest. Our people are not willing to give of their time and effort to bring and keep the offices up to a high standard of efficiency.

The United States has no hereditary governing classes; the business of government falls upon the masses. Class government, of the classes, by the classes, and for the classes is relatively simple and easy to effect. There is nothing more difficult than to bring to pass mass government, of the people, by the people, and for the people. The American people are an ingenious and an ingenuous people. We have done more to substitute automatic machinery and devices for men and brains than any other people on earth. Whenever we see a man working at a steady job we want to devise a machine to take his place. We yearn for perpetual motion, social, political, economic, religious, spiritual, and physical. We want devices which, when once set going, will go on forever, requiring no further attention or intelligent effort on our part. We elect legislatures which enact statutes making it unlawful to do wrong, and we go on our way rejoicing. When the wrongdoers continue to do wrong, we set up a board or commission to put a stop to the wrongdoing. When the board or commission fails to work, we set up another automatic device to make it work, and so on.

But even if we had a complete and smoothly working national system of employment offices we would not have solved the problem of unemployment. Periodical, seasonal, and even weekly and diurnal irregularities in employment would exist. It is immensely more important that we smooth out the irregularities in employment than that we establish employment offices. Prevention is worth a thousand tons of cure. At first blush it might seem that every industry should be self-supporting, that is, every industry should pay at least a living annual wage—a wage sufficient to keep a worker and his family throughout the year, even though the industry should run for only a few months in the year. This idea sounds attractive but it is impracticable. If we try to put it into effect the canning industries would be destroyed along with many other useful industries which operate for only a part of the year. It is, however, perfectly practicable to combine seasonal industries and industries having considerable irregularity in employment so as to make employment much more stable than at present. But even when employment is stabilized as far as possible, there will still exist recurrent unemployment.

Unemployment Insurance.

How much unemployment there is to-day, nobody can say. What may be called "the irreducible minimum" of unemployment can not even be guessed at. No complete and accurate survey of the amount and significance of unemployment in this country has ever been made, and no funds have ever been appropriated by Congress to enable such a study to be undertaken although the importance of current information on this subject can scarcely be overemphasized. We shall never know the extent of unemployment until we have unemployment insurance. Heretofore I have opposed unemployment insurance on the ground that we have no adequate machinery to carry such insurance into effect. It seemed to me necessary that a very complete system of employment offices should be established before we ventured to enact unemployment insurance legislation. I have been driven to the conclusion, however, that unemployment insurance is absolutely necessary if for no other purpose than to secure a complete registration of all unemployed persons throughout the country. When we think of the disastrous consequences to the worker and to society resulting from unemployment, the millions of dollars necessary to carry into effect an unemployment insurance law seem a small price to pay for the information requisite for us to deal with this great evil.

The Department of Labor Statistics in Great Britain knows each week the number of unemployed in each industry throughout Great Britain and Ireland. This information is invaluable to the British Government in dealing with the tremendous problems of reconstruction and the reemployment of demobilized soldiers, sailors, and civilians. Had we been as deeply engaged in the war as Great Britain, our country to-day would be overwhelmed with disaster because of our inability to direct our industrial energies so as to absorb the enormous masses of workers coming in part from our disbanding Army, but in the main, of course, from specialized munition factories. Even as it is, unemployment has reached very serious proportions in different sections of our country, and it will undoubtedly grow worse before it grows better. In the meantime, we know nothing quantitatively about unemployment. All we know is that it is serious in extent and unforetellable in its possible results.

I have no time for the mind that condemns legislation because England, Germany, or some other foreign country has enacted such legislation and put it into operation. The British Government has an enormous advantage over ours in that it possesses exact information regarding employment in her industries. The British are able to direct their industrial policies with an intelligence that is wholly

lacking in this country, because of the exact knowledge they possess of the employment situation.

I do not want to see an unemployment insurance law, modeled after the British act, enacted in this country. It is very clear to me that industry should be made as nearly self-supporting as possible. Unemployment is the one hazard that is purely industrial, and it causes more distress and social demoralization than any other hazard affecting the life and health of the workers. Yet nothing has been done about it by industry and next to nothing by society. The whole burden falls upon the individual worker except for the feeble, sporadic help given by a few trade-unions. Industry should be made to pay the costs of production. A part of the costs of production under the present organization of industry is unemployment tempered by underemployment and overemployment. It would be very simple to put the money costs of unemployment upon industries on an insurance plan. The premium rate would be lowest for the most stable industries and highest for those in which employment is regularly irregular.

The cost of organizing and conducting unemployment insurance must be put upon industries approximately in proportion to the extent of unemployment in each industry. For example, seasonal industries like tomato canning, fish canning, and the like, should pay a greater proportional part of the tax or premium for unemployment benefits than industries working the year round. In addition to unemployment insurance taxes or premiums, industry should be required to pay a "dismissal wage" to employees discharged for no fault of their own. It will require much careful thought and expert draftsmanship to shape up a measure that will hold water, but every thing that is worth doing at all is difficult.

I do not expect unemployment insurance legislation to be enacted immediately, but it is bound to come. It is remarkable that industries have not been held accountable or even connected with the only purely industrial hazard that we have. The attention of employers must be directed to the dangerous and demoralizing effects of unemployment and the responsibility of industry therefor. When employers realize the dangers involved and their responsibilities we may trust to their patriotism and fair-mindedness to apply the proper remedy.

A Study of Rents in Various Cities.

By Prof. WILLIAM F. OGBURN.

AN ARTICLE in the August, 1919, issue of the MONTHLY LABOR REVIEW presented an analysis of family food costs in 92 cities, based upon the country-wide cost-of-living survey conducted by the United States Bureau of Labor Statistics during the fall and winter of 1918-19. The present article makes a similar analysis of house rents based upon data gathered in the investigation to which reference is made.

During the past three or four years housing has been an acute problem in nearly all countries. This has been due primarily to the fact that during the war the construction of ordinary residences ceased almost entirely. In addition, the problem was intensified in many communities by a very rapid increase in population due to the demands of the shipyards and other war industries for labor. In ordinary times, in large cities, there is always a considerable amount of overcrowding and congestion. This condition, however, is usually due to poverty rather than to an actual shortage of available house space, whereas under the recent war conditions the problem confronting many communities was an actual insufficiency of houses.

Scarcity of house room led to an increase of rents. In most communities, however, rents rose much less rapidly than did the other important items of family expenditures, such as food and clothing. In some cities the increase in rents was almost negligible, and in very few places was the increase over prewar rents as great as 40 per cent, whereas food in many places rose more than 90 per cent and clothing more than 100 per cent. In this connection it should be noted that the wide variation in rent increases between cities was in considerable part due to the varying degree in which war industries were established or flourished. While certain shipbuilding and munitions centers underwent a very rapid increase of population, in other places, notably in certain mid-western cities where there were no important war industries, there was probably a decrease of population due to the leaving of workers for the war-industry centers and to the operation of the draft laws.

It is, of course, possible to collect data of rents with a high degree of accuracy, as rent is almost always a fixed monthly sum. The problem of accuracy in dealing with rent lies essentially in getting a sufficiently large number of schedules to be representative of the various types of houses and of the various residence sections of a city. In the present investigation field agents obtained family schedules, including rent data, for an average of approximately 100 families in each locality. In addition, rents paid on several hundred more houses were ascertained from real estate agents by investigators who were collecting retail prices for the purpose of measuring

the increase in the cost of living. A larger number of cases would, of course, have been desirable, but the number available is large enough to estimate average rents with a fair degree of accuracy.

Rents Paid by Families with Incomes from \$1,200 to \$1,500 per Year, in 91 Localities.

The following table shows the average rents paid by families with incomes of from \$1,200 to \$1,500 per year in the 91 communities covered by the investigation:

TABLE 1.—RANKING OF 91 LOCALITIES¹ IN THE AMOUNT OF ANNUAL EXPENDITURE FOR RENT FOR FAMILIES WITH TOTAL ANNUAL INCOMES FROM \$1,200 TO \$1,500.

Locality.	Average expenditure for rent.	Number of families.	Equivalent adult males per family.	Locality.	Average expenditure for rent.	Number of families.	Equivalent adult males per family.
Bridgeport, Conn.	\$ 240.58	44	2.76	Trinidad, Colo.	\$ 177.56	25	2.98
Cleveland, Ohio.	230.65	89	2.99	Des Moines, Iowa.	174.85	29	3.07
Minneapolis and St. Paul, Minn.	223.71	101	3.40	Memphis, Tenn.	172.79	35	3.22
Detroit, Mich.	222.87	78	2.81	Cincinnati, Ohio.	171.52	86	3.30
El Paso, Tex.	221.91	8	2.91	Westfield, Mass.	170.59	29	3.01
Bakersfield, Calif.	219.18	20	3.22	Charleston, S. C.	169.84	24	3.04
Buffalo, N. Y.	218.01	83	3.02	Rutland, Vt.	169.31	31	3.44
Seattle, Wash.	211.27	60	2.98	Grand Island, Nebr.	169.21	26	2.74
Steubenville, Ohio.	208.58	10	3.03	Portland, Me.	169.25	38	3.24
Little Rock, Ark.	208.46	16	3.04	Savannah, Ga. (white).	169.05	21	2.88
Chicago, Ill.	208.04	120	3.20	Virginia, Minn.	168.21	18	3.14
Butte, Mont.	207.86	7	3.13	Portland, Oreg.	168.10	38	2.99
Fort Wayne, Ind.	207.77	25	2.93	Milwaukee, Wis.	167.85	74	3.21
New York, N. Y.	206.86	151	3.15	Indianapolis, Ind.	167.39	45	3.13
Columbus, Ohio (white).	206.56	75	3.13	Houston, Tex. (white).	167.17	35	3.36
San Francisco and Oakland, Calif.	205.27	114	2.99	Denver, Colo.	165.50	63	3.05
Wichita, Kans.	203.31	29	3.06	Jacksonville, Fla. (white).	165.08	18	2.61
Baltimore, Md. (white).	201.65	60	3.16	Lawrence, Mass.	163.58	32	2.62
Sacramento, Calif.	201.05	39	3.03	Everett, Wash.	163.52	29	3.24
Oklahoma City, Okla.	200.42	34	3.12	Norfolk, Va.	163.22	17	3.00
Syracuse, N. Y.	198.82	69	3.38	Eureka, Calif.	161.47	28	3.06
Newark, N. J.	197.37	46	2.92	Birmingham, Ala. (white).	161.06	37	2.91
Dover, N. J.	197.33	18	3.43	Spokane, Wash.	160.15	42	3.07
Trenton, N. J.	195.86	50	3.06	Winston-Salem, N. C.	159.53	20	3.53
Duluth, Minn.	194.93	38	2.98	New Orleans, La. (white).	158.19	42	3.42
Wilmington, Del.	193.21	25	2.86	Manchester, N. H.	157.53	41	3.22
Omaha, Nebr.	192.41	46	2.77	Chippewa Falls, Wis.	157.04	17	2.97
Charleston, W. Va.	190.03	23	2.90	Louisville, Ky.	154.99	38	3.59
Salt Lake City, Utah.	189.90	23	3.01	Danville, Ill.	154.74	23	3.31
Grand Rapids, Mich.	189.48	39	3.38	Meridian, Miss.	151.46	23	3.32
Rock Island and Moline, Ill., and Davenport, Iowa.	188.81	56	3.00	Fredericksburg, Va.	148.86	21	3.66
Pittsburgh, Pa. (white).	188.33	81	3.07	Atlanta, Ga. (white).	146.17	48	3.37
Knoxville, Tenn.	186.86	17	3.28	Charlotte, N. C.	143.47	28	3.75
Philadelphia, Pa., and Camden, N. J.	186.72	86	3.16	Corsicana, Tex.	143.25	28	3.40
Roanoke, Va.	182.23	12	3.07	Richmond, Va.	142.10	50	3.34
Los Angeles, Calif.	181.34	75	3.20	Johnstown, N. Y.	140.13	33	3.11
Astoria, Oreg.	180.51	22	2.87	Pana, Ill.	139.57	28	3.14
Boston, Mass.	180.21	160	3.22	Mobile, Ala. (white).	139.23	41	3.08
Providence, R. I.	179.74	50	3.33	Scranton, Pa.	138.75	62	3.29
Dallas, Tex.	178.89	21	3.25	Evansville, Ind.	137.39	37	3.71
Pueblo, Colo.	178.72	25	3.08	Newbern, N. C.	133.34	22	3.01
St. Louis, Mo.; East St. Louis, Ill. (white).	178.61	87	2.94	Fall River, Mass.	133.02	48	3.76
Kansas City, Kans.; Kansas City, Mo.	178.10	91	2.91	Green Bay, Wis.	131.34	25	3.56
				Chambersburg, Pa.	129.94	24	3.10
				Cripple Creek, Colo.	104.44	38	3.33
				Calumet, Mich.	103.02	35	3.52
				Brazil, Ind.	96.08	20	3.27
				Huntsville, Ala.	91.68	29	3.43

¹ Bisbee, Ariz., had no families with incomes between \$1,200 and \$1,500.

² Not including 1 family in which rent is combined with fuel and light.

³ Not including 4 families in which rent is combined with fuel and light.

⁴ Not including 3 families in which rent is combined with fuel and light.

⁵ Not including 2 families in which rent is combined with fuel and light.

⁶ Not including 11 families in which rent is combined with fuel and light.

⁷ Not including 34 families in which rent is combined with fuel and light.

⁸ Not including 7 families in which rent is combined with fuel and light.

The average rental for all these 91 localities was \$174 a year, or approximately \$15 a month. The largest average rental—in Bridgeport—was \$241 a year, or approximately \$20 a month. In Huntsville, Ala., the average rental was \$92 a year, or about \$8 a month. The very small towns are seen to be low in amount paid for rent. In some of the rapidly growing localities in which there was a high development of war industries, the amount paid for rent was very high, as for instance, Seattle, Detroit, and Bridgeport.

Rents Paid by Families with \$1,300 Expenditure in 45 Cities.

The above table gives a very fair idea of the rents paid in the various communities listed. The comparisons, however, are inaccurate to the extent that the families varied in income and in size, both of which factors might affect the amount paid by a family for rent. This possible error is obviated in Table 2, in which comparison is made for families of identical size—husband, wife, and three children aged 2, 5, and 11 years—and of identical expenditure, \$1,300 per year. However, owing to the amount of time involved in making the necessary computations for this comparison, the table had to be limited to 45 cities, instead of the full group of 91 used in Table 1.

In using this standard family of uniform size and expenditure, it is to be emphasized that there were not sufficient families of this precise type to permit of direct analysis. What has been done, therefore, is to analyze all the family schedules available and by the system known in statistics as "correlation" to compute from the experiences of all families the probable experience of a family of the type noted. The type thus becomes in some degree an abstraction but has been proven to represent the truth with extreme closeness.¹

¹ Thus, for example, 100 schedules are obtained in complete detail for a certain city. The families are of the same general character, but differ within moderate limits as to size and expenditure. Perhaps none of these families have an expenditure of precisely \$1,300 and a membership of precisely a wife, husband, and 3 children aged 2, 5, and 11 years, although a number may closely approximate this type. By careful charting and analysis of the whole group of families, however, a line can be drawn which shows on the average just how the expenditure for rent changes as total expenditure increases and the number of children increases; and from the course of this line can be determined the probable or average amount which a family of a given size and expenditure will spend on rent.

The mathematical method used in the computations is explained in full in a forthcoming bulletin of the Bureau of Labor Statistics entitled: "Analysis of the Standards of Living in the District of Columbia in 1916." The particular equation used in Table 2 is, for Philadelphia as an example: $X_6 = 21.590 - 0.00589 X_3 - 0.0577 X_2$, where X_6 = the per cent of total expenditure for rent, X_3 = total annual expenditure, and X_2 = the size of the family measured in units of adult male according to the U. S. Bureau of Labor Statistics scale based on calorie requirement. The foregoing equation is for Philadelphia and the amount spent for rent, as shown in Table 2, is determined by substituting \$1,300 for X_3 , 3.35 equivalent adult males for X_2 , and solving for X_6 . This gives the percentage spent for rent, which multiplied by \$1,300, the total expenditure, will give a figure representing the total amount spent for rent. Similar equations have been worked for each of the 45 localities, thus enabling one to ascertain the average expenditure for rent by families with the specified total annual expenditure and of the specified size.

TABLE 2.—RANKING OF 45 LOCALITIES IN AVERAGE ANNUAL EXPENDITURE FOR RENT BY FAMILIES OF THE SAME SIZE, 3.35 EQUIVALENT ADULT MALES, AND WITH THE SAME TOTAL ANNUAL EXPENDITURE \$1,300.

Locality.	Average annual expenditure for rent.	Locality.	Average annual expenditure for rent.
Bridgeport, Conn.	\$213	Birmingham, Ala.	\$166
Cleveland, Ohio.	207	Baltimore, Md. (white)	165
Detroit, Mich.	202	Providence, R. I.	163
Minneapolis and St. Paul, Minn.	199	Indianapolis, Ind.	163
New York, N. Y.	198	Cincinnati, Ohio.	163
San Francisco and Oakland, Calif.	198	Manchester, N. H.; Portland, Me.	160
Columbus, Ohio.	192	Portland, Oreg.	159
Buffalo, N. Y.	192	New Orleans, La. (white)	157
Oklahoma City, Okla.; Wichita, Kans.	191	Denver, Colo.	156
Syracuse, N. Y.	191	Seattle, Wash.	156
Chicago, Ill.	187	Astoria, Oreg.; Everett, Wash.	155
Memphis, Tenn.	185	Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.	150
Baltimore, Md. (colored)	185	Cripple Creek and Trinidad, Colo.	148
Newark, N. J.	181	Scranton, Pa.	143
Philadelphia, Pa.	178	Fall River, Mass.	142
Boston, Mass.	177	Charlotte and Winston-Salem, N. C.	135
St. Louis, Mo.; East St. Louis, Ill.	176	Richmond, Va.	133
Los Angeles, Calif.	174	Atlanta, Ga.	130
Kansas City, Kans.; Kansas City, Mo.	173	Brazil, Ind.; Danville and Pana, Ill.	127
Pittsburgh, Pa.	173	New Orleans, La. (colored)	124
Houston and Dallas, Tex.	172	Virginia, Minn.; Calumet, Mich.	118
Lawrence, Mass.	172	Huntsville, Ala.; Meridian, Miss.	105
Charleston, S. C.	168		

The average amount paid for rent by families covered in this table was \$167, or about \$14 a month. Out of an expenditure of \$1,300 the average amount spent for rent for the cities of New York, Chicago, Philadelphia, and Boston, was \$185. The average amount spent for rent in certain middle western cities, St. Louis, Minneapolis, St. Paul, and Kansas City, was \$183. For certain large cities in the northeastern part of the United States, Buffalo, Cincinnati, Newark, Providence, Columbus, Syracuse, Scranton, Fall River, and Bridgeport, the average rent was \$174. Cities of the Pacific coast, San Francisco and Oakland, Los Angeles, Seattle, and Portland, had an average amount paid for rent of \$172. In the southern cities the amounts paid for rent were somewhat lower: For New Orleans (white population), Atlanta, Birmingham, Memphis, and Richmond, the amount was \$154. In the small towns, Astoria, Oreg.; Everett, Wash.; Huntsville, Ala.; Meridian, Miss.; Brazil, Ind.; Danville and Pana, Ill.; Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.; Virginia, Minn.; and Calumet, Mich.; Cripple Creek and Trinidad, Colo., the amount paid for rent out of a \$1,300 annual expenditure was lowest of all, being \$134 a year. In Baltimore the colored people pay more for rent than do the white people; but this is not true for New Orleans.

Variations in Rents According to Total Expenditure and Size of Family.

Further comparisons in the percentages spent for rent in certain selected cities may be observed in Charts A and B.

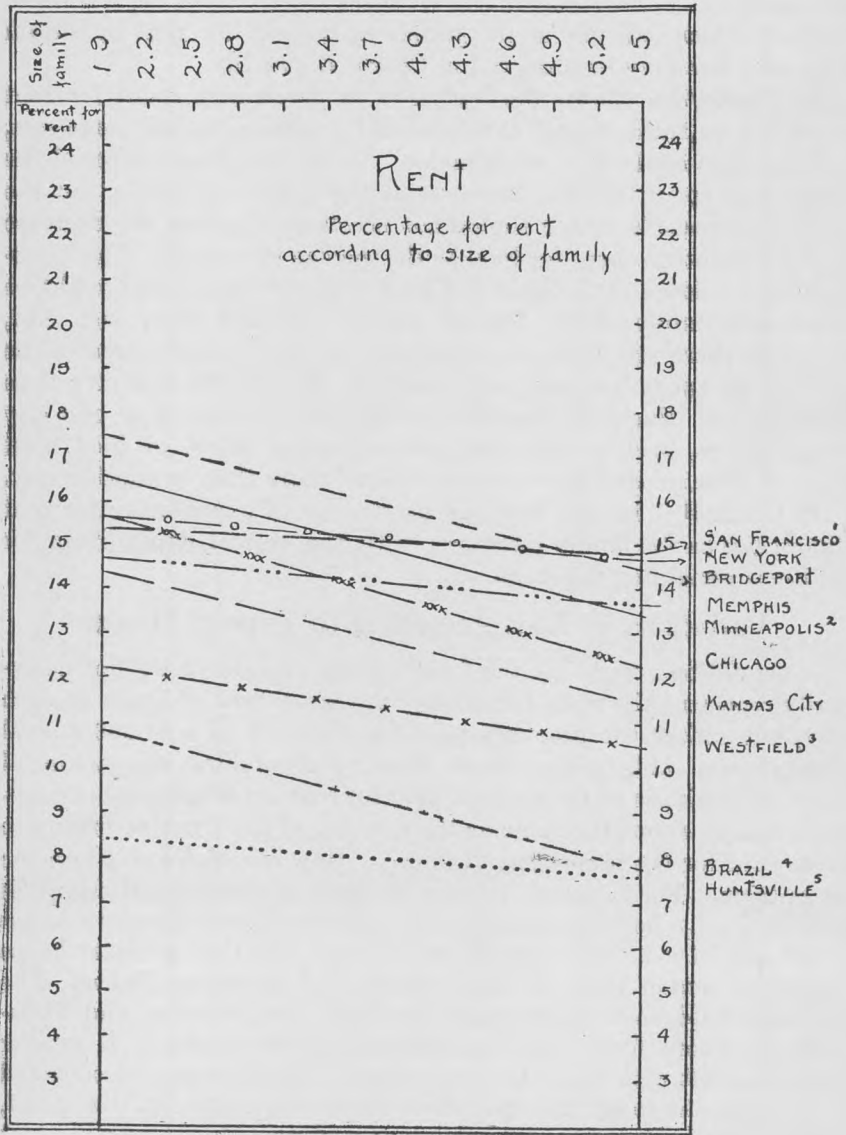
In Chart A is shown the variation in percentage spent for rent according to total annual expenditure for families of the same size, namely, 3.35 equivalent adult males. In all the cities compared the percentage spent for rent decreases as the income increases, but the rate of decrease is rather slight, not nearly so great as the decrease in the percentage spent for food as the income increases.¹ The variation in the slopes of the lines in Chart A is very slight and might be the result simply of the limited number of cases from each city, although there are various reasons why as the income increases the percentage spent for rent may fall more sharply for one city than for another. Such, for instance, would be the case if in one city other things, such as clothing, miscellaneous items, or food, cost more or were needed more or were desired more than in another city.

In Chart B it is seen how the percentage of expenditure for rent diminishes as the family increases, with the annual expenditure for all items remaining the same.

Variations in Rent According to Type of House.

It should be noted that the figures given in Table 2 do not necessarily represent the rents for exactly the same type of house in each city, but rather the amounts paid for rent out of a \$1,300 annual expenditure. It is quite probable that in a general way the ranking of cities on the basis of the amount paid for rent out of a \$1,300 expenditure will be about the same as the ranking of the cities according to rents paid for the same type of house. However, there may be some exceptions. For instance, it may be that in cities like Minneapolis and St. Paul, where the cost of food is relatively low, a larger amount is left, out of a \$1,300 expenditure, for rent, and thus a better house might be rented than in cities where food costs are higher. The reverse would be true for cities like New York, Boston, and Philadelphia, where food costs are higher and consequently a smaller amount is left with which to rent a house. The information collected in the present investigation throws interesting light on this point, inasmuch as in each city covered data were obtained to show what rent was paid for houses of a varied number of rooms with and without modern sanitary equipment. It is possible therefore to compare by cities the rent of houses of the same type. This is done in a series of tables which follow.

¹ The only exceptions found to this rule that as the income increases the percentage for rent decreases were Atlanta, Charlotte, Winston-Salem, Detroit, and Seattle.



¹ And Oakland.

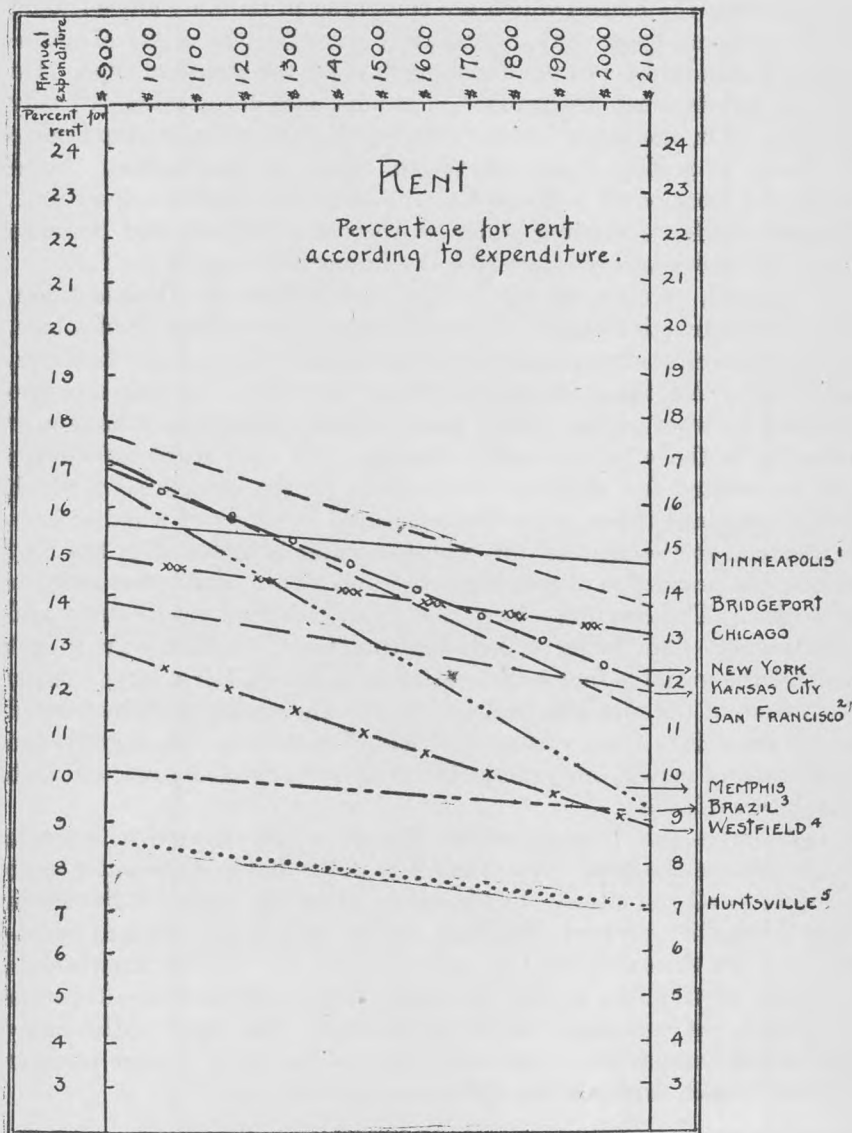
² And St. Paul.

³ And Johnstown and Rutland.

⁴ And Danville and Pana.

⁵ And Meridian.

CHART A.



¹ And St. Paul.

² And Oakland.

³ And Danville and Pana.

⁴ And Johnstown and Rutland.

⁵ And Meridian.

CHART B.

It is to be noted, however, that there are a great many obstacles to the accurate comparison of cities in house rentals. Thus it is obvious that the houses which are compared in rents by cities should be of the same type; but immediately the difficulty arises of establishing a standard type and of getting data for the standard type. On certain points, such as number of rooms, standardization is easily possible. On the other hand, it is almost impossible to standardize houses as to quality or age or state of repair or dilapidation. Similarly, the location of a house has considerable influence upon rent. Various residence sections differ in their desirability, and distance from the center of town involves the important item of car fare.

In general, we may say that houses vary in their age, their location, type of construction (brick, stone, or frame), in the number of rooms, in the possession of running water, running hot water, toilet facilities, and bath. All these variations affect the rent. Rentals are also affected by whether the cost of water is paid by the tenant as rent or directly to the city or water company. No practicable standards can be erected for all these attributes. In the comparisons which follow standard types have been measured in terms of whether heat is included in the rent or not, whether water is included in the rent or not, the possession of running water and a bath, and in the number of rooms. The dwellings have also been classified into houses and apartments—flats being called apartments. The best way to get around the variable factor of location is to take a fairly large sample from each of the districts, and to this end the agents were instructed to get their data from various districts of each city. As regards age and state of repair, no practicable standards could be erected with the data available.

It is impossible to compare all the cities investigated in a single table because the same type of house is not found in sufficiently large samples in all the cities. For instance, there are very few houses in New York City proper; dwellings consist largely of flats and apartments. On the other hand, in Atlanta there are very few apartments occupied by families of low incomes; they dwell almost altogether in houses, as contrasted with apartments. The most satisfactory method of comparison, therefore, seems to be to use a large number of tables, each representing different standard types.

Rents of 5-room Apartments and Houses.

In Table 3, 24 localities are compared in the rentals of 5-room apartments which include water and bath, but no heat; and in Table 4, 18 localities are compared in the rentals of 5-room houses which include bath and water, but no heat.

TABLE 3.—RENTS OF FIVE-ROOM APARTMENTS, INCLUDING BATH AND WATER, BUT NO HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Butte, Mont.	21	\$32.29	Chicago, Ill.	82	\$18.74
Charleston, S. C.	19	26.39	Boston, Mass.	190	18.71
Detroit, Mich.	40	25.75	San Francisco and Oakland, Calif. ²	30	18.70
Bridgeport, Conn.	24	23.75	Providence, R. I.	44	18.07
Seattle, Wash.	32	23.38	Buffalo, N. Y.	21	17.65
Portland, Oreg.	18	23.34	Lawrence, Mass.	23	16.13
Cincinnati, Ohio.	26	22.21	Portland, Me.	62	15.36
New York, N. Y.	68	21.86	Lawrence, Mass.	72	15.07
Cleveland, Ohio.	46	21.74	Manchester, N. H.	94	14.23
Syracuse, N. Y.	15	21.20	Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.	98	13.10
San Francisco and Oakland, Calif. ¹	64	20.95	Fall River, Mass.	42	13.00
Minneapolis and St. Paul, Minn.	17	20.47			
St. Louis, Mo.; East St. Louis, Ill.	38	19.86			

¹ From retail prices.² From family schedules.

TABLE 4.—RENTS OF FIVE-ROOM HOUSES, INCLUDING BATH AND WATER, BUT NO HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Salt Lake City, Utah	23	\$24.09	Houston, Tex.	51	\$16.98
Pittsburgh, Pa.	19	22.26	Trinidad and Cripple Creek, Colo.	60	16.50
Seattle, Wash. ¹	58	21.94	Astoria, Oreg.; Everett, Wash.	36	15.91
Seattle, Wash. ²	17	21.15	Columbus, Ohio.	33	15.84
Cleveland, Ohio.	22	20.64	New Orleans, La.	28	14.92
Detroit, Mich.	42	18.87	Los Angeles, Calif.	67	14.65
Columbus, Ohio.	15	18.67	Philadelphia, Pa.; Camden, N. J.	36	14.39
Denver, Colo.	86	18.27	Baltimore, Md.	26	12.98
San Francisco and Oakland, Calif. ¹	26	18.21			
Portland, Oreg.	29	18.03			

¹ From retail prices.² From family schedules.

It is of importance to observe that the ranking of localities in these two tables rather closely parallels the ranking in Table 2, where they are ranked according to the amount paid for rents. The relatively low apartment rents in some of the very large cities and the relatively high apartment rents in some of the small cities, such as Charleston, S. C., may be due to differences in the quality of the housing, but our information on this point is incomplete. In interpreting Tables 3 and 4, therefore, one should bear in mind the factor of age of the house, as this has not been standardized for comparison. However, the families covered by these tables do get a specified number of rooms, and the rent includes water and bath. Though theoretically the age factor may vitiate the comparison, from the point of view of minimum social standards, the comparison is legitimate.

Another factor affecting the accuracy of the ranking of cities in rents is the number of houses from which the average rent is deter-

mined. In most of the cities investigated the agents obtained data on the rents of from 200 to 500 houses. But when the houses are broken up into groups (each group representing a standard type, such as, for instance, a 4-room apartment without bath), the size of the group may become rather small. The size of sample, i. e., the number of cases, is indicated for each city in the tables. Of course the smaller the number of houses, the less accurately representative is the average rent.

Rents of 4-room and 6-room Apartments and Houses.

In some of the cities investigated a large number of rented houses consisted of four rooms and six rooms. And in still other cities a large number of dwellings were 4-room apartments and 6-room apartments, the rents of each including water and bath but no heat. The comparisons based upon these four standard types are found in Tables 5, 6, 7, and 8.

TABLE 5.—RENTS OF 4-ROOM HOUSES, INCLUDING BATH AND WATER, BUT NO HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Pittsburgh, Pa.	21	\$21.07	Denver, Colo.	46	\$14.11
Salt Lake City, Utah.	28	19.06	Trinidad and Cripple Creek, Colo.	30	13.70
St. Louis, Mo.; East St. Louis, Ill.	20	16.83	New Orleans, La.	32	12.77
Houston, Tex.	23	15.63	Los Angeles, Calif.	27	12.71
Memphis, Tenn.	19	15.53	Philadelphia, Pa.; Camden, N. J.	51	11.92
San Francisco and Oakland, Calif.	25	15.00			

TABLE 6.—RENTS OF 6-ROOM HOUSES, INCLUDING BATH AND WATER, BUT NO HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Pittsburgh, Pa. ¹	21	\$36.33	Trinidad and Cripple Creek, Colo.	22	\$17.55
Seattle, Wash.	53	27.00	Los Angeles, Calif.	29	17.22
Pittsburgh, Pa. ²	16	25.93	Philadelphia, Pa.; Camden, N. J.	272	16.89
Detroit, Mich.	22	22.41	Baltimore, Md. ²	70	16.07
Columbus, Ohio.	14	21.64	Baltimore, Md. ¹	40	15.76
Cleveland, Ohio.	36	21.57	Providence, R. I.	21	15.38
Denver, Colo.	38	20.34	Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.	47	15.32
Indianapolis, Ind.	25	20.33			
Portland, Oreg.	21	19.73			
Columbus, Ohio.	30	19.35			
Astoria, Oreg.; Everett, Wash.	28	19.34			

¹ From retail prices.

² From family schedules.

TABLE 7.—RENTS OF 4-ROOM APARTMENTS, INCLUDING BATH AND WATER, BUT NO HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Pittsburgh, Pa.....	35	\$28.99	Chicago, Ill.....	61	\$18.21
Butte, Mont.....	14	25.71	San Francisco and Oakland, Calif. ²	36	17.08
Providence, R. I.....	38	21.07	Minneapolis and St. Paul, Minn.....	18	16.89
St. Louis, Mo.; East St. Louis, Ill.....	79	19.03	Boston, Mass.....	71	15.10
Oklahoma City, Okla.....	10	19.00	Manchester, N. H.....	31	12.28
Los Angeles, Calif.....	14	18.75	Fall River, Mass.....	19	11.89
Cincinnati, Ohio.....	44	18.73	Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.....	34	11.07
San Francisco and Oakland, Calif. ¹	55	18.68			
Seattle, Wash.....	36	18.42			

¹ From retail prices.² From family schedules.

TABLE 8.—RENTS OF 6-ROOM APARTMENTS, INCLUDING BATH AND WATER, BUT NO HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Detroit, Mich.....	19	\$31.27	Lawrence, Mass. ¹	25	\$18.67
Cleveland, Ohio.....	22	28.13	Lawrence, Mass. ²	26	17.43
Seattle, Wash.....	38	25.78	Portland, Me.....	59	16.39
San Francisco, Calif.....	28	25.20	Manchester, N. H.....	43	16.21
Boston, Mass.....	70	21.86	Providence, R. I.....	72	15.52
Newark, N. J.....	25	21.52	Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.....	102	13.56
Chicago, Ill.....	77	19.24			
Buffalo, N. Y.....	54	18.79			

¹ From retail prices.² From family schedules.

Rents of Houses and Apartments Without Bath.

Again, in quite a large number of cities the families lived in houses without a bathroom. The average rentals of such houses and apartments, according to the number of rooms, are shown for the various cities in Tables 9, 10, 11, 12, 13, and 14.

TABLE 9.—RENTS OF 4-ROOM HOUSES, INCLUDING WATER, BUT NO BATH OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Butte, Mont.....	23	\$17.53	New Orleans, La.....	41	\$10.76
Pittsburgh, Pa. ¹	50	14.70	Cripple Creek and Trinidad, Colo.....	67	10.16
Pittsburgh, Pa. ²	19	14.16	Denver, Colo.....	23	9.72
Memphis, Tenn.....	29	12.73	Philadelphia, Pa.; Camden, N. J.....	65	9.50
St. Louis, Mo.; East St. Louis, Ill.....	16	12.50	Charlotte and Winston-Salem, N. C.....	45	9.10
Kansas City, Kans.; Kansas City, Mo.....	31	11.39	Atlanta, Ga.....	15	8.75
Houston, Tex.....	28	11.07			

¹ From family schedules.² From retail prices.

TABLE 10.—RENTS OF 5-ROOM HOUSES, INCLUDING WATER, BUT NO BATH OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Detroit, Mich.	16	\$19.92	Brazil, Ind.; Danville and		
Pittsburgh, Pa. ¹	17	18.63	Pana, Ill.	28	\$11.57
Pittsburgh Pa. ²	21	17.19	Baltimore, Md. ¹	22	11.56
Cleveland, Ohio	15	15.42	Baltimore, Md. ²	18	11.50
Kansas City, Kans.; Kan-			Cripple Creek and Trinidad,		
sas City, Mo.	22	13.75	Colo.	32	11.09
Columbus, Ohio ¹	28	13.60	Portland, Me.	13	11.08
Columbus, Ohio ²	20	12.98	Calumet, Mich.; Virginia,		
Cincinnati, Ohio	44	12.79	Minn.	26	7.60
Indianapolis, Ind.	27	11.93	Huntsville, Ala.; Meridian,		
Philadelphia, Pa.; Camden,			Miss.	97	5.67
N. J.	62	11.75			

¹ From family schedules.² From retail prices.

TABLE 11.—RENTS OF 6-ROOM HOUSES, INCLUDING WATER, BUT NO BATH OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Philadelphia, Pa.; Camden,			Calumet, Mich.; Virginia,		
N. J.	48	\$13.46	Minn.	28	\$8.06
Indianapolis, Ind.	21	13.19	Meridian, Miss.; Huntsville,		
Baltimore, Md. ¹	30	12.64	Ala.	232	5.01
Baltimore, Md. ²	25	12.40			
Westfield, Mass.; Johnstown,					
N. Y.; Rutland, Vt.	27	11.10			

¹ From family schedules.² From retail prices.

TABLE 12.—RENTS OF 4-ROOM APARTMENTS, INCLUDING WATER, BUT NO BATH OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Bridgeport, Conn.	34	\$16.03	Providence, R. I.	43	\$10.15
New York, N. Y.	120	14.36	Fall River, Mass.	23	9.23
Boston, Mass.	81	12.17	Manchester, N. H.	38	8.87
Syracuse, N. Y.	13	11.77	Westfield, Mass.; Johnstown,		
Buffalo, N. Y.	29	11.43	N. Y.; Rutland, Vt.	43	8.50
Lawrence, Mass.	38	10.77	Fall River, Mass.	51	8.08
Chicago, Ill.	31	10.70			

TABLE 13.—RENTS OF 5-ROOM APARTMENTS, INCLUDING WATER, BUT NO BATH OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
New York, N. Y.	41	\$15.12	Fall River, Mass. ¹	19	\$10.71
Lawrence, Mass.	39	13.03	Westfield, Mass.; Johns-		
Boston, Mass.	42	12.82	town, N. Y.; Rutland, Vt.	77	10.19
Providence, R. I.	32	11.74	Fall River, Mass. ²	43	9.55
Portland, Me.	91	11.43	Manchester, N. H.	28	9.02

¹ From family schedules.² From retail prices.

TABLE 14.—RENTS OF 6-ROOM APARTMENTS, INCLUDING WATER, BUT NO BATH OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Boston, Mass.	17	\$14. 83	Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.	50	\$10. 07
Portland, Me.	32	12. 36	Fall River, Mass.	40	6. 48
Providence, R. I.	29	11. 03			
Manchester, N. H.	27	10. 52			

The houses whose rents do not include water charges are compared by cities as to rents in Tables 15, 16, 17, and 18. In the first two of these four tables the houses include bath.

TABLE 15.—RENTS OF 5-ROOM HOUSES, INCLUDING BATH, BUT NO WATER OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Oklahoma City, Okla.	22	\$24. 55	San Francisco and Oakland, Calif.	18	\$18. 18
Seattle, Wash.	38	21. 03	Birmingham, Ala.	38	17. 15
Memphis, Tenn.	38	20. 82	Portland, Oreg.	49	16. 16
Kansas City, Kans.; Kansas City, Mo.	44	20. 38	Astoria, Oreg.; Everett, Wash.	18	15. 80
Atlanta, Ga.	22	18. 97	Los Angeles, Calif.	37	14. 54
Charlotte and Winston-Salem, N. C.	29	18. 67	Huntsville, Ala.; Meridian, Miss.	33	13. 45
New Orleans, La.	31	18. 48			
Omaha, Nebr.	18	18. 21			

TABLE 16.—RENTS OF 6-ROOM HOUSES, INCLUDING BATH, BUT NO WATER OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Atlanta, Ga.	15	\$29. 53	New Orleans, La.	29	\$22. 71
Seattle, Wash.	26	27. 65	Birmingham, Ala.	30	22. 02
Charleston, S. C.	37	24. 81	Astoria, Oreg.; Everett, Wash.	51	20. 37
Omaha, Nebr.	29	24. 10	Portland, Oreg.	25	18. 99
Cincinnati, Ohio.	36	23. 85	Huntsville, Ala.; Meridian, Miss.	23	16. 28
Kansas City, Kans.; Kansas City, Mo.	30	23. 40			
Charlotte and Winston-Salem, N. C.	17	23. 29			

TABLE 17.—RENTS OF 4-ROOM HOUSES, NOT INCLUDING BATH, WATER, OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Oklahoma City, Okla.	17	\$13. 02	Charlotte and Winston-Salem, N. C.	26	\$8. 71
Kansas City, Kans.; Kansas City, Mo.	24	11. 51	Brazil, Ind.; Danville and Pana, Ill.	56	7. 88
Birmingham, Ala.	26	10. 60	Huntsville, Ala.; Meridian, Miss.	39	7. 73
Richmond, Va.	27	10. 39			
Indianapolis, Ind.	50	10. 09			
New Orleans, La.	52	9. 90			

TABLE 18.—RENTS OF 5-ROOM HOUSES, NOT INCLUDING WATER, BATH, OR HEAT.

Locality.	Number of cases.	Average rent per month.	Locality.	Number of cases.	Average rent per month.
Cincinnati, Ohio.....	32	\$14.19	Omaha, Nebr.....	15	\$11.67
Charlotte and Winston-Salem, N. C.....	16	12.37	Huntsville, Ala.; Meridian, Miss.....	25	10.50
Richmond, Va.....	16	12.13	Brazil, Ind.; Danville and Pana, Ill.....	55	9.51
New Orleans, La.....	19	11.87			
Indianapolis, Ind.....	99	11.81			

The cheapest class of houses consists of the small houses without bath whose rents do not include water. Such houses are cheaper in the very small towns; for instance, in Huntsville, Ala., and Meridian, Miss., during 1918 the average rent paid for such houses, as judged by a sample of 39, was \$7.73 a month. In New Orleans, Richmond, and Indianapolis such houses could be had for approximately \$10 a month. The type of dwelling costing the most for rent is the large apartment with bath whose rent includes heat and water. There are very few apartments, however, studied in this investigation where the rent includes heat charges.

Comparison of Houses and Apartments According to Size and Equipment.

It is not only possible to compare the rents of dwellings by cities, but it is also possible to compare the rents of dwellings according to the number of rooms and according to their sanitary equipment. The comparison of the rents of apartments with houses can also be made. In Tables 19 and 20 comparisons in the rent of four-room and five-room houses and five-room and six-room houses, whose rents include bath and water, but no heat, are made by cities.

TABLE 19.—RENTALS OF 4-ROOM AND 5-ROOM HOUSES WITH BATH, WHOSE RENTS INCLUDE WATER BUT NO HEAT.

Locality.	4 rooms.		5 rooms.		Excess in average rent of 5-room over 4-room houses.
	Number of houses.	Average rent.	Number of houses.	Average rent.	
Los Angeles, Calif.....	27	\$12.71	67	\$14.65	\$1.94
Philadelphia, Pa.; Camden, N. J.....	51	11.92	36	14.39	2.47
Pittsburgh, Pa.....	21	21.07	19	22.26	1.19
Denver, Colo.....	46	14.11	86	18.27	4.16
New Orleans, La.....	32	12.77	28	14.92	2.15
Houston, Tex.....	23	15.63	51	16.98	1.35
San Francisco, Calif.....	25	15.00	26	18.21	3.21
Cripple Creek and Trinidad, Colo.....	30	13.70	60	16.50	2.80
Salt Lake City, Utah.....	28	19.06	23	24.09	5.03
Total and averages.....	283	14.60	396	17.16	2.56

TABLE 20.—RENTALS OF 5-ROOM AND 6-ROOM HOUSES WITH BATH, WHOSE RENTS INCLUDE WATER BUT NO HEAT.

Locality.	5 rooms.		6 rooms.		Excess in average rent of 6-room over 5-room houses.
	Number of houses.	Average rent.	Number of houses.	Average rent.	
Portland, Oreg.....	29	\$18.03	21	\$19.73	\$1.70
Los Angeles, Calif.....	67	14.65	29	17.22	2.57
Columbus, Ohio ¹	33	15.84	30	19.35	3.51
Columbus, Ohio ²	15	18.67	14	21.64	2.97
Baltimore, Md.....	26	12.98	70	16.07	3.09
Detroit, Mich.....	42	18.87	22	22.41	3.54
Philadelphia, Pa.; Camden, N. J.....	36	14.39	272	16.80	2.41
Pittsburgh, Pa.....	19	22.26	21	36.33	14.07
Cleveland, Ohio.....	22	20.64	36	21.57	.98
Denver, Colo.....	86	18.27	38	20.34	2.07
Cripple Creek and Trinidad, Colo.....	60	16.50	22	17.55	1.05
Astoria, Oreg.; Everett, Wash.....	36	15.91	28	19.34	3.43
Seattle, Wash.....	58	21.94	53	27.00	5.06
Total and averages.....	529	17.46	656	19.29	1.83

¹ From family schedules.² From retail prices.

Table 19 shows that for the cities included a 5-room house with bath and water costs on the average \$2.56 more per month than a 4-room house of the same equipment. Similarly, Table 20 shows that a 6-room house with bath and water costs on the average \$1.83 more than a 5-room house of the same equipment. There is, however, considerable variation between the cities on this point. This may be due to disturbances of the factors of age, location, construction, or equipment. By averaging the data for the several cities these variations tend to be smoothed out. Tables 21 and 22 make similar comparisons for 4, 5, and 6 room apartments with water and bath to those just made for houses of the same number of rooms and the same equipment.

TABLE 21.—RENTALS OF 4-ROOM AND 5-ROOM APARTMENTS WITH BATH, WHOSE RENTS INCLUDE WATER BUT NO HEAT.

Locality.	4 rooms.		5 rooms.		Excess in average rent of 5-room over 4-room apartments.
	Number of apartments.	Average rent.	Number of apartments.	Average rent.	
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt....	34	\$11.07	98	\$13.10	\$2.03
Providence, R. I.....	38	21.07	44	18.07	¹ 3.00
Boston, Mass.....	71	15.10	190	18.71	3.61
Manchester, N. H.....	31	12.28	94	14.23	1.95
Fall River, Mass.....	19	11.89	42	13.00	1.11
St. Louis, Mo.; East St. Louis, Ill.....	79	19.03	38	19.86	.83
Chicago, Ill.....	61	18.21	82	18.74	.53
San Francisco and Oakland, Calif. ²	36	17.08	30	18.70	1.62
San Francisco and Oakland, Calif. ³	55	18.68	64	20.95	2.27
Butte, Mont.....	14	25.71	21	32.29	6.58
Minneapolis and St. Paul, Minn.....	18	16.89	17	20.47	3.58
Cincinnati, Ohio.....	44	18.73	26	22.21	3.48
Seattle, Wash.....	36	18.42	32	23.38	4.96
Totals and averages.....	536	17.28	778	18.07	.79

¹ Decrease.² From family schedules.³ From retail prices.

TABLE 22.—RENTALS OF 5-ROOM AND 6-ROOM APARTMENTS WITH BATH, WHOSE RENTS INCLUDE WATER BUT NO HEAT.

Locality.	5 rooms.		6 rooms.		Excess in average rent of 6-room over 5-room apartments.
	Number of apartments.	Average rent.	Number of apartments.	Average rent.	
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt....	98	\$13.10	102	\$13.56	\$0.46
Detroit, Mich.....	40	25.75	19	31.27	5.52
Providence, R. I.....	44	18.07	72	15.52	1 2.55
Portland, Me.....	62	15.36	59	16.30	.94
Boston, Mass.....	190	18.71	70	21.86	3.15
Manchester, N. H.....	94	14.23	43	16.21	1.98
Buffalo, N. Y.....	21	17.65	54	18.79	1.14
Cleveland, Ohio.....	46	21.74	22	28.13	6.39
Chicago, Ill.....	82	18.74	77	19.24	.50
San Francisco and Oakland, Calif.....	64	20.95	28	25.20	4.25
Lawrence, Mass. ²	23	16.13	26	17.43	1.30
Lawrence, Mass. ³	72	15.07	25	18.67	3.60
Seattle, Wash.....	32	23.38	38	25.78	2.40
Totals and averages.....	868	17.75	635	18.90	1.15

¹ Decrease.² From family schedules.³ From retail prices.

Table 21 shows that 5-room apartments cost on the average only \$0.79 more a month than 4-room apartments; and 6-room apartments cost on the average \$1.15 more per month than 5-room apartments. As in the case of houses, there are marked variations between the cities as regards the costs of similar apartments. In Providence, R. I., the 6-room apartments rent for less than the 5-room apartments by \$2.50 a month, while in Cleveland the 6-room apartments rent for \$6.39 more per month than the 5-room apartments, as based upon the cases scheduled.

The differences between the rents of apartments and houses is noted in Table 23.

TABLE 23.—RENTALS OF 5-ROOM APARTMENTS AND 5-ROOM HOUSES WHOSE RENTS INCLUDE BATH AND WATER, BUT NO HEAT.

Locality.	5-room apartments.		5-room houses.		Excess in average rents of 5-room apartments over 5-room houses.
	Number.	Average monthly rent.	Number.	Average monthly rent.	
Portland, Oreg.....	18	\$23.34	29	\$18.03	\$5.31
Detroit, Mich.....	40	25.75	42	18.87	6.88
Cleveland, Ohio.....	46	21.74	22	20.64	1.10
San Francisco and Oakland, Calif.....	30	18.70	26	18.21	.49
Seattle, Wash.....	32	23.38	58	21.94	1.44
Totals and averages.....	166	22.65	177	19.86	2.79

In this table the rents of 5-room apartments including bath are compared with 5-room houses including bath, where the rents include water but no heat. The results show that, averaging all cities, apartments cost \$2.79 more than houses of similar equipment. Again, however, the variation is considerable. In San Francisco such apartments cost not quite 50 cents more a month than houses, whereas in Detroit the difference is almost \$7. If there had been more cities in which such comparisons could have been made, the smoothing out of this variation would have been somewhat more accurate than it is in this table where the average is based upon only five cities.

Apartments with bath cost on the average \$5.13 more than apartments without bath, as is seen in Table 24, which shows the rents of apartments including water but no heat. Similarly, in Table 25 the average difference in the rent of houses with bath and without bath, in which the rent includes water but no heat, is \$4.13.

TABLE 24.—RENTALS OF VARIOUS SIZES OF APARTMENTS WITH AND WITHOUT BATH, IN WHICH RENT INCLUDES WATER BUT NO HEAT.

Locality.	With bath.		Without bath.		Excess in average rent of various sized apartments with bath, over those without bath.
	Number of apartments.	Average rent.	Number of apartments.	Average rent.	
<i>4-room apartments.</i>					
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.	34	\$11.07	43	\$8.50	\$2.57
Providence, R. I.	38	21.07	43	10.15	10.92
Boston, Mass.	71	15.10	81	12.17	2.93
Manchester, N. H.	31	12.28	38	8.87	3.41
Fall River, Mass.	19	11.89	23	9.23	2.66
Chicago, Ill.	61	18.21	31	10.70	7.51
<i>5-room apartments.</i>					
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.	98	13.10	77	10.19	2.91
New York, N. Y.	68	21.86	41	15.12	6.74
Providence, R. I.	44	18.07	32	11.74	6.33
Portland, Me.	62	15.36	91	11.43	3.93
Boston, Mass.	190	18.71	42	12.82	5.89
Manchester, N. H.	94	14.23	28	9.02	5.21
Fall River, Mass.	42	13.00	19	10.71	2.29
Lawrence, Mass.	72	15.07	39	13.03	2.04
<i>6-room apartments.</i>					
Westfield, Mass.; Johnstown, N. Y.; Rutland, N. H.	102	13.56	50	10.07	3.49
Providence, R. I.	72	15.52	29	11.03	4.49
Portland, Me.	59	16.30	32	12.36	3.94
Boston, Mass.	70	21.86	17	14.83	7.03
Manchester, N. H.	43	16.21	27	10.52	5.69
Totals and averages	1,270	16.30	783	11.17	5.13

TABLE 25.—RENTALS OF VARIOUS SIZES OF HOUSES WITH AND WITHOUT BATH, IN WHICH RENT INCLUDES WATER BUT NO HEAT.

Locality.	With bath.		Without bath.		Excess in average rent of various sized houses with bath, over those without bath.
	Number of houses.	Average rent.	Number of houses.	Average rent.	
<i>4-room houses.</i>					
Philadelphia, Pa.; Camden, N. J.....	51	\$11.92	65	\$9.50	\$2.42
St. Louis, Mo.; East St. Louis, Ill.....	20	16.83	16	12.50	4.33
Pittsburgh, Pa.....	21	21.07	19	14.16	6.91
Memphis, Tenn.....	19	15.53	29	12.73	2.80
Denver, Colo.....	46	14.11	23	9.72	4.39
New Orleans, La.....	32	12.77	41	10.76	2.01
Houston, Tex.....	23	15.63	28	11.07	4.56
Cripple Creek and Trinidad, Colo.....	30	13.70	67	10.16	3.54
<i>5-room houses.</i>					
Columbus, Ohio 1.....	33	15.84	28	13.60	2.24
Columbus, Ohio 2.....	15	18.67	20	12.98	5.69
Baltimore, Md.....	26	12.98	22	11.56	1.42
Detroit, Mich.....	42	18.87	16	19.92	3 1.05
Philadelphia, Pa.; Camden, N. J.....	36	14.39	62	11.75	2.64
Pittsburgh, Pa.....	19	22.26	21	17.19	5.07
Cleveland, Ohio.....	22	20.64	15	15.42	5.22
Cripple Creek and Trinidad, Colo.....	60	16.50	32	11.09	5.41
<i>6-room houses.</i>					
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt....	47	15.32	27	11.10	4.22
Baltimore, Md. 2.....	40	15.76	25	12.40	3.36
Baltimore, Md. 1.....	70	16.07	30	12.64	3.43
Philadelphia, Pa.; Camden, N. J.....	272	16.80	48	13.46	3.34
Indianapolis, Ind.....	25	20.33	21	13.19	7.14
Totals and averages.....	949	16.21	655	12.08	4.13

¹ From family schedules.² From retail prices.³ Decrease.

The summary with results showing difference in the rents of various kinds of dwellings is presented in the following list:

<i>Excess in rent of—</i>	<i>Monthly average.</i>
Apartments over houses.....	\$2.79
Apartments with bath over apartments without bath.....	5.13
Houses with bath over houses without bath.....	4.13
5-room apartments over 4-room apartments.....	.79
6-room apartments over 5-room apartments.....	1.15
5-room houses over 4-room houses.....	2.56
6-room houses over 5-room houses.....	1.83

It is possible of course to use the results set forth in the preceding list to interpolate the value of rentals of particular types of localities so as to get all of the cities into one single table. In the earlier part of this article it was stated that it was impossible to bring all of the cities into a single comparative table because the same type of house did not exist in all the cities. For instance, apartments are the customary type of dwelling in New York, and houses in Atlanta. However, with the information developed in the preceding tables

regarding average rents of apartments of various size and character it would be possible to make theoretical interpolation and thus to get a general comparison of cities. Such interpolation, however, would be quite artificial, inasmuch as the differences in rents of the various types of dwellings vary quite sharply from city to city. If the variations were slight, interpolation might be justified.

Overcrowding.

Overcrowding in towns and cities is a very serious social ill, certainly affecting the health and perhaps the morals of the community. In this investigation the number of rooms in a dwelling has been divided by the number of persons living in the dwelling, and this ratio of the number of rooms per person has been used as a measure of overcrowding. In computing the number of rooms per person the kitchen has been regarded as one room but the bathroom has not been so regarded. This measure is perhaps not the most satisfactory index conceivable, inasmuch as it does not consider the purpose for which the rooms are used or the age of the occupants, but for some years it has been customary to employ an index like this as a measure of overcrowding. It is considered that for the average family overcrowding begins when the number of rooms per person falls below one. In some specialized work cubic air space per person has been used as a measure, and also the amount of intake of air has been studied, but such refinement seemed impracticable in the present investigation. In the families which are to be discussed in the following paragraphs those taking in boarders, roomers, or lodgers have been omitted so that the present discussion concerns solely the consanguineous family. Perhaps the overcrowding may be greater in families who take in boarders, roomers, and lodgers.

In Table 26 are shown the localities ranked according to the number of rooms per person for families of the same size, 3.35 equivalent adult males, and with an annual expenditure of \$1,300.¹

¹ The construction of such a table for a constant income and constant size of family was made possible only after the raw data had been generalized into equations of the type: $X_{12} = 1.612 + 0.000188 X_3 - 0.210 X_2$, in which X_2 = size of family measured in units of the adult male based upon the Bureau of Labor Statistics, food consumption scale and X_3 = the total annual expenditure. By substituting \$1,300 for X_3 and 3.35 for X_2 and solving for X_{12} in the equation for each locality, we arrive at the figures in the table showing the number of rooms per person. The figures in this table simply mean that families of this size and with this expenditure, however few or however many there may be in any particular city, have on the average only so many rooms per person.

TABLE 26.—RANKING OF LOCALITIES ACCORDING TO THE NUMBER OF ROOMS PER PERSON FOR FAMILIES OF THE SAME SIZE, 3.35 EQUIVALENT ADULT MALES, AND WITH THE SAME TOTAL ANNUAL EXPENDITURE, \$1,300.

Locality.	Number of rooms per person.	Locality.	Number of rooms per person.
Astoria, Oreg.; Everett, Wash.	1.4	Fall River, Mass.	1.1
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.	1.4	Detroit, Mich.	1.1
Syracuse, N. Y.	1.4	Cripple Creek and Trinidad, Colo.	1.1
Indianapolis, Ind.	1.3	Brazil, Ind.; Danville and Pana, Ill.	1.1
Columbus, Ohio.	1.3	Boston, Mass.	1.1
Baltimore, Md. (white)	1.3	Birmingham, Ala.	1.1
Buffalo, N. Y.	1.3	Seattle, Wash.	1.1
Scranton, Pa.	1.3	Virginia, Minn.; Calumet, Mich.	1.1
Philadelphia, Pa.; Camden, N. J.	1.3	Oklahoma City, Okla.; Wichita, Kans.	1.1
Baltimore, Md. (colored)	1.3	New York, N. Y.	1.0
Providence, R. I.	1.2	Bridgeport, Conn.	1.0
Kansas City, Kans.; Kansas City, Mo.	1.2	New Orleans, La. (white)	1.0
Portland, Oreg.	1.2	Memphis, Tenn.	1.0
Chicago, Ill.	1.2	Huntsville, Ala.; Meridian, Miss.	1.0
Manchester, N. H.; Portland, Me.	1.2	Houston and Dallas, Tex.	1.0
Los Angeles, Calif.	1.2	Charleston, S. C.	1.0
Lawrence, Mass.	1.2	Charlotte and Winston-Salem, N. C.	1.0
Denver, Colo.	1.2	Richmond, Va.	1.0
Cleveland, Ohio.	1.2	Atlanta, Ga.	.9
Minneapolis and St. Paul, Minn.	1.1	Cincinnati, Ohio.	.9
San Francisco and Oakland, Calif.	1.1	St. Louis, Mo.	.9
Newark, N. J.	1.1	Pittsburgh, Pa.	.8
		New Orleans, La. (colored)	.8

The great majority of the cities show little variation; most of them vary from one room per person to 1.3 rooms per person. Among the New Orleans colored population and in Pittsburgh the families averaged only 0.8 of a room per person, and in Atlanta, Cincinnati, and St. Louis only 0.9 of a room per person, whereas in Astoria, Oreg.; Everett, Wash.; Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.; and Syracuse, N. Y., for families of this size and with this expenditure, there were 1.4 rooms per person on the average.

In Table 27 is shown the measure of overcrowding according to income, i. e., the cities are classified according to number of rooms per person for various annual expenditures, the size of families being constant, 3.35 equivalent adult males.

TABLE 27.—NUMBER OF ROOMS PER PERSON FOR FAMILIES OF CONSTANT SIZE AND VARYING EXPENDITURE IN DIFFERENT LOCALITIES.

[E. A. M.=equivalent adult males.]

Locality.	Number of rooms per person for families consisting of husband, wife, and three children, aged 2, 5, and 11 years (3.35 E. A. M.), and having expenditure of—			
	\$800	\$1,000	\$1,200	\$1,400
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.	1.3	1.4	1.4	1.4
Kansas City, Kans.; Kansas City, Mo.	1.1	1.1	1.2	1.2
Chicago, Ill.	1.1	1.1	1.1	1.2
Denver, Colo.	1.0	1.0	1.1	1.2
Brazil, Ind.; Danville and Pana, Ill.	1.0	1.1	1.1	1.2
Providence, R. I.	.9	1.0	1.1	1.2
St. Paul and Minneapolis, Minn.	1.0	1.1	1.1	1.2
San Francisco and Oakland, Calif.	1.0	1.0	1.1	1.1
Boston, Mass.	1.0	1.0	1.1	1.1
New York, N. Y.	.9	1.0	1.0	1.1
Seattle, Wash.	.8	.9	1.0	1.1
Bridgeport, Conn.	.8	.9	1.0	1.1
Memphis, Tenn.	.9	1.0	1.0	1.0
New Orleans, La. (white)	.9	.9	1.0	1.0
Huntsville, Ala.; Meridian, Miss.	.8	.9	1.0	1.0
St. Louis, Mo.	.8	.8	.9	.9
Atlanta, Ga.	.7	.8	.9	1.0

Families of husband, wife, and three children aged 2, 5, and 11 years (i. e. 3.35 equivalent adult males), with incomes of \$1,000 are rather badly crowded in Seattle, Bridgeport, Memphis, Huntsville, Ala., Meridian, Miss., New Orleans, St. Louis, and Atlanta. It is very clearly seen from this table how the overcrowding becomes less as the expenditure goes up. When the annual expenditure is \$1,400 only one city, St. Louis, has an average of less than one room per person for families of the size noted.

In Table 28 is shown the overcrowding in cities according to size of family; that is to say, the number of rooms per person are classified for various cities for families of various sizes, all having the same annual expenditure of \$1,300.

TABLE 28.—NUMBER OF ROOMS PER PERSON FOR FAMILIES OF CONSTANT EXPENDITURE AND VARYING SIZE IN DIFFERENT LOCALITIES.

[E. A. M.=equivalent adult males.]

Locality	Number of rooms per person for families having expenditure of \$1,300, and consisting of—			
	Husband and wife (1.9 E. A. M.).	Husband, wife, and child, aged 3 years (2.05 E. A. M.).	Husband, wife, and three children, aged 2, 5, and 11 years (3.35 E. A. M.).	Husband, wife, and five children, aged 2, 5, 8, 11, and 14 years (5.0 E. A. M.).
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.....	1.7	1.7	1.4	1.0
Kansas City, Kans.; Kansas City, Mo.....	1.6	1.5	1.2	.8
Providence, R. I.....	1.5	1.5	1.2	.8
Denver, Colo.....	1.5	1.4	1.2	.8
Chicago, Ill.....	1.5	1.4	1.2	.8
Brazil, Ind.; Danville and Pana, Ill.....	1.4	1.4	1.1	.8
St. Paul and Minneapolis, Minn.....	1.4	1.4	1.1	.8
San Francisco and Oakland, Calif.....	1.4	1.4	1.1	.7
Boston, Mass.....	1.4	1.3	1.1	.8
Seattle, Wash.....	1.4	1.4	1.1	.7
New York, N. Y.....	1.3	1.3	1.0	.7
Bridgeport, Conn.....	1.4	1.4	1.0	.6
Memphis, Tenn.....	1.3	1.2	1.0	.7
Huntsville, Ala.; Meridian, Miss.....	1.2	1.2	1.0	.7
New Orleans, La. (white).....	1.2	1.2	1.0	.7
St. Louis, Mo.....	1.2	1.2	.9	.6
Atlanta, Ga.....	1.2	1.2	.9	.6

In general, overcrowding is not noticed until the families have three children; where the children are five in number overcrowding exists in all the cities concerned.

Another very excellent way of estimating the amount of overcrowding in the various cities is to ascertain the numbers or percentages of families having less than 0.5 of a room per person, less than 0.7 of a room per person, and less than 1 room per person. Such results are shown in Table 29. In a few cases the entries include families in which the number of rooms per person was slightly

in excess of the figure at the head of the column. Thus a family having 0.55 rooms per person has been included in the group having less than 0.5 persons per room.

TABLE 29.—NUMBER AND PER CENT OF FAMILIES REPORTING SPECIFIED NUMBER OF ROOMS PER PERSON.

Locality.	Number of families.	Less than 0.5 room per person.		Less than 0.7 room per person.		Less than 1 room per person.		Less than 1.5 rooms per person.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Atlanta, Ga.....	133	8	6.0	51	38.3	103	77.4	121	91.0
Boston, Mass.....	331	11	3.3	62	18.7	172	52.0	285	86.1
Brazil, Ind.; Danville and Pana, Ill.....	110	1	0.9	10	9.1	38	34.5	88	80.0
Bridgeport, Conn.....	98	1	1.0	13	13.3	29	29.6	76	77.6
Chicago, Ill.....	177	3	1.7	20	11.3	82	46.3	137	77.4
Denver, Colo.....	98	.....	.....	8	8.2	29	29.6	75	76.5
Huntsville, Ala.; Meridian, Miss.....	116	9	7.8	32	27.6	78	67.2	111	95.7
Kansas City.....	125	.....	.....	5	4.0	55	44.0	94	75.2
Memphis, Tenn.....	67	1	1.5	10	14.9	46	68.7	60	89.6
New Orleans, La. (white).....	111	5	4.5	29	26.1	84	75.7	105	94.6
New York, N. Y.....	328	19	5.8	85	25.9	138	42.1	293	89.3
Providence, R. I.....	122	5	4.1	16	13.1	57	46.7	101	82.8
St. Louis, Mo.....	161	4	2.5	37	23.0	129	80.1	152	94.4
St. Paul and Minneapolis, Minn.....	91	.....	.....	4	4.4	37	40.7	80	87.9
San Francisco and Oakland, Calif.....	170	.....	.....	15	8.8	79	46.5	132	77.6
Seattle, Wash.....	69	.....	.....	4	5.8	31	44.9	54	78.3
Westfield, Mass.; Johnstown, N. Y.; Rutland, Vt.....	148	2	1.4	9	6.1	52	35.1	80	54.1

As previously stated overcrowding for the average family begins when the number of rooms per person falls below one. Measured by this standard quite a large proportion of all the families tabulated were overcrowded. Among the various cities, St. Louis had the largest proportion of overcrowded families, 80.1 per cent of all the families having less than one room per person, and was followed by Atlanta with 77.4 per cent and New Orleans (white families) with 75.7 per cent. Bridgeport, Conn., and Denver, Colo., had the smallest proportion of overcrowded families (29.6 per cent). The families in which there was the greatest degree of overcrowding are shown in the columns headed less than 0.7 and less than 0.5 room per person. The largest proportions of such families were in Atlanta, Ga., Huntsville, Ala., Meridian, Miss., New Orleans, La. (white), and New York, N. Y.

International Labor Conference to Assemble in Washington October 29, 1919.

PRESIDENT Wilson, on the authority granted him by Congress, and in accordance with the provisions of Part XIII of the Treaty of Peace, has extended an invitation to each nation which is, or which prior to the meeting shall become, a member of the international labor organization, as defined in article 387 of the Treaty of Peace, to send its delegates and other representatives to Washington to attend an international labor conference which is called to assemble at noon October 29. This invitation is given in the form of the following cablegram to American representatives in the countries concerned:

You are instructed to deliver the following invitation in the name of the President to the Government to which you are accredited:

The President of the United States, in accordance with the provisions of Part XIII of the Treaty of Peace between the Allied and Associated Powers and Germany, signed at Versailles on June 28, 1919, and under authority vested in him by Congress, hereby convenes the first meeting of the annual labor conference therein described to assemble in Washington at noon on the 29th day of October, 1919.

The Government of the United States hereby extends to each nation, which is or which prior to the said meeting shall become a member of the international labor organization as defined in Article 387, an invitation to send its delegates and other representatives to Washington for the purpose of attending such conference.

You will also inform the Government to which you are accredited that all details as to reception of and accommodations for its representatives in Washington may be arranged through its diplomatic representative here. Please obtain and telegraph to the department the names of the delegates and their advisers. The cost of all telegrams should be stated therein in order that the department may obtain reimbursement.

You will also offer your aid in the matter of passports, transportation, etc.

The Secretary of Labor, Hon. W. B. Wilson, at the direction of the President, has taken entire charge of the arrangements for the conference, and has appointed Nathan A. Smyth, of New York City, formerly assistant director general of the United States Employment Service, as assistant for this purpose.

INDUSTRIAL RELATIONS.

International Labor Standards and the League of Nations Covenant.

THE proceedings of the Academy of Political Science in the City of New York for July, 1919, contains a series of articles and papers by prominent men, presented at the national conference held under the auspices of the Academy on June 5, 1919, the general subject being "The new international obligations of the United States under the proposed covenant of the League of Nations." Of the 14 papers and articles, five bore particularly upon labor: International labor standards and their possible enforcement in the United States, by George W. Wickersham, formerly Attorney General of the United States; International labor legislation and how it can be enforced in the United States, by Abram I. Elkus, formerly United States Ambassador to Turkey; International labor standards and legislation, by John B. Andrews, secretary, American Association for Labor Legislation; The power of the United States under the Constitution to enter into labor treaties, by J. P. Chamberlain, Columbia University; and The enforcement of international labor standards relating to child labor, by W. H. Swift, National Child Labor Committee.

The first paper noted, that by former Attorney General Wickersham, first reviews briefly the work of the British National Industrial Conference held in February, 1919,¹ which resulted in the adoption of a resolution "providing for the appointment of a joint committee, consisting of equal numbers of employers and workers, men and women, together with a chairman appointed by the Government, to consider and report to the conference at a later day, on the causes of the present unrest, and the steps necessary to safeguard and promote the best interests of employers, workpeople and the State, and especially to consider (1) questions relating to hours, wages, and general conditions of employment; (2) unemployment and its prevention; (3) the best methods of promoting cooperation between capital and labor."

The report of this committee is set forth, followed by a statement that the conference committee considered only a part of the demands made by the joint committee, the report of the former dealing espe-

¹ See MONTHLY LABOR REVIEW for May, 1919, pp. 104-108.

cially with the question of maximum hours, minimum wages, methods of dealing with war advances, recognition of and negotiations between organizations of employers and workpeople, unemployment, and the institution of a national industrial council. This report is then briefly analyzed. Next the writer of the paper outlines the program of the General Confederation of Labor (France) which met in November, 1918, and formulated a minimum program of labor reform to be submitted to such a commission on labor as might be constituted by the peace conference.¹ He then takes up the reconstruction program of the American Federation of Labor,² vigorously taking issue with two statements contained therein—one to the effect that “an insuperable obstacle to self-government in the United States exists in the power which has been gradually assumed by the Supreme Courts of the Federal and State Governments to declare legislation null and void upon the ground that, in the court’s opinion, it is unconstitutional,” and the other that “the very life and perpetuity of free and democratic institutions are dependent upon the freedom of speech, of the press, and of assemblage and association,” and that “all restrictions of freedom of speech, press, public assembly, association, and travel be completely removed, individuals and groups being responsible for their utterances.” The farmer’s program of reconstruction is also briefly noted.³ In conclusion, Mr. Wickersham points out what he considers three fallacies which seem to be involved in most of the programs presented. These fallacies are: (1) That better conditions for the commonwealth than those which prevail can be secured by entrusting Government with the ownership and conduct of important industries; (2) that the policy of giving control to organizations of workers over the means of conduct of industry can result in the permanent betterment of such industry; and (3) that the grant of larger wages to the workers will reduce the cost of living and increase the general prosperity.

After all, competition and the incentive of profit must and will remain the most efficient causes of industrial and commercial prosperity. Great as is the value of brawn, the mind of man, in the future as in the past, will continue to be indispensable to the successful conduct of all great enterprises. Governmental ownership and operation, which exclude both competition and profit, must gradually result in inefficiency and stagnation. No candid student of the past will advocate a return to the old system of unrestricted control of workers by employers, which resulted in great injustice and in the abnormal concentration of the proceeds of industry. The prosperity of the country rests upon securing a just balance between the right recognition of the share of the worker in the profits of his industry and the necessarily greater profit to be allowed to the planning and directing brain.

¹ See MONTHLY LABOR REVIEW for March, 1919, pp. 75-78.

² *Idem*, pp. 63-72.

³ *Idem*, pp. 72-74.

The Enforcement of International Labor Legislation in the United States.

In considering international labor legislation and how it can be enforced in the United States, Mr. Elkus points out the great importance of uniform standards to be recognized by all the great nations of the earth with reference to men, women, and children in industry, since these human elements are after all the greatest asset which any nation possesses. It is suggested in this article that there are certain "humane principles" which will make for better conditions under which men, women, and children may live and labor, and which in the main will be the subject of international cooperation or international agreement. Briefly these principles are: (1) Conservation of the future citizenship of the country by prohibiting children under 14 years of age from working, and limiting children between the ages of 14 and 16 years to certain kinds of work; (2) limitation of the hours of labor; (3) provision for a living wage; (4) one day's rest in seven; and (5) that women should receive equal pay for doing the same work as men.

These are principles which can be easily embodied in a single page of any covenant of peace or League of Nations. They will appeal, not only to the workers of all the nations of the world, but they will appeal to all the people who stand behind the nations and of whom nations are made.

Dr. Andrews, in discussing international labor standards and legislation, calls to mind in a few words the labor provisions of the peace treaty, asserting that by incorporating them in the treaty an invitation is furnished "for American industry to come forward and grasp this great opportunity to establish minimum protective standards for industry and labor throughout the whole industrial, producing world." He believes that there is little to cause alarm in the nine labor principles in the peace treaty.

The power of the United States under the Constitution to enter into labor treaties is considered by J. P. Chamberlain, director of the legislative drafting research fund of Columbia University, who first points out that the Constitution explicitly grants the treaty power to the Federal Government and then shows that our Government as a member of the proposed League of Nations would unquestionably have a right to ratify any treaties for the joint regulation of certain labor questions which might be presented by an international conference at which this country had representation. The immediate question discussed in the paper is set forth in the following words:

If the United States is a member of the League and its representatives agree in conference that the regulation by international agreement of a particular question is necessary, as, for example, that night work for women should be prohibited by all

the signatory powers, the question arises at once whether, under our form of government, the treaty embodying the decisions of the conference can be constitutionally ratified by our Government, and, if so, whether Congress can pass the laws necessary to carry it out.

The Constitution of the United States is quoted to show that the treaty power is granted to the Federal Government, and that States are not permitted to enter into any treaty, alliance, or confederation, and a number of authorities are cited, including the Constitution itself, establishing the fact that "treaties are the law of the land, and as such prevail over conflicting State statutes." It is then shown that the legislative and administrative branches of the Government have expressed their judgment that the treaty power may invade the fields which would be closed normally to Congress; that is, may include questions ordinarily within the province of the various States to determine, and cites as instances of this the treaty to regulate fisheries which was signed on April 11, 1908, and the treaty signed on August 17, 1916, by the United States and by Great Britain on behalf of Canada by which the protection of certain migratory birds was made international. In both instances the question of primary control by the States was involved. A treaty which limits the police power of any one of the American States is not in conflict with the Constitution. It is argued from the foregoing facts that a treaty dealing specifically with labor would be clearly within the power of the Federal Government to ratify, for, as one United States judge has stated, "it can not be doubted that the treaty-making power is ample to cover all usual subjects of diplomacy with the different powers," and, the author adds, the "negotiations of Paris, culminating in the labor clauses of the covenant, are the latest evidence of the opinion of diplomats."

The permanent labor organization included in the treaty testifies to the importance which labor treaties are about to assume in the international social order and proves that in fact international settlement of labor questions is "a subject of negotiation" between nations.

The welfare of millions of American children will be promoted by the adoption of the labor standards of the peace treaty, in the opinion of W. H. Swift, whose paper deals with the enforcement of international labor standards relating to child labor. He expresses the belief that all our children will not be properly taught unless the National Government gives attention to the matter, and suggests that perhaps the adoption of the proposed international labor standards would compel the Government to enter this field; "if so, it would be highly beneficial." The same thing is true of child labor; State laws having proved inadequate, Congress enacted the national child labor law, which, however, was declared unconstitutional. A second

law was passed by Congress, and the question of its constitutionality is now pending in the Supreme Court. But it is argued "that if these international standards regulating the employment and education of children should be adopted, somehow, somebody will devise some way by which we will not only live up to our international agreements, but take care of our own boys and girls. The American people will not hesitate to amend the Constitution to that end if that is the only way."

Report of Royal Commission to Investigate Industrial Relations in Canada.

IN APRIL, 1919, a royal commission of eight,¹ representing the public, employers, and employed, was appointed to investigate and report as to the best means of establishing and maintaining good relations between employers and workers throughout Canada. Specifically this commission was asked to report to the Government on the following matters:

1. To consider and make suggestions for securing a permanent improvement in the relations between employers and employees.
2. To recommend means for insuring that industrial conditions affecting relations between employers and employees shall be reviewed from time to time by those concerned, with a view to improving conditions in the future.

For the above purposes the commission shall: (1) Make a survey and classification of existing Canadian industries. (2) Obtain information as to the character and extent of organization already existing among bodies of employers and employees, respectively. (3) Investigate available data as to the progress made by established joint industrial councils in Canada, Great Britain, and the United States.

During the month of May the commission visited every Province except Prince Edward Island, taking the evidence of nearly 500 witnesses at 70 sessions in 28 industrial centers. In its report submitted in July the commission enumerates 10 chief causes of unrest, and proceeds to discuss each and to suggest how they may be removed and better relations between employers and employed thus be brought about. These causes are as follows:

1. Unemployment and the fear of unemployment.
2. High cost of living in relation to wages and the desire of the worker for a larger share of the product of his labor.
3. Desire for shorter hours of labor.
4. Denial of the right to organize and refusal to recognize unions.

¹ The personnel of the commission included Chief Justice Mathers, of Manitoba, chairman; Hon. Smeaton White, a member of the Senate and managing director of the Montreal Gazette Publishing Co., Montreal; and Charles Harrison, M. P., railroad conductor, North Bay, Ontario, as representatives of the public; Mr. Carl Riordon, president Riordon Pulp & Paper Co., Montreal, and Mr. P. Pauzé, lumberman, Montreal, as representatives of the employers; Mr. T. Moore, Ottawa, president of the Trades and Labor Congress of Canada, and Mr. J. W. Bruce, of Toronto, member of the Labor Appeal Board, as representatives of the employees; and Mr. Thomas Bengough, Toronto, secretary.

5. Denial of collective bargaining.
6. Lack of confidence in constituted government.
7. Insufficient and poor housing.
8. Restrictions upon the freedom of speech and press.
9. Ostentatious display of wealth.
10. Lack of equal educational opportunities.

The commission recommends that legislation be enacted to provide for—

- (1) Fixing of a minimum wage, especially for women, girls, and unskilled labor, and
- (2) A maximum workday of 8 hours and weekly rest of not less than 24 hours.

It is further recommended that immediate inquiry be made by expert boards into the following subjects, with a view to early legislation:

- (1) State insurance against unemployment, sickness, invalidity, and old age, and
- (2) Proportional representation.

The Government is urged to take suitable action along the following lines:

- (1) Regulate public works to relieve unemployment; (2) help the building of workers' homes; (3) establish a bureau for promoting industrial councils; and (4) restore fullest liberty of freedom of speech and press.

Other general recommendations by the commission include the following:

- (1) Right to organize; (2) recognition of unions; (3) payment of a living wage; (4) collective bargaining; (5) extension of equal opportunities in education; (6) steps toward establishing of joint plant and industrial councils; and (7) that the findings of the commission be put into effect in all work controlled by the Government where the principles of democratic management can be applied.

Summary of the Report of the Commission.

The following summary of the report of the commission is taken from the Canadian Official Record (Ottawa) for July 10, 1919:

The commission was appointed chiefly to consider and make suggestions for securing permanent improvement in relations between employers and employees. It was deemed necessary to investigate the prevailing unrest, which they ascribe largely to upheavals in Europe and general disturbances owing to the war, giving rise to a desire on part of workers generally to reach quickly an objective which ordinarily would require a process of evolution covering a long period.

Many employers agree with the workers as to the need for an ultimate change in the basis of industry, but they do not agree with workers as to methods. Workers also differ among themselves, one group desiring complete possession of the machinery of production and the full product of their toil, another group simply asking larger

purchasing power of their wages, while between these the more moderate, and as the commission believe the majority, would welcome cooperation and industrial peace until gradually a system would be evolved by which workers would receive a more adequate share of what their labor produces. The commission holds that as we can see only a little way ahead, all changes should be made step by step, each step being based on experience as it is gained, but the general direction should be determined toward health, happiness, and prosperity of workers and the service of the community.

Workers are diligently studying economic questions, and while some of the literature they read may be unsound, or lack of mental training of some workers may prevent their thorough understanding of it, the commissioners are convinced that the good sense and sound judgment of the majority enables them to discriminate, and hence extreme doctrines have been accepted only by a minority.

Unrest and High Cost of Living.

Unrest was greatest where there was most unemployment, which was found in several large urban centers, though there is little in smaller towns and rural districts, in spite of the number of discharged soldiers and munition workers released. In some manufacturing centers, such as Kitchener, Ontario, there was an actual scarcity of labor. Returned soldiers have to a large extent been reabsorbed into civil life generally in their old positions. The scarcity of farm help is very pronounced. At one point the commission learned that the local Government employment officer has 1,500 calls from farms, but though 1,000 men on his list were asking work, none were willing to go on the land, because of the isolation, hard and long hours of work, seasonal employment, bringing wages insufficient to tide over the slack season. Many farmers claim that they can not compete with the high wages paid by manufacturers. The commissioners believe that if the unemployed of the cities who understand farming methods could be induced to go to the farms the existing unemployed problem would be largely solved. The commission recommends State social insurance for those unable to work through lack of opportunity, sickness, invalidity, or old age.

Owing to unsettled conditions, the commission found everywhere a great reluctance to risk unemployed capital in new enterprises or the expansion of existing ones.

The high cost of living was assigned as one, if not the chief, cause of labor unrest, which would largely disappear if living expenses more nearly balanced wages. At present any advance in wages is invariably met by increases in price of prime necessities of life, which many people believe is due to profiteering, chiefly through cold-storage plants which intercept food supplies. They also blame the present expensive system of distribution, and declare there are too many middlemen. The commission notes with pleasure that this matter is being investigated by a special committee of Parliament.

The commission approves of the labor declaration in the peace treaty, that "labor should not be regarded merely as a commodity or as an article of commerce."

If this basic principle were freely and frankly acknowledged by employers, and acted on in good faith, it would go far to improve their relations with employees. Without any extraordinary upheaval, policies may be adopted which will ensure to the worker a fairer reward for his toil, and a living wage, and insure him against want during temporary enforced idleness, from any cause, and during old age. The minimum wage law now administered by boards in Manitoba, British Columbia, Saskatchewan, and Quebec should be extended to all the Provinces, and should cover unskilled labor as well as women and girls.

The Eight-Hour Day.

At the great majority of places visited the commission found a demand by workers for a shorter working day, based on their desires for more leisure and energy to devote to the things of life other than work. The most common request was for an eight-hour day with the Saturday half holiday where already established, and its further extension wherever possible, thus making the 44-hour week. General approval by employers in regard to the shorter working day was coupled with statements of difficulties such as the necessity for using all possible daylight in such industries as farming, fishing, logging, etc., which are subject to climatic conditions and limited season; the disadvantage of a section of an industry working shorter hours, yet competing with other sections within Canada working longer hours; also the fear that Canadian industry with its small home market might be unable to meet competition in foreign markets if conditions in Canada are advanced too far ahead of countries manufacturing similar products.

The commission believes that a shorter day is most needed in industries that are fatiguing, monotonous, or under trying conditions, such as heat, dust, cramped position, etc., and that the number of work hours should be based scientifically upon the demands of industry and not upon mere ability to work such hours without undue fatigue. The eight-hour day has been recognized by the peace treaty and already adopted in many industries in Canada. The commission recommends that it be established by law throughout Canada, with due regard for above considerations. Such legislation should provide for a weekly rest of at least 24 hours, which should include Sunday whenever possible, and should not interfere where a shorter day is now worked, or with its extension.

Workers' Right to Organize.

The commission believe the day has passed when any employer should deny his employees the right to organize—a right claimed by employers themselves and not denied by workers. Employers gain nothing by opposition, because employees organize anyway, and refusal only leaves in their minds a rankling sense of injustice. The prudent employer will recognize such organization and deal with its duly accredited representatives. Distrust and lack of confidence have been sometimes caused because trade agreements have not been faithfully observed; charges were made on both sides to this effect. In some sections also local trade-unions' representatives have advocated extreme measures—such men and measures being the logical outcome of unjustifiable opposition by some employers, and the sympathetic strike principle has been adopted because of the refusal of groups of employers to grant the claims of organized workers. These factors have been assigned as the chief causes of the nonobservance of contracts entered into by workers in numerous cases, especially in western Canada. This policy is not recognized by the international trade-unions, who believe in strict observance of agreements. It can not be denied that trade-unions generally have brought many solid advantages to workers in form of increased wages, shorter hours, and improved conditions. When employers in one line of industry are organized and their employees have a central organization, a bargain between the two groups would have the advantage, from the point of view of competition, of equalizing wages, hours, and other conditions affecting costs.

Collective Bargaining.

The commission defines collective bargaining as the right of workers to group themselves for the purpose of selling their labor power collectively, instead of making individual agreements with the employer. For this purpose, men have organized

themselves into trade-unions, and many of these are federated into central councils, such as the Metal Trades' Council, etc. Employers, in like manner, sometimes control one factory, sometimes a chain of factories, and in some instances are organized into larger associations of their industry, which again sometimes become part of federations with local branches, such as the National Association of Building Contractors and Supply Men. Collective bargaining is negotiating for and reaching an agreement between employers or groups of employers, and employees or groups of employees, through the representatives chosen by the respective parties themselves.

In the case of larger organizations of workers—for example, where a building contractor employed 19 different classes of tradesmen, all organized into different trade-unions—it has been found mutually satisfactory for workers to combine their demands and present them to the employer through the medium of a building-trade federation, and thus settle at one time the conditions for the entire industry.

Many trade-unions keep in their employment trained men for the purpose of negotiating their different schedules. As the employer has the right to select any representative or bring in any assistance he may desire in carrying on such negotiations, the commission think there is no logical reason why workers should be denied such right. The employer is justified in knowing that the schedule is presented to him with the concurrence of a fair proportion of his employees, but it does not matter whether it is put before him directly by a committee of his employees, or by a direct representative of the trade-union to which they belong, or through the committee of a federation of trade-unions, of which their particular union forms a part.

Entering into agreements and bargaining collectively with trade-unions does not mean recognition of the "closed shop" unless the agreement so provides. Numerous cases came before the commission where this method of collective bargaining was carried on when both union and nonunion men were employed.

Proportional Representation.

In view of complaints at several places that legislation enacted at the request and for the benefit of labor was not adequately enforced, nor increased cost of commodities controlled by Governments, both local and Federal, the commissioners believe that the system of proportional representation from grouped constituencies which has operated in Belgium and Sweden for some years would be well worth serious study by a committee of Parliament.

Some means should also be adopted to meet the difficulty in regard to housing accommodation for workers, which has been made impossible by the high price of building land and material.

Restrictions on freedom of speech or the press should not be imposed unless urgently demanded in the interest of the peace of the whole community, and such restrictions should not apply to prevent criticism of legislative or governmental action.

Shop Committees and Industrial Councils.

"There is urgent necessity," the commissioners say, "for greater cooperation between employer and employed. The great obstacle to such cooperation is the suspicion and distrust with which in many cases each regards the other. It is only fair to say that in many cases the relations between particular employers and their employees were found to be harmonious. In all such cases the guiding principle was a frank recognition by each of the rights of the other. At present the worker has little or no knowledge of the difficulties which beset his employer, the cost of raw material, the working expenses, the competition which he has to meet, the risks of his capital, and the margin of profit which he received; and the employer is equally ignorant of the employee's difficulties and viewpoint. This ignorance gives rise to

disputes as to rates of pay, hours of labor, and the hundred and one questions which could be largely solved if each side understood what the other had to contend with."

As a means of eliminating that suspicion and distrust, and "for securing a permanent improvement" in their relations and in the conditions of the worker, several forms of joint works committees or joint industrial councils have been adopted and are now in use in England, Canada, Australia, the United States, and elsewhere.

The commission outlines and gives suggestions regarding various types of joint industrial councils. Full details of the British so-called "Whitley plan" were distributed by the commission while on tour. It has been adopted in about 40 large British industries. Its chief features are national and district councils, composed of equal numbers of representatives of employers and employed, and also works (or plant) committees, which need not be equally divided, as decisions must be arrived at by agreement between the two parties. Under the Whitley plan the councils are workable only when both parties—employers and workers—in the particular industry are thoroughly organized, as the councils are composed of representatives nominated by the employers' association and the trade-unions concerned. Each council arranges its own functions, machinery, and methods of working. In Toronto a joint council closely resembling a district joint council under the Whitley plan is in actual operation in the building trades, and similar councils for those trades are projected in Ottawa and Montreal. There is also in existence a workers' committee in the Coughlan Shipyards at Vancouver, and the formation of councils in other industries is under consideration.

The purpose of the Whitley works (or shop) committees is to establish and maintain cooperation in all workshop matters.

What is known as the "Colorado plan" has been adopted with modifications in many American plants, and in Canada by the Imperial Oil Co., International Harvester Co., Massey-Harris Co., Vancouver Dairy Co., and several others. Joint committees composed of equal numbers of representatives of workers and of the company are formed. The workers' representatives are elected by secret ballot in proportion to their numbers, no distinction being made between union and nonunion men.

The "Leitch plan," called "Industrial democracy," is based on the constitution of the United States. The executive officers of the industry form the "cabinet," which is primarily an executive body with veto powers. The "senate" is elected, and made up of foremen, departmental heads, and under executives. The "house of representatives" is elected by secret ballot by the whole body of workers. The business policy set before the workers is justice, economy, cooperation, and service, and they benefit financially by receiving 50 per cent of the savings on the cost of production.

The commissioners make this comment on the various plans for joint councils: "The essential feature of all the proposals is that the human factor in industry is to be regarded as of first importance. They aim at improving the standard of comfort of the worker by securing a greater measure of close cooperation between him and his employer; of eliminating distrust and suspicion by full discussion of all the facts and circumstances pertaining to the industry. They tend to bring the employee and the employer closer together, and give each a better understanding of the difficulties which beset the other; give the worker a greater sense of responsibility by giving him a greater voice in the government of the industry, and thus bring about a permanent improvement in their relations."

The commission believes that in Canada a beginning should be made with joint-plant councils, and more extensive organizations of district and national councils evolved therefrom as necessity arises. They suggest the following as suitable subjects to be dealt with by the council: (a) Wage rates; (b) hours of labor; (c) plant conditions,

such as safety, ventilation, light, sanitation, provision for meals, dressing rooms, shelter, etc.; (d) child and women labor; (e) questions of discipline and conduct as between management and workpeople; (f) conditions surrounding the worker outside the plant, such as education, amusement, recreation, health, housing, apprenticeship or special training, libraries, etc.; (g) improvement in the plant or process to improve quality, increase production, decrease waste, etc., and rewards to those who suggest such improvements.

Every council, or by whatever name it may be known, must be the result of the unfettered choice of both the employees and the employer concerned. Any attempt to force a definite plan upon either would be foredoomed to failure. Some machinery could, however, be established to take the initiative and bring the parties together.

The commission therefore recommends that the Dominion Government should interest itself in the development of these councils, and that a bureau should be established under the Minister of Labor which would compile all available information and statistics, undertake publication of developments in this and other countries, and maintain officers who would act as between employer and workers where desire is expressed to create such councils, and render such other assistance as may be required. The usefulness of councils would depend on the spirit in which they are adopted, but the commission believe that nothing but good can result from their establishment in all industries where a considerable number of workpeople are employed.

Minority Report.

A minority report was filed by Commissioners White and Pauzé. They recommend that before the Government shall establish old-age pensions or unemployment insurance it should consider the effect of such legislation upon the efforts of individual workers. They see no objection to an employee being permitted to work more than eight hours per day to earn an increased wage. They believe that piece-work, which is objected to by trade-unions, should be allowed where it is satisfactory to the workpeople, and they believe, further, that the opportunity to do home work should not be denied, although where it is practiced rigid inspection of the home should be made, and the employers should be held responsible for the sanitary and other health conditions. The report suggests that the Whitley industrial council plan as established in Great Britain is not suited to conditions in Canada.

Industrial Conference Called.

Paragraph 107 of the report of the commission suggests the holding of a conference at Ottawa to take steps to secure concerted action on the part of the different provincial legislatures "if it is finally decided that the enactment of any legislation necessary to give effect to our recommendations is not within the competence of the Parliament of Canada." To this conference it is proposed to invite the premiers or other members of the governments of each Province, together with representative labor men and representative employ-

ers. This suggestion has been accepted by an order in council¹ which provides for such conference to be held during the week beginning September 15, in the House of Commons chamber, and to be open to the general public. The questions to be discussed at this conference are based on the report of the Royal Commission on Industrial Relations, and have been set forth in the following agenda issued by the labor subcommittee of the cabinet:

1. Consideration of the question of the desirability of unifying and coordinating the existing labor laws of the Dominion Parliament and of the Provincial Legislatures; and the consideration of any new labor laws which are deemed necessary.
2. Consideration of: (a) Employees right to organize; (b) recognition of labor unions; (c) the right of employees to collective bargaining.
3. Consideration of: (a) The recommendations of the Royal Commission on Industrial Relations in favor of the establishment of a bureau to promote the establishment and development of joint industrial councils; (b) the further recommendations of the Royal Commission on Industrial Relations regarding the establishment of joint plant and industrial councils.
4. Consideration of the recommendations of the Royal Commission respecting hours of labor.
5. Consideration of minimum wage laws.
6. Consideration of the recommendations of the Royal Commission that the findings of the commission be put into effect in all work controlled by the Government where the principle of democratic management can be applied.
7. Consideration of resolutions relating to any other features of the report of the Royal Commission on Industrial Relations.
8. Consideration of the labor features of the treaty of peace.
9. Consideration of any other proposals which may be introduced bearing on the relations of employers and employees.

¹ See Canadian Official Record (Ottawa) for July 24, 1919, p. 1.

LABOR TURNOVER.

Labor Turnover in Chicago.¹

By EMIL FRANKEL.

THIS article presents a summary of the results of the inquiry made by the Bureau of Labor Statistics into the nature and extent of labor turnover in Chicago during the war period. For the reason that a study of labor turnover as carried on by the Bureau of Labor Statistics requires detailed records of the personnel, the selection of establishments from which definite turnover data could be obtained was necessarily restricted to those establishments having complete employment records, which are generally found only in establishments which have either wholly or partially centralized their hiring and dismissal functions. Out of 25 establishments covered in this study, 20 had centralized employment departments in charge of employment managers, and in the remaining five the employment functions were centralized in the hands of one of the officials of the company, or in the heads of departments.

Extent of Labor Turnover.²

In Table 1 is given in summary form the general volume of turnover of the 25 establishments which have furnished figures.

TABLE 1.—NUMBER AND PER CENT OF ESTABLISHMENTS HAVING EACH CLASSIFIED PER CENT OF ANNUAL LABOR TURNOVER.

Classified per cent of turnover.	Establishments.	
	Number.	Per cent.
Under 50.....		
50 and under 100.....	5	20
100 and under 150.....	6	24
150 and under 200.....	4	16
200 and under 250.....	2	8
250 and under 300.....	5	20
300 and under 350.....	3	12
Total.....	25	100

¹ For articles on labor turnover in other localities see MONTHLY REVIEW for June, 1918, and MONTHLY LABOR REVIEW for October, 1918, and for January, February, March, April, and May, 1919.

² The "standard definition of labor turnover and method of computing the percentage of labor turnover," as adopted by the National Conference of Employment Managers, Rochester, N. Y., May 9 to 11, 1918, served also as a basis for the computation and interpretation of labor turnover in this article. It provides that "labor turnover for any period consists of the number of separations from service during that period. Separations include all quits, discharges, and lay-offs for any reason whatsoever. The percentage of labor turnover for any period considered is the ratio of the total number of separations during the period to the average number of employees on the force report during that period. The force report gives the number of men actually working each day as shown by attendance records. * * * All turnover percentages for a week or for any other period should always be reduced to a yearly basis and be reported in terms of percentages per annum. * * * In case the number employed by a plant or a department of a plant decreases because it is the deliberate policy of the plant management to reduce permanently its working force, this fact should be explicitly stated and the reasons for the reduction in force given." For details see MONTHLY REVIEW, June, 1918, pp. 172, 173.

Among the establishments shown in Table 1, none were found to have an annual turnover of less than 50 per cent, one-fifth had a turnover of 50 and under 100 per cent, two-fifths a turnover of 100 and under 200 per cent, and the remaining two-fifths a turnover of 200 per cent and over.

Detailed figures of the extent of labor turnover in each of the 25 establishments, covering a variety of industries, including a number of large industrial plants for which Chicago is known nationally, are given in Table 2.

TABLE 2.—LABOR TURNOVER FOR YEAR ENDING JUNE 1, 1918, IN 25 ESTABLISHMENTS IN CHICAGO, ILL.

Es- tab- lish- ment num- ber.	Num- ber hired.	Separations.					Aver- age daily work- ing force.	Per cent of turn- over for year.	Industry or nature of business.
		Dis- charged.	Laid off.	En- tered mili- tary serv- ice.	Quit.	Total.			
1	32,374	7,372	2,064	612	17,842	27,890	14,320	195	Meat packing.
2	19,050	7,925	659	484	6,994	16,062	8,730	184	Do.
3	20,014	(²)	(²)	(²)	(²)	17,418	5,219	334	Do.
4	13,792	(²)	(²)	(²)	(²)	15,784	14,731	107	Mail-order house.
5	12,283	558	3,441	322	8,012	12,333	5,092	244	Do.
6	3,485	(²)	(²)	214	3,118	3,332	2,031	164	Do.
7	1,358	151	-----	162	1,019	1,332	1,042	128	Do.
8	18,837	(²)	(²)	(²)	(²)	20,642	7,287	283	Car works.
9	4,460	(²)	(²)	303	3,693	3,996	1,954	205	Motors and railway supplies, mfg.
10	2,867	353	-----	108	2,306	2,767	950	291	Iron foundry.
11	510	12	60	45	354	471	764	62	Printing presses, mfg.
12	1,879	431	-----	84	1,197	1,712	667	257	Machinery (specialties), mfg.
13	782	13	199	61	491	764	611	125	Machinery (coal-mining), mfg.
14	1,703	83	-----	94	1,504	1,681	520	323	Machinery (specialties), mfg.
15	880	180	-----	(²)	⁶ 787	967	335	289	Do.
16	590	12	-----	34	490	536	283	189	Brass and metal specialties, mfg.
17	5,486	481	596	387	3,265	4,729	5,759	82	Agricultural implements, mfg.
18	2,865	211	226	224	2,301	2,962	4,211	70	Do.
19	9,524	2,191	1,718	903	6,642	11,454	13,604	84	Public utilities (telephone).
20	5,193	500	358	1,064	4,312	6,234	4,728	132	Public utilities (electric).
21	6,527	(²)	(²)	520	4,780	6,300	4,725	133	Public utilities (gas mfg.).
22	2,105	329	112	116	1,408	1,965	733	268	Electrical supplies, mfg.
23	944	171	35	60	602	868	258	336	Do.
24	(²)	(²)	(²)	(²)	(²)	7,240	6,027	127	Clothing, men's, mfg.
25	188	24	134	18	204	380	435	80	Clay products, mfg.

¹ Year ending July 1, 1918.

² Not separately reported.

³ Included in "quit."

⁴ Includes "discharged" and "laid off."

⁵ Year ending May 1, 1918.

⁶ Includes "entered military service."

As in previous studies an effort was made to obtain the reason for the particular extent of turnover in each of the establishments shown in Table 2. It is never possible to get very far below the surface in attempting to discover the real causes of labor instability and why one city or shop has a higher or lower rate of turnover than another city or shop. Certain factors common in other industrial centers are of course found in the labor force of the establishments studied here. Chief among these may be mentioned the nature of the labor force, that is, the extent to which an establishment employed unskilled, semiskilled, or skilled workers, or whether the working force consisted largely of clerical employees, or of persons

engaged in nonmechanical occupations. Considerable influence on the extent of turnover was also exerted by the nature of the work, the experience of these establishments showing that there was considerable shifting among employees who were engaged in work the nature of which was disagreeable, and among persons who were exposed to dampness, noxious odors, great heat, dust, etc.

Another factor which proved to have an important bearing on the extent of turnover was the proportion of long-time employees in an establishment, such employees, broadly speaking, being influenced to a lesser degree by the unusually favorable employment situation during the war period, and being found to change jobs less frequently than other groups in the working force. On the other hand, the enormous demand for labor for war purposes, the higher wage level in war industries, and the resultant general atmosphere of unrest gave a decided impetus to the frequent changing of jobs which seems to have affected all classes of workers.

The seasonal nature of an industry, necessitating frequent lay-offs of portions of the working force, also has an important bearing on the extent of turnover, as the temporary reduction in the force increases the proportion of separations.

In view of the importance which employment departments have assumed in modern factory management, it would be of decided interest to determine what influence centralization of the employment functions and the adoption of particular labor policies have upon the stability of the labor force. Because of the numerous factors which must be taken into consideration in such an evaluation, some of which have been briefly referred to above, it is rather difficult to give an exact estimation of the effects of the centralization of the employment machinery upon the turnover. The testimony, however, of those coming in intimate contact with the personnel in the various establishments is that only specialized dealing with the working force made it possible for these establishments to cope with the unusual labor situation, and to enable them to check somewhat the increasing extent of turnover during the war period.

In nearly all establishments covered in this study centralization of the employment functions goes hand in hand with the various service or welfare activities inaugurated by the different establishments in their efforts to stabilize the labor force. A rather exhaustive inquiry would be necessary to determine the effect of such efforts upon the labor turnover, as such service or welfare efforts generally are regarded as being difficult to appraise in terms of figures.

In the meat packing industry the lowest turnover—184 per cent—is found in establishment No. 2. This firm has an interesting record in dealing with its labor force, for during a period of two years the

labor turnover of its employees in 22 of its main plants shows a reduction in the turnover ratio from 339.3 per hundred for the year ending February 28, 1917, to 238.2 per hundred for the year ending February 28, 1918.¹ The company states that "this improvement is due to our persistent effort in endeavoring to satisfy our help in matters of wages, improved sanitary conditions, and personal attention to our employees."

¹ The following table shows the labor turnover each month in 22 main plants of establishment No. 2 (meat packing) for the two years ending Feb. 28, 1918:

Month.	Average daily working force.	Separations.	Yearly turnover on basis of actual turnover for each specified month.	Month.	Average daily working force.	Separations.	Yearly turnover on basis of actual turnover for each specified month.
1916.				1917.			
March.....	22,281	5,416	291.6	March.....	26,564	6,017	271.2
April.....	21,805	7,238	398.4	April.....	27,051	5,327	236.4
May.....	22,147	6,208	336.0	May.....	27,449	4,708	206.4
June.....	23,022	6,244	325.2	June.....	27,751	4,719	204.0
July.....	23,402	6,703	343.2	July.....	28,317	6,561	278.4
August.....	23,301	8,339	429.6	August.....	27,917	7,200	308.4
September.....	23,815	6,577	331.2	September.....	29,251	5,239	214.8
October.....	28,015	9,449	404.4	October.....	31,352	6,920	265.2
November.....	30,510	7,786	306.0	November.....	32,739	5,178	189.6
December.....	31,462	8,374	319.2	December.....	33,595	5,959	212.4
1917.				1918.			
January.....	23,386	8,297	338.4	January.....	33,695	7,015	249.6
February.....	28,501	6,346	267.6	February.....	34,346	6,623	231.6
Total.....	25,637	86,977	339.3	Total.....	30,002	71,466	238.2

In the spring of 1918 an award was made by Judge Samuel Alschuler, the United States administrator, which definitely standardized wages, hours, and conditions of employment in the packing-house industry.² The effects of this standardization are not yet observable in the turnover figures shown above, as the date when the award became effective just about coincided with the end of the period for which figures have been secured.

The much greater volume of turnover in establishment No. 5 as compared with that in No. 4 (244 and 107 per cent, respectively), both mail-order houses, seems to be due principally to the large proportion of lay-offs in the former establishment. The relatively low turnover of establishments Nos. 4, 7, 11, 13, 17, 18, 19, 20, 21, 24, and 25, being 107, 128, 62, 125, 82, 70, 84, 132, 133, 120, and 87 per cent, respectively, may be ascribed chiefly to the large proportion of long-time employees in the working force.

As a means of still further stabilizing their personnel, establishments Nos. 17 and 18 (agricultural implement manufacturing) have recently proposed to inaugurate work councils, the principal purposes

² See MONTHLY REVIEW for May, 1918, pp. 115-127, for text of this award.

of which are to consider and recommend to the management plans regarding working conditions, health, safety, hours of labor, wages, recreation, and education.

The management of establishment No. 24 states that its labor turnover—120 per cent—would be less extensive were it not for the seasonal character of its work causing temporary lay-offs of a part of the working force. It believes its favorable record to be due mainly to its "labor agreement," through which better relations between the employees and the firm have been definitely established.

It has been pointed out in previous studies that turnover percentages, as expressed for each establishment as a whole, do not exactly reflect the conditions in the particular establishment for the reason that the turnover may be largely confined to a single occupation, department, or shift, the number employed in which may be very small in comparison to the total number employed.

In view of the interest in a more exact determination of the distribution of the volume of turnover within the working force, figures were obtained from a number of establishments giving more detailed information as to the turnover of certain definite groups within the labor force.

The first figures presented in this connection are given in Table 3, showing the turnover responsibility of the males and females in the working force.

TABLE 3.—LABOR TURNOVER FOR YEAR ENDING JUNE 1, 1918, IN 8 ESTABLISHMENTS, BY SEX.

Establishment number.	Males.				Females.				Total.			
	Number hired.	Separations.	Average daily working force.	Per cent of turnover for year.	Number hired.	Separations.	Average daily working force.	Per cent of turnover for year.	Number hired.	Separations.	Average daily working force.	Per cent of turnover for year.
3	17,320	15,340	4,353	352	2,694	2,078	866	240	20,014	17,418	5,219	334
7	1,116	1,136	760	149	242	196	282	68	1,358	1,332	1,042	128
10	2,750	2,670	905	295	117	97	45	215	2,867	2,767	950	291
11	501	464	755	61	9	7	9	78	510	471	764	62
12	1,739	1,687	616	274	140	25	51	49	1,879	1,712	667	257
17	5,193	4,484	5,644	79	293	245	115	213	5,486	4,729	5,759	82
18	2,810	2,921	4,153	70	55	41	58	71	2,865	2,962	4,211	70
19	2,686	4,876	5,381	91	6,838	6,578	8,223	80	9,524	11,454	13,604	84

¹ Year ending July 1, 1918.

It will be observed that in 5 of the 8 establishments shown in this table the turnover of the males, as compared with that of the establishment as a whole, is only slightly greater and in 3 establishments is somewhat lower. The turnover of females in 5 plants is considerably lower than that of the entire establishment, in 2 plants it is on about the same level, while in 1 establishment (No. 17) it is

much greater (213 per 100 as compared with 82 per 100 for the total working force). Direct comparison of the figures for males and females shows higher turnover figures for the former in 5 establishments and higher turnover figures for the latter in 3 establishments.

Attention has been called in preceding studies to the desirability of showing turnover within the working force according to jobs or occupations. By means of such a classification a more detailed analysis of existing conditions in the establishment can be made and the influence of the nature of the work and the general condition of employment of each job or occupation upon the turnover can be traced.

The figures given in Table 4 show the turnover by occupations in an important car-building establishment.¹

TABLE 4.—LABOR TURNOVER OF ESTABLISHMENT NO. 8 (CAR BUILDING), BY OCCUPATIONS, FOR YEAR ENDING JUNE 1, 1918.

Occupation.	Number hired.	Separations.	Average daily working force.	Per cent of turnover.
Air-brake construction men.....	13	21	8	262.5
Assemblers, filers, and welders.....	175	441	197	223.9
Bevelers, flazers, and silverers.....	35	44	23	191.3
Blacksmiths.....	135	156	117	133.3
Bolt makers.....	133	119	40	297.5
Bookkeepers, clerks, etc.....	257	259	229	113.1
Cabinet makers.....	157	242	167	144.9
Car body builders.....	3,394	3,383	871	388.4
Car bottom builders.....	94	134	103	130.1
Car electricians.....	395	494	186	265.6
Car inspectors.....	11	8	25	32.0
Carpenters.....	120	108	72	150.0
Car platform builders.....	42	56	31	180.6
Car steam fitters.....	376	384	118	325.4
Car truck builders.....	356	379	155	244.5
Die and tool makers.....	228	230	158	145.6
Draftsmen.....	38	88	88	100.0
Engineers and firemen.....	160	146	59	247.5
Hammersmiths.....	127	164	110	149.1
Inside car finishers.....	190	328	261	125.7
Inside car trimmers.....	157	210	211	99.5
Laborers.....	6,166	6,186	1,140	542.6
Machinists, bench machinists, drill press operators, and lather operators.....	622	803	466	172.3
Mechanical engineers.....	23	25	26	96.2
Millwrights.....	423	401	146	274.7
Molders.....	142	173	49	353.1
Painters.....	890	1,076	517	208.1
Pattern makers.....	5	14	18	77.8
Printers.....	16	15	9	166.7
Riveters.....	763	877	139	630.9
Rollers (contractors).....			4	
Rolling mill helpers.....	55	63	90	70.0
Roof fitters.....	271	363	179	202.8
Shearsmen, punch press operators, and power press operators.....	1,395	1,576	446	353.4
Shop electricians.....	143	133	57	233.3
Shop, steam, and water fitters.....	88	77	47	163.8
Superintendents, general foremen, etc.....	76	98	71	138.0
Template makers.....	40	59	37	159.5
Turners.....	199	214	132	140.8
Upholsterers.....	297	463	223	207.6
Watchmen.....	240	243	89	273.0
Wood machine operators.....	390	389	153	254.2
Total.....	18,837	20,642	7,287	283.3

¹ It was obviously impracticable to work out the turnover by distinct operations—of which there are over 700 in this establishment—but the predominant and numerically most important in each department were carefully chosen and are here designated as principal occupations.

Out of a total of 42 occupations or occupation groups listed, one shows no turnover, 5 show a turnover of less than 100 per cent, 17 a turnover of between 100 to 200 per cent, 13 a turnover of between 200 to 300 per cent, and 6 a turnover of more than 300 per cent. The company states that the influence of the uncertainty of obtaining materials and certain demoralized labor conditions are reflected in the high turnover percentages of shearsmen, punch press and power press operators, bolt makers, and car body builders. The large turnover of car truck builders and car steam fitters is due to seasonal fluctuations. Assemblers, filers and welders, molders, wood machine operators, and upholsterers show high labor turnover percentages because of a reduction in their number. The highest percentages of labor turnover are found among the riveters and laborers. Both these groups of workers are regarded by the management as being of the "floater" type, which is a type very difficult to deal with.

The marked instability of workers in certain occupations in this establishment may be explained by the fact that during the period for which figures are shown shipbuilding on the Great Lakes received a great impetus, and the type of workers employed in car building could readily be absorbed in shipbuilding plants. The relatively higher wages paid in the shipbuilding industry no doubt attracted many employees from this as well as from other establishments in Chicago and vicinity.

For the same establishment (No. 8) for which turnover figures by occupations are given, further figures have been obtained which show the seasonal influences upon the turnover in certain selected occupations. These figures are given in Table 5.

TABLE 5.—LABOR TURNOVER EACH MONTH IN SELECTED OCCUPATIONS, OF ESTABLISHMENT NO. 8 (CAR BUILDING), FOR THE YEAR ENDING JUNE 1, 1918.

Occupation.	Per cent of turnover for year.	Yearly turnover on basis of actual turnover for each specified month. ¹											
		June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.
Die and tool makers.	145.6	87.4	87.4	213.1	218.9	158.5	109.1	109.1	85.7	154.6	158.5	139.3	230.4
Machinists, bench machinists, drill press operators, and lathe operators.	172.3	107.3	123.2	226.7	197.9	116.4	109.9	126.6	149.8	154.6	259.4	231.5	332.3
Shearsmen, punch press operators, and power press operators.	353.4	287.3	427.4	511.1	439.2	296.4	306.2	220.3	269.9	250.6	424.4	328.9	585.5
Blacksmiths.	133.3	66.7	130.7	194.5	270.7	103.9	37.8	60.0	115.2	76.2	162.7	99.1	309.2
Hammersmiths.	149.1	196.1	110.0	196.7	127.2	147.5	101.6	116.8	112.1	75.0	202.0	126.2	313.6
Car bottom builders.	130.1	150.0	231.6	229.2	91.2	62.4	62.4	126.0	136.8	94.8	78.0	76.8	225.6
Car truck builders.	244.5	216.0	259.2	474.0	522.0	199.2	118.8	106.8	219.6	213.6	118.8	114.0	247.2
Car body builders.	388.4	428.4	433.2	465.6	477.6	304.8	280.8	252.0	361.2	246.0	440.4	400.8	556.8

¹ The actual monthly turnover figures on which this table is based represent the ratio of total separations for each month to the average daily working force for the same months. These percentages were changed to a yearly basis, as shown in this table, by multiplying the actual monthly percentages by 12.

TABLE 5.—LABOR TURNOVER EACH MONTH IN SELECTED OCCUPATIONS, OF ESTABLISHMENT NO. 8 (CAR BUILDING), FOR THE YEAR ENDING JUNE 1, 1918.—Concluded.

Occupation.	Per cent of turnover for year.	Yearly turnover on basis of actual turnover for each specified month.											
		June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
		Assemblers, fliers, and welders.....	223.9	123.6	127.2	459.0	303.6	121.2	70.8	27.6	93.6	356.4	595.2	391.2	535.2
Riveters.....	630.9	1,051.2	786.0	729.6	626.4	600.0	475.2	310.8	307.2	546.0	742.8	416.4	792.0
Car steam fitters.....	325.4	274.6	266.6	471.4	339.6	158.4	330.0	261.2	346.1	160.6	378.4	474.1	445.7
Tinners.....	140.8	146.9	132.4	163.9	182.2	187.0	199.9	150.0	29.5	114.6	140.6	124.4	111.6
Roof fitters.....	202.8	132.6	183.2	277.4	208.1	193.0	194.4	81.2	169.4	269.8	227.5	183.5	363.4
Car electricians.....	265.6	256.0	246.2	276.8	369.1	145.2	210.0	230.8	190.7	319.9	286.9	367.8	363.6
Millwrights.....	274.7	187.2	184.8	302.4	374.4	271.2	277.2	271.2	198.0	278.4	356.4	325.2	261.6
Wood machine operators.....	254.2	313.2	188.4	171.6	170.4	250.8	279.6	130.8	82.8	142.8	404.4	535.2	355.2
Cabinet makers.....	144.9	117.6	186.0	64.8	136.8	170.4	120.0	85.2	37.2	139.2	188.4	270.0	254.4
Inside car trimmers.....	99.5	124.8	80.4	104.4	49.2	39.6	73.2	51.6	81.6	320.4	98.4	34.8	152.4
Inside car finishers.....	125.7	96.0	84.0	212.4	237.6	87.6	14.4	69.6	63.6	324.0	127.2	151.2	64.8
Painters.....	208.1	229.2	218.4	272.4	199.2	183.6	204.0	104.4	186.0	301.2	153.6	187.2	256.8
Upholsterers.....	207.6	250.8	166.8	392.4	235.2	118.8	69.6	78.0	112.8	366.0	300.0	231.6	223.2
Laborers.....	542.6	370.8	387.6	488.4	415.2	524.4	526.8	638.4	600.0	441.6	714.0	750.0	777.6
Bookkeepers, clerks, etc.....	113.1	144.1	135.6	123.1	112.0	79.7	61.4	82.0	69.6	61.0	105.7	166.9	219.1

The striking fact in this table is the considerable variation in the turnover of the various occupations in given months as compared with the yearly turnover percentages, in one case, that of riveters, the turnover in June, 1917, being 1,051.2 per 100 as compared with 630.9 for the whole year. The turnover for the various occupations is generally lower during the winter months than for the year. The influence of certain factors upon the volume of turnover mentioned previously, such as uncertainty of obtaining materials, seasonal nature of the industry, demoralized labor market, etc., is believed by the management to be reflected even more clearly in the figures shown in this table.

Nature of Separations.

Details of the nature of separations in 17 establishments which furnished such data are shown in Table 6. Under "discharged" have been grouped those employees who have been dismissed for cause, which presupposes either defect in workmanship or in character of the employee. "Laid off" includes all those who were let go temporarily or permanently, either because of the completion of the job, or because of shortage of work. Under "quit" are classified all voluntary separations, including withdrawals due to marriage, deaths, etc.

TABLE 6.—NUMBER AND PER CENT OF SEPARATIONS FOR EACH SPECIFIED REASON IN 17 ESTABLISHMENTS DURING THE YEAR ENDING JUNE 1, 1918.

Es- tab- lish- ment num- ber.	Number.					Per cent.				Industry or nature of business.
	Dis- chg'd.	Laid off.	En- tered milit- ary serv- ice.	Quit.	Total.	Dis- chg'd.	Laid off.	En- tered milit- ary serv- ice.	Quit.	
1	7,372	2,064	612	17,842	27,890	27	7	2	64	Meat packing.
2	7,925	659	484	6,994	16,062	49	4	3	44	Do.
5	558	3,441	322	8,012	12,333	4	28	3	64	Mail order house.
7	151	.....	162	1,019	1,332	11	.....	12	77	Do.
10	353	.....	108	2,306	2,767	13	.....	4	83	Iron foundry.
11	12	60	45	354	471	2	13	10	75	Printing presses, mfg.
12	431	.....	84	1,197	1,712	25	.....	5	70	Machinery (specialties), mfg.
13	13	199	61	491	764	2	26	8	64	Machinery (coal mining), mfg.
14	83	.....	94	1,504	1,681	5	.....	6	89	Machinery (specialties), mfg.
16	12	.....	34	490	536	2	.....	6	92	Brass and metal (specialties), mfg.
17	481	596	387	3,265	4,729	10	13	8	69	Agricultural implements, mfg.
18	211	226	224	2,301	2,962	7	7	8	78	Do.
19	2,191	1,718	903	6,642	11,454	19	15	8	58	Public utilities (telephone).
20	500	358	1,064	4,312	6,234	8	6	17	69	Public utilities (electricity).
22	329	112	116	1,408	1,965	17	6	6	71	Electrical supplies, mfg.
23	171	35	60	602	868	20	4	7	69	Do.
25	24	134	18	204	380	6	35	5	54	Clay products, mfg.
Total	20,817	9,602	4,778	58,943	94,140	22	10	5	63	

The considerable range in the discharge percentages observable in the above table is due, no doubt, to the nature of the labor force, and in a measure to the labor policy of the particular establishment. Lay offs in the main are due to the seasonal character of the industries, and the rather large proportion of lay offs in the case of establishment No. 25 is due to deliberate reduction in the working force. The proportion of separations due to entrances into military service generally is not very extensive, which seems rather surprising, in view of the importance which this factor in the industrial situation during the period covered would seem to indicate.

Length of Service.

The main purpose in presenting detailed figures on labor turnover in Tables 3 and 4 has been to show the distribution of the turnover within the working force. In Table 3 the distribution of the turnover is between males and females and in Table 4 the occupational turnover responsibility is more specifically established. In these figures one very important factor, however, that of length of service, has not been touched upon, though it must be clear that within certain groups, such as males or females, occupations, etc., the turnover is not equally distributed because of the varying frequency with which the normal number of jobs in each such group may be abandoned by employees. It has been pointed out in previous studies that the length of time which jobs have been held by individual employees

who have left the jobs is a very important factor in the turnover distribution, for the shorter the service of the separated employees the more frequent replacements they occasion, and this condition is reflected in higher turnover figures. From data obtained from a number of establishments it is possible to show the relative stability of certain length-of-service groups within the working force, and to establish a more definite relation between the tenure of service and the labor turnover.

The experience of 11 establishments which furnished accurate figures on the length of service of their active employees and those who left their employ is summarized in Table 7.

TABLE 7.—NUMBER AND PER CENT IN EMPLOY IN 11 ESTABLISHMENTS ON JUNE 1, 1918, AND OF SEPARATIONS DURING THE YEAR ENDING JUNE 1, 1918, CLASSIFIED BY LENGTH-OF-SERVICE GROUPS.

Length-of-service group.	Number in each group.		Per cent in each group.	
	Employed June 1, 1918.	Separated during year.	Employed June 1, 1918.	Separated during year.
1 week or less.....	612	7,669	2	16
Over 1 week to 2 weeks.....	856	5,621	2	12
Over 2 weeks to 1 month.....	1,296	6,570	3	14
Over 1 month to 3 months.....	3,674	11,184	9	23
Over 3 months to 6 months.....	2,723	4,974	7	10
Over 6 months to 1 year.....	5,261	3,956	13	8
Over 1 year to 2 years.....	5,743	3,729	14	8
Over 2 years to 3 years.....	3,954	1,014	10	2
Over 3 years to 5 years.....	3,434	1,599	9	3
Over 5 years.....	12,783	1,779	31	4
Total.....	40,336	48,095	100	100

It will be observed in this table that the proportion of short-service employees in the active working force is somewhat extensive, considering those working 1 year or less as short-service employees, but that also a considerable proportion among the active employees had long-service records. The figures for those separated, however, present a striking contrast, and no doubt reflect the influence of war-time conditions upon the labor turnover. Out of a total of 48,095 separated employees in the 11 establishments, 42 per cent on severing their connections had served 1 month or less, 33 per cent had worked over 1 to 6 months, and 8 per cent had served over 6 months to a year, a total of 83 per cent of separated employees having had a continuous service record of only 1 year or less.

For the purpose of establishing more definitely the turnover responsibility of certain length-of-service groups, comparison should be made between the proportion of separations in classified service groups and the proportion of active employees in corresponding length-of-service groups. Assuming that the distribution of active employees

(those in employ June 1, 1918) within given length-of-service groups prevailed throughout the period, it is apparent that the short-service groups were responsible for an extent of separation entirely out of proportion to their relative strength in the organization. Considering, for instance, the first three groups of active employees, those having a service record of one month or less, representing only 7 per cent of the total working force, it will be seen that they were responsible for 42 per cent of the total separations. On the other hand, the long-service employees in the active working force—64 per cent of the total working force—were responsible for only 17 per cent of the total separations.

Detailed figures giving the length of service of active and separated employees for each of the 11 establishments on which the above summary figures are based are shown in Table 8.

TABLE 8.—NUMBER AND PER CENT IN EMPLOY IN 11 ESTABLISHMENTS ON JUNE 1, 1918, AND OF SEPARATIONS DURING THE YEAR ENDING JUNE 1, 1918, CLASSIFIED BY LENGTH-OF-SERVICE GROUPS.

Number in each classified group.

Es- tab- lish- ment num- ber.	On pay roll at end of year after having worked—											Separated from service during year after having worked—											Industry or nature of business.
	1 wk. or less.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.	1 wk. or less.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.	
3	158	227	314	1,219	675	1,640	514	356	284	254	15,641	2,744	3,098	3,798	5,542	1,336	504	294	68	22	12	17,418	Meat packing. Mail-order house. Printing presses, mfg. Machinery (specialties), mfg. Machinery (coal mining), mfg. Brass and metal special- ties, mfg. Agricultural implements, mfg. Do. Public utilities (tele- phone). Clothing, men's, mfg. Clay products, mfg.
7	36	62	45	107	56	131	110	52	73	430	1,102	261	126	132	299	170	134	81	17	42	70	1,332	
11	2	1	5	33	21	129	88	90	32	384	785	57	33	33	67	81	52	81	28	10	24	471	
12	38	19	73	111	106	118	85	49	48	57	704	399	181	273	425	211	129	46	19	17	12	1,712	
13	.....	9	26	100	47	145	113	80	34	129	683	96	86	115	185	102	81	46	22	21	10	764
16	13	24	42	15	18	38	30	19	13	46	258	180	52	76	96	76	21	15	4	7	9	536	
17	77	245	217	688	338	563	1,062	913	196	1,719	6,018	828	438	389	833	553	571	859	90	51	117	4,729	
18	136	54	158	269	154	253	596	200	120	2,680	4,620	478	200	167	428	321	352	394	81	144	397	2,962	
19	134	154	221	793	719	1,682	2,199	1,419	1,897	5,390	14,608	1,484	665	719	1,762	1,282	1,324	1,152	436	858	869	10,551	
24	17	52	183	325	576	525	897	712	730	1,532	5,549	1,105	695	836	1,532	810	736	702	221	402	201	7,240	
25	1	9	12	14	13	37	49	64	7	162	368	37	42	32	15	32	52	59	28	25	58	380	
Total	612	856	1,296	3,674	2,723	5,261	5,743	3,954	3,434	12,783	40,336	7,669	5,621	6,570	11,184	4,974	3,956	3,729	1,014	1,599	1,779	48,095	

¹ Not including 423 whose period of service is not known.

² Data for year ending July 1, 1918.

³ Not including 903 who entered military service.

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TABLE 8.—NUMBER AND PER CENT IN EMPLOY IN 11 ESTABLISHMENTS ON JUNE 1, 1918, AND OF SEPARATIONS DURING THE YEAR ENDING JUNE 1, 1918, CLASSIFIED BY LENGTH-OF-SERVICE GROUPS—Concluded.

Per cent in each classified group.

Es- tab- lish- ment num- ber.	On pay roll at end of year after having worked—											Separated from service during year after having worked—											Industry or nature of business.
	1 wk. or less.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.	1 wk. or less.	Over 1 wk. to 2 wks.	Over 2 wks. to 1 mo.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 yr.	Over 1 yr. to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.	
3	3	4	6	22	12	29	9	6	5	4	100	16	18	22	32	8	3	2	(1)	(1)	(1)	100	Meat packing.
7	3	6	4	10	5	12	10	5	6	39	100	20	10	10	22	13	10	6	1	3	5	100	Mail-order house.
11	(1)	(1)	1	4	3	16	11	12	4	49	100	12	8	7	15	17	11	17	6	2	5	100	Printing presses, mfg.
12	5	3	10	16	15	17	12	7	7	8	100	23	11	16	25	12	7	3	1	1	1	100	Machinery (specialties), mfg.
13	.....	1	4	15	7	21	16	12	5	19	100	13	11	15	24	13	11	6	3	3	3	100	Machinery (coal mining), mfg.
16	5	9	16	6	7	15	12	7	5	18	100	33	10	14	18	14	4	3	1	1	2	100	Brass and metal special- ties, mfg.
17	1	4	4	11	6	9	18	15	3	29	100	18	9	8	18	12	18	2	1	2	2	100	Agricultural implements, mfg.
18	3	1	3	6	3	6	13	4	3	58	100	16	7	6	14	11	12	13	3	5	13	100	Do.
19	1	1	1	5	5	12	15	10	13	37	100	14	6	7	17	12	13	11	4	8	8	100	Public utilities (tele- phone).
24	(1)	1	3	6	10	10	16	13	13	28	100	15	10	11	21	11	10	10	3	6	3	100	Clothing, men's, mfg.
25	(1)	3	3	4	4	10	13	17	2	44	100	10	11	8	4	8	14	16	7	7	15	100	Clay products, mfg.
Total	2	2	3	9	7	13	14	10	9	31	100	16	12	14	23	10	8	8	2	3	4	100	

¹ Less than 1 per cent.

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Though a comparison of the relative proportions of active and of separated employees between the different establishments shows considerable variations, the disproportionate turnover responsibility of short and long-service employees in each of these establishments shows a rather marked similarity. It is interesting to note the relatively large proportion in the working force in some establishments of employees having served continuously over 5 years, this proportion reaching 58 per cent in the case of establishment No. 18.

"Stable" and "Unstable" Employees.

In the discussion of Tables 7 and 8 attention has been drawn to the fact that in the active working force of each establishment are found long-time employees, who, it is clear, were not responsible for any of the labor changes that have taken place during the period for which labor turnover figures are shown. For the purpose of establishing more definitely the responsibility of that part of the working force which has actually occasioned the labor turnover Table 9 has been prepared, making the base for computing the turnover that part of the working force which directly contributed to it. The figures were obtained by deducting from the normal working force the number of employees who on June 1, 1918, had a continuous service record of over one year, and who therefore did not figure in the labor turnover for the period from June 1, 1917, to June 1, 1918.

TABLE 9.—COMPARATIVE EXTENT OF LABOR TURNOVER OF TOTAL WORKING FORCE AND OF UNSTABLE PART OF WORKING FORCE IN 11 ESTABLISHMENTS, FOR THE YEAR ENDING JUNE 1, 1918.

Establishment number.	Total working force. ¹	Unstable working force.		Number of separations. ⁴	Annual per cent of turnover of total working force. ⁵	Annual per cent of turnover of unstable working force. ⁶
		Number. ²	Per cent. ³			
3.....	5,219	3,811	73	17,418	334	457
7.....	1,042	377	36	1,332	128	353
11.....	764	170	22	471	62	277
12.....	667	428	64	1,712	257	400
13.....	611	255	42	764	125	300
16.....	283	175	62	536	189	306
17.....	5,759	1,869	32	4,729	82	253
18.....	4,211	615	15	2,962	70	482
19.....	13,604	2,699	20	11,454	84	424
24.....	6,027	2,156	33	7,240	120	336
25.....	435	153	65	380	87	248

¹ Figures represent average daily working force as shown in Table 2.

² Figures have been arrived at by deducting from the average daily working force the number of employees who on June 1, 1918, had a continuous service record of over one year.

³ Represents the ratio which the unstable working force is to the total working force.

⁴ Includes total separations from all causes, as shown in Table 2.

⁵ Represents the ratio which the total separations are to the total working force.

⁶ Represents the ratio which the total separations are to the unstable working force.

The proportion of unstable employees in the working force, that is, those employees to whom the labor turnover is directly attributable, ranges from 15 to 73 per cent in the establishments shown. It should be noted that establishments having a comparatively low percentage of unstable employees have also a relatively low annual turnover

percentage of the total working force, and in these establishments the difference between the turnover based on the total working force and on the unstable working force is also considerably greater than in establishments in which the turnover falls upon a larger proportion of the working force. The explanation for this is that in establishments having a low percentage of unstable employees only a comparatively small number of the working force is responsible for the labor turnover, and, as the labor forces in such establishments contain a large proportion of old-time employees who in no wise contribute to the labor changes, these establishments are able to exhibit a comparatively low turnover ratio when based on the entire working force. In establishments showing a higher percentage of unstable employees the turnover responsibility is more evenly distributed in the working force and the differences in the turnover ratio between the stable and unstable working force are therefore not nearly as great.

Number of Jobs Affected by Turnover.

Of further interest in the study of turnover is the number of jobs directly affected. In a measure the average daily working force may be assumed to represent also the standard number of jobs in a particular establishment, but, as has been pointed out above, the extent of turnover will vary with the length of service, and turnover figures of the total working force do not indicate the degrees in which the total available jobs were subject to labor shiftings and exactly what influence the length of service of separated employees has upon the extent of the turnover. An attempt to establish this relationship more definitely is made in Table 10. These figures are based upon the records of 39,974 persons in 11 establishments who at the time of separation had continuous-service records of 1 year or less. The calculations are based on the mean length of service in each group.

TABLE 10.—LABOR TURNOVER BY LENGTH-OF-SERVICE GROUPS.

Length-of-service group.	Separated employees who served continuously each classified period.	Mean length of service (days). ¹	Number of man-days worked during year.	Consequent number of full-time jobs in each group.	Corresponding percentage of turnover for each service.
1 week or less.....	7,669	4	30,676	84	9,025
Over 1 week to 2 weeks.....	5,621	11	61,831	169	3,218
Over 2 weeks to 1 month.....	6,570	22	144,540	396	1,559
Over 1 month to 3 months.....	11,184	60	671,040	1,838	508
Over 3 months to 6 months.....	4,974	135	671,490	1,839	170
Over 6 months to 1 year.....	3,956	274	1,083,944	2,969	33
Total.....	39,974			7,295	525

¹ These figures represent the average length of service of each group shown and are the arithmetic mean between the minimum and maximum time in each group. While these averages are based upon an assumption, figures have been obtained which confirm them. A tabulation made of the service records of 1,990 employees of various occupations in two establishments in Cincinnati, who separated during the year 1913, showed the average length of service in each time group to be as follows: One week or less, 3.6 days; over 1 week to 2 weeks, 10.7 days; over 2 weeks to 1 month, 21.5 days; over 1 month to 3 months, 55.4 days; over 3 months to 6 months, 129 days; and over 6 months to 1 year, 252.6 days.

The number of man-days worked during the year represents the total days served by the given number of separated employees in specified groups. In order to obtain the number of full-time jobs represented by the total days of service, the number of man-days worked were divided by 365, which reduces the total service days to that of one fully employed person, and which is equivalent to the number of full-time jobs in each group, subject to turnover.¹ It will thus be seen that in the "1 week or less" group 84 jobs in the course of the year had to be occupied by 7,669 persons, which represents a turnover of 9,025 per cent; in the "6 months to 1 year" group it took in the course of the year 3,956 persons to occupy the 2,969 available full-time positions, which is a turnover of 33 per cent. In this connection attention should be called to the fact that the number of job holders required to fill a position for any period must always be one more than the number of separations. In other words, in the "1 week or less" group, where there were 90 separations on the average for each job, it took 91 persons to keep one job fully occupied during the year; likewise, it took 33 persons in the "over 1 week to 2 weeks" group, more than 16 persons in the "over 2 weeks to 1 month" group, 6 persons in the "over 1 month to 3 months" group, and 2.7 and 1.3 persons in the "over 3 months to 6 months" and in the "over 6 months to 1 year" groups, respectively. These figures bring out very forcibly the existence of enormous variations in the volume of turnover between different service groups and the overwhelmingly greater responsibility of the short-service employee in the turnover.

¹ While the time of a fully-employed person is less than 365 days, it was necessary to divide the total number of man-days worked during the year by 365, because in recording the length of service of individual employees days not actually worked, such as Sundays and holidays, were included.

PRICES AND COST OF LIVING.

Retail Prices of Food and Coal in the United States.

THE retail price of food in the United States increased 3 per cent in July as compared with June.¹ This makes the total cost of the 22 most essential foods, upon which this comparison is based, 2 per cent higher than it was in December, which month had previously been the high-water mark. By this increase July now represents the month when these foods cost more than they have ever cost. This increase is due, for the most part, to the fact that in the majority of the 50 cities, from which prices are secured, new potatoes were first on the market in July. Potatoes increased in July 26 per cent over the price in June. There were several other large increases during the month. Bacon increased 10 per cent; pork chops, 9 per cent; coffee, 8 per cent; eggs and rice, 6 per cent each; lard, 4 per cent; ham, corn meal, and sugar, 3 per cent each. Sirloin steak, round steak, cheese, bread, and tea, each increased 1 per cent. Other articles which increased were: Crisco, 10 per cent; bananas, 5 per cent; rolled oats and prunes, 4 per cent each; evaporated milk and raisins, 3 per cent each; oleomargarine, nut margarine, corn flakes, salmon, macaroni, canned corn, peas, and tomatoes, 1 per cent each. Cream of Wheat increased less than five-tenths of 1 per cent.

A few articles show a decline in price during the month. Plate beef was 6 per cent cheaper than in June. Rib roast, chuck roast, hens, and butter decreased 1 per cent each. Other articles which declined in price were: Cabbage, 19 per cent; onions, 12 per cent; oranges, 2 per cent; lamb, 1 per cent. Navy beans and baked beans did not change in price from June to July.

During the past year, from July, 1918, to July, 1919, the cost for the United States of the 22 articles of food has increased 13 per cent. This is based on the average retail price charged in 50 cities and on the average family consumption of each article of food. During the year coffee increased 53 per cent; lard, 29 per cent; cheese, 28 per cent; potatoes, 23 per cent; pork chops, 22 per cent; butter, 19 per

¹ This is based on the cost of 22 articles of food for which consumption weights are secured by the Bureau, namely: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

cent; sugar, 18 per cent; ham, 16 per cent; eggs, 15 per cent; milk, 14 per cent; rice, 13 per cent; flour, 12 per cent; bacon and hens, 11 per cent each; tea, 8 per cent; sirloin steak, 3 per cent; round steak, rib roast, and bread, 1 per cent each. Other articles increased as follows: Onions, 85 per cent; prunes, 59 per cent; raisins, 15 per cent; salmon, 8 per cent; and lamb, 2 per cent. Navy beans show a decline of 30 per cent since July, 1918. The other articles which decreased during the year were: Plate beef, 9 per cent; chuck roast, 5 per cent; and corn meal, 3 per cent.

AVERAGE RETAIL PRICE AND PER CENT OF INCREASE OR DECREASE, JULY 15, 1919, COMPARED WITH JULY 15, 1918, AND JUNE 15, 1919.

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (—) July 15, 1919, compared with—	
		July 15, 1918.	June 15, 1919.	July 15, 1919.	July 15, 1918.	June 15, 1919.
		<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>		
Sirloin steak.....	Pound.....	42.1	43.1	43.4	+ 3	+ 1
Round steak.....	do.....	40.3	40.4	40.7	+ 1	+ 1
Rib roast.....	do.....	33.3	33.8	33.5	+ 1	- 1
Chuck roast.....	do.....	29.1	28.1	27.7	- 5	- 1
Plate beef.....	do.....	22.4	21.5	20.3	- 9	- 6
Pork chops.....	do.....	37.9	42.4	46.2	+22	+ 9
Bacon.....	do.....	52.3	52.7	58.1	+11	+10
Ham.....	do.....	48.7	55.1	56.7	+16	+ 3
Lamb.....	do.....	37.3	38.4	38.2	+ 2	- 1
Hens.....	do.....	38.0	42.6	42.0	+11	- 1
Salmon, canned.....	do.....	29.6	32.0	32.2	+ 8	+ 1
Milk, fresh.....	Quart.....	13.2	15.0	15.0	+14	(¹)
Milk, evaporated (unsweetened).....	15-16 oz. can.....		15.4	15.9		+ 3
Butter.....	Pound.....	52.6	63.3	62.8	+19	- 1
Oleomargarine.....	do.....	41.4	41.4	41.9		+ 1
Nut margarine.....	do.....		35.4	35.7		+ 1
Cheese.....	do.....	33.5	42.4	43.0	+28	+ 1
Lard.....	do.....	32.5	40.2	42.0	+29	+ 4
Crisco.....	do.....		35.3	38.9		+10
Eggs, strictly fresh.....	Dozen.....	49.1	53.5	56.6	+15	+ 6
Bread.....	Pound ²	9.9	9.9	10.0	+ 1	+ 1
Flour.....	Pound.....	6.7	7.5	7.5	+12	(¹)
Corn meal.....	do.....	6.7	6.3	6.5	- 3	+ 3
Rolled oats.....	do.....		8.4	8.7		+ 4
Corn flakes.....	8-oz. pkg.....		14.0	14.1		+ 1
Cream of Wheat.....	28-oz. pkg.....		25.1	25.2		(³)
Macaroni.....	Pound.....		19.1	19.3		+ 1
Rice.....	do.....	12.9	13.8	14.6	+13	+ 6
Beans, navy.....	do.....	17.3	12.1	12.1	-30	(¹)
Potatoes.....	do.....	3.9	3.8	4.8	+23	+26
Onions.....	do.....	5.3	11.2	9.8	+85	-12
Cabbage.....	do.....		7.7	6.2		-19
Beans, baked.....	No. 2 can.....		17.3	17.3		(¹)
Corn, canned.....	do.....		19.1	19.3		+ 1
Peas, canned.....	do.....		19.0	19.2		+ 1
Tomatoes, canned.....	do.....		15.9	16.1		+ 1
Sugar, granulated.....	Pound.....	9.2	10.6	10.9	+18	+ 3
Tea.....	do.....	65.3	70.1	70.5	+ 8	+ 1
Coffee.....	do.....	30.1	42.6	46.2	+53	+ 8
Prunes.....	do.....	16.7	25.4	26.5	+59	+ 4
Raisins.....	do.....	15.1	16.8	17.3	+15	+ 3
Bananas.....	Dozen.....		37.4	39.2		+ 5
Oranges.....	do.....		54.4	53.4		- 2
22 weighted articles combined.....					+13	+ 3

¹ No change in price.

² Baked weight.

³ Increase of less than five-tenths of 1 per cent.

During the six-year period, July, 1913, to July, 1919, the retail price of the 22 food articles, combined, increased 92 per cent.

The following articles increased 100 per cent or over: Ham, 101 per cent; sugar, 102 per cent; bacon, 109 per cent; pork chops, 114 per cent; corn meal, 117 per cent; flour, 127 per cent; potatoes, 153 per cent; and lard, 164 per cent.

AVERAGE RETAIL PRICE AND PER CENT OF INCREASE OR DECREASE JULY 15 OF EACH SPECIFIED YEAR COMPARED WITH JULY 15, 1913.

Article.	Unit.	Average retail price July 15—							Per cent of increase (+) or decrease (-) July 15 of each specified year compared with July 15, 1913.					
		1913	1914	1915	1916	1917	1918	1919	1914	1915	1916	1917	1918	1919
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.						
Sirloin steak.....	Pound..	26.5	27.0	26.5	28.7	32.7	42.1	43.4	+ 2	(1)	+ 8	+23	+ 59	+ 64
Round steak.....	do.....	23.3	24.5	24.0	26.0	30.6	40.3	40.7	+ 5	+ 3	+12	+31	+ 73	+ 75
Rib roast.....	do.....	20.1	20.8	20.6	22.0	25.7	33.3	33.5	+ 3	+ 2	+ 9	+28	+ 66	+ 67
Chuck roast.....	do.....	16.4	17.5	16.7	17.9	21.9	29.1	27.7	+ 7	+ 2	+ 9	+34	+ 77	+ 69
Plate beef.....	do.....	12.1	12.7	12.3	13.2	16.5	22.4	20.3	+ 5	+ 2	+ 9	+36	+ 85	+ 68
Pork chops.....	do.....	21.6	22.2	21.1	23.4	31.6	37.9	46.2	+ 3	- 2	+ 8	+46	+ 75	+114
Bacon.....	do.....	28.2	27.3	27.0	29.0	42.9	52.3	58.1	- 2	- 3	+ 4	+ 54	+ 88	+109
Ham.....	do.....	28.2	27.9	26.5	32.3	39.6	48.7	56.7	- 1	- 6	+15	+ 40	+ 73	+101
Lamb.....	do.....	19.7	20.3	20.9	23.5	29.9	37.3	38.2	+ 3	+ 6	+19	+52	+ 89	+ 94
Hens.....	do.....	21.7	21.9	20.8	24.1	28.0	38.0	42.0	+ 1	- 4	+11	+ 29	+ 75	+ 94
Salmon (canned).....	do.....	.....	19.8	20.0	26.6	29.6	32.2	.....	.....	.....	.....	.....	.....	.....
Milk, fresh.....	Quart.	8.8	8.8	8.7	8.8	11.1	13.2	15.0	(1)	- 1	(1)	+ 26	+ 50	+ 70
Milk, evaporated (unsweetened).....	15-16 oz. can.	.....	.....	.....	.....	.....	.....	15.9	.....	.....	.....	.....	.....	.....
Butter.....	Pound..	34.7	34.3	34.3	35.5	45.9	52.6	62.8	- 1	- 1	+ 2	+ 32	+ 52	+ 81
Oleomargarine.....	do.....	.....	.....	.....	.....	.....	.....	41.9	.....	.....	.....	.....	.....	.....
Nut margarine.....	do.....	.....	.....	.....	.....	.....	.....	35.7	.....	.....	.....	.....	.....	.....
Cheese.....	do.....	21.9	22.7	23.2	24.3	33.0	33.5	43.0	+ 4	+ 6	+11	+ 51	+ 53	+ 96
Lard.....	do.....	15.9	15.4	14.5	20.8	27.4	32.5	42.0	- 3	- 9	+31	+ 72	+104	+164
Crisco.....	do.....	.....	.....	.....	.....	.....	.....	38.9	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh.....	Dozen..	30.0	30.0	27.8	31.9	42.0	49.1	56.6	(1)	- 7	+ 6	+ 40	+ 64	+ 89
Rolled oats.....	Pound..	.....	.....	.....	.....	.....	.....	8.7	.....	.....	.....	.....	.....	.....
Bread.....	do ²	5.6	6.2	7.1	7.0	9.9	9.9	10.0	+11	+27	+25	+ 77	+ 77	+ 79
Flour.....	do.....	3.3	3.2	4.1	3.8	7.2	6.7	7.5	- 3	+24	+15	+118	+103	+127
Cornmeal.....	do.....	3.0	3.1	3.3	3.3	5.9	6.7	6.5	+ 3	+10	+10	+ 97	+123	+117
Corn flakes.....	8-oz pkg.	.....	.....	.....	.....	.....	.....	14.1	.....	.....	.....	.....	.....	.....
Cream of wheat.....	28-oz pkg.	.....	.....	.....	.....	.....	.....	25.2	.....	.....	.....	.....	.....	.....
Macaroni.....	Pound..	.....	.....	.....	.....	.....	.....	19.3	.....	.....	.....	.....	.....	.....
Rice.....	do.....	8.7	8.8	9.1	9.1	10.6	12.9	14.6	+ 1	+ 5	+ 5	+ 22	+ 48	+ 68
Beans, navy.....	do.....	.....	.....	7.6	11.7	19.5	17.3	12.1	.....	.....	.....	.....	.....	.....
Potatoes.....	do.....	1.9	2.7	1.5	2.3	4.3	3.9	4.8	+42	-21	+21	+126	+105	+153
Onions.....	do.....	.....	.....	3.5	5.3	5.1	5.3	9.8	.....	.....	.....	.....	.....	.....
Cabbage.....	do.....	.....	.....	.....	.....	.....	.....	6.2	.....	.....	.....	.....	.....	.....
Beans, baked.....	No. 2 can.	.....	.....	.....	.....	.....	.....	17.3	.....	.....	.....	.....	.....	.....
Corn, canned.....	do.....	.....	.....	.....	.....	.....	.....	19.3	.....	.....	.....	.....	.....	.....
Peas, canned.....	do.....	.....	.....	.....	.....	.....	.....	19.2	.....	.....	.....	.....	.....	.....
Tomatoes, canned.....	do.....	.....	.....	.....	.....	.....	.....	16.1	.....	.....	.....	.....	.....	.....
Sugar, granulated.....	Pound..	5.4	5.2	7.0	8.7	9.1	9.2	10.9	- 4	+30	+61	+ 69	+ 70	+102
Tea.....	do.....	54.4	54.7	54.6	54.6	59.9	65.3	70.5	+ 1	(3)	(3)	+ 10	+ 20	+ 30
Coffee.....	do.....	29.8	29.7	29.9	29.9	30.6	30.1	46.2	(4)	(3)	(3)	+ 3	+ 1	+ 55
Prunes.....	do.....	.....	.....	13.5	13.4	16.0	16.7	26.5	.....	.....	.....	.....	.....	.....
Raisins.....	do.....	.....	.....	12.5	12.8	14.8	15.1	17.3	.....	.....	.....	.....	.....	.....
Bananas.....	Dozen..	.....	.....	.....	.....	.....	.....	39.2	.....	.....	.....	.....	.....	.....
Oranges.....	do.....	.....	.....	.....	.....	.....	.....	53.4	.....	.....	.....	.....	.....	.....
22 weighted articles combined.....	.....	.....	.....	.....	.....	.....	.....	.....	+ 3	+ 1	+11	+ 47	+ 69	+ 92

¹ No change in price.

² Baked weight.

³ Increase of less than five-tenths of 1 per cent.

⁴ Decrease of less than five-tenths of 1 per cent.

RELATIVE RETAIL PRICES OF FOOD IN THE UNITED STATES ON JUNE 15 AND JULY 15, 1919, AND JULY 15, 1913, 1914, 1915, 1916, 1917, AND 1918.

[The relative price shows the per cent that the average price on the 15th of each month is of the average price for the year 1913.]

Article.	Unit.	1919		July 15.					
		June 15.	July 15.	1913	1914	1915	1916	1917	1918
Sirloin steak.....	Pound.....	170	171	104	106	105	113	129	166
Round steak.....	do.....	181	183	104	109	107	116	137	181
Rib roast.....	do.....	171	169	102	105	104	112	130	168
Chuck roast.....	do.....	176	173	103	106	103	112	137	182
Plate beef.....	do.....	179	169	101	105	102	110	138	187
Pork chops.....	do.....	202	220	103	106	100	111	151	180
Bacon.....	do.....	212	215	104	101	100	107	159	194
Ham.....	do.....	205	211	104	103	98	111	147	181
Lard.....	do.....	254	266	101	97	93	110	174	206
Hens.....	do.....	200	197	102	103	97	113	131	178
Eggs, strictly fresh.....	Dozen.....	155	164	87	87	81	93	122	142
Butter.....	Pound.....	165	164	91	89	90	93	120	137
Cheese.....	do.....	192	195	99	103	105	110	149	152
Milk.....	Quart.....	169	169	99	100	98	100	125	149
Bread.....	Pound ¹	174	175	100	110	126	124	176	174
Flour.....	Pound.....	227	227	101	98	125	116	220	203
Corn meal.....	do.....	210	217	98	103	108	108	195	223
Rice.....	do.....	159	168	100	101	104	105	123	148
Potatoes.....	do.....	224	282	110	155	85	134	246	229
Sugar.....	do.....	193	198	100	95	127	160	166	167
Tea.....	do.....	129	130	100	101	100	100	110	120
Coffee.....	do.....	143	155	100	100	101	100	103	101
22 weighted articles combined.	.....	184	190	100	102	100	111	146	167

¹ Baked weight.

Retail Prices of 22¹ Articles of Food, Combined, for the United States, by Months.

The chart on page 64 shows the curve in the retail price of 22¹ of the most essential foods for the United States for each month from January, 1913, to and including July, 1919, and is based on index numbers of the 22 articles combined as shown in the table on pages 90 and 91 of the MONTHLY LABOR REVIEW for August, 1919. The space for the remainder of the year has been left in order that the chart may be continued by anyone who may desire to do so. The logarithmic chart is used because the percentages of increase or decrease are more clearly seen than on an arithmetic chart.²

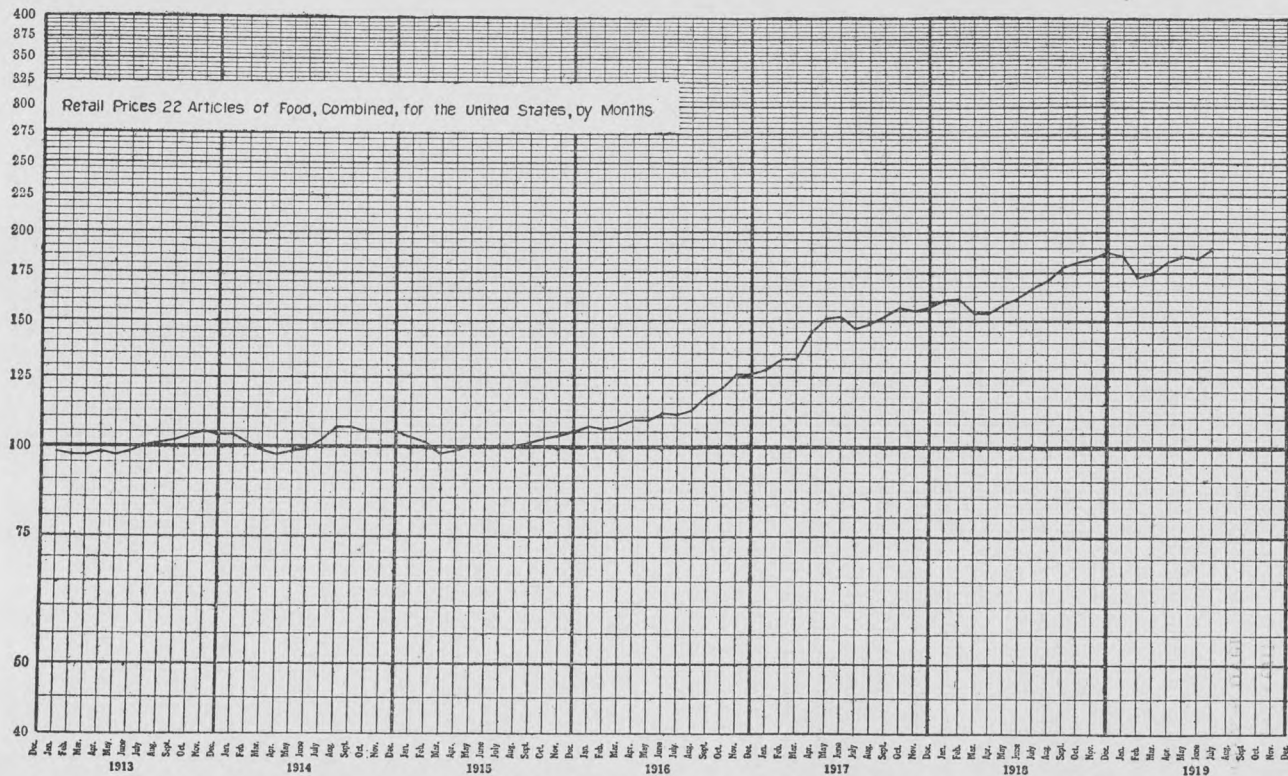
It is interesting to note the upward curve in July, 1914, the month of the beginning of the world war, and that the curve comes down for the year 1915, but since that time it shows a continuous incline, but slightly broken. Until July, 1919, December, 1918, represented the highest point. There was a slight drop in January and a 7 per

¹ See note on page 60.

² For a discussion of the logarithmic chart, see article on Comparison of Arithmetic and Ratio Charts, by Lucian W. Chaney, MONTHLY LABOR REVIEW for March, 1919, pp. 20-34. Also, The "Ratio" Chart, by Prof. Irving Fisher, reprinted from Quarterly Publications of the American Statistical Association, June, 1917, 24 pages.

CHANGES IN RETAIL PRICES OF 22 ARTICLES OF FOOD IN THE UNITED STATES, BY MONTHS, JANUARY, 1913, TO JULY, 1919.

[Average for 1913=100.]



[672]

cent decline in February. Since February the line moves upward showing less than one-half of 1 per cent drop in June, but an incline of 3 per cent in July, which month now shows the greatest percentage increase over the year 1913.

Effort is made by the Bureau to secure quotations on similar grades of commodities in the different cities. There are, however, some local customs which must be considered when any comparison is made of the prices in the different cities. The method of cutting sirloin steak in Boston, Mass.; Manchester, N. H.; Philadelphia, Pa.; Providence, R. I.; and Portland, Me., differs from that in other cities. The cut known as "sirloin" in these five cities would be in other cities known as "porterhouse." There is in these cities, owing to the methods of dividing the round from the loin, no cut that corresponds to that of "sirloin" in other cities. There is also a greater amount of trimming demanded by the retail trade in these cities than in others. This is particularly true of Providence, R. I. These, together with the fact that almost all the cattle sold are corn fed, are the main reasons why the retail prices of beef in these cities are higher than in others.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD ON

[The prices shown in the tables following are computed from reports sent monthly to the Bureau by retail

Article.	Unit.	Atlanta, Ga.						Baltimore, Md.					
		July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.
		1913	1914	1917	1918			1913	1914	1917	1918		
		<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
Sirloin steak.....	Lb.	26.0	27.8	31.0	39.8	40.0	40.7	24.3	26.4	33.4	46.6	44.4	44.3
Round steak.....	Lb.	21.5	23.4	27.7	36.6	37.4	38.3	23.0	24.4	32.0	45.9	43.2	42.8
Rib roast.....	Lb.	19.1	20.7	23.3	30.0	32.2	31.8	20.0	20.0	25.6	36.8	35.3	34.3
Chuck roast.....	Lb.	15.9	16.8	19.2	26.4	25.6	24.4	16.7	16.8	22.9	31.7	29.5	28.7
Plate beef.....	Lb.	9.4	10.8	15.8	20.9	19.7	18.4	12.8	14.1	17.2	24.9	22.7	22.3
Pork chops.....	Lb.	24.5	24.0	31.4	38.6	40.2	42.9	20.0	20.0	33.0	42.0	43.3	48.9
Bacon.....	Lb.	32.0	31.1	42.7	55.0	60.0	60.8	26.0	23.0	41.2	49.5	53.0	53.7
Ham.....	Lb.	31.0	29.7	39.1	48.2	54.8	55.7	34.5	33.0	43.6	52.8	58.1	60.5
Lamb.....	Lb.	20.0	20.4	30.3	40.0	39.3	40.0	19.0	20.8	32.0	40.3	40.3	38.6
Hens.....	Lb.	20.1	22.3	24.0	36.2	37.4	36.4	21.8	22.8	30.1	42.5	45.8	46.9
Salmon, canned.....	Lb.	.....	.....	23.0	24.6	26.6	27.4	.....	.....	25.6	26.8	28.7	28.8
Milk, fresh.....	Qt.	10.0	10.0	13.5	20.0	20.0	20.0	8.8	8.7	10.8	13.0	14.0	14.0
Milk, evaporated (unsweetened).....	(²)	.....	.....	.....	.....	16.3	16.5	.....	.....	.....	.....	15.2	15.8
Butter.....	Lb.	37.1	36.3	48.5	57.4	67.8	68.3	37.0	36.2	47.5	55.0	68.8	66.0
Oleomargarine.....	Lb.	.....	.....	.....	.....	43.6	43.1	.....	.....	.....	.....	39.1	39.9
Nut margarine.....	Lb.	.....	.....	.....	.....	40.5	39.6	.....	.....	.....	.....	35.0	35.0
Cheese.....	Lb.	25.0	25.0	33.8	34.5	40.8	42.0	22.0	23.3	34.4	35.0	43.9	43.9
Lard.....	Lb.	15.7	15.4	28.2	33.6	41.7	43.3	15.0	14.2	26.3	32.0	38.9	41.2
Crisco.....	Lb.	.....	.....	.....	.....	35.2	35.5	.....	.....	.....	.....	34.6	39.8
Eggs, strictly fresh.....	Doz.	22.6	27.1	35.3	43.1	48.1	48.1	25.9	25.3	39.9	45.6	50.7	52.7
Bread.....	Lb. ³	6.0	5.9	10.1	10.0	10.0	10.0	5.4	5.6	8.7	9.7	9.6	9.6
Flour.....	Lb.	3.6	3.4	7.0	7.1	7.5	7.5	3.2	3.2	7.3	6.8	7.8	7.6
Corn meal.....	Lb.	2.6	2.8	5.1	5.7	5.6	5.8	2.5	2.5	5.3	6.3	5.5	5.8
Rolled oats.....	Lb.	.....	.....	.....	.....	9.7	9.9	.....	.....	.....	.....	6.9	6.9
Corn flakes.....	(⁴)	.....	.....	.....	.....	14.1	13.9	.....	.....	.....	.....	13.2	13.2
Cream of Wheat.....	(⁵)	.....	.....	.....	.....	24.8	25.5	.....	.....	.....	.....	23.6	23.1
Macaroni.....	Lb.	.....	.....	.....	.....	20.7	20.6	.....	.....	.....	.....	16.6	16.4
Rice.....	Lb.	8.6	8.6	10.8	13.6	13.6	14.3	9.0	9.0	10.5	12.1	13.2	14.3
Beans, navy.....	Lb.	.....	.....	18.8	18.9	14.4	14.3	.....	.....	17.9	17.9	12.5	12.3
Potatoes.....	Lb.	2.2	3.9	5.4	4.4	6.0	5.8	1.7	2.8	3.2	4.0	4.3	4.2
Onions.....	Lb.	.....	.....	7.0	6.2	12.2	10.5	.....	.....	5.2	5.5	11.2	7.7
Cabbage.....	Lb.	.....	.....	.....	.....	8.4	8.2	.....	.....	.....	.....	6.0	5.1
Beans, baked.....	(⁶)	.....	.....	.....	.....	17.0	16.6	.....	.....	.....	.....	15.6	15.8
Corn, canned.....	(⁶)	.....	.....	.....	.....	19.9	19.6	.....	.....	.....	.....	18.0	18.8
Peas, canned.....	(⁶)	.....	.....	.....	.....	19.8	20.6	.....	.....	.....	.....	18.7	18.5
Tomatoes, canned.....	(⁶)	.....	.....	.....	.....	13.9	14.0	.....	.....	.....	.....	14.7	14.6
Sugar, granulated.....	Lb.	5.8	5.5	9.8	9.3	11.2	12.4	4.9	4.6	8.3	8.9	10.1	10.7
Tea.....	Lb.	60.0	60.0	78.0	87.7	88.5	87.7	56.0	56.0	62.6	67.5	73.9	73.5
Coffee.....	Lb.	32.0	33.0	29.5	29.3	41.2	46.1	24.8	24.4	27.4	28.3	39.1	42.9
Prunes.....	Lb.	.....	.....	17.3	17.8	20.4	21.8	.....	.....	15.7	16.7	25.3	27.9
Raisins.....	Lb.	.....	.....	15.0	15.6	16.8	17.5	.....	.....	14.5	15.2	16.4	17.1
Bananas.....	Doz.	.....	.....	.....	.....	30.0	29.7	.....	.....	.....	.....	30.8	32.1
Oranges.....	Doz.	.....	.....	.....	.....	52.3	52.5	.....	.....	.....	.....	60.7	57.3

¹ The steak for which prices are here quoted is known as "porterhouse" in most of the cities included in this report, but in this city it is called "sirloin" steak.

MONTHLY LABOR REVIEW.

JULY 15, 1913, 1914, 1917, 1918, 1919, AND JUNE 15, 1919, FOR 19 CITIES.

dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month.]

Birmingham, Ala.					Boston, Mass.								Buffalo, N. Y.					
July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.	
1913	1914	1917	1918			1913	1914	1917	1918			1913	1914	1917	1918			
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
28.1	29.4	34.5	43.6	43.9	44.2	135.8	138.2	143.2	155.0	160.4	161.3	24.0	23.6	32.1	41.5	41.4	41.8	
22.5	24.4	31.8	40.1	41.5	41.0	35.8	37.2	44.0	57.1	55.8	57.5	20.8	21.4	29.8	39.1	38.8	39.2	
20.6	23.1	26.7	36.0	35.3	35.1	25.6	25.3	30.8	39.7	40.3	40.5	17.0	17.8	24.6	32.3	32.7	32.6	
16.8	18.1	21.6	30.5	30.1	28.8	18.7	18.0	26.4	33.5	30.3	31.9	15.8	16.2	22.6	29.3	27.1	27.2	
10.5	12.5	18.0	23.7	21.8	21.2	.....	.....	.....	.....	.....	.....	11.8	12.8	17.2	23.1	20.7	20.2
20.0	23.8	31.5	36.8	40.1	43.8	24.2	23.7	33.0	42.7	42.9	47.1	22.3	22.6	34.3	41.4	43.8	49.6	
35.0	35.0	46.7	54.9	61.9	62.9	63.5	25.8	27.2	42.0	48.5	53.9	52.8	25.0	22.4	41.9	48.6	50.0	
31.3	33.8	42.5	46.0	56.5	57.3	33.0	33.3	42.6	49.9	58.3	59.5	28.7	27.7	40.8	48.1	55.6	57.7	
23.3	21.9	30.5	40.0	44.4	41.5	25.0	26.0	33.3	40.3	40.9	41.8	17.0	17.7	26.5	34.6	33.9	32.6	
17.3	19.0	22.1	33.6	36.7	36.5	26.2	26.0	31.3	43.3	46.2	45.0	22.0	21.8	28.6	33.1	43.0	42.9	
.....	.....	25.5	29.1	33.2	34.3	.....	.....	29.1	30.6	31.0	31.2	.....	.....	25.5	27.7	28.7	29.0
10.3	10.0	12.8	16.0	20.0	20.0	8.9	8.9	12.0	14.5	15.0	15.0	8.0	8.0	11.0	13.0	15.0	15.0	
.....	.....	.....	.....	16.6	17.8	.....	.....	.....	.....	15.8	16.2	.....	.....	.....	14.7	15.2	.....
39.0	36.7	49.5	54.7	69.5	68.5	35.5	34.8	47.0	52.2	63.0	62.6	33.0	32.0	43.9	51.0	59.9	60.0	
.....	.....	.....	.....	43.1	43.6	.....	.....	.....	.....	41.3	42.2	.....	.....	.....	40.7	41.0	.....
.....	.....	.....	.....	39.0	39.7	.....	.....	.....	.....	35.2	35.4	.....	.....	.....	33.6	33.9	.....
23.0	23.1	34.5	33.5	42.7	44.0	22.3	22.3	32.3	33.0	41.6	42.4	20.5	20.5	32.7	31.9	40.6	40.5	
16.8	16.3	28.0	31.6	40.6	43.0	16.0	15.6	27.8	32.8	41.0	42.8	14.5	13.6	25.8	30.9	39.3	40.9	
.....	.....	.....	.....	35.2	38.6	.....	.....	.....	.....	34.7	38.5	.....	.....	.....	32.8	36.1	.....
28.3	31.7	35.6	44.4	47.2	48.1	37.3	36.3	50.4	63.9	67.6	76.4	28.3	25.3	42.6	50.1	54.1	59.1	
5.4	5.9	10.8	10.2	9.6	9.6	5.9	5.6	9.2	9.1	9.5	9.5	5.6	5.0	9.7	10.0	9.7	9.8	
3.8	3.7	7.2	7.2	7.8	7.8	3.8	3.7	7.9	6.9	7.9	7.9	3.1	3.0	7.1	6.2	7.1	7.1	
2.3	2.5	5.1	5.5	5.6	5.9	3.5	3.5	6.8	7.5	7.0	7.0	2.6	2.6	5.9	6.6	6.0	6.1	
.....	.....	.....	.....	11.0	11.1	.....	.....	.....	.....	7.3	7.4	.....	.....	.....	7.0	7.3	.....
.....	.....	.....	.....	14.7	14.8	.....	.....	.....	.....	13.6	13.6	.....	.....	.....	12.8	13.0	.....
.....	.....	.....	.....	25.4	25.1	.....	.....	.....	.....	24.8	24.7	.....	.....	.....	24.1	24.1	.....
.....	.....	.....	.....	21.5	21.0	.....	.....	.....	.....	21.2	20.9	.....	.....	.....	19.9	20.0	.....
8.2	8.2	10.5	13.1	14.0	15.2	9.4	9.2	11.1	12.7	13.8	14.3	9.3	9.3	10.7	12.4	13.2	13.7	
.....	.....	18.9	17.9	13.9	14.3	.....	.....	19.2	17.7	11.6	11.5	.....	.....	19.4	16.9	11.0	11.4
2.1	3.3	4.5	4.1	5.3	5.5	2.2	2.7	4.2	5.1	3.1	4.5	2.0	2.9	3.8	4.4	3.2	4.5	
.....	.....	5.8	5.5	10.8	9.5	.....	.....	5.7	6.7	14.2	12.2	.....	.....	6.2	6.0	12.0	10.4
.....	.....	.....	.....	5.8	5.5	.....	.....	.....	.....	6.9	7.2	.....	.....	.....	6.4	8.4	.....
.....	.....	.....	.....	19.1	19.2	.....	.....	.....	.....	18.5	18.1	.....	.....	.....	13.9	14.0	.....
.....	.....	.....	.....	19.9	20.6	.....	.....	.....	.....	21.3	21.8	.....	.....	.....	18.2	18.2	.....
.....	.....	.....	.....	21.2	21.2	.....	.....	.....	.....	21.3	21.3	.....	.....	.....	17.4	17.6	.....
.....	.....	.....	.....	14.3	14.7	.....	.....	.....	.....	16.7	18.1	.....	.....	.....	16.5	17.5	.....
5.5	5.2	9.6	9.1	11.0	11.7	5.4	5.3	8.8	9.2	10.4	10.4	5.3	5.1	8.8	9.0	10.3	10.4	
61.3	61.3	75.7	76.5	86.0	88.0	58.6	58.6	63.6	64.2	66.1	66.3	45.0	45.0	50.4	59.0	66.5	64.8	
28.8	28.8	33.5	32.1	43.8	46.5	33.0	33.0	34.5	34.2	46.9	50.8	29.3	29.3	29.3	30.0	40.3	43.1	
.....	.....	15.9	15.3	25.0	25.8	.....	.....	16.7	17.0	25.8	27.4	.....	.....	14.8	17.6	26.8	28.2
.....	.....	15.7	15.6	17.5	17.9	.....	.....	14.8	15.2	16.2	16.3	.....	.....	13.0	14.0	14.8	15.5
.....	.....	.....	.....	40.0	40.5	.....	.....	.....	.....	46.3	46.7	.....	.....	.....	42.3	42.7	.....
.....	.....	.....	.....	58.4	57.2	.....	.....	.....	.....	62.9	60.5	.....	.....	.....	57.0	56.6	.....

² 15-16-ounce can. ³ Baked weight. ⁴ 8-ounce package. ⁵ 28-ounce package. ⁶ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD ON

Article.	Unit.	Chicago, Ill.						Cleveland, Ohio.					
		July 15—				June 15,	July 15,	July 15—				June 15,	July 15,
		1913	1914	1917	1918	1919.	1919.	1913	1914	1917	1918	1919.	1919.
		<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
Sirloin steak.....	Lb.	24.2	26.0	30.2	37.7	38.5	39.3	26.0	27.6	30.9	39.5	42.4	42.1
Round steak.....	Lb.	21.3	23.3	26.6	35.0	34.6	35.5	23.0	23.9	29.2	37.2	38.8	38.9
Rib roast.....	Lb.	20.2	21.2	24.6	31.8	30.8	31.9	20.0	19.7	24.1	31.1	31.6	30.8
Chuck roast.....	Lb.	15.9	17.4	21.7	28.5	26.3	26.9	17.5	16.8	22.4	28.3	27.5	27.0
Plate beef.....	Lb.	11.3	12.2	16.5	21.3	19.5	19.6	11.7	12.2	15.7	21.1	19.6	19.2
Pork chops.....	Lb.	20.4	20.4	29.2	35.5	37.5	41.7	23.2	24.1	34.1	37.9	43.7	48.1
Bacon.....	Lb.	32.7	31.6	43.9	54.7	59.7	61.5	30.1	28.9	43.6	49.0	57.6	57.9
Ham.....	Lb.	32.3	33.0	41.4	49.1	57.3	58.8	38.0	35.0	43.1	48.8	58.8	62.6
Lamb.....	Lb.	20.2	21.5	28.7	35.7	35.5	36.2	20.7	20.9	28.0	36.1	38.8	38.3
Hens.....	Lb.	20.2	19.9	25.3	35.3	37.7	38.4	22.0	23.1	28.6	39.0	42.8	44.1
Salmon, canned.....	Lb.	.....	.....	26.9	30.3	33.2	33.9	.....	.....	25.4	28.9	30.6	31.0
Milk, fresh.....	Qt.	8.0	8.0	10.0	12.0	14.0	14.0	8.0	8.0	10.0	13.0	13.7	15.0
Milk, evaporated (unsweetened).....	Lb.	(1)	.....	.....	.....	14.6	15.0	.....	.....	.....	.....	15.5	16.3
Butter.....	Lb.	32.3	31.2	43.2	48.0	57.5	57.1	35.2	35.6	46.4	52.5	62.5	62.9
Oleomargarine.....	Lb.	.....	.....	.....	.....	40.0	40.7	.....	.....	.....	.....	43.1	43.5
Nut margarine.....	Lb.	.....	.....	.....	.....	34.0	34.4	.....	.....	.....	.....	35.3	35.8
Cheese.....	Lb.	25.0	25.0	33.9	34.5	42.5	44.1	23.0	24.5	32.0	32.4	43.7	44.7
Lard.....	Lb.	15.1	15.0	25.8	31.8	38.6	40.3	16.5	16.1	28.0	31.6	41.8	44.1
Crisco.....	Lb.	.....	.....	.....	.....	34.2	37.1	.....	.....	.....	.....	34.8	40.4
Eggs, strictly fresh.....	Doz.	25.3	26.1	40.6	45.7	51.1	53.2	29.8	29.3	45.7	49.5	53.4	61.3
Bread.....	Lb. ²	6.1	6.1	11.4	10.2	10.0	10.0	5.5	5.6	10.1	10.0	9.7	9.7
Flour.....	Lb.	2.9	2.9	7.0	6.5	7.2	7.2	3.2	3.2	7.4	7.1	7.9	7.8
Corn meal.....	Lb.	2.8	2.8	5.8	6.8	5.7	5.9	2.7	2.9	5.4	6.6	5.9	6.1
Rolled oats.....	Lb.	.....	.....	.....	.....	6.5	6.7	.....	.....	.....	.....	8.3	9.3
Corn flakes.....	(3)	.....	.....	.....	.....	12.6	12.7	.....	.....	.....	.....	13.9	14.4
Cream of Wheat.....	(4)	.....	.....	.....	.....	23.9	24.0	.....	.....	.....	.....	24.4	24.6
Macaroni.....	Lb.	.....	.....	.....	.....	18.8	18.7	.....	.....	.....	.....	18.6	19.1
Rice.....	Lb.	8.7	8.7	10.5	12.5	13.6	14.2	8.5	9.0	10.4	12.8	13.4	14.2
Beans, navy.....	Lb.	.....	.....	19.9	17.3	11.1	11.2	.....	.....	20.8	15.3	12.0	12.0
Potatoes.....	Lb.	2.1	2.7	5.0	3.7	3.1	5.0	2.0	2.9	3.7	4.5	3.8	5.2
Onions.....	Lb.	.....	.....	4.2	4.6	10.4	8.6	.....	.....	5.2	5.2	11.5	10.1
Cabbage.....	Lb.	.....	.....	.....	.....	5.8	6.3	.....	.....	.....	.....	7.1	7.2
Beans, baked.....	(5)	.....	.....	.....	.....	16.5	16.8	.....	.....	.....	.....	16.2	16.7
Corn, canned.....	(5)	.....	.....	.....	.....	17.3	18.6	.....	.....	.....	.....	19.8	19.7
Peas, canned.....	(5)	.....	.....	.....	.....	17.7	17.9	.....	.....	.....	.....	19.6	19.4
Tomatoes, canned.....	(5)	.....	.....	.....	.....	16.2	15.9	.....	.....	.....	.....	15.9	17.7
Sugar, granulated.....	Lb.	5.1	5.0	8.6	8.8	9.9	10.9	5.3	5.2	9.0	9.2	10.8	10.9
Tea.....	Lb.	53.3	55.0	57.1	58.1	62.0	63.9	50.0	50.0	50.3	63.2	67.4	72.0
Coffee.....	Lb.	30.7	30.0	29.3	28.4	38.7	42.3	26.5	26.5	28.0	29.6	43.2	47.5
Prunes.....	Lb.	.....	.....	15.8	17.1	26.1	27.6	.....	.....	16.2	16.7	25.8	27.3
Raisins.....	Lb.	.....	.....	14.7	14.8	17.7	18.0	.....	.....	13.0	15.0	16.6	17.8
Bananas.....	Doz.	.....	.....	.....	.....	36.3	37.5	.....	.....	.....	.....	45.3	47.3
Oranges.....	Doz.	.....	.....	.....	.....	50.0	49.9	.....	.....	.....	.....	52.4	54.7

¹ 15-16-ounce can.² Baked weight.³ 8-ounce package.

MONTHLY LABOR REVIEW.

JULY 15, 1913, 1914, 1917, 1918, 1919, AND JUNE 15, 1919, FOR 19 CITIES—Continued.

Denver, Colo.						Detroit, Mich.						Los Angeles, Calif.					
July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.
1913	1914	1917	1918			1913	1914	1917	1918			1913	1914	1917	1918		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
25.3	24.6	32.5	41.1	40.8	41.1	25.0	25.3	30.2	39.2	42.8	43.0	24.0	23.0	26.8	32.9	35.2	33.3
23.2	23.1	30.3	39.5	38.7	38.2	20.2	22.0	27.7	36.7	38.3	38.2	21.0	20.9	23.7	31.2	31.8	29.9
17.8	17.9	24.9	31.6	32.4	32.7	19.8	20.1	26.0	31.2	33.4	32.8	19.6	19.6	21.8	28.9	30.6	28.1
16.2	16.7	22.0	29.0	27.9	27.4	15.0	16.5	20.8	27.5	27.0	26.5	15.8	16.0	18.1	23.7	23.8	21.7
9.6	10.0	15.1	20.2	19.1	18.1	11.5	11.9	15.8	21.7	20.4	19.8	12.3	12.5	14.3	19.7	19.3	17.2
20.3	21.1	31.1	38.1	41.0	42.8	20.6	21.3	31.1	37.5	42.0	47.3	25.4	25.1	34.5	41.5	45.0	40.6
31.0	29.0	44.6	56.9	60.7	61.0	24.5	24.5	42.3	50.2	55.6	57.1	34.0	33.5	48.0	59.3	66.3	65.5
33.3	32.5	44.8	51.5	60.4	61.7	28.0	30.0	40.0	49.3	59.3	60.2	36.7	34.4	46.7	56.8	63.7	63.6
17.8	18.4	31.0	35.6	35.1	34.8	17.6	20.0	31.0	36.1	38.7	39.6	18.8	18.7	28.1	31.9	32.6	32.0
21.4	21.1	27.3	35.6	39.7	38.9	21.6	21.6	28.4	38.5	41.3	43.3	26.4	26.0	34.8	34.8	46.9	44.7
.....	.....	25.0	28.0	32.2	32.7	.....	.....	25.1	30.4	31.1	32.3	.....	.....	27.7	37.2	37.5	36.2
8.4	8.4	9.8	11.5	13.0	13.0	7.9	8.5	11.0	13.0	15.0	15.0	10.0	10.0	10.0	14.0	14.0	14.0
.....	.....	.....	.....	15.1	15.6	.....	.....	.....	.....	15.0	15.6	.....	.....	.....	.....	13.6	14.3
36.4	29.7	43.3	49.2	56.1	58.4	33.7	32.6	43.8	50.4	61.2	61.0	37.0	34.1	45.1	56.6	64.5	65.0
.....	.....	.....	.....	40.2	40.6	.....	.....	.....	.....	41.4	42.2	.....	.....	.....	.....	43.3	44.7
.....	.....	.....	.....	35.2	35.0	.....	.....	.....	.....	34.0	34.4	.....	.....	.....	.....	35.2	36.4
26.1	26.1	34.6	34.6	43.5	44.0	20.7	21.0	30.8	32.6	41.7	42.3	19.5	20.0	32.8	34.2	44.8	44.5
16.3	15.8	28.9	31.6	40.6	41.9	16.3	15.8	28.1	32.6	40.5	43.0	18.3	16.9	27.6	33.4	38.8	39.9
.....	.....	.....	.....	35.6	37.6	.....	.....	.....	.....	34.3	38.6	.....	.....	.....	.....	37.2	40.8
27.1	29.3	41.7	46.7	50.4	51.6	27.0	27.3	42.4	50.5	53.0	59.0	33.0	34.3	40.5	52.8	55.5	58.7
.....
5.4	5.4	10.1	12.0	11.4	11.2	5.6	5.6	9.1	9.5	10.4	10.4	6.0	6.0	8.8	9.1	9.4	9.4
2.6	2.6	5.9	5.5	6.4	6.4	3.2	3.1	7.3	7.2	7.4	7.4	3.6	3.7	7.0	6.7	7.5	7.4
2.4	2.5	5.0	5.9	5.8	6.0	2.8	3.1	6.3	7.3	6.4	6.5	3.2	3.5	6.3	7.3	7.4	7.3
.....	.....	.....	.....	8.3	8.6	.....	.....	.....	.....	7.4	7.7	.....	.....	.....	.....	9.0	9.3
.....	.....	.....	.....	14.6	14.8	.....	.....	.....	.....	14.0	13.8	.....	.....	.....	.....	13.4	13.5
.....
.....	.....	.....	.....	25.2	25.2	.....	.....	.....	.....	24.8	24.8	.....	.....	.....	.....	24.5	24.6
.....	.....	.....	.....	19.5	19.3	.....	.....	.....	.....	19.5	19.7	.....	.....	.....	.....	16.2	16.0
8.6	8.6	11.7	13.4	14.3	14.7	8.4	8.4	11.1	13.1	13.5	14.5	7.7	8.0	10.3	13.1	14.4	14.6
.....	.....	20.1	15.7	12.6	12.9	.....	.....	19.6	15.4	11.5	11.5	.....	.....	17.3	16.5	10.5	10.4
2.1	2.7	4.7	3.8	3.2	5.1	1.9	2.9	4.4	4.3	3.5	5.1	1.7	1.8	2.6	2.3	3.9	4.2
.....
.....	.....	5.3	4.9	10.7	9.6	.....	.....	5.1	5.3	11.7	10.3	.....	.....	3.1	3.9	8.4	7.8
.....	.....	.....	.....	6.8	5.0	.....	.....	.....	.....	7.5	8.3	.....	.....	.....	.....	4.1	3.6
.....	.....	.....	.....	18.1	18.1	.....	.....	.....	.....	16.3	16.4	.....	.....	.....	.....	18.7	18.5
.....	.....	.....	.....	18.2	18.1	.....	.....	.....	.....	20.6	20.5	.....	.....	.....	.....	18.5	18.5
.....	.....	.....	.....	19.3	19.8	.....	.....	.....	.....	18.6	18.7	.....	.....	.....	.....	18.9	18.8
.....
.....	.....	.....	.....	15.2	15.8	.....	.....	.....	.....	17.1	17.4	.....	.....	.....	.....	16.1	15.3
5.6	5.0	9.2	9.6	11.0	10.9	5.3	5.0	8.8	9.3	10.5	10.9	5.5	5.2	8.3	8.8	10.3	10.3
52.8	52.8	57.0	60.8	70.2	70.2	43.3	43.3	50.0	55.9	62.1	61.7	54.5	54.5	54.2	63.9	67.2	67.4
29.4	29.4	30.9	30.6	42.4	45.4	29.3	30.0	29.4	30.2	41.3	45.1	36.3	36.3	30.7	30.2	43.0	45.5
.....
.....	.....	.....	.....	17.7	16.8	.....	.....	16.4	17.6	26.5	27.2	.....	.....	16.6	16.8	26.0	26.8
.....	.....	.....	.....	14.7	14.7	.....	.....	13.9	14.9	16.5	17.1	.....	.....	13.7	14.2	16.0	16.0
.....	.....	.....	.....	43.6	45.9	.....	.....	.....	.....	32.5	32.8	.....	.....	.....	.....	42.5	41.0
.....	.....	.....	.....	50.6	52.6	.....	.....	.....	.....	53.0	51.4	.....	.....	.....	.....	38.5	38.8

* 28-ounce package.

6 No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD ON

Article.	Unit.	Milwaukee, Wis.						New Orleans, La.					
		July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.
		1913	1914	1917	1918			1913	1914	1917	1918		
Sirloin steak.....	Lb..	Cts. 23.0	Cts. 24.3	Cts. 29.9	Cts. 38.0	Cts. 39.8	Cts. 41.0	Cts. 22.5	Cts. 23.5	Cts. 28.2	Cts. 33.9	Cts. 35.9	Cts. 34.5
Round steak.....	Lb..	21.2	22.5	28.1	36.5	37.8	38.4	19.5	20.4	24.3	31.3	33.1	31.2
Rib roast.....	Lb..	18.8	18.7	24.1	30.5	31.6	32.1	19.4	20.4	23.4	30.3	32.0	30.0
Chuck roast.....	Lb..	16.6	16.8	22.2	28.1	27.9	28.6	14.5	15.0	18.2	23.1	25.3	23.7
Plate beef.....	Lb..	11.6	12.4	15.7	21.5	20.3	20.0	11.3	12.4	15.3	19.3	20.0	18.6
Pork chops.....	Lb..	20.0	21.5	30.5	35.4	39.5	44.1	23.1	24.3	30.9	38.7	45.2	48.4
Bacon.....	Lb..	28.6	28.2	41.5	50.6	57.3	58.5	31.3	29.7	45.9	54.2	60.6	61.4
Ham.....	Lb..	29.0	28.0	39.7	46.4	55.3	55.8	30.0	26.8	38.3	45.0	55.3	55.3
Lamb.....	Lb..	20.5	20.8	30.1	37.7	39.0	39.1	21.3	21.8	28.9	36.8	40.7	38.5
Hens.....	Lb..	20.6	20.8	25.9	34.4	38.6	38.4	19.3	21.1	28.4	37.5	42.2	41.6
Salmon, canned.....	Lb..	.....	.....	25.9	29.4	33.7	33.4	.....	.....	29.3	32.3	35.6	37.3
Milk, fresh.....	Qt..	7.0	7.0	9.0	10.0	12.0	12.0	9.3	9.7	11.6	14.2	16.5	16.5
Milk, evaporated (unsweetened). Butter.....	(?)	.....	.....	.....	.....	15.9	16.6	.....	.....	.....	.....	15.1	15.9
Oleomargarine.....	Lb..	31.3	32.6	43.2	49.3	58.8	59.3	34.1	33.9	45.3	51.3	64.1	63.1
Nut margarine.....	Lb..	.....	.....	.....	.....	41.6	42.3	.....	.....	.....	.....	42.7	43.1
Cheese.....	Lb..	21.0	21.3	31.6	31.2	40.6	41.5	22.0	22.3	31.8	32.5	42.1	43.1
Lard.....	Lb..	15.6	15.8	27.9	32.1	40.8	43.0	15.1	14.3	27.6	33.0	40.9	42.9
Crisco.....	Lb..	.....	.....	.....	.....	34.0	35.3	.....	.....	.....	.....	35.0	35.9
Eggs, strictly fresh.....	Doz.	23.8	25.2	37.6	45.0	46.7	49.0	27.6	29.5	37.5	44.8	48.2	51.3
Bread.....	Lb. ²	5.6	5.7	11.3	9.2	10.0	10.0	5.1	4.7	8.9	9.5	9.2	9.2
Flour.....	Lb..	3.1	3.1	7.2	6.5	7.7	7.6	3.9	3.7	7.6	7.3	7.7	7.7
Corn meal.....	Lb..	3.0	3.3	7.3	6.6	5.6	5.9	2.7	2.8	5.1	6.4	5.3	5.8
Rolled oats.....	Lb..	.....	.....	.....	.....	7.6	7.8	.....	.....	.....	.....	8.5	8.7
Corn flakes.....	(4)	.....	.....	.....	.....	13.9	14.3	.....	.....	.....	.....	14.3	14.4
Cream of Wheat.....	(5)	.....	.....	.....	.....	25.1	25.1	.....	.....	.....	.....	24.8	24.8
Macaroni.....	Lb..	.....	.....	.....	.....	19.5	19.9	.....	.....	.....	.....	11.4	11.3
Rice.....	Lb..	9.0	9.5	11.3	13.5	14.7	15.2	7.4	7.5	8.9	11.9	12.9	14.2
Beans, navy.....	Lb..	.....	.....	20.8	15.0	11.5	11.3	.....	.....	17.6	16.1	10.8	10.8
Potatoes.....	Lb..	2.0	2.9	5.7	4.1	3.1	5.4	2.0	2.9	5.3	3.0	4.3	4.3
Onions.....	Lb..	.....	.....	4.8	5.3	11.6	10.4	.....	.....	5.1	4.3	8.8	9.0
Cabbage.....	Lb..	.....	.....	.....	.....	6.5	6.6	.....	.....	.....	.....	3.8	6.7
Beans, baked.....	(6)	.....	.....	.....	.....	16.6	16.5	.....	.....	.....	.....	17.6	17.3
Corn, canned.....	(6)	.....	.....	.....	.....	18.3	17.9	.....	.....	.....	.....	17.5	17.6
Peas, canned.....	(6)	.....	.....	.....	.....	17.8	17.9	.....	.....	.....	.....	18.9	18.0
Tomatoes, canned.....	(6)	.....	.....	.....	.....	17.4	17.6	.....	.....	.....	.....	14.8	14.7
Sugar, granulated.....	Lb..	5.5	5.0	8.7	9.1	10.6	10.6	5.2	5.0	8.9	9.0	10.3	10.7
Tea.....	Lb..	50.0	50.0	57.2	62.0	65.9	67.4	62.1	62.1	61.4	61.5	68.6	69.4
Coffee.....	Lb..	27.5	27.5	27.3	26.9	40.5	44.0	26.7	25.0	26.4	25.1	37.8	43.0
Prunes.....	Lb..	.....	.....	15.8	15.3	23.9	24.5	.....	.....	16.2	16.5	27.0	29.4
Raisins.....	Lb..	.....	.....	14.8	14.8	16.9	18.0	.....	.....	15.7	15.4	17.0	18.2
Bananas.....	Doz.	.....	.....	.....	.....	38.1	38.3	.....	.....	.....	.....	16.7	20.0
Oranges.....	Doz.	.....	.....	.....	.....	55.1	52.1	.....	.....	.....	.....	58.8	59.0

¹ The steak for which prices are here quoted is known as "porterhouse" in most of the cities included in this report, but in this city it is called "sirloin" steak.

MONTHLY LABOR REVIEW.

JULY 15, 1913, 1914, 1917, 1918, 1919, AND JUNE 15, 1919, FOR 19 CITIES—Continued.

New York, N. Y.						Philadelphia, Pa.						Pittsburgh, Pa.					
July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.
1913	1914	1917	1918			1913	1914	1917	1918			1913	1914	1917	1918		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
27.0	27.3	33.7	43.9	42.2	44.4	32.0	32.6	38.9	53.1	50.1	52.0	27.5	28.3	36.0	47.1	48.3	48.9
26.1	26.9	33.7	46.3	44.4	46.2	27.5	28.5	36.5	48.3	46.8	48.1	24.8	25.5	33.6	44.0	44.4	45.1
22.6	22.4	27.9	37.5	37.8	38.6	22.7	23.4	29.8	39.1	39.3	40.4	21.8	22.3	27.6	36.6	36.8	36.9
16.4	17.0	21.9	31.1	28.9	29.3	18.2	18.5	25.3	35.0	31.0	31.0	16.8	17.7	24.6	32.7	31.4	30.7
14.9	15.1	19.9	28.8	25.9	27.1	12.7	12.2	17.0	23.9	20.3	19.0	12.4	12.9	17.0	23.4	21.6	20.6
22.6	23.2	32.6	40.6	44.5	47.5	22.2	23.0	34.3	41.9	46.6	50.6	23.0	23.3	33.8	39.8	42.9	49.0
26.4	25.6	42.2	49.8	53.0	54.4	27.9	26.5	42.3	52.7	55.8	57.9	29.5	30.0	43.5	53.7	59.6	60.5
30.0	30.0	43.7	51.1	59.0	61.6	32.7	31.7	45.9	53.3	59.5	60.8	31.5	31.5	42.9	51.9	62.9	63.5
18.1	17.7	25.8	33.2	32.8	32.1	21.0	21.5	32.0	39.1	42.8	42.3	20.8	22.7	34.8	39.1	41.0	41.8
22.6	21.8	28.7	41.0	43.1	41.5	23.3	23.8	31.3	43.4	46.0	45.4	26.5	26.8	35.6	43.8	46.4	46.6
.....	.....	30.3	33.4	37.4	37.7	.....	.....	24.9	26.5	28.9	29.1	.....	.....	28.4	31.3	31.7	31.6
9.0	9.0	11.4	12.7	15.0	16.0	8.0	8.0	11.0	12.0	13.0	13.0	8.6	9.0	10.3	12.8	13.3	14.3
.....	.....	.....	.....	14.8	14.8	.....	.....	.....	.....	15.2	15.0	.....	.....	.....	.....	15.0	15.5
34.4	33.5	45.3	51.4	61.4	61.3	39.2	39.5	51.2	57.6	68.4	67.4	35.7	35.8	46.5	53.0	64.1	63.2
.....	.....	.....	.....	41.5	42.2	.....	.....	.....	.....	43.5	43.9	.....	.....	.....	.....	42.9	41.8
.....	.....	.....	.....	33.8	34.2	.....	.....	.....	.....	36.7	37.8	.....	.....	.....	.....	35.7	35.0
19.4	19.6	32.8	33.2	43.0	42.8	25.0	25.5	35.6	36.1	45.2	44.8	24.5	25.0	33.1	34.3	42.4	42.7
16.2	15.6	27.4	32.2	41.3	42.5	15.3	14.9	27.5	32.3	39.2	40.4	15.5	15.5	28.2	32.2	40.5	41.7
.....	.....	.....	.....	34.0	37.6	.....	.....	.....	.....	33.4	36.2	.....	.....	.....	.....	35.2	39.5
35.9	36.2	47.8	57.3	62.0	66.4	30.4	31.5	44.5	52.0	55.3	59.6	27.1	27.3	42.1	48.9	54.0	56.8
6.4	6.1	9.9	10.0	10.0	10.0	4.8	4.8	8.9	9.5	9.4	9.4	5.4	5.3	10.2	9.8	10.0	10.3
3.3	3.2	7.6	7.2	7.8	7.8	3.2	3.1	7.7	7.1	7.5	7.2	3.3	3.2	7.3	6.7	7.7	7.6
3.4	3.5	7.0	7.9	6.9	7.1	2.7	2.8	5.4	6.8	5.5	5.6	2.7	3.0	6.5	6.8	6.3	6.9
.....	.....	.....	.....	7.5	7.6	.....	.....	.....	.....	7.7	7.9	.....	.....	.....	.....	8.5	8.4
.....	.....	.....	.....	12.0	12.1	.....	.....	.....	.....	12.2	12.4	.....	.....	.....	.....	13.9	13.6
.....	.....	.....	.....	24.2	24.1	.....	.....	.....	.....	24.3	24.4	.....	.....	.....	.....	25.1	25.1
.....	.....	.....	.....	19.6	19.7	.....	.....	.....	.....	20.5	20.1	.....	.....	.....	.....	17.4	17.0
8.0	8.3	10.5	12.6	13.7	14.7	9.8	10.0	11.0	13.8	14.5	15.1	9.2	9.2	10.4	13.3	14.3	14.9
.....	.....	18.8	17.5	12.5	12.2	.....	.....	18.2	17.1	11.7	12.1	.....	.....	19.5	17.4	12.1	11.9
2.5	2.6	4.4	4.2	5.4	5.1	2.1	2.9	2.7	4.8	5.0	5.0	1.8	2.3	4.1	4.5	4.2	5.0
.....	.....	4.7	5.7	13.0	10.8	.....	.....	5.2	5.6	13.3	9.2	.....	.....	4.9	5.8	12.4	10.9
.....	.....	.....	.....	7.5	4.9	.....	.....	.....	.....	8.2	6.0	.....	.....	.....	.....	7.9	7.5
.....	.....	.....	.....	15.2	15.2	.....	.....	.....	.....	14.2	14.4	.....	.....	.....	.....	17.0	16.7
.....	.....	.....	.....	19.8	19.8	.....	.....	.....	.....	18.3	18.7	.....	.....	.....	.....	19.1	18.6
.....	.....	.....	.....	18.1	18.5	.....	.....	.....	.....	18.4	18.2	.....	.....	.....	.....	18.2	19.0
.....	.....	.....	.....	15.3	14.9	.....	.....	.....	.....	14.7	14.7	.....	.....	.....	.....	16.2	15.7
4.9	4.6	8.4	8.8	10.0	10.0	5.0	4.7	8.0	8.9	10.0	10.0	5.5	5.5	9.5	9.4	10.7	10.9
43.3	43.3	52.0	54.0	56.6	57.0	54.0	54.0	58.3	56.9	61.4	60.4	58.0	60.0	66.6	75.0	80.0	84.0
27.5	26.3	26.2	27.4	39.5	42.6	25.0	25.0	27.8	26.8	38.4	42.0	30.0	29.3	28.6	29.6	43.4	46.2
.....	.....	16.1	17.7	29.4	30.8	.....	.....	15.2	17.0	29.4	30.5	.....	.....	15.5	18.0	26.5	27.5
.....	.....	14.2	14.9	16.2	16.7	.....	.....	13.6	14.4	15.6	16.1	.....	.....	14.4	14.3	16.9	17.5
.....	.....	.....	.....	36.1	36.3	.....	.....	.....	.....	36.6	36.9	.....	.....	.....	.....	42.9	42.8
.....	.....	.....	.....	56.3	53.8	.....	.....	.....	.....	53.2	51.6	.....	.....	.....	.....	56.0	53.8

² 15-16-ounce can. ³ Baked weight. ⁴ 8-ounce package. ⁵ 28-ounce package. ⁶ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD ON

Article.	Unit.	St. Louis, Mo.						San Francisco, Calif.					
		July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.
		1913	1914	1917	1918			1913	1914	1917	1918		
Sirloin steak.....	Lb.	24.8	28.3	32.1	38.4	39.7	40.1	20.7	20.7	22.8	32.1	31.0	29.8
Round steak.....	Lb.	22.9	25.3	31.0	37.9	39.4	39.8	19.0	19.7	22.1	31.6	29.6	28.5
Rib roast.....	Lb.	18.3	20.5	25.6	31.6	32.1	32.2	21.0	21.7	22.3	30.0	29.5	28.8
Chuck roast.....	Lb.	14.6	16.1	21.7	26.4	26.0	25.2	14.6	15.6	15.3	23.2	22.3	20.7
Plate beef.....	Lb.	11.0	13.5	16.2	21.2	20.8	20.5	13.0	14.7	14.9	21.3	19.7	18.5
Pork chops.....	Lb.	19.8	21.3	30.8	36.6	38.3	43.7	23.2	24.7	31.6	40.3	45.5	46.1
Bacon.....	Lb.	27.8	26.0	41.9	49.4	55.5	56.2	33.3	33.9	43.6	55.7	63.0	64.4
Ham.....	Lb.	27.3	27.5	41.1	49.4	60.0	59.5	30.0	33.0	41.8	51.2	59.6	60.3
Lamb.....	Lb.	19.0	20.3	30.1	37.6	38.8	37.6	16.7	18.3	25.1	33.8	34.0	33.7
Hens.....	Lb.	18.0	19.0	24.9	34.0	38.1	38.1	23.8	24.8	26.0	38.3	49.9	47.1
Salmon, canned.....	Lb.			26.8	30.0	31.2	31.9			24.0	26.7	29.0	28.9
Milk, fresh.....	Qt.	8.0	8.0	11.0	12.3	13.3	14.0	10.0	10.0	10.0	12.1	14.0	14.0
Milk, evaporated (unsweetened).....	(1)					14.9	15.6					13.7	14.4
Butter.....	Lb.	33.3	34.0	45.7	52.2	61.3	61.8	36.4	32.9	45.5	56.6	64.7	64.7
Oleomargarine.....	Lb.					37.9	38.7					39.1	37.1
Nut margarine.....	Lb.					34.3	34.5					34.8	34.8
Cheese.....	Lb.	19.5	20.8	32.9	33.3	41.0	41.7	19.0	18.0	29.7	32.3	40.9	41.2
Lard.....	Lb.	14.1	12.6	24.3	29.6	38.7	39.5	18.8	17.0	28.5	33.4	36.6	39.5
Crisco.....	Lb.					34.7	38.7					35.8	40.0
Eggs, strictly fresh.....	Doz.	21.4	24.0	37.7	42.5	45.1	49.5	31.4	33.8	39.2	51.4	54.8	56.6
Bread.....	Lb. ²	5.5	5.6	10.4	10.0	10.0	10.0	5.9	5.9	9.3	10.0	10.0	10.0
Flour.....	Lb.	3.0	2.9	6.6	6.3	7.1	7.0	3.4	3.5	6.8	6.9	7.5	7.6
Corn meal.....	Lb.	2.2	2.6	5.4	5.7	5.3	5.7	3.4	3.5	6.5	7.3	6.8	7.1
Rolled oats.....	Lb.					6.3	6.5					8.0	8.0
Corn flakes.....	(3)					14.0	13.8					14.3	14.2
Cream of Wheat.....	(4)					24.1	24.1					24.9	24.9
Macaroni.....	Lb.					16.4	17.5					17.1	17.1
Rice.....	Lb.	8.4	8.7	9.9	12.9	13.6	14.0	8.5	8.5	10.0	13.5	13.7	14.4
Beans, navy.....	Lb.			19.7	17.0	11.7	11.7			18.4	15.2	10.0	9.9
Potatoes.....	Lb.	1.9	2.6	3.9	3.4	3.4	4.2	1.9	2.0	2.9	2.9	4.0	4.0
Onions.....	Lb.			4.6	4.4	9.6	8.0			2.0	2.5	5.9	5.9
Cabbage.....	Lb.					4.2	3.8						
Beans, baked.....	(5)					15.7	15.5					19.4	19.2
Corn, canned.....	(5)					16.5	16.9					19.5	19.7
Peas, canned.....	(5)					16.3	16.5					18.3	17.8
Tomatoes, canned.....	(6)					14.6	14.8					14.2	14.5
Sugar, granulated.....	Lb.	5.2	5.0	8.7	9.0	10.4	11.0	5.4	5.2	8.3	8.9	10.3	10.2
Tea.....	Lb.	55.0	55.8	58.1	68.3	73.6	72.7	50.0	50.0	52.1	53.3	58.5	58.3
Coffee.....	Lb.	24.3	24.7	28.3	27.0	40.8	44.6	32.0	32.0	30.0	30.4	40.8	44.6
Prunes.....	Lb.			16.9	16.6	26.3	27.5			14.8	14.8	23.9	24.2
Raisins.....	Lb.			16.8	16.5	16.7	16.9			14.0	12.9	15.7	16.4
Bananas.....	Doz.					33.3	34.2					40.7	42.1
Oranges.....	Doz.					47.4	46.4					53.2	53.8

¹ 15-16-ounce can.² Baked weight.³ 8-ounce package.

JULY 15, 1913, 1914, 1917, 1918, 1919, AND JUNE 15, 1919, FOR 19 CITIES—Concluded.

Seattle, Wash.						Washington, D. C.					
July 15—				June 15, 1919.	July 15, 1919.	July 15—				June 15, 1919.	July 15, 1919.
1913	1914	1917	1918			1913	1914	1917	1918		
<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
24.4	23.2	26.5	37.0	40.0	38.4	28.1	30.4	34.3	49.2	49.9	51.0
21.5	20.8	25.2	35.3	37.8	36.5	24.6	27.6	33.2	47.1	46.5	47.8
20.0	19.2	23.0	31.5	32.8	31.7	22.0	23.0	27.4	39.7	40.0	39.7
16.2	14.1	18.7	25.5	26.3	24.5	17.9	19.3	23.9	35.3	32.6	33.3
13.0	11.6	15.7	21.3	21.9	19.7	12.4	13.9	18.6	23.8	21.2	21.5
23.6	24.2	32.8	40.1	48.4	50.3	21.9	23.8	35.9	46.5	49.1	53.6
31.7	33.3	46.1	56.2	64.0	65.4	28.1	26.1	40.3	51.6	55.1	55.7
31.7	30.8	40.5	50.0	59.2	60.7	30.0	30.6	42.4	51.2	59.0	61.0
19.6	18.5	27.2	36.8	39.2	37.9	21.4	23.3	32.2	43.0	45.7	44.8
23.8	23.2	25.8	38.4	46.0	43.6	22.6	23.6	30.8	44.3	48.0	47.9
.....	.....	25.2	29.3	31.5	31.5	.....	.....	24.2	28.4	32.8	32.1
8.5	8.6	12.0	12.8	13.0	13.3	8.0	8.0	10.0	14.0	14.0	14.3
.....	.....	.....	.....	14.3	14.6	.....	.....	.....	.....	15.7	15.8
35.5	32.5	44.8	54.8	63.5	62.9	36.6	39.9	47.5	56.0	68.6	67.0
.....	.....	.....	.....	41.6	40.3	.....	.....	.....	.....	39.4	41.7
.....	.....	.....	.....	37.0	37.0	.....	.....	.....	.....	36.1	36.5
21.7	21.9	30.3	31.6	44.0	44.0	23.8	23.5	34.5	33.2	43.1	43.7
17.8	16.0	28.0	33.0	33.3	41.0	15.0	13.8	26.7	33.7	40.0	41.6
.....	.....	.....	.....	37.1	41.4	.....	.....	.....	.....	36.2	39.8
34.5	31.1	43.0	54.7	56.0	61.6	26.0	26.9	41.9	48.1	54.5	56.8
5.5	6.0	10.2	10.7	10.9	10.9	5.7	5.6	10.2	10.2	10.0	10.0
2.9	2.9	6.6	6.1	6.8	6.7	3.8	3.8	7.6	6.7	7.9	7.9
3.1	3.1	6.5	7.4	7.1	7.2	2.5	2.5	5.3	6.0	5.4	5.6
.....	.....	.....	.....	8.1	8.1	.....	.....	.....	.....	9.7	9.5
.....	.....	.....	.....	14.9	14.9	.....	.....	.....	.....	13.8	13.8
.....	.....	.....	.....	26.3	27.2	.....	.....	.....	.....	24.6	24.6
.....	.....	.....	.....	16.9	16.9	.....	.....	.....	.....	20.6	20.9
7.7	8.2	10.4	14.1	14.7	15.0	9.8	9.4	10.8	12.4	14.8	15.3
.....	.....	19.9	17.6	10.5	10.4	.....	.....	19.4	18.2	13.1	13.3
1.5	2.3	4.0	3.8	2.7	3.5	1.8	2.8	3.7	4.5	4.5	4.5
.....	.....	3.2	3.6	7.8	7.4	.....	.....	5.5	6.1	12.6	10.7
.....	.....	.....	.....	7.7	6.7	.....	.....	.....	.....	6.3	6.5
.....	.....	.....	.....	22.3	21.4	.....	.....	.....	.....	15.1	15.2
.....	.....	.....	.....	20.0	20.2	.....	.....	.....	.....	20.2	20.7
.....	.....	.....	.....	20.1	20.2	.....	.....	.....	.....	20.6	20.5
.....	.....	.....	.....	16.9	16.9	.....	.....	.....	.....	16.9	17.0
6.1	5.6	9.3	9.2	10.8	10.8	5.0	4.9	8.4	8.9	10.3	10.7
50.0	50.0	51.2	58.3	63.0	64.0	57.5	57.5	58.7	70.8	78.9	78.9
28.0	30.0	31.3	31.7	43.6	45.1	28.8	28.8	28.4	28.7	40.3	46.1
.....	.....	14.0	14.8	23.7	25.9	.....	.....	16.6	17.6	25.4	26.1
.....	.....	14.0	14.3	17.5	18.5	.....	.....	14.1	15.5	16.5	16.2
.....	.....	.....	.....	52.2	50.0	.....	.....	.....	.....	44.3	44.3
.....	.....	.....	.....	58.0	54.6	.....	.....	.....	.....	54.6	53.8

* 28-ounce package.

* No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Bridgeport, Conn.		Butte, Mont.		Charleston, S. C.		Cincinnati, Ohio.		Columbus, Ohio.	
		June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.
		<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
Sirloin steak.....	Lb.	48.6	51.9	39.2	38.6	40.0	39.3	37.8	36.9	41.2	41.3
Round steak.....	Lb.	46.2	48.9	36.8	35.3	39.7	38.9	37.2	36.8	39.4	39.3
Rib roast.....	Lb.	36.1	38.4	31.9	31.1	34.2	32.3	32.3	30.9	34.2	33.2
Chuck roast.....	Lb.	29.9	31.7	25.8	23.7	28.1	26.9	25.5	24.1	29.8	29.1
Plate beef.....	Lb.	18.6	19.7	19.1	17.2	21.6	21.1	21.0	19.4	23.1	23.0
Pork chops.....	Lb.	40.6	46.4	43.7	47.5	46.1	46.7	39.6	44.3	38.9	43.0
Bacon.....	Lb.	58.2	59.2	65.0	65.6	60.6	62.6	53.7	53.8	54.5	57.2
Ham.....	Lb.	61.2	64.5	61.1	63.2	56.2	57.1	56.7	59.6	57.1	60.0
Lamb.....	Lb.	39.6	39.7	36.3	33.7	40.8	40.4	37.6	34.9	32.5	35.0
Hens.....	Lb.	45.6	43.8	42.8	39.8	49.2	48.6	40.8	43.6	41.3	38.3
Salmon, canned.....	Lb.	34.9	34.8	43.8	42.8	30.5	30.9	28.7	29.3	29.6	30.4
Milk, fresh.....	Qt.	15.0	16.0	15.5	15.6	20.3	20.7	14.0	14.0	14.0	14.0
Milk, evaporated (unsweetened). (2)		15.7	15.8	15.4	15.8	15.2	15.9	14.5	14.8	14.8	15.0
Butter.....	Lb.	61.8	61.2	62.4	61.8	67.1	64.7	60.3	60.4	59.8	60.2
Oleomargarine.....	Lb.	40.4	40.9	.....	42.5	42.7	44.1	41.9	42.0	41.4	41.5
Nut margarine.....	Lb.	34.5	34.8	.....	.....	43.0	44.7	34.7	34.8	35.5	35.2
Cheese.....	Lb.	42.4	42.7	42.0	43.3	42.2	42.3	43.0	43.3	42.0	42.7
Lard.....	Lb.	40.4	42.6	40.5	43.9	40.3	42.6	39.1	39.7	37.8	39.7
Crisco.....	Lb.	35.1	39.8	38.1	42.0	34.5	38.4	34.3	37.2	34.5	37.3
Eggs, strictly fresh.....	Doz.	65.8	71.3	58.8	60.0	64.0	54.4	54.0	44.3	49.9	50.4
Bread.....	Lb. ³	10.0	10.4	9.9	10.0	10.0	10.0	9.7	9.7	9.7	10.2
Flour.....	Lb.	7.5	7.5	7.5	7.6	7.8	7.8	7.7	7.5	7.5	7.3
Corn meal.....	Lb.	8.3	8.1	7.7	7.7	5.0	5.5	5.1	5.3	5.8	6.0
Rolled oats.....	Lb.	8.9	9.4	8.7	8.5	9.5	9.5	7.7	7.2	8.0	8.2
Corn flakes.....	(4)	13.7	13.8	14.6	14.4	14.9	14.9	13.3	13.7	14.2	14.2
Cream of Wheat.....	(5)	24.2	24.3	29.7	30.0	25.0	25.0	24.7	24.8	25.0	25.0
Macaroni.....	Lb.	22.9	22.7	18.5	18.8	21.2	21.4	15.9	15.8	18.6	19.0
Rice.....	Lb.	14.0	15.0	13.2	13.1	12.1	13.5	13.5	14.5	13.2	14.5
Beans, navy.....	Lb.	12.0	12.0	11.8	11.8	13.9	14.1	11.2	10.8	11.2	11.3
Potatoes.....	Lb.	3.6	4.9	2.1	5.0	1.5	4.6	4.8	5.0	3.2	5.4
Onions.....	Lb.	12.6	11.1	8.2	8.5	14.5	12.8	9.2	6.9	13.1	10.3
Cabbage.....	Lb.	8.4	7.1	7.1	6.4	5.8	7.3	6.9	5.6	7.1	9.3
Beans, baked.....	(9)	16.5	16.9	22.9	23.1	15.1	15.3	15.1	14.7	15.9	16.6
Corn, canned.....	(9)	21.6	21.8	18.7	18.1	21.0	21.8	16.8	16.9	15.6	15.9
Peas, canned.....	(9)	20.7	20.8	18.1	17.9	21.2	21.4	17.2	17.3	16.6	16.9
Tomatoes, canned.....	(6)	15.8	16.9	16.9	17.8	15.5	15.6	14.6	14.4	14.6	15.1
Sugar, granulated.....	Lb.	10.1	10.7	12.1	12.1	10.5	10.9	10.4	10.8	10.6	10.8
Tea.....	Lb.	64.2	65.2	76.6	76.2	77.1	76.0	74.4	75.4	81.7	82.3
Coffee.....	Lb.	41.8	44.4	51.7	53.5	41.4	43.3	40.0	41.8	42.6	46.4
Prunes.....	Lb.	27.3	28.3	23.4	25.4	25.1	25.5	23.8	22.9	22.3	21.5
Raisins.....	Lb.	17.0	17.9	17.6	17.0	16.2	16.5	18.1	17.8	16.4	18.2
Bananas.....	Doz.	37.9	39.1	47.5	50.0	41.0	39.3	38.2	36.5	38.3	38.5
Oranges.....	Doz.	57.5	56.9	53.4	54.0	60.0	64.0	47.1	43.7	49.4	51.3

¹ The steak for which prices are here quoted is known as "sirloin" in most of the cities included in this report, but in this city it is called "rump" steak.

OF FOOD FOR 31 CITIES ON JUNE 15 AND JULY 15, 1919.

Dallas, Tex.		Fall River, Mass.		Houston, Tex.		Indianapolis, Ind.		Jacksonville, Fla.		Kansas City, Mo.	
June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.
<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
39.2	40.6	158.5	160.4	37.1	36.3	39.7	39.9	43.3	39.6	39.4	39.0
38.3	39.7	48.3	50.1	37.1	36.3	39.2	39.5	39.8	38.2	37.3	36.0
34.7	34.4	36.1	36.8	39.3	29.1	29.1	28.7	34.1	31.3	29.7	29.5
31.0	31.3	29.1	29.6	27.5	27.6	26.7	26.2	27.7	26.1	24.9	24.1
25.8	26.0			24.4	24.8	19.8	19.3	21.1	20.1	20.0	19.8
41.5	44.0	41.6	46.3	41.4	44.0	40.5	46.1	43.3	43.1	38.0	41.8
64.9	62.8	53.4	54.1	63.8	63.7	55.8	56.7	58.3	58.7	58.9	59.6
57.0	60.7	55.6	56.8	51.5	51.1	58.8	59.9	56.8	55.7	56.8	56.0
44.3	45.0	36.6	36.9	40.0	40.0	42.0	44.0	36.7	35.4	32.5	31.6
37.8	37.8	46.3	46.9	38.3	38.0	38.2	37.8	41.1	39.1	38.0	36.5
30.7	32.7	30.2	30.2	30.8	31.6	26.9	26.3	32.8	32.9	32.2	32.5
18.0	18.0	15.0	15.3	17.8	17.7	12.7	13.0	18.0	18.0	15.0	15.0
16.6	16.9	15.7	16.0	16.0	16.0	15.6	16.3	15.6	16.0	15.8	16.7
60.6	59.8	62.1	61.6	63.5	59.9	58.9	60.9	61.1	65.2	63.3	62.1
36.4	37.0	40.1	39.6	41.6	42.3	43.2	44.4	41.7	42.4	39.1	40.2
36.2	37.3	36.8	36.5	37.5	37.6	35.4	35.4	37.0	38.6	35.4	35.6
43.5	44.1	43.2	42.5	40.3	40.8	43.0	44.4	42.1	43.3	43.4	44.1
38.2	42.1	41.0	42.4	37.3	41.2	39.9	42.3	38.2	39.0	42.4	44.2
37.1	41.2	36.1	38.3	33.1	36.5	36.3	39.3	34.3	39.6	37.7	40.3
46.1	46.8	68.2	73.4	46.0	49.1	44.8	51.3	53.3	53.6	47.8	50.8
10.0	10.0	10.0	10.9	8.9	8.9	9.7	9.7	10.0	10.0	10.0	10.0
7.6	7.2	7.9	7.9	7.8	7.7	7.6	7.4	8.0	7.9	7.0	7.0
6.7	7.2	8.2	8.4	6.1	6.3	5.6	5.9	5.4	5.9	6.6	6.7
10.3	9.9	9.4	9.5	9.4	9.9	7.7	8.4	10.5	10.6	9.8	9.5
14.6	14.6	14.2	14.2	14.3	14.3	14.5	14.4	14.7	14.7	15.0	14.9
24.8	24.8	25.1	25.0	25.5	24.7	26.1	26.4	25.3	25.3	25.0	25.0
21.2	20.2	22.2	21.9	19.2	17.7	20.3	20.3	19.9	20.3	19.0	18.7
13.3	14.5	14.0	14.3	12.6	13.4	13.9	15.4	13.4	14.2	12.9	13.7
12.7	13.1	11.8	11.8	12.2	13.1	11.8	11.9	13.5	13.7	12.5	13.0
4.9	5.5	3.9	4.8	4.2	4.6	3.2	5.6	5.3	6.0	3.0	4.2
11.1	9.5	14.1	12.1	8.2	9.7	11.8	10.1	11.8	12.8	10.5	9.5
4.4	5.4	8.3	5.9	4.9	5.9	6.8	7.1	5.9	7.7	5.6	3.5
19.2	19.7	16.9	16.5	18.8	17.8	18.1	18.1	17.5	17.5	16.4	16.8
19.0	20.8	20.1	19.8	17.5	18.0	18.3	18.8	20.7	20.6	16.3	16.7
21.5	21.1	20.1	20.5	17.6	18.3	17.2	17.8	21.5	21.1	17.2	18.0
14.8	15.3	14.9	15.9	13.6	14.0	16.4	16.2	15.0	14.8	16.1	16.2
11.2	11.3	10.5	10.6	10.9	10.9	11.0	11.0	10.6	11.1	11.0	11.1
83.0	78.5	55.3	55.8	64.4	65.0	81.8	84.1	83.7	85.0	80.6	81.2
49.6	52.0	43.2	45.6	38.8	43.2	45.2	50.1	47.7	51.9	44.8	46.4
24.0	35.0	24.6	24.5	23.8	24.6	25.8	28.1	25.2	23.8	23.3	24.8
16.5	16.5	17.2	17.8	16.2	17.4	18.7	19.3	18.5	19.0	18.7	18.7
39.5	40.0	40.0	41.4	35.9	36.6	30.6	31.1	37.5	38.8	42.8	42.9
50.2	50.0	52.5	49.2	51.8	50.3	47.9	48.2	70.0	75.0	53.5	54.2

¹ 15-16 ounce can. ² Baked weight. ³ 8-ounce package. ⁴ 28-ounce package. ⁵ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF

Article.	Unit.	Little Rock, Ark.		Louisville, Ky.		Manchester, N. H.		Memphis, Tenn.	
		June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.
		<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
Sirloin steak.....	Lb.	40.3	40.6	39.1	38.1	¹ 54.0	¹ 56.6	41.5	41.8
Round steak.....	Lb.	38.2	39.5	38.1	37.5	49.0	50.2	39.0	39.1
Rib roast.....	Lb.	34.5	33.9	32.1	30.7	33.3	33.8	33.8	32.8
Chuck roast.....	Lb.	28.8	26.7	27.9	26.9	29.6	30.5	29.3	27.9
Plate beef.....	Lb.	22.8	21.6	23.0	21.9			22.8	23.2
Pork chops.....	Lb.	41.5	43.7	39.6	42.8	40.1	46.5	40.9	44.4
Bacon.....	Lb.	58.8	60.3	58.3	60.3	52.0	52.7	60.7	61.7
Ham.....	Lb.	55.9	58.2	57.4	59.2	52.4	53.6	58.2	59.7
Lamb.....	Lb.	41.9	39.5	40.0	37.5	38.1	41.1	41.2	40.5
Hens.....	Lb.	34.7	34.3	40.4	40.4	46.4	46.2	38.8	36.4
Salmon, canned.....	Lb.	33.2	31.9	29.9	29.9	31.2	30.8	33.0	33.2
Milk, fresh.....	Qt.	16.0	16.0	15.0	15.0	15.0	15.0	18.0	18.0
Milk, evaporated (unsweetened).....	(²)	16.5	16.8	15.3	15.5	16.6	17.1	16.8	17.1
Butter.....	Lb.	64.1	63.0	63.5	62.1	67.9	66.8	64.6	62.5
Oleomargarine.....	Lb.	43.5	43.4	42.7	44.3	39.9	41.5	41.1	42.9
Nut margarine.....	Lb.	38.3	38.6	35.0	35.0	34.8	35.3	40.6	41.5
Cheese.....	Lb.	42.8	43.2	41.6	42.6	40.8	42.6	42.1	42.7
Lard.....	Lb.	40.7	44.5	39.8	41.7	40.6	43.2	41.8	42.8
Crisco.....	Lb.	36.0	37.9	34.7	37.6	35.8	39.5	35.8	38.5
Eggs, strictly fresh.....	Doz.	49.9	48.8	45.1	45.9	65.5	68.1	47.9	46.8
Bread.....	Lb. ³	10.0	10.0	10.0	10.0	9.3	9.3	10.0	10.0
Flour.....	Lb.	7.6	7.5	7.7	7.4	7.8	7.8	7.8	7.6
Corn meal.....	Lb.	5.9	6.3	5.6	5.7	7.1	7.1	5.4	5.8
Rolled oats.....	Lb.	10.6	11.0	8.6	9.0	8.7	8.8	9.9	10.4
Corn flakes.....	(⁴)	14.8	14.8	14.1	14.4	14.8	14.8	14.3	14.1
Cream of Wheat.....	(⁵)	24.9	25.4	25.2	25.2	25.1	25.3	24.8	24.8
Macaroni.....	Lb.	18.9	19.3	17.6	17.2	23.5	23.9	19.2	18.7
Rice.....	Lb.	13.5	14.4	13.6	14.2	13.3	14.7	13.3	14.7
Beans, navy.....	Lb.	13.4	13.7	12.1	12.1	11.7	12.0	13.5	13.7
Potatoes.....	Lb.	4.2	3.9	4.1	3.9	3.3	5.4	4.2	5.2
Onions.....	Lb.	11.0	8.9	8.9	6.9	14.2	12.7	9.3	8.0
Cabbage.....	Lb.	5.4	5.7	5.4	4.3	8.2	9.3	5.8	5.5
Beans, baked.....	(⁶)	17.3	17.4	16.6	16.4	18.5	18.5	19.3	18.3
Corn, canned.....	(⁶)	18.0	18.0	18.0	18.2	22.2	21.7	18.3	18.7
Peas, canned.....	(⁶)	18.1	18.3	18.8	18.8	20.6	20.9	18.1	18.4
Tomatoes, canned.....	(⁶)	15.4	15.2	14.8	14.9	18.8	16.7	15.1	15.8
Sugar, granulated.....	Lb.	11.2	11.4	10.8	11.2	10.5	10.8	10.8	11.3
Tea.....	Lb.	88.1	87.4	80.1	80.4	60.4	61.9	87.8	86.9
Coffee.....	Lb.	47.0	51.3	43.9	48.9	43.6	47.8	45.8	50.9
Prunes.....	Lb.	23.7	22.1	24.0	23.8	23.5	25.6	26.1	29.2
Raisins.....	Lb.	19.2	19.3	17.4	17.0	17.0	18.0	17.7	17.8
Bananas.....	Doz.	37.7	38.5	38.6	36.9	38.8	37.5	41.0	39.5
Oranges.....	Doz.	57.9	57.8	49.0	44.6	55.1	51.7	52.2	51.5

¹ The steak for which prices are here quoted is known as "porterhouse" in most of the cities included in this report, but in this city it is called "sirloin" steak.

FOOD FOR 31 CITIES ON JUNE 15 AND JULY 15, 1919—Continued.

Minneapolis, Minn.		Mobile, Ala.		Newark, N. J.		New Haven, Conn.		Norfolk, Va.		Omaha, Nebr.	
June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.
<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
38.4	38.2	37.1	36.4	45.6	47.8	53.9	55.2	47.8	47.6	42.1	42.8
36.6	36.8	35.8	35.9	46.2	48.6	49.1	49.8	43.2	43.3	39.4	40.8
32.6	31.5	31.5	30.9	36.7	37.9	39.6	40.1	37.7	37.3	30.9	30.9
24.8	25.0	27.3	25.9	29.6	30.9	33.7	33.7	31.3	30.0	27.3	27.6
18.4	17.2	21.9	21.3	21.2	21.7	-----	-----	21.1	21.5	20.1	19.4
39.6	43.9	47.1	48.0	44.6	47.3	40.1	48.1	42.1	44.2	38.9	45.0
59.8	61.0	61.7	62.5	51.4	51.8	59.4	60.0	55.5	56.8	60.9	62.1
57.3	58.5	53.6	55.6	55.0	57.5	61.7	62.5	54.5	52.0	58.8	60.9
32.6	34.4	36.9	36.4	41.4	39.9	41.3	42.8	43.0	42.5	36.2	37.4
35.3	35.0	44.5	42.5	44.2	43.8	47.0	46.7	46.4	46.1	37.1	37.8
37.3	37.3	31.8	32.0	34.3	34.0	33.1	31.1	30.4	30.8	31.9	32.2
12.0	12.0	18.3	18.3	15.7	16.0	14.4	14.4	22.5	21.0	13.3	14.1
16.0	16.1	17.1	17.0	14.4	14.8	15.2	16.1	15.3	15.9	16.2	17.1
56.7	56.4	66.1	64.0	63.1	63.3	63.1	62.1	69.4	68.1	61.1	60.9
38.5	39.2	42.8	42.6	40.9	41.1	42.4	42.4	46.2	46.2	43.1	43.6
31.8	32.2	40.6	41.4	34.9	35.4	36.3	36.0	39.0	40.7	36.0	35.6
40.1	40.8	42.2	42.3	43.8	44.2	42.4	43.3	42.6	43.3	41.3	43.2
40.5	42.4	41.9	43.0	40.9	43.1	40.9	42.2	39.5	42.8	43.1	44.4
35.0	38.6	34.1	36.8	33.0	38.2	35.2	38.7	36.0	38.4	35.0	38.7
42.7	47.7	50.9	49.5	62.7	65.1	65.2	70.1	54.4	55.3	48.1	48.9
9.6	9.6	9.7	9.7	9.8	9.8	10.0	10.0	9.9	9.9	10.0	10.0
7.2	7.2	7.7	7.5	7.8	7.7	7.6	7.6	7.8	7.8	7.3	7.1
6.3	6.5	6.0	6.3	7.2	7.3	7.4	7.6	6.1	6.1	6.3	6.3
6.3	6.6	10.5	10.7	8.7	8.6	8.8	8.9	9.7	10.0	8.8	8.7
14.6	14.4	14.7	14.7	12.5	12.6	13.9	13.9	14.1	14.4	15.0	15.0
25.3	25.1	26.2	26.0	23.6	23.7	24.5	24.4	25.5	25.6	25.5	25.5
19.2	18.9	19.3	19.6	19.8	20.0	21.0	20.7	19.8	20.1	19.5	19.6
13.8	14.9	13.1	14.0	13.9	15.0	14.3	15.4	14.2	16.0	14.1	14.7
10.6	10.6	13.5	13.5	12.4	12.6	12.6	12.6	12.5	12.0	12.7	12.8
2.8	4.4	4.8	5.4	4.6	5.2	3.8	4.7	4.0	4.7	3.1	4.9
11.0	11.0	11.4	10.2	13.6	10.2	12.7	10.6	12.8	11.9	10.1	9.4
8.2	3.6	3.4	5.7	7.5	5.6	8.2	7.2	5.7	5.3	7.3	4.3
18.6	18.7	17.3	17.7	15.2	15.4	18.4	18.4	14.5	14.8	20.9	20.9
16.8	16.9	19.9	19.8	20.5	21.1	22.0	21.9	21.6	22.0	17.2	17.9
17.6	17.2	20.1	19.6	18.9	19.9	21.3	22.2	22.2	22.5	18.0	18.5
17.0	16.5	14.7	14.9	15.1	14.4	17.2	16.3	17.5	17.5	17.2	17.0
10.7	10.8	11.0	11.1	10.1	10.3	10.3	10.9	10.4	11.0	10.9	11.1
61.5	61.0	76.3	76.6	56.3	56.6	60.8	61.8	80.1	81.8	77.1	77.4
43.9	48.8	38.4	40.5	40.6	44.4	43.7	47.7	44.9	49.4	45.0	49.1
26.4	26.6	23.9	24.7	28.6	30.1	27.2	27.5	25.4	26.7	25.6	27.1
16.5	16.5	18.0	18.3	15.4	16.1	16.5	17.4	16.8	16.9	19.1	20.3
43.3	43.8	30.4	30.4	38.8	39.0	36.3	36.7	38.8	38.6	40.0	45.0
57.1	54.6	57.5	57.1	60.6	59.3	58.1	55.6	58.2	56.2	50.0	51.6

² 15-16 ounce can. ³ Baked weight. ⁴ 8-ounce package. ⁵ 28-ounce package. ⁶ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD

Article.	Unit.	Peoria, Ill.		Portland, Me.		Portland, Oreg.		Providence, R. I.	
		June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.
		<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
Sirloin steak.....	Lb.	37.9	37.8	¹ 59.4	¹ 59.9	34.5	33.7	¹ 64.9	¹ 66.4
Round steak.....	Lb.	37.4	37.6	50.4	50.7	32.4	32.6	52.4	53.9
Rib roast.....	Lb.	29.6	28.6	33.8	33.1	31.6	30.4	40.6	41.7
Chuck roast.....	Lb.	25.7	25.8	27.5	26.5	25.0	23.7	35.8	36.1
Plate beef.....	Lb.	19.8	20.1			19.2	17.5		
Pork chops.....	Lb.	38.9	43.2	41.9	47.6	45.0	47.7	43.7	50.0
Bacon.....	Lb.	58.9	58.9	52.4	53.0	59.5	62.2	54.4	54.4
Ham.....	Lb.	56.6	58.4	55.2	57.2	57.8	60.0	63.4	67.4
Lamb.....	Lb.	37.9	36.5	38.6	40.7	35.1	34.8	44.6	43.5
Hens.....	Lb.	38.9	37.7	47.1	49.3	41.2	39.8	47.6	47.1
Salmon, canned.....	Lb.	31.3	31.3	29.4	29.6	36.2	35.3	35.1	35.3
Milk, fresh.....	Qt.	11.8	11.8	14.0	14.0	14.4	15.0	15.0	15.0
Milk, evaporated (unsweetened).....	(²)	16.1	17.2	16.2	16.6	15.0	15.0	15.5	16.1
Butter.....	Lb.	58.9	59.7	68.7	68.0	62.9	63.6	65.3	63.4
Oleomargarine.....	Lb.	43.1	43.1	42.5	43.6	40.1	41.5	38.0	38.9
Nut margarine.....	Lb.	36.3	36.6	35.8	36.2	35.0	36.0	34.0	34.3
Cheese.....	Lb.	43.5	44.1	43.7	44.1	44.2	45.2	42.2	42.6
Lard.....	Lb.	39.7	42.6	42.0	43.9	39.4	40.2	41.7	42.9
Crisco.....	Lb.	35.2	40.9	36.1	41.6	38.3	41.8	35.0	38.0
Eggs, strictly fresh.....	Doz.	43.1	48.9	65.4	69.3	51.8	55.3	67.9	72.3
Bread.....	Lb. ³	10.0	10.0	10.0	11.0	9.9	9.9	10.0	10.7
Flour.....	Lb.	8.1	8.1	7.7	7.6	6.5	6.6	8.0	7.9
Corn meal.....	Lb.	6.2	6.5	6.4	6.5	7.4	7.5	5.9	6.2
Rollod oats.....	Lb.	9.1	9.1	7.3	7.4	8.5	8.5	8.4	8.8
Corn flakes.....	(⁴)	14.9	14.9	14.1	14.1	14.5	14.8	13.9	13.8
Cream of Wheat.....	(⁵)	26.7	26.9	24.9	25.0	28.3	28.6	24.6	24.6
Macaroni.....	Lb.	15.5	15.0	23.0	22.5	17.5	17.0	20.5	20.4
Rice.....	Lb.	14.1	14.6	13.9	14.3	13.9	14.4	13.3	14.0
Beans, navy.....	Lb.	12.5	12.2	12.3	11.7	10.6	10.6	11.9	11.8
Potatoes.....	Lb.	3.1	4.8	3.1	4.2	2.4	3.8	3.2	5.1
Onions.....	Lb.	12.0	10.0	14.0	12.1	7.8	7.4	13.2	11.3
Cabbage.....	Lb.	7.3	4.9	7.3	7.1	6.4	5.0	7.3	6.2
Beans, baked.....	(⁶)	19.8	19.5	18.9	18.8	23.1	22.9	17.0	16.6
Corn, canned.....	(⁶)	17.6	17.3	20.8	21.5	22.5	22.4	20.6	20.2
Peas, canned.....	(⁶)	18.9	18.8	20.5	20.9	21.5	22.1	20.2	20.1
Tomatoes, canned.....	(⁶)	15.8	15.8	19.7	20.0	19.3	19.8	15.8	17.1
Sugar, granulated.....	Lb.	11.0	11.4	10.3	10.5	10.6	10.7	10.5	10.6
Tea.....	Lb.	72.8	72.8	63.9	64.7	63.3	63.8	59.9	61.1
Coffee.....	Lb.	41.4	46.7	44.7	48.4	44.6	49.4	47.2	51.8
Prunes.....	Lb.	27.6	27.7	23.8	26.7	19.8	21.3	28.8	30.8
Raisins.....	Lb.	17.2	17.7	15.9	15.8	16.3	17.7	16.2	17.6
Bananas.....	Doz.		⁷ 10.1	36.4	38.3	45.0	45.6	41.3	40.8
Oranges.....	Doz.	50.3	52.4	62.5	60.4	58.8	59.0	62.5	58.6

¹ The steak for which prices are here quoted is known as "porterhouse" in most of the cities included in this report, but in this city it is called "sirloin" steak.

FOR 31 CITIES ON JUNE 15 AND JULY 15, 1919—Concluded.

Richmond, Va.		Rochester, N. Y.		St. Paul, Minn.		Salt Lake, Utah.		Scranton, Pa.		Springfield, Ill.	
June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.	June 15, 1919.	July 15, 1919.
<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
45.0	45.0	42.0	42.3	40.6	40.7	36.1	35.5	47.8	47.8	38.0	37.7
42.2	42.1	39.2	39.7	37.1	36.6	33.3	31.9	43.3	43.3	37.6	37.7
35.9	35.5	32.3	32.7	34.0	33.1	27.8	27.4	37.7	37.9	29.9	29.3
31.9	31.9	29.0	28.9	28.3	26.2	25.1	23.8	31.6	31.9	26.3	25.6
25.6	25.9	20.6	20.4	19.4	17.4	19.5	18.1	21.2	20.9	21.6	20.7
43.3	45.8	44.2	48.6	39.9	42.3	42.7	44.6	45.8	47.8	39.1	43.0
53.6	54.0	49.6	49.6	58.2	57.6	61.2	59.6	60.2	61.4	54.1	55.9
53.5	54.4	55.1	56.3	57.8	58.3	56.7	57.7	60.0	60.0	54.5	55.9
42.9	43.1	35.9	37.0	34.2	35.2	33.0	30.9	43.3	45.0	38.0	37.3
45.2	41.5	45.5	45.2	35.2	35.9	40.0	36.7	48.4	47.8	36.2	34.7
26.7	26.2	30.2	30.8	31.6	31.6	31.4	32.3	34.7	37.1	32.1	32.4
15.7	15.5	13.5	13.5	11.7	11.7	12.5	12.5	13.0	13.0	14.3	14.3
16.1	16.9	15.3	15.7	15.5	15.9	14.1	15.1	15.1	15.7	17.3	17.5
70.3	68.9	64.1	61.7	58.4	57.3	61.1	65.0	64.1	62.8	60.2	60.7
40.9	41.9	41.2	42.1	38.8	40.1	40.6	42.0	42.3	43.5	44.4	45.1
36.3	36.6	33.6	34.4	34.2	34.4	40.1	39.3	35.9	37.7	37.2	36.4
42.9	43.9	41.2	41.4	39.8	40.2	43.6	43.1	42.3	41.9	43.0	43.9
38.9	40.7	40.3	41.6	41.7	43.1	42.6	44.3	40.7	42.2	40.7	43.4
35.4	37.8	34.3	37.9	36.5	38.6	40.4	45.8	35.3	38.4	38.8	41.7
53.8	53.4	55.4	57.4	46.3	49.5	48.8	51.2	57.3	61.8	43.9	48.5
10.9	10.9	10.0	10.0	9.2	9.3	10.0	10.2	10.0	10.0	10.0	10.0
7.6	7.6	7.5	7.5	7.3	7.3	6.0	6.1	7.9	8.0	7.6	7.6
6.0	6.2	6.4	6.7	6.2	6.2	7.4	7.4	8.1	9.3	6.8	6.7
10.1	10.3	6.9	7.1	7.1	7.2	8.4	8.6	10.1	10.1	9.9	10.0
14.8	14.6	13.7	13.8	14.6	14.5	14.8	14.7	14.2	14.4	15.0	15.0
25.4	25.2	24.9	24.5	25.9	25.9	26.3	25.9	25.1	25.5	26.9	27.3
18.4	18.4	19.1	19.3	16.8	17.6	17.2	17.9	21.5	22.5	17.7	16.7
15.2	15.3	13.5	14.7	14.1	14.9	13.7	14.8	13.6	15.2	14.0	14.6
13.3	13.9	11.8	11.9	10.7	10.8	12.3	12.3	14.3	14.1	12.8	12.8
5.0	4.7	2.8	4.9	2.5	4.8	3.8	5.0	3.4	5.2	3.0	4.7
8.7	7.5	12.4	11.6	11.7	11.0	13.1	10.3	11.3	9.7	11.5	8.7
3.1	3.9	7.9	7.2	6.7	4.3	9.8	7.4	7.7	6.0	6.4	4.3
15.0	15.3	14.9	15.3	19.0	18.9	18.4	19.1	16.8	17.1	19.1	18.5
18.8	19.3	19.4	19.7	18.0	17.6	18.7	18.6	20.5	21.3	17.2	17.1
21.9	22.4	19.1	19.3	16.9	16.8	18.1	18.0	19.3	19.3	18.2	18.3
17.3	17.2	16.5	16.5	16.4	16.4	16.8	17.5	17.1	18.3	17.1	16.7
10.8	11.0	10.4	10.6	11.1	11.2	11.0	11.0	10.5	10.7	11.1	12.0
81.3	82.4	60.3	60.6	60.7	61.8	68.5	71.6	64.7	64.3	83.6	84.3
41.2	43.6	39.3	41.3	42.9	46.6	47.9	51.0	44.3	46.5	43.8	46.2
24.5	26.4	23.9	24.5	23.9	25.9	19.3	18.1	22.6	24.8	26.9	26.0
16.6	16.4	15.4	16.2	16.5	16.9	15.4	15.8	15.8	17.1	19.9	19.3
44.1	44.1	40.8	41.1	711.2	711.2	51.0	51.0	36.2	38.1	43.0	36.0
54.4	53.0	54.8	53.0	56.3	54.1	52.1	52.7	56.1	55.4	52.9	48.7

² 15-16-ounce can. ³ Baked weight. ⁴ 8-ounce package. ⁵ 23-ounce package. ⁶ No. 2 can. ⁷ Per pound.

Retail Prices of Coal.

The table following shows the average retail prices of coal on January 15 and July 15 of each year, 1913 to 1919, inclusive, by cities. The prices are those quoted by the retail trade for household use.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages made on the several kinds. The coal dealers in each city were asked to quote prices on the kinds of bituminous coal usually sold for household use.

The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

Prices are shown for coal only in the cities in which prices are scheduled for food and are shown for the years when food prices were obtained.

RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913-1919, INCLUSIVE, BY CITIES.

City and kind of coal.	1913		1914		1915		1916		1917 ¹	1918		1919	
	January.	July.	January.	July.	January.	July.	January.	July.	January.	January.	July.	January.	July.
Atlanta, Ga.:													
Pennsylvania anthracite—													
Stove.....													\$14.667
Chestnut.....													14.667
Bituminous.....	\$5.875	\$4.833	\$5.295	\$5.083	\$5.250	\$4.575	\$5.050	\$4.500	\$7.000	\$7.444	\$7.778	\$8.029	8.250
Baltimore, Md.:													
Pennsylvania anthracite—													
Stove.....	\$7.700	\$7.240	\$7.700	\$7.280	\$7.620	\$7.138	\$7.650	\$7.800	\$8.160	\$9.600	\$10.450	\$11.983	\$11.750
Chestnut.....	\$7.930	\$7.490	\$7.950	\$7.520	\$7.870	\$7.363	\$7.880	\$7.950	\$8.310	\$9.750	\$10.550	\$12.042	\$11.850
Bituminous.....												\$7.540	\$6.893
Birmingham, Ala.:													
Bituminous.....	4.217	4.011	4.228	3.833	4.090	3.646	3.913	3.644	5.080	5.616	6.461	6.741	7.286
Boston, Mass.:													
Pennsylvania anthracite—													
Stove.....	8.250	7.500	8.000	7.500	7.750	7.500	8.000	8.000	9.500	9.850	10.250	12.000	12.000
Chestnut.....	8.250	7.750	8.250	7.750	8.000	7.750	8.250	8.000	9.500	9.850	10.250	12.000	12.000
Bituminous.....												10.250	9.000
Bridgeport, Conn.:													
Pennsylvania anthracite—													
Stove.....									10.000	10.500	10.400	12.370	11.750
Chestnut.....									10.000	10.500	10.400	12.370	11.750
Bituminous.....												9.125	8.000
Buffalo, N. Y.:													
Pennsylvania anthracite—													
Stove.....	6.750	6.542	6.817	6.650	6.850	6.650	6.850	7.010	7.600	8.830	9.180	10.400	10.700
Chestnut.....	6.992	6.800	7.067	6.900	7.100	6.900	7.100	7.260	7.850	8.830	9.240	10.500	0.800
Bituminous.....												6.000	8.000
Butte, Mont.:													
Bituminous.....					7.417	6.750	7.125	7.125	8.222	9.188	9.083	9.377	9.836
Charleston, S. C.:													
Pennsylvania anthracite—													
Stove.....	\$8.375	\$7.750	\$7.750	\$7.750	\$7.750	\$7.750	\$7.750	\$7.875	\$8.750	\$12.275		(³)	13.400
Chestnut.....	\$8.500	\$8.000	\$8.250	\$8.250	\$8.250	\$8.250	\$8.250	\$8.375	\$9.250	\$12.475		(³)	13.500
Bituminous.....	\$6.750	\$6.750	\$6.750	\$6.750	\$6.750	\$6.750	\$6.750	\$6.750	7.000	8.000	8.375	8.500	8.500
Chicago, Ill.:													
Pennsylvania anthracite—													
Stove.....	8.000	7.800	8.080	7.900	8.100	7.900	8.100	8.240	9.570	10.350	10.900	11.808	12.200
Chestnut.....	8.250	8.050	8.330	8.130	8.350	8.150	8.350	8.490	9.670	10.388	10.975	12.016	12.300
Bituminous.....	4.969	4.650	5.000	4.850	5.068	4.708	4.938	4.800	7.083	6.671	6.475	6.700	7.017

¹ Prices not secured by Bureau in July, 1917.

² Per ton of 2,240 pounds.

³ Zoned out by Fuel Administration.

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RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913-1919, INCLUSIVE, BY CITIES—Continued.

City and kind of coal.	1913		1914		1915		1916		1917	1918		1919	
	January.	July.	January.	July.	January.	July.	January.	July.	January.	January.	July.	January.	July.
Cincinnati, Ohio:													
Pennsylvania anthracite—													
Stove.....	\$8.250	\$7.500	\$8.000	\$7.917	\$7.917	\$7.667	\$8.000	\$7.875	\$10.000	\$9.500	\$11.660	(1)	\$12.000
Chestnut.....	8.750	7.750	8.250	8.167	8.167	7.833	8.083	8.125	10.125	9.500	.....	(1)	12.000
Bituminous.....	3.500	3.375	3.750	3.500	3.500	3.500	3.688	3.500	5.500	6.098	6.725	\$6.478	6.139
Cleveland, Ohio:													
Pennsylvania anthracite—													
Stove.....	7.500	7.250	7.500	7.500	7.650	7.400	7.650	7.850	9.688	9.825	.....	11.050	11.538
Chestnut.....	7.750	7.500	7.750	7.750	7.900	7.650	7.900	8.100	10.000	9.575	.....	11.175	11.650
Bituminous.....	4.143	4.143	4.400	4.571	4.643	4.607	4.643	4.946	8.227	6.901	6.443	6.821	7.710
Columbus, Ohio:													
Pennsylvania anthracite—													
Chestnut.....													12.000
Bituminous.....								3.640	6.400	5.943	6.179	6.088	6.056
Dallas, Tex.:													
Pennsylvania anthracite—												18.000	20.000
Chestnut.....													
Arkansas anthracite—													
Egg.....						8.250	9.000	8.375	11.500	14.334	14.250	15.800	14.500
Bituminous.....	8.250	7.214	7.929	7.150	7.545	6.950	7.458	7.208	10.167	10.139	10.386	10.980	11.083
Denver, Colo.:													
Colorado anthracite—													
Stove, 3 and 5 mixed.....	8.500	8.500	10.500	8.929	9.214	9.071	9.333	8.786	9.600	11.750	12.325	12.650	13.150
Furnace, 1 and 2 mixed.....	8.875	9.000	11.000	9.071	9.286	9.071	9.333	9.071	9.900	11.750	12.325	12.650	12.650
Bituminous.....	5.250	4.875	6.474	5.300	5.641	5.192	5.250	5.019	6.000	7.598	7.995	8.148	8.348
Detroit, Mich.:													
Pennsylvania anthracite—													
Stove.....	8.000	7.450	8.000	7.500	7.938	7.500	7.950	8.000	9.750	9.880	10.150	11.600	11.890
Chestnut.....	8.250	7.650	8.250	7.750	8.188	7.750	8.200	8.250	9.800	10.080	10.520	11.710	11.880
Bituminous.....	5.200	5.200	5.200	5.188	5.179	5.237	5.237	5.611	7.583	8.267	8.180	7.732	7.988
Fall River, Mass.:													
Pennsylvania anthracite—													
Stove.....	8.250	7.425	7.750	7.688	8.000	7.750	8.750	8.438	11.000	10.750	11.000	12.700	12.500
Chestnut.....	8.250	7.613	8.000	7.688	8.000	7.750	8.750	8.438	11.000	10.750	11.000	12.383	12.250
Bituminous.....											10.000	10.250	9.500
Houston, Tex.:													
Bituminous.....										9.000		10.000	10.000

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Indianapolis, Ind.:														
Pennsylvania anthracite—														
Stove.....	8.950	8.000	8.300	7.750	8.250	7.650	8.250	8.500	10.167	9.825	10.250	12.250	12.250	
Chestnut.....	9.150	8.250	8.500	7.950	8.450	7.900	8.450	8.688	10.333	9.925	10.500	12.333	12.250	
Bituminous.....	3.813	3.700	4.611	4.000	4.673	4.208	4.411	4.568	6.800	7.107	6.163	6.875	7.375	
Jacksonville, Fla.:														
Pennsylvania anthracite—														
Stove.....	10.000	9.000	9.000	9.125	9.000	9.000	9.000	9.000	11.000	12.000	.....	(1)	15.000	
Chestnut.....	10.000	9.000	9.000	9.125	9.000	9.000	9.000	9.000	11.000	12.000	.....	(1)	15.000	
Bituminous.....	7.500	7.000	7.125	6.875	7.500	7.000	7.500	7.375	8.000	9.333	9.825	10.000	10.000	
Kansas City, Mo.:														
Pennsylvania anthracite—														
Stove.....														16.210
Chestnut.....														16.470
Arkansas anthracite—														
Furnace.....			8.286	7.917	8.333	7.833	8.333	8.125	9.292	12.592	13.700	15.107	13.593	
Stove, or No. 4.....			8.929	8.500	8.833	8.375	8.833	8.667	9.958	13.150	14.200	15.550	14.430	
Bituminous.....	4.391	3.933	4.276	4.093	4.200	4.056	4.515	4.353	6.438	6.703	6.700	7.354	7.469	
Little Rock, Ark.:														
Arkansas anthracite—														
Egg.....							7.625	7.625	9.000	11.500	12.750	12.975	12.500	
Stove.....												13.333	13.250	
Bituminous.....	6.000	5.333	6.250	5.833	5.972	5.361	6.000	5.750	8.000	8.250	9.155	9.414	9.250	
Los Angeles, Calif.:														
New Mexico anthracite—														
Cerrojos egg.....			17.000	.....	15.000	15.000	18.000	16.000	.....	22.000	20.000	21.150	.....
Bituminous.....		12.500	13.500	12.000	13.600	11.375	13.700	12.900	15.000	14.881	14.700	14.688	14.583	
Louisville, Ky.:														
Pennsylvania anthracite—														
Stove.....	9.000	8.250	8.750	8.450	8.700	.....	.....	.....	.....	.....	.....	(1)	12.750	
Chestnut.....	9.000	8.250	8.750	8.450	8.700	.....	.....	.....	.....	.....	10.640	(1)	12.750	
Bituminous.....	4.200	4.000	4.377	3.953	3.997	3.478	3.816	3.737	5.734	6.038	6.783	6.743	6.816	
Manchester, N. H.:														
Pennsylvania anthracite—														
Stove.....	10.000	8.500	8.750	8.500	8.750	8.500	9.000	8.750	11.000	11.000	10.500	12.500	12.750	
Chestnut.....	10.000	8.500	8.750	8.500	8.750	8.500	9.000	8.750	11.000	11.000	10.500	12.500	12.750	
Bituminous.....											10.000	10.000	10.000	
Memphis, Tenn.:														
Pennsylvania anthracite—														
Stove.....														15.000
Chestnut.....														16.000
Bituminous.....	24.344	24.219	24.219	24.219	23.883	23.838	23.904	24.083	26.222	6.539	7.171	7.221	7.528	
Milwaukee, Wis.:														
Pennsylvania anthracite—														
Stove.....	8.000	7.850	8.080	7.930	8.100	7.900	8.100	8.300	9.020	9.500	10.968	12.286	12.400	
Chestnut.....	8.250	8.100	8.330	8.180	8.350	8.150	8.350	8.550	9.270	9.650	10.904	12.378	12.500	
Bituminous.....	6.250	5.714	6.143	5.714	6.143	5.625	6.000	5.875	7.743	7.385	7.385	7.814	8.144	

¹ Zoned out by Fuel Administration.² Per 10-barrel lots (1,800 pounds).

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RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913-1919, INCLUSIVE, BY CITIES—Continued.

City and kind of coal.	1913		1914		1915		1916		1917	1918		1919	
	January.	July.	January.	July.	January.	July.	January.	July.	January.	January.	July.	January.	July.
Minneapolis, Minn.:													
Pennsylvania anthracite—													
Stove.....	\$9.250	\$9.050	\$9.350	\$9.133	\$9.307	\$9.150	\$9.350	\$9.900	\$10.350	\$10.826	\$12.238	\$13.708	\$13.800
Chestnut.....	9.500	9.300	9.600	9.383	9.557	9.400	9.600	10.150	10.600	10.926	12.328	13.786	13.900
Bituminous.....	5.889	5.792	5.875	5.846	5.990	5.960	5.977	6.375	8.077	8.888	8.474	9.000	9.189
Mobile, Ala.:													
Pennsylvania anthracite—													
Stove.....										14.000			17.000
Chestnut.....										14.000			17.000
Bituminous.....										8.000	9.000	9.429	9.722
Newark, N. J.:													
Pennsylvania anthracite—													
Stove.....	6.500	6.250	6.500	6.250	6.500	6.250	6.500	6.750	7.208	8.100	8.500	9.750	10.050
Chestnut.....	6.750	6.500	6.750	6.500	6.750	6.500	6.750	7.000	7.292	8.100	8.500	9.750	10.050
New Haven, Conn.:													
Pennsylvania anthracite—													
Stove.....	7.500	6.250	6.571	6.579	7.000	6.750	7.500	7.742	9.500	9.750	10.100	12.050	11.333
Chestnut.....	7.500	6.250	6.571	6.579	7.000	6.750	7.500	7.742	9.500	9.750	10.100	12.050	11.333
New Orleans, La.:													
Pennsylvania anthracite—													
Stove.....	10.000	10.000	10.000	10.000	10.000	10.125	10.500	11.700	13.100	13.067		(1)	16.000
Chestnut.....	10.500	10.500	10.500	10.500	10.500	10.625	11.000	12.200	13.500	13.300	14.550	(1)	16.000
Bituminous.....	2 6.056	2 6.063	2 5.944	2 6.071	2 5.950	2 6.083	2 6.091	2 6.063	2 6.944	8.040	7.789	8.900	8.292
New York, N. Y.:													
Pennsylvania anthracite—													
Stove.....	7.071	6.657	6.857	6.850	7.143	6.907	7.107	7.393	8.500	9.058	9.300	10.757	10.800
Chestnut.....	7.143	6.800	7.000	6.993	7.286	7.057	7.250	7.421	8.500	9.083	9.293	10.764	10.857
Norfolk, Va.:													
Pennsylvania anthracite—													
Stove.....										10.000	9.500	11.700	12.500
Chestnut.....										10.000	9.500	11.700	12.500
Bituminous.....										7.750	7.750	8.250	9.375
Omaha, Nebr.:													
Pennsylvania anthracite—													
Stove.....	12.000	10.750	10.700	10.700	10.750	10.700	10.750	11.750	13.200	13.188			16.450
Chestnut.....	12.000	11.000	10.950	10.950	11.000	10.950	11.000	12.000	13.400	13.338			16.550
Bituminous.....	6.625	6.125	6.125	6.125	6.083	6.167	6.042	6.000	7.857	7.950	7.388	8.471	8.930

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RETAIL PRICES PER TON OF 2,000 POUNDS OF COAL, FOR HOUSEHOLD USE, ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913-1919, INCLUSIVE, BY CITIES—Concluded.

City and kind of coal.	1913		1914		1915		1916		1917	1918		1919	
	January.	July.	January.	July.	January.	July.	January.	July.	January.	January.	July.	January.	July.
San Francisco, Calif.:													
New Mexico anthracite—													
Cerrojos egg.....	\$17.000	\$17.000	\$17.000	\$17.000	\$16.833	\$16.833	\$17.000	\$17.000	\$19.000	\$20.750	\$18.600	\$21.550	\$20.500
Colorado anthracite—													
Egg.....	17.000	17.000	17.000	17.000	16.833	16.833	17.000	17.000	19.000	18.600	13.600	19.400	19.400
Bituminous.....	12.000	12.000	12.091	12.400	12.273	12.333	12.250	12.250	13.429	13.867	14.083	14.200	13.591
Scranton, Pa.:													
Pennsylvania anthracite—													
Stove.....	4.250	4.313	4.500	4.313	4.438	4.125	4.375	4.800	5.250	6.113	6.050	7.475	7.683
Chestnut.....	4.500	4.563	4.750	4.563	4.688	4.313	4.625	4.800	5.250	6.150	6.150	7.563	7.783
Seattle, Wash.:													
Bituminous.....	17.125	17.200	16.167	15.800	15.906	15.313	15.528	15.750	15.850	\$7.867	\$9.133	\$9.163	\$9.103
Springfield, Ill.:													
Bituminous.....				2.646	2.078	2.094	2.563	2.750	2.706	3.711	3.661	3.832	3.976
Washington, D. C.:													
Pennsylvania anthracite—													
Stove.....	\$7.500	\$7.381	\$7.588	\$7.419	\$7.731	\$7.400	\$7.625	\$7.725	\$8.206	\$10.100	\$9.960	\$11.890	\$11.911
Chestnut.....	\$7.650	\$7.531	\$7.738	\$7.569	\$7.881	\$7.550	\$7.775	\$7.856	\$8.200	\$10.190	\$10.064	\$12.019	\$12.011
Bituminous.....											\$7.700	\$7.974	\$8.050

¹ At yard, delivery \$0.05 to \$2, according to distance.

² Prices in zone A.

³ Per ton of 2,240 pounds.

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The table below shows for the United States both average and relative retail prices of Pennsylvania white ash coal, stove and chestnut sizes, and of bituminous coal on January 15 and July 15 of each year, 1913 to 1919, inclusive. An average price for the year 1913 has been made from the averages for January and July of that year. This average price for the year 1913 has been divided into the average prices for January and July of each year to obtain the relative prices.

January, 1919, compared with January, 1913, shows an increase of 44 per cent in the price of Pennsylvania white ash stove coal; 42 per cent in the price of chestnut; and 44 per cent in the price of bituminous coal.

July, 1919, compared with July, 1913, shows an increase of 63 per cent in the price of Pennsylvania white ash stove; 59 per cent in the price of chestnut and 50 per cent in the price of bituminous.

AVERAGE AND RELATIVE PRICES OF COAL IN TON LOTS FOR THE UNITED STATES ON JAN. 15 AND JULY 15 OF EACH YEAR, 1913 TO 1919, INCLUSIVE.

Year and month.	Pennsylvania anthracite, white ash.				Bituminous.	
	Stove.		Chestnut.		Average price.	Relative price.
	Average price.	Relative price.	Average price.	Relative price.		
1913:						
Average for year	7.73	100	7.91	100	5.43	100
January	7.99	103	8.15	103	5.48	101
July	7.46	97	7.68	97	5.39	99
1914:						
January	7.80	101	8.00	101	5.97	110
July	7.60	98	7.78	98	5.46	101
1915:						
January	7.83	101	7.99	101	5.71	105
July	7.54	98	7.73	98	5.44	100
1916:						
January	7.93	103	8.13	103	5.69	105
July	8.12	105	8.28	105	5.52	102
1917:						
January	9.29	120	9.40	119	6.96	128
July	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
1918:						
January	9.88	128	10.03	127	7.68	141
July	9.96	129	10.07	127	7.92	146
1919:						
January	11.51	149	11.61	147	7.90	145
July	12.16	157	12.19	154	8.10	149

¹ Prices not secured by Bureau in July, 1917.

Comparison of Retail Food Costs in 50 Cities in the United States.

THE table following shows for 39 cities the percentage of increase or decrease in the retail cost in July, 1919, of 22 food articles,¹ combined, compared with the average cost in the year 1913, in July, 1918, and in June, 1919. For 11 other cities comparisons are given for the one year and one month periods, as these cities have been scheduled by the Bureau at different dates since 1913.

The average family expenditure is based on the prices sent to the Bureau each month by retail dealers, and on the average family consumption of these articles in each city.

The amounts given as the expenditures in July, 1918, and in June and July, 1919, represent the amounts necessary to buy a year's supply of these 22 food articles when purchased at the average retail prices charged in the months specified. This method makes it easier to compare the increase with the year 1913. This year has been selected for the comparison because it was the last year before the war when prices were normal.

No attempt should be made in this table to compare one city with another, as the average number of persons in the family varies according to the city, and these 22 food articles represent a varying proportion of the entire food budgets according to locality. This table is intended to show merely comparisons in the retail cost of these 22 food articles for each individual city. Effort is made to secure prices on similar grades of commodities in all cities. Local customs, however, must be taken into consideration. For example:

1. In Boston, Mass.; Fall River, Mass.; Manchester, N. H.; New Haven, Conn.; Portland, Me.; and Providence, R. I., very little fresh plate beef is sold, and prices are not secured from these cities for this article.

2. The cut of beef known as "sirloin" in Boston, Mass.; Manchester, N. H.; Philadelphia, Pa.; and Providence, R. I., would be known as "porterhouse" in other cities. In these four cities, owing to the method of dividing the round from the loin, there is no cut that corresponds to "sirloin" in other cities. There is also a greater amount of trimming demanded by the trade in these cities.

3. The most of the sales in Newark, N. J., are on whole ham instead of the sliced as in other cities.

While it is advised that comparisons should not be made as between cities, without taking these and other facts relative to local customs and transportation into consideration, the figures do represent a trend in the retail cost of these articles to the average family in each individual city.

¹ Sirloin steak, round steak, rib roast, chuck roast, plate boiling beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

RETAIL COST OF 22 FOOD ARTICLES,¹ COMBINED, IN JULY, 1919, COMPARED WITH THE COST IN JUNE, 1919, JULY, 1918, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES.

City.	Average family expenditure, 22 food articles combined.				Percentage increase July, 1919, compared with—		
	Year 1913.	July, 1918. ²	1919		1913	July, 1918.	June, 1919.
			June. ³	July. ³			
Atlanta.....	\$361.00	\$606.77	\$672.94	\$683.63	89	13	2
Baltimore.....	335.15	610.41	663.13	676.68	102	11	2
Birmingham.....	377.53	643.99	736.35	752.94	99	17	2
Boston.....	388.16	649.50	681.53	710.76	83	9	4
Bridgeport.....		619.45	643.66	682.50		10	6
Buffalo.....	318.15	565.32	601.26	626.82	97	11	4
Butte.....		452.60	474.34	490.69		8	3
Charleston.....	348.60	594.83	689.18	690.88	98	16	(*)
Chicago.....	336.48	593.19	604.51	644.82	92	14	7
Cincinnati.....	338.26	558.09	630.31	646.36	91	16	3
Cleveland.....	354.01	593.95	651.41	692.28	96	17	6
Columbus.....		587.08	621.95	664.98		13	7
Dallas.....	395.41	642.04	728.19	748.93	89	16	3
Denver.....	247.36	424.95	454.52	469.97	90	11	3
Detroit.....	335.02	591.51	643.83	681.82	104	15	6
Fall River.....	375.51	630.26	673.40	701.53	87	11	4
Houston.....		612.42	694.49	707.19		15	2
Indianapolis.....	345.23	564.09	615.52	665.17	93	18	8
Jacksonville.....	377.10	591.64	682.31	681.58	81	15	(*)
Kansas City, Mo.....	340.12	566.22	625.29	645.57	90	14	3
Little Rock.....	390.14	648.96	710.52	722.18	85	11	2
Los Angeles.....	284.84	418.16	467.40	463.38	63	11	5 1
Louisville.....	363.85	606.24	696.56	706.09	94	16	1
Manchester.....	366.01	633.69	659.30	694.78	90	10	5
Memphis.....	368.46	623.52	720.58	738.08	100	18	2
Milwaukee.....	327.25	556.25	609.84	651.97	99	17	7
Minneapolis.....	319.98	532.72	595.38	628.46	96	18	6
Mobile.....		622.64	723.87	730.60		17	1
Newark.....	364.92	607.38	641.90	669.45	83	10	4
New Haven.....	376.96	657.19	674.63	701.17	86	7	4
New Orleans.....	369.29	605.88	697.06	708.37	92	17	2
New York.....	355.36	593.06	650.34	666.65	88	12	3
Norfolk.....		627.49	691.30	701.19		12	1
Omaha.....	334.52	576.73	627.52	666.61	99	16	6
Peoria.....		548.93	606.46	644.97		18	6
Philadelphia.....	352.19	608.88	646.52	657.67	87	8	2
Pittsburgh.....	350.35	591.96	642.24	665.86	90	12	4
Portland, Me.....		627.38	664.99	690.69		10	4
Portland, Oreg.....	266.03	421.59	449.01	462.71	74	10	3
Providence.....	380.85	664.56	695.50	734.35	93	11	6
Richmond.....	346.40	606.48	680.84	682.32	97	13	(*)
Rochester.....		570.67	605.10	630.14		10	4
St. Louis.....	326.36	557.42	613.58	642.57	97	15	5
St. Paul.....		540.84	603.58	634.60		17	5
Salt Lake City.....	261.87	415.23	449.10	459.32	75	11	2
San Francisco.....	271.48	416.76	458.97	458.00	69	10	(*)
Scranton.....	335.98	592.29	642.21	667.48	93	13	4
Seattle.....	265.35	432.96	467.36	472.11	78	9	1
Springfield, Ill.....		577.89	616.33	650.44		13	6
Washington.....	354.82	631.64	691.40	708.29	100	12	2

¹ See note on p. 88.

² Cost of year's supply at prices charged in specified month.

³ Increase of less than five-tenths of 1 per cent.

⁴ Decrease of less than five-tenths of 1 per cent.

⁵ Decrease.

Index Numbers of Wholesale Prices in the United States.

WITH the present issue of the MONTHLY LABOR REVIEW the series of weighted index numbers of wholesale prices constructed by the Bureau of Labor Statistics has been revised to include a number of important commodities not previously included. In the group of farm products a price series has been added for alfalfa hay beginning with January, 1913, and the index number recalculated back to that date. This causes a slight increase in the index number for this group in recent months as compared with the figures previously published. In the food group a price series for Blue Rose rice, now commercially quite important, has been added for the period since January, 1915, and the index revised accordingly. Cabbage, on the other hand, owing to its extreme price fluctuations and the great difficulty in obtaining reliable quotations, has been eliminated for all years back to 1908, when this commodity was first used in the index.

In the cloths and clothing group a slight revision of the index has been made for the period since 1913 to allow for the use of net prices on a few articles whose quotations, it has been ascertained, are subject to small cash discounts. Also, prices for four lines of children's shoes, which were dropped from the index in 1916, have been restored and the index has been recomputed back to 1913 to include these articles. The fuel and lighting group has been enlarged by the addition since January, 1913, of price series for crude petroleum produced in the Mid-Continent and California fields, both of which have assumed great importance in the last few years. A slight revision of the weighting factors for anthracite coal has also been made back to 1890 to conform to recently acquired information. Slight revision of the recent monthly index numbers for metals and metal products and for lumber and building materials has been made in the interest of greater accuracy.

The index numbers for the chemicals and drugs group were revised beginning with January, 1913, to include acetic and nitric acid, anhydrous ammonia, caustic soda, soda ash, carbonate and nitrate of soda, and copper sulphate, the effect being to increase considerably the index numbers for recent months in this group as compared with figures previously published. Weighting factors have been worked out for a number of articles not previously included in the group of house-furnishing goods, viz, bedroom sets of furniture, rocking chairs, kitchen chairs, kitchen tables, carving knives, table knives and forks, wooden pails, and wooden tubs. The index numbers for this group have been recalculated back to 1890 to include

these articles, resulting in considerable changes from the figures for earlier years as previously published. Phosphate rock and bran have been added to the group of miscellaneous commodities beginning with January, 1913, thus necessitating a slight revision of the index for this group. In the general index for all commodities combined the net effect of the numerous changes enumerated above has been to produce a small increase in the index numbers for certain years and months over the figures previously published. The revised index numbers for years from 1890 to 1918 are given in the table which follows:

INDEX NUMBERS OF WHOLESALE PRICES, 1890 TO 1918, BY GROUPS OF COMMODITIES.

[1913=100.]

Year.	Farm products.	Food, etc.	Cloths and clothing	Fuel and lighting	Metals and metal products.	Lumber and building materials.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
1890.....	68	89	92	69	114	72	90	72	92	81
1891.....	73	89	89	68	102	70	92	72	92	81
1892.....	66	80	89	66	93	67	91	71	88	75
1893.....	67	87	88	66	85	68	90	68	91	77
1894.....	59	77	78	61	72	66	83	67	86	69
1895.....	60	74	78	67	77	64	88	62	82	69
1896.....	54	67	75	69	80	63	91	58	80	66
1897.....	58	71	75	62	71	62	89	56	80	66
1898.....	61	76	79	61	71	65	92	61	79	69
1899.....	62	75	82	71	108	71	96	62	82	74
1900.....	69	79	88	80	106	76	97	69	91	80
1901.....	73	80	82	78	98	73	98	69	90	79
1902.....	81	85	84	92	97	77	97	73	92	85
1903.....	75	82	88	105	96	80	96	74	94	85
1904.....	80	87	89	91	98	80	97	73	94	86
1905.....	77	86	91	87	98	85	96	71	95	85
1906.....	78	84	97	90	113	94	94	74	97	88
1907.....	85	89	104	93	120	97	96	80	101	94
1908.....	85	94	94	91	94	92	100	78	97	91
1909.....	97	99	98	88	92	97	101	77	109	97
1910.....	103	100	99	84	93	101	102	80	116	99
1911.....	93	99	96	82	89	101	103	85	104	95
1912.....	101	108	98	89	99	100	101	91	101	101
1913.....	100	100	100	100	100	100	100	100	100	100
1914.....	103	103	98	96	87	97	101	99	99	100
1915.....	105	105	100	93	97	94	114	99	99	101
1916.....	122	127	128	119	148	101	159	115	120	124
1917.....	189	178	181	175	208	124	198	144	155	176
1918.....	220	191	238	163	181	151	221	196	193	196

The revised index numbers for months since 1913, the base year, are shown in the next table. For economy of space, only quarterly figures are presented for the years from 1913 to 1916, inclusive. An examination of the index numbers for June and July of the present year, shown in the several columns of this table, discloses an unprecedented advance in some of the groups. In the important groups of farm products, food, etc., cloths and clothing, and lumber and building materials most pronounced increases are observed. House-

furnishing goods and miscellaneous commodities also show large increases. Only one group, that of chemicals and drugs, shows a decrease. The general index for all commodities combined shows an increase of 12 points, from 207 to 219. The preponderating influence of farm products, food, cloths and clothing, and lumber and building materials, all of which groups show large increases in July over June, accounts for the abnormal increase in the general index number.

Among important individual commodities whose wholesale prices averaged higher in July than in June were cotton, flaxseed, barley, corn, oats, rye, spring wheat, hides, cattle, hogs, sheep, peanuts, poultry, cheese, coffee, eggs, lard, corn meal, spring wheat flour, bacon, salt and fresh beef, hams, milk, rice, potatoes, shoes, cotton and woolen goods, leather, anthracite coal, coke, pig lead, copper, zinc, lumber, linseed oil, bran, cottonseed meal, cottonseed oil, and soap. A few articles, as hay, beans, winter wheat flour, mutton, silver, grain alcohol, glycerine, opium, and soda nitrate were cheaper in July than in June. Tobacco, butter, salt, sugar, tea, bituminous coal, gasoline, petroleum, bar and pig iron, cement, brick, acids, lubricating oil, paper, rope, rubber, and wood pulp were practically unchanged in price.

INDEX NUMBERS OF WHOLESALE PRICES IN SPECIFIED MONTHS, 1913, TO JULY, 1919, BY GROUPS OF COMMODITIES.

[1913=100.]

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building materials.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
1913.										
Average for year...	100	100	100	100	100	100	100	100	100	100
January.....	97	99	100	103	107	100	101	100	100	100
April.....	97	96	100	98	102	101	101	100	98	98
July.....	101	102	100	99	98	101	99	100	101	100
October.....	103	102	100	100	99	98	100	100	100	101
1914.										
January.....	101	102	98	99	92	98	100	99	99	100
April.....	103	95	99	98	91	99	100	99	101	98
July.....	104	104	99	95	85	97	99	99	97	100
October.....	103	107	97	93	83	96	105	99	96	99
1915.										
January.....	102	106	96	93	83	94	103	99	100	99
April.....	107	105	99	89	91	94	102	99	99	100
July.....	108	105	99	90	102	93	108	99	98	101
October.....	105	104	103	96	100	93	124	99	99	102
1916.										
January.....	108	114	110	105	126	99	150	105	107	111
April.....	114	118	119	108	147	102	172	108	110	117
July.....	118	122	126	108	145	99	156	121	120	120
October.....	136	141	138	133	151	101	150	124	132	134
1917.										
January.....	148	151	161	176	183	106	159	132	138	151
February.....	151	160	162	185	190	108	160	132	141	156
March.....	163	161	164	188	199	110	165	132	143	161
April.....	181	183	169	184	208	114	170	139	149	173
May.....	197	192	173	194	217	117	179	139	150	182

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INDEX NUMBERS OF WHOLESALE PRICES IN SPECIFIED MONTHS, 1913, TO JULY, 1919, BY GROUPS OF COMMODITIES—Concluded.

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building materials.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
1917.										
June.....	197	188	179	201	239	127	180	144	152	185
July.....	199	182	187	192	257	132	198	152	153	187
August.....	205	181	193	165	249	133	209	152	156	186
September.....	204	180	193	160	226	134	223	152	155	183
October.....	208	184	193	146	182	134	252	152	163	181
November.....	212	185	198	155	174	134	240	155	166	183
December.....	205	186	202	158	174	135	238	155	170	183
1918.										
January.....	207	188	211	157	174	136	232	161	178	185
February.....	208	187	216	157	176	138	232	161	181	187
March.....	212	179	223	158	176	144	232	165	184	187
April.....	217	180	232	157	177	146	229	172	191	190
May.....	214	179	237	160	178	148	223	173	194	191
June.....	217	180	245	159	178	150	219	198	196	193
July.....	224	186	249	166	184	154	216	199	190	198
August.....	230	193	252	166	185	157	222	221	191	203
September.....	237	200	254	167	184	159	220	226	194	207
October.....	224	202	256	167	187	158	218	226	196	205
November.....	221	208	255	171	188	164	215	226	203	206
December.....	222	212	250	171	184	164	195	227	204	207
1919.										
January.....	222	209	234	170	172	161	191	218	212	203
February.....	218	197	223	169	168	163	185	218	208	197
March.....	228	205	216	168	162	165	183	218	217	201
April.....	235	212	217	167	152	162	178	217	216	203
May.....	240	216	227	167	152	164	179	217	213	207
June.....	231	206	258	170	154	175	174	233	212	207
July ¹	246	218	282	171	158	186	171	245	221	219

¹ Preliminary.

Price Changes, Wholesale and Retail, in the United States.

EXACT comparison of wholesale with retail prices is not attempted in the following tables. Some food products—fresh meats, for example—are not sold by the retailer in the same form in which they leave the wholesaler, hence strictly comparable prices are not obtainable. It was found impracticable also to obtain both wholesale and retail prices for the same date, the retail prices being those prevailing on the 15th of the month, while the wholesale prices are for a variable date, usually several days prior to the 15th. The figures in the table are therefore to be considered as merely indicative of price variations in the retail as compared with the wholesale markets.

To assist in comparing the fluctuations at wholesale and at retail, the differential between the two series of quotations at successive dates is given. It should not be assumed, however, that this differential in any case represents the margin of profit to the retailer, since, in addition to a possible difference of grade between the articles shown at wholesale and retail, the various items of handling cost to both the wholesaler and retailer are included in the figure.

WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES.

[The initials W=wholesale; R=retail. The wholesale price is the mean of the high and low quotation on the date selected, as published in leading trade journals. The retail price is the average of prices reported to the Bureau of Labor Statistics by dealers.]

Article and city.	Unit.	1913: Average for year.	July—				1917		1918		1919				
			1914	1915	1916	Jan.	July.	Jan.	July.	Jan.	Apr.	May.	June.	July.	
Beef, Chicago:															
Steer loin ends..... W.	Lb.	16.8	17.5	16.0	20.5	20.0	19.0	20.0	34.0	32.0	32.0	32.0	26.0	27.0	
Sirloin steak..... R.	Lb.	23.2	26.0	25.8	28.1	26.5	30.2	30.2	37.7	37.5	39.7	39.5	38.5	39.3	
Price differential.....		6.4	8.5	9.8	7.6	6.5	11.2	10.2	3.7	5.5	7.7	7.5	12.5	12.3	
Beef, Chicago:															
Steer rounds, No 2..... W.	Lb.	13.1	14.5	14.3	14.5	12.0	17.0	16.5	25.0	22.0	24.0	25.0	22.0	22.0	
Round steak..... R.	Lb.	20.2	23.3	22.8	24.1	22.7	26.6	27.3	35.0	34.0	35.7	36.0	34.6	35.5	
Price differential.....		7.1	8.8	8.5	9.6	10.7	9.6	10.8	10.0	12.0	11.7	11.0	12.6	13.5	
Beef, Chicago:															
Steer ribs, No. 2..... W.	Lb.	15.7	16.5	14.5	17.5	16.0	20.0	20.0	28.0	30.0	34.0	30.0	27.0	24.0	
Rib roast..... R.	Lb.	19.5	21.2	21.3	22.9	22.3	24.6	25.4	31.8	31.3	34.2	34.1	30.8	31.9	
Price differential.....		3.8	4.7	6.8	5.4	6.3	4.6	5.4	3.8	1.3	1.3	4.1	3.8	7.9	
Beef, New York:															
No. 2, loins..... W.	Lb.	15.8	18.3	17.0	20.0	18.0	19.0	23.5	28.0	37.0	40.0	37.0	31.0	28.5	
Sirloin steak..... R.	Lb.	25.9	27.4	28.2	29.4	28.4	33.7	34.4	43.9	44.8	45.3	45.6	42.2	44.4	
Price differential.....		10.1	9.1	11.2	9.4	10.4	14.7	10.9	15.9	7.8	5.3	8.6	11.2	15.9	
Beef, New York:															
No. 2, rounds..... W.	Lb.	12.1	13.5	13.5	14.5	13.0	17.5	18.0	28.0	25.0	24.0	24.0	22.0	22.0	
Round steak..... R.	Lb.	24.9	27.0	27.1	28.9	27.5	33.7	35.2	46.3	47.3	47.0	46.9	44.4	46.2	
Price differential.....		12.8	13.5	13.6	14.4	14.5	16.2	17.2	18.3	22.3	23.0	22.9	22.4	24.2	
Beef, New York:															
No. 2, ribs..... W.	Lb.	15.1	16.5	16.0	18.0	16.0	19.0	23.5	28.0	35.0	36.0	35.0	29.0	27.5	
Rib roast..... R.	Lb.	21.8	22.5	22.7	24.3	23.8	27.9	29.4	37.5	40.9	41.3	40.9	37.8	38.6	
Price differential.....		6.7	6.0	6.7	6.3	7.8	8.9	5.9	9.5	5.9	5.3	5.9	8.8	11.1	
Pork, Chicago:															
Loins..... W.	Lb.	14.9	16.5	15.0	16.5	16.5	25.0	27.0	29.0	27.0	31.5	32.5	29.0	37.0	
Chops..... R.	Lb.	19.0	20.4	20.1	21.7	22.7	29.2	31.6	35.5	35.2	37.9	38.6	37.5	41.7	
Price differential.....		4.1	3.9	5.1	5.2	6.2	4.2	4.6	6.5	8.2	6.4	6.1	8.5	4.7	
Pork, New York:															
Loins, western..... W.	Lb.	15.2	16.3	15.3	16.5	17.0	23.5	26.5	30.5	33.0	34.5	34.0	32.0	37.0	
Chops..... R.	Lb.	21.7	23.0	21.7	23.9	24.8	32.6	34.8	40.6	43.5	43.7	45.0	44.5	47.5	
Price differential.....		6.5	6.7	6.4	7.4	7.8	9.1	8.3	10.1	10.5	9.2	11.0	12.5	10.5	
Bacon, Chicago:															
Short clear sides..... W.	Lb.	12.7	13.9	11.3	15.9	15.8	24.7	30.1	27.4	29.4	32.6	33.4	32.9	33.1	
Sliced..... R.	Lb.	29.4	31.8	31.5	32.8	31.6	43.9	49.8	47.7	51.6	58.2	59.7	59.7	61.5	
Price differential.....		16.7	17.9	20.2	16.9	15.8	19.2	19.7	27.3	32.2	25.6	26.3	26.8	28.4	
Ham, Chicago:															
Smoked..... W.	Lb.	16.6	17.5	16.3	19.0	18.8	24.3	29.8	30.1	35.3	35.3	37.5	38.0	38.3	
Smoked, sliced..... R.	Lb.	26.6	33.8	32.8	34.9	33.3	41.4	42.8	49.1	55.3	54.6	56.6	57.3	58.8	
Price differential.....		10.0	16.3	16.5	15.9	14.5	17.1	13.0	19.0	20.0	19.3	19.1	19.3	20.5	
Lard, New York:															
Prime, contract..... W.	Lb.	11.0	10.4	8.0	13.3	15.9	20.1	24.6	26.2	24.2	31.2	34.1	34.7	35.8	
Pure, tub..... R.	Lb.	16.0	15.6	15.1	16.8	21.3	27.4	33.0	32.2	33.1	36.0	38.7	41.3	42.5	
Price differential.....		5.0	5.2	7.1	3.5	5.4	7.3	8.4	6.0	8.9	4.8	4.6	6.6	6.7	
Lamb, Chicago:															
Dressed round..... W.	Lb.	14.9	17.0	19.0	19.0	20.0	26.0	24.0	31.0	28.0	33.0	30.0	28.0	29.0	
Leg of, yearling..... R.	Lb.	19.8	21.9	20.8	23.1	23.2	28.7	30.6	35.7	34.2	38.3	38.4	35.5	36.2	
Price differential.....		4.9	4.9	1.8	4.1	3.2	2.7	6.6	4.7	6.2	5.3	8.4	7.5	7.2	
Poultry, New York:															
Dressed fowls..... W.	Lb.	18.2	18.8	17.5	21.5	22.0	24.8	29.8	36.0	35.5	35.5	36.0	37.5	34.5	
Dressed hens..... R.	Lb.	21.4	22.0	21.9	25.6	26.1	28.7	32.6	41.0	40.8	41.7	42.6	43.1	41.5	
Price differential.....		3.2	3.2	4.4	4.1	4.1	3.9	2.8	5.0	5.3	6.2	6.6	5.6	7.0	
Butter, Chicago:															
Creamery, extra..... W.	Lb.	31.0	26.5	26.5	27.5	37.0	37.5	49.0	42.5	66.0	61.0	55.5	51.5	52.0	
Creamery, extra..... R.	Lb.	36.2	31.2	32.2	33.5	43.8	43.3	54.4	48.0	71.3	67.1	62.4	57.5	57.1	
Price differential.....		5.2	4.7	5.7	6.0	6.8	5.7	5.4	5.5	5.3	6.1	6.9	6.0	5.1	
Butter, New York:															
Creamery, extra..... W.	Lb.	32.3	28.0	27.0	28.5	39.5	39.5	51.0	44.4	67.0	62.5	58.0	52.3	51.0	
Creamery, extra..... R.	Lb.	38.2	32.8	33.6	34.6	46.0	45.3	57.4	51.4	75.5	72.9	67.2	61.4	61.3	
Price differential.....		5.9	4.8	6.6	6.1	6.5	5.8	6.4	7.0	8.5	10.4	9.2	9.1	10.3	
Butter, San Francisco:															
Creamery, extra..... W.	Lb.	31.7	24.5	26.5	25.5	35.5	38.5	53.0	50.0	64.5	58.0	57.5	55.5	56.5	
Creamery, extra..... R.	Lb.	38.8	32.9	33.8	33.3	42.5	45.5	60.2	56.6	72.3	62.9	66.3	64.7	64.7	
Price differential.....		7.1	8.4	7.3	7.8	7.0	7.0	7.2	6.6	7.8	4.9	8.8	9.2	8.2	
Cheese, Chicago:															
Whole milk..... W.	Lb.	14.2	13.3	14.5	14.5	21.8	21.6	23.3	22.7	36.3	29.8	31.3	29.5	30.9	
Full cream..... R.	Lb.	22.9	24.2	24.2	32.1	33.9	37.5	34.5	43.9	40.5	42.4	42.5	44.1		
Price differential.....					8.4	9.7	10.3	12.3	14.2	11.8	7.6	10.7	11.1	13.0	

¹ Price is for different quality of beef from that quoted at wholesale.

WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES—Concluded.

Article and city.	Unit.	1913: Av- erage for year.	July—			1917		1918		1919				
			1914	1915	1916	Jan.	July.	Jan.	July.	Jan.	Apr.	May.	June.	July.
			Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Cheese, New York:														
Whole milk, State..	W. Lb.	15.4	14.4	14.6	15.1	22.0	23.8	23.0	23.9	36.8	31.5	32.1	30.8	31.5
Full cream.....	R. Lb.	.....	.....	22.9	22.8	30.1	32.8	34.4	33.2	42.7	42.7	43.1	43.0	42.8
Price differential.....	.....	.....	.....	8.3	7.7	8.1	9.0	11.4	9.3	5.9	11.2	11.0	12.2	11.3
Cheese, San Francisco:														
Fancy.....	W. Lb.	15.9	12.5	11.5	13.5	18.0	20.0	25.5	26.0	33.5	32.5	31.5	29.0	32.0
Full cream.....	R. Lb.	.....	.....	20.0	22.9	24.2	29.7	33.5	32.3	41.9	40.0	41.2	40.9	41.2
Price differential.....	.....	.....	.....	8.5	9.4	6.2	9.7	8.0	6.3	8.4	7.5	9.7	11.9	9.2
Milk, Chicago:														
Fresh.....	W. Qt.	3.8	3.6	3.7	3.6	4.5	4.7	7.0	5.3	8.4	6.4	5.7	5.7	6.8
Fresh, bottled.....	R. Qt.	8.0	8.0	8.0	8.1	10.0	10.0	11.9	12.0	14.0	13.0	13.0	14.0	14.0
Price differential.....	.....	4.2	4.4	4.3	4.5	5.5	5.3	4.9	6.7	5.6	6.6	7.3	8.3	7.2
Milk, New York:														
Fresh.....	W. Qt.	3.5	3.0	3.0	3.1	5.1	5.0	8.1	5.4	9.2	6.1	7.2	6.8	7.1
Fresh, bottled.....	R. Qt.	9.0	9.0	9.0	9.0	10.0	11.4	15.0	12.7	16.0	15.5	15.7	15.0	16.0
Price differential.....	.....	5.5	6.0	6.0	5.9	4.9	6.4	6.9	7.3	6.8	9.4	8.5	8.2	8.9
Milk, San Francisco:														
Fresh.....	W. Qt.	3.8	3.9	3.8	3.8	3.8	4.3	6.6	5.9	7.4	7.4	7.4	7.4	7.4
Fresh, bottled.....	R. Qt.	10.0	10.0	10.0	10.0	10.0	10.0	12.1	12.1	14.0	14.0	14.0	14.0	14.0
Price differential.....	.....	6.1	6.1	6.2	6.2	6.2	5.7	5.5	6.2	6.6	6.6	6.6	6.6	6.6
Eggs, Chicago:														
Fresh, firsts.....	W. Doz.	22.6	18.8	16.8	21.8	48.5	31.0	56.5	36.5	58.8	39.4	42.5	40.5	42.0
Strictly fresh.....	R. Doz.	29.2	26.1	24.8	29.6	52.5	40.6	65.1	45.7	69.5	46.6	51.2	51.1	53.2
Price differential.....	.....	6.6	7.3	8.0	7.8	4.0	9.6	8.6	9.2	10.7	7.2	8.7	10.6	11.2
Eggs, New York:														
Fresh, firsts.....	W. Doz.	24.9	21.5	20.0	24.1	50.5	35.0	64.5	40.0	61.3	41.8	46.5	43.5	44.5
Strictly fresh.....	R. Doz.	39.7	35.3	32.6	37.2	66.7	47.7	80.8	57.3	78.1	56.9	59.6	62.0	66.4
Price differential.....	.....	14.8	13.8	12.6	13.1	16.2	12.7	16.3	17.3	16.8	15.1	13.1	18.5	21.9
Eggs, San Francisco:														
Fresh.....	W. Doz.	26.8	23.0	22.0	24.0	38.0	32.0	61.0	44.0	53.0	46.0	47.5	44.0	45.0
Strictly fresh.....	R. Doz.	37.3	33.8	31.0	33.3	48.0	39.2	71.0	51.4	65.7	51.7	56.3	54.8	56.6
Price differential.....	.....	10.5	10.8	9.0	9.3	10.0	7.2	10.0	7.4	12.7	5.7	8.8	10.8	11.6
Meal, corn, Chicago:														
Fine.....	W. Lb.	1.4	1.6	.....	1.9	2.4	4.5	5.1	5.4	3.6	4.1	4.2	4.0	4.6
Fine.....	R. Lb.	2.9	2.8	3.1	3.1	4.2	5.8	7.0	6.8	5.8	5.8	5.7	5.9	5.9
Price differential.....	.....	1.5	1.2	.....	1.2	1.8	1.3	1.9	1.4	2.2	1.7	1.6	1.7	1.3
Beans, New York:														
Medium, choice.....	W. Lb.	4.0	4.0	5.8	9.8	10.8	15.4	14.1	11.9	9.9	7.9	7.9	7.9	7.5
Navy, white.....	R. Lb.	.....	.....	8.1	11.3	14.9	18.8	18.5	17.5	15.3	12.7	12.4	12.5	12.2
Price differential.....	.....	.....	.....	2.3	1.5	4.1	3.4	4.4	5.6	5.4	4.8	4.5	4.6	4.7
Potatoes, Chicago:														
White ¹	W. Lb.	1.0	2.4	.7	1.6	2.9	4.4	2.0	1.5	1.9	1.8	1.9	1.9	1.4
White.....	R. Lb.	1.5	2.7	1.2	2.3	3.9	5.0	2.8	3.7	2.7	2.5	2.8	3.1	5.0
Price differential.....	.....	.5	.3	.5	.7	1.0	.6	.8	2.2	.8	.7	.9	1.2	3.6
Rice, New Orleans:														
Head.....	W. Lb.	5.0	5.4	4.9	4.6	4.8	7.1	8.8	9.3	9.1	8.5	9.1	6.3	10.5
Head.....	R. Lb.	.....	.....	7.5	7.4	7.4	10.1	10.6	11.9	12.0	12.1	12.2	12.9	14.2
Price differential.....	.....	.....	.....	2.6	2.8	2.6	3.0	1.8	2.6	2.9	3.6	3.1	6.6	3.7
Sugar, New York:														
Granulated.....	W. Lb.	4.3	4.2	5.9	7.5	6.6	7.4	7.3	7.4	8.8	8.8	8.8	8.8	8.8
Granulated.....	R. Lb.	4.9	4.6	6.3	7.9	7.4	8.4	9.7	8.8	10.1	10.0	9.9	10.0	10.0
Price differential.....	.....	.6	.4	.4	.4	.8	1.0	2.4	1.4	1.3	1.2	1.1	1.2	1.2

¹ Good to choice.

The following table of wholesale and retail prices, expressed as percentages of the average money prices for 1913, will enable the reader to follow more readily the trend of price fluctuations of food articles at wholesale and retail. A few articles included in the preceding table are omitted from the following one, owing to lack of satisfactory data for 1913. The table shows that, as compared with the 1913 base price, the wholesale prices of most of the commodities in recent months were relatively higher than the retail prices. This is particularly noticeable in the case of pork, bacon, lard, and corn meal. The preceding table shows, however, that the margin between the wholesale and the retail price of many of the articles was greater in recent months than in 1913.

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RELATIVE WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES (AVERAGE FOR 1913=100).

[The initials W=wholesale; R=retail.]

Article and city.	1913: Average for year.	July—			1917		1918		1919				
		1914	1915	1916	Jan.	July.	Jan.	July.	Jan.	Apr.	May.	June.	July.
Beef, Chicago:													
Steer loin ends (hips)....W..	100	104	95	122	119	113	119	202	190	190	190	155	161
Sirloin steak.....R..	100	112	111	121	114	130	130	163	162	171	170	166	169
Beef, Chicago:													
Steer rounds, No. 2.....W..	100	111	109	111	92	130	126	191	168	183	191	168	168
Round steak.....R..	100	115	113	119	112	132	135	173	168	177	178	171	176
Beef, Chicago:													
Steer ribs, No. 2.....W..	100	105	92	111	102	127	127	178	191	217	191	172	153
Rib roast.....R..	100	109	109	117	114	126	130	163	159	175	175	158	164
Beef, New York:													
No. 2 loins, city.....W..	100	116	108	127	114	120	149	177	234	253	234	196	180
Sirloin steak.....R..	100	106	109	114	110	130	130	170	173	175	176	163	171
Beef, New York:													
No. 2 rounds, city.....W..	100	112	112	120	107	145	149	231	207	198	198	182	182
Round steak.....R..	100	108	109	116	110	135	141	186	190	189	188	178	186
Beef, New York:													
No. 2 ribs, city.....W..	100	109	106	119	106	126	156	185	232	238	232	192	182
Rib roast.....R..	100	103	104	111	109	128	135	172	188	189	188	173	177
Pork, Chicago:													
Loins.....W..	100	111	101	111	111	168	181	195	181	211	218	195	248
Chops.....R..	100	107	106	114	119	154	166	187	185	199	203	197	219
Pork, New York:													
Loins, western.....W..	100	107	101	109	112	155	174	201	217	227	224	211	243
Chops.....R..	100	106	100	110	114	150	160	187	200	201	207	205	219
Bacon, Chicago:													
Short clear sides.....W..	100	109	89	125	124	194	237	216	232	257	263	259	261
Sliced.....R..	100	108	107	112	107	149	169	186	210	198	203	203	209
Ham, Chicago:													
Smoked.....W..	100	105	98	114	113	146	180	181	213	213	226	229	231
Smoked, sliced.....R..	100	127	123	131	125	156	161	185	208	205	213	215	221
Lard, New York:													
Prime, contract.....W..	100	95	73	121	145	183	224	238	220	284	310	315	325
Pure, tub.....R..	100	98	94	105	133	171	206	201	207	225	242	258	266
Lamb, Chicago:													
Dressed, round.....W..	100	114	128	128	134	174	161	208	188	221	201	188	195
Leg of, yearling.....R..	100	111	105	117	117	145	155	180	173	193	194	179	183
Poultry, New York:													
Dressed fowls.....W..	100	103	96	118	121	136	164	198	195	195	198	206	190
Dressed hens.....R..	100	103	102	120	122	134	152	192	191	195	199	201	194
Butter, Chicago:													
Creamery, extra.....W..	100	85	85	89	119	121	158	137	213	197	179	166	168
Creamery, extra.....R..	100	86	89	93	121	119	150	133	197	185	172	159	158
Butter, New York:													
Creamery, extra.....W..	100	87	84	88	122	122	158	137	207	194	180	162	158
Creamery, extra.....R..	100	96	88	91	120	119	150	135	198	191	176	161	160
Butter, San Francisco:													
Creamery, extra.....W..	100	77	84	80	112	121	167	158	203	183	181	175	178
Creamery, extra.....R..	100	85	87	86	110	117	155	146	186	162	171	167	167
Milk, Chicago:													
Fresh.....W..	100	95	97	95	118	124	184	139	221	168	150	150	179
Fresh, bottled, delivered.....R..	100	100	100	101	125	125	149	150	175	163	162	174	175
Milk, New York:													
Fresh.....W..	100	86	86	89	146	143	231	154	263	174	206	194	203
Fresh, bottled, delivered.....R..	100	100	100	100	111	127	167	141	178	172	174	167	178
Milk, San Francisco:													
Fresh.....W..	100	100	97	97	97	110	169	151	190	190	190	190	190
Fresh, bottled.....R..	100	100	100	100	100	100	121	121	140	140	140	140	140
Eggs, Chicago:													
Fresh, firsts.....W..	100	83	74	96	215	137	250	162	260	174	188	179	186
Strictly fresh.....R..	100	89	85	101	180	139	223	137	238	160	175	175	182
Eggs, New York:													
Fresh, firsts.....W..	100	86	80	97	203	141	259	161	246	168	187	175	179
Strictly fresh.....R..	100	89	82	94	168	120	204	144	197	143	150	156	167
Eggs, San Francisco:													
Fresh.....W..	100	86	82	90	142	119	228	164	198	172	177	164	168
Strictly fresh.....R..	100	91	83	89	129	105	190	138	176	139	151	147	152
Meal, corn, Chicago:													
Fine.....W..	100	114	.....	136	171	321	364	356	257	229	300	286	329
Fine.....R..	100	97	107	107	145	200	241	234	200	200	200	197	203
Potatoes, Chicago:													
White, good to choice...W..	100	237	66	160	286	429	200	150	190	180	190	190	140
White.....R..	100	182	78	151	263	331	187	247	180	167	187	207	333
Sugar, New York:													
Granulated.....W..	100	98	137	174	153	172	170	172	205	205	205	205	205
Granulated.....R..	100	94	129	161	151	171	198	180	206	204	202	204	204

Wholesale Prices in the United States and Foreign Countries, 1890 to June, 1919.

IN THE following table the more important index numbers of wholesale prices in the United States and several foreign countries, as compiled by recognized authorities, have been reduced to a common base in order that the trend of prices in the several countries may be directly compared. The results here shown have been obtained by merely shifting the base for each series of index numbers to the year 1913, i. e., by dividing the index for 1913 on the original base into the index for each year or month on that base. These results are therefore to be regarded only as approximations of the correct index numbers in the case of series constructed by averaging the relative prices of individual commodities.¹ This applies to the index numbers of the *Annalist*, Gibson, the *Economist*, Sauerbeck, the Department of Labor of Canada, the *Statistique Générale* of France, and, presumably, the *Monthly Statistical Bulletin* of New South Wales, Australia. The index numbers of the U. S. Bureau of Labor Statistics, Bradstreet, Dun, and the Bureau of Census and Statistics of Australia are built on aggregates of actual money prices, or relatives made from such aggregates of actual prices, and therefore can be readily shifted to any desired base. In cases where no index numbers for years are shown in the original sources, the figures here presented have been obtained by averaging the 12 monthly index numbers.

¹ For a discussion of the defects of index numbers constructed according to this method, see Bulletin No. 181 of the Bureau of Labor Statistics, pp. 245-252.

WHOLESALE PRICES IN THE UNITED STATES AND CERTAIN FOREIGN COUNTRIES.

[Index numbers expressed as percentages of the index number for 1913. See text explanation.]

Year and month.	United States.					United Kingdom.		Canada.	Australia.		France
	Bureau of Labor Statistics: 326 commodities (variable). ¹	Annalist: 25 commodities.	Bradstreet: 96 commodities.	Dun: 200 commodities.	Gibson: 22 commodities.	Economist: 44 commodities.	Sauerbeck: 45 commodities.	Department of Labor: 272 commodities (variable).	Comwealth Bureau of Census and Statistics: 92 commodities.	New South Wales Statistical Bulletin: Number of commodities. not shown.	Statistique Générale: 45 commodities.
1890.....	81	78	.....	² 75	75	² 83	85	81	97	.....	.....
1895.....	69	68	70	² 67	72	72	73	71	70	.....	.....
1900.....	80	71	85	77	76	82	88	80	82	.....	.....
1905.....	85	79	88	83	81	81	85	84	84	84	85
1910.....	99	98	98	98	102	90	92	92	92	88	93
1913.....	100	100	100	100	100	100	100	100	100	100	100
1914.....	100	104	97	101	105	99	100	100	105	95	102
1915.....	101	106	107	105	110	123	127	110	147	114	140
1916.....	124	126	128	123	129	160	160	134	138	137	188
1917.....	176	187	170	169	191	204	205	174	153	153	262
1918.....	196	205	203	190	211	225	226	205	175	162	933
1914.											
January....	100	102	97	103	100	97	98	101	³ 100	98	³ 100
April.....	98	101	95	99	99	96	96	101	³ 102	102	³ 100
July.....	100	104	94	99	101	95	104	99	³ 109	101	³ 101
October....	99	107	100	102	108	101	106	102	³ 113	95	³ 107
1915.											
January....	99	108	99	103	111	112	118	103	³ 127	101	³ 124
April.....	100	109	106	103	117	124	125	108	³ 153	109	³ 135
July.....	101	105	107	103	111	122	126	111	³ 167	115	³ 142
October....	102	101	108	105	108	125	134	112	³ 142	117	³ 158
1916.											
January....	111	110	119	114	113	143	149	127	³ 138	123	³ 179
April.....	117	118	128	121	123	156	157	132	³ 137	137	³ 190
July.....	120	121	125	120	124	156	157	132	³ 138	134	³ 186
October....	134	136	131	126	141	171	175	138	³ 139	140	³ 198
1917.											
January....	151	151	149	140	150	184	187	154	³ 140	150	215
February..	156	159	151	146	156	188	193	160	.....	151	225
March.....	161	170	154	154	166	197	199	163	.....	151	230
April.....	173	188	158	157	188	200	203	169	³ 146	150	248
May.....	182	203	164	172	204	201	205	177	.....	153	256
June.....	185	198	168	176	197	210	211	179	.....	152	266
July.....	187	189	175	175	200	208	208	179	³ 158	152	268
August....	186	190	178	181	203	210	207	181	.....	156	270
September	183	195	181	178	206	209	207	179	.....	152	280
October....	181	200	184	182	207	212	212	179	³ 166	147	284
November..	183	199	185	183	206	215	214	183	.....	163	293
December..	183	200	191	182	209	215	218	187	.....	166	304
1918.											
January....	185	200	195	184	205	215	219	190	³ 173	161	313
February..	187	204	196	188	210	216	220	194	.....	165	319
March.....	187	204	196	189	217	218	222	199	.....	156	327
April.....	190	207	200	191	225	221	223	199	.....	155	333
May.....	191	207	205	188	216	223	225	204	.....	164	335
June.....	193	201	206	186	211	227	226	207	.....	163	329
July.....	198	203	208	192	212	228	227	210	.....	160	337
August....	203	207	208	192	210	233	230	210	.....	170	350
September	207	210	207	193	212	231	232	211	.....	164	355
October....	205	203	207	193	205	231	233	214	181	160	360
November..	206	205	205	191	204	231	230	215	180	159	358
December..	207	208	207	191	208	226	231	213	180	163	353
1919.											
January....	203	211	201	190	206	217	224	211	.....	160	348
February..	197	201	192	182	201	216	221	206	.....	.....	340
March.....	201	209	187	180	212	212	217	205	.....	.....	337
April.....	203	222	188	182	223	214	217	206	.....	.....	.....
May.....	207	226	187	184	220	222	229	210	.....	.....	.....
June.....	207	216	196	189	212	230	235	210	.....	.....	.....

¹ The index numbers here shown have been revised as explained on pages 90 and 91 of this issue of the MONTHLY LABOR REVIEW.² Average for January and July.³ Quarter beginning in specified month.

Prices of Important Beef Products Compared with Live-Cattle Prices at Chicago.

AS ILLUSTRATING the trend of prices of some of the more important products of the slaughtering and meat-packing industry in recent months as compared with prices of live cattle, the following tables of absolute and relative prices and accompanying charts are presented. The cattle prices here shown have been reduced to the pound basis to facilitate comparison with the other items for which the pound is the customary price unit. For charting the price movements of important beef products with movements of live-cattle prices two methods are here employed. By the first method the price curves are plotted in the ordinary way on paper with arithmetic spacing in order that price differences may easily be compared. The second method consists in charting the price curves on paper with the vertical spacing ruled according to the logarithmic scale in order that the per cent of change in prices may readily be seen. The two methods thus supplement each other in showing price changes.¹ All prices used are for the Chicago market.

From the figures in the table of average money prices and from Charts A and B it is seen that live cattle and fresh carcass beef fluctuated in close unison throughout the period under review. In only one month, July, 1918, did the price of fresh beef move in a direction contrary to that of live cattle. In a number of months fresh beef, responding less freely to varying market conditions, remained unchanged in price, while live cattle increased or decreased slightly. It is observable, however, that the price differential between live cattle and fresh beef averaged only about 3½ cents per pound in the early months of the period, while in more recent months it increased to more than 6 cents. In the last two months the price differential decreased perceptibly. The decided similarity of the two price curves is clearly brought out in each chart.

While it is thus seen that cattle and fresh beef prices have fluctuated much alike since the beginning of 1917, and that the recent drop in cattle prices was quite promptly reflected in the lowered price of beef, the figures for the other important packing-house products for which prices were obtained, viz, hides, oleo oil, oleomargarine, and tallow, show little relationship to cattle or beef prices. As is seen from Charts A and B, hides declined in the early part of 1917 while cattle prices were advancing, but increased considerably after May. In December prices again declined and continued steeply downward

¹ For a discussion of the relative merits of arithmetic and ratio charts, see the MONTHLY LABOR REVIEW for March, 1919, pp. 20-34.

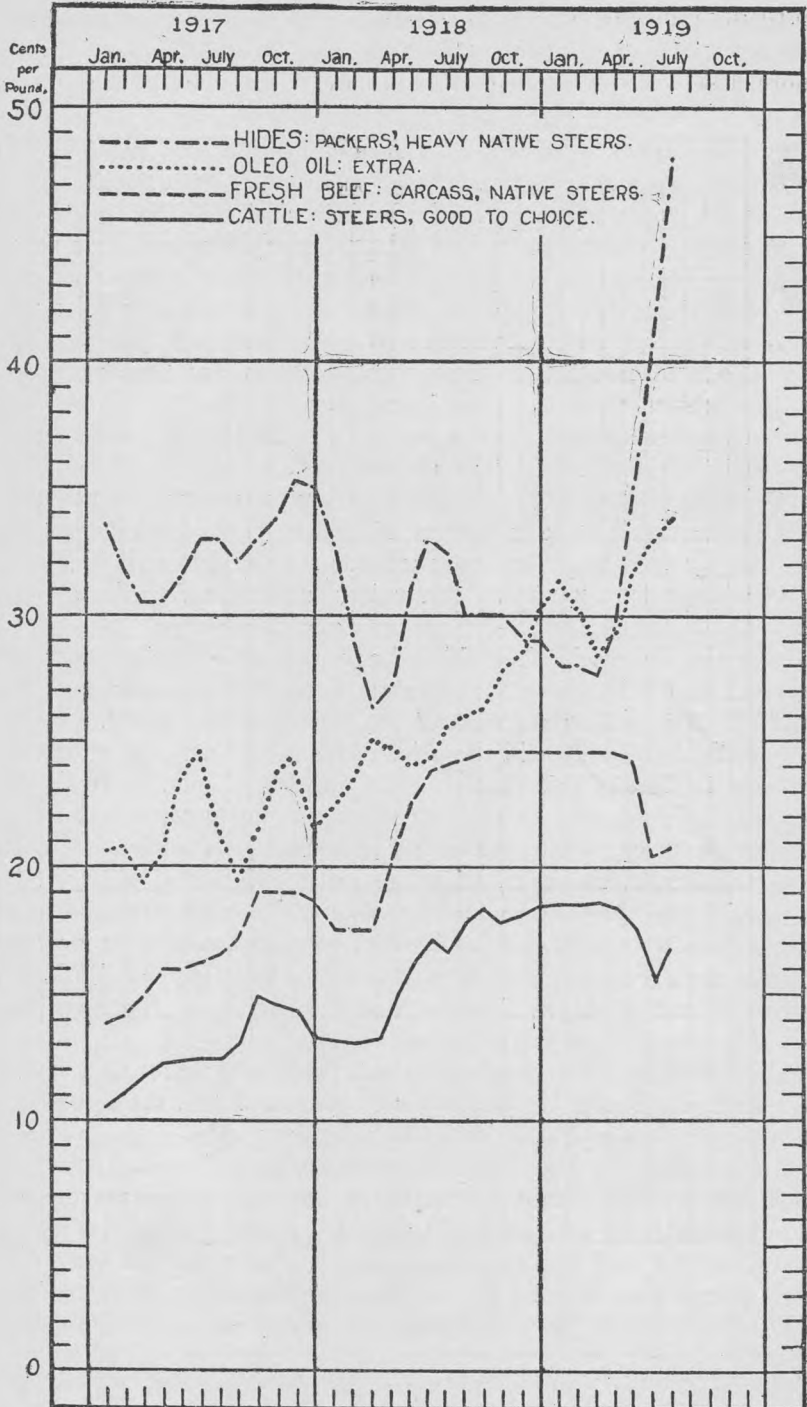


CHART A.

[708]

until the following March, notwithstanding only minor decreases in the price of cattle. From March to June price changes conformed more closely to the increasing prices for cattle, but afterwards declined

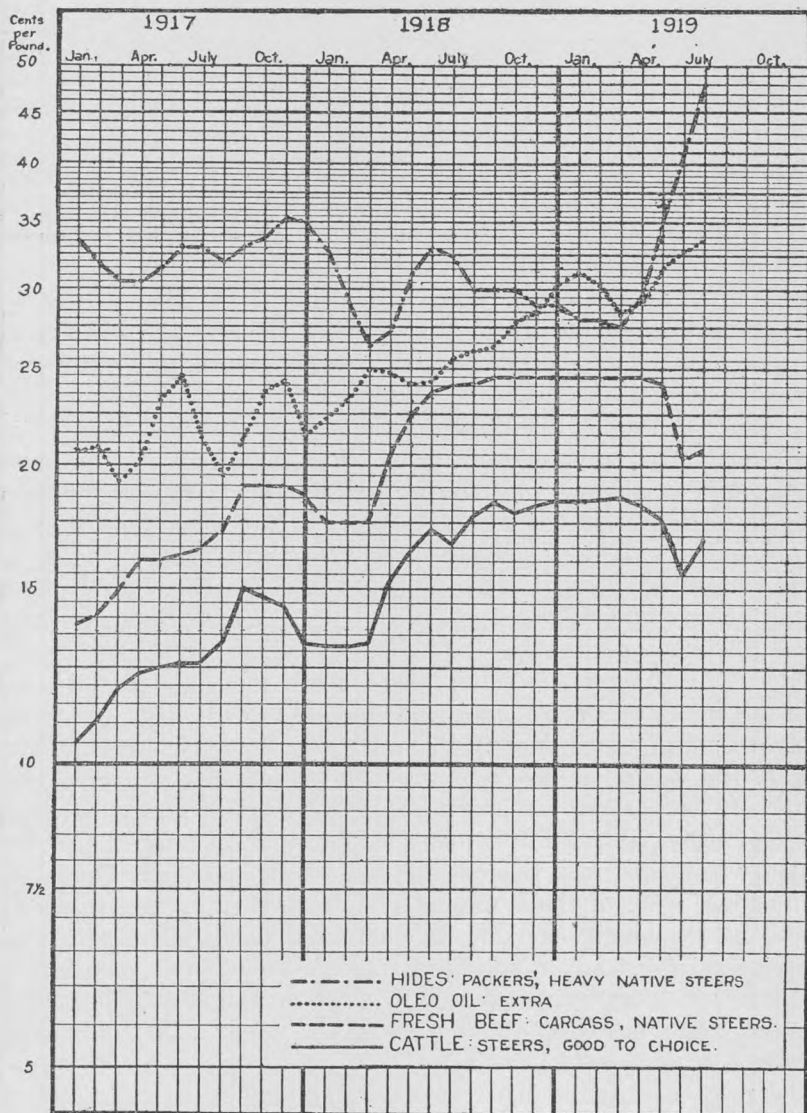


CHART B.

again while prices of cattle were still advancing. The period of decrease in hide prices from June of 1918 to March of 1919, it may be observed, coincides quite closely with the period of Government price

control for this commodity. Price control of domestic hides was removed January 31, 1919. Prices continued low, however, in February and March, but increased considerably in April when cattle prices were beginning to decrease. Since then prices of hides have increased enormously. Between March and July of the present year, as measured by average prices in each of these months, packers' hides from heavy native steers increased nearly 74 per cent in the Chicago market. In the same time, on the contrary, prices of good to choice steers decreased 9 per cent.

Oleo oil and oleomargarine behaved much like hides with respect to price fluctuations during the period and particularly in the last few months of abnormal increase. As would be expected, a strong sympathy existed between them throughout all months, although oleomargarine prices were much more stable than were prices of oleo oil. Except for a slight decline in March and April of the present year, oleomargarine (see Charts C and D) increased steadily in price from beginning to end of the period. Tallow prices in 1917 and most of 1918 fluctuated much like those of oleo oil, but declined steeply from November, 1918, to February, 1919, the price dropping far below the price of cattle, due probably to the announcement by the Shipping Board that tonnage would be allowed for the importation of approximately 12,000 tons of tallow from Argentina. All three commodities increased greatly in price from March to July of the present year, while cattle prices were falling, the increase for packers' prime tallow approximating 100 per cent.

Chart E compares the retail prices of rib roast and round steak with the wholesale prices of fresh carcass beef at Chicago. Only the arithmetic scale is used for this comparison. A glance at the chart reveals the great similarity of price movements at wholesale and retail. In only a few instances during the period did the monthly prices of either rib roast or round steak at retail move in a direction contrary to the prices of fresh beef at wholesale, and in such instances the changes were of slight extent. The comparison here made, it should be explained, can not be considered exact, since the retail prices of rib roast and round steak are for the 15th of each month while the wholesale prices of fresh beef are averages for the month. This difference, however, does not lessen the value of the comparison for practical purposes.

The price differential between fresh beef and rib roast, starting with 8½ cents per pound in January, 1917, narrowed perceptibly late in the year but widened again in the spring and summer of 1918. In the fall of last year the margin was again reduced to about 6½ cents. Since the beginning of the present year the margin has steadily increased until it reached 11 cents in July, indicating increased profits

to the retailer. Compared with prices in March, rib roast at retail in July had decreased less than 2 per cent while fresh carcass beef at wholesale had decreased 15 per cent.

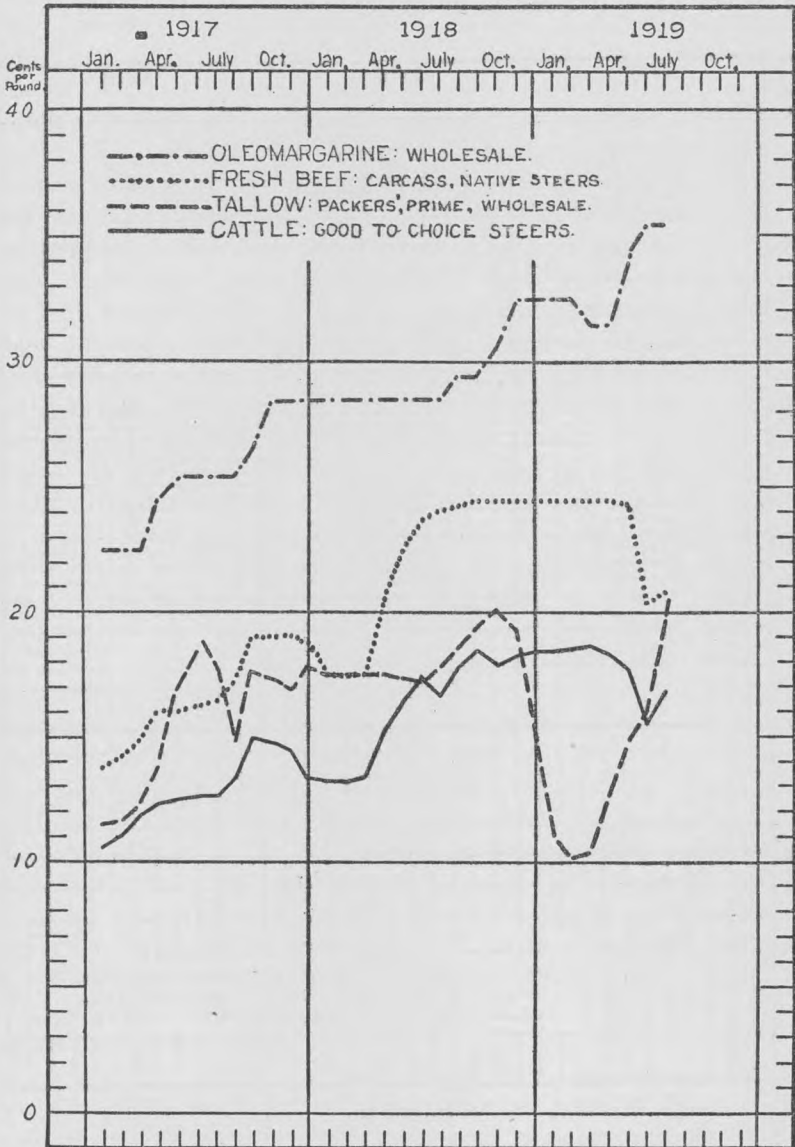


CHART C,

In the case of round steak, the differential between its retail price and the wholesale price of carcass beef ranged from 8½ to 10½ cents per pound during most of 1917. Late in the year the differential

was reduced to $7\frac{1}{2}$ cents. In the summer of 1918 the spread between the two prices averaged about 11 cents, decreasing later to about $9\frac{1}{2}$ cents. Since January of the present year round steak, like rib roast, has shown a steady increase in its differential over the price of fresh

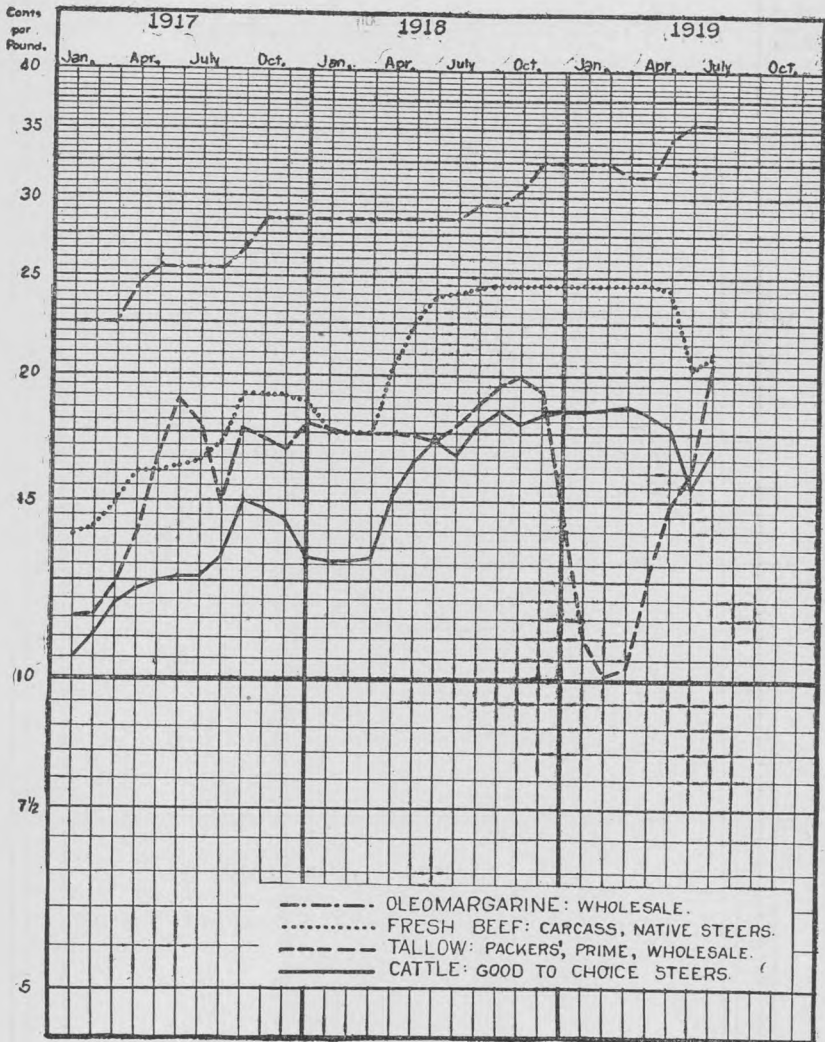


CHART D.

beef at wholesale. In July this differential reached 14.7 cents a pound.

While definite conclusions can not safely be drawn from the limited information here presented, it is obvious that prices of beef have not increased to a greater extent in recent months than have live cattle

prices, and that both have actually decreased since March. At the same time it is equally obvious that prices of all the more important beef products other than beef itself, only a few of which are included

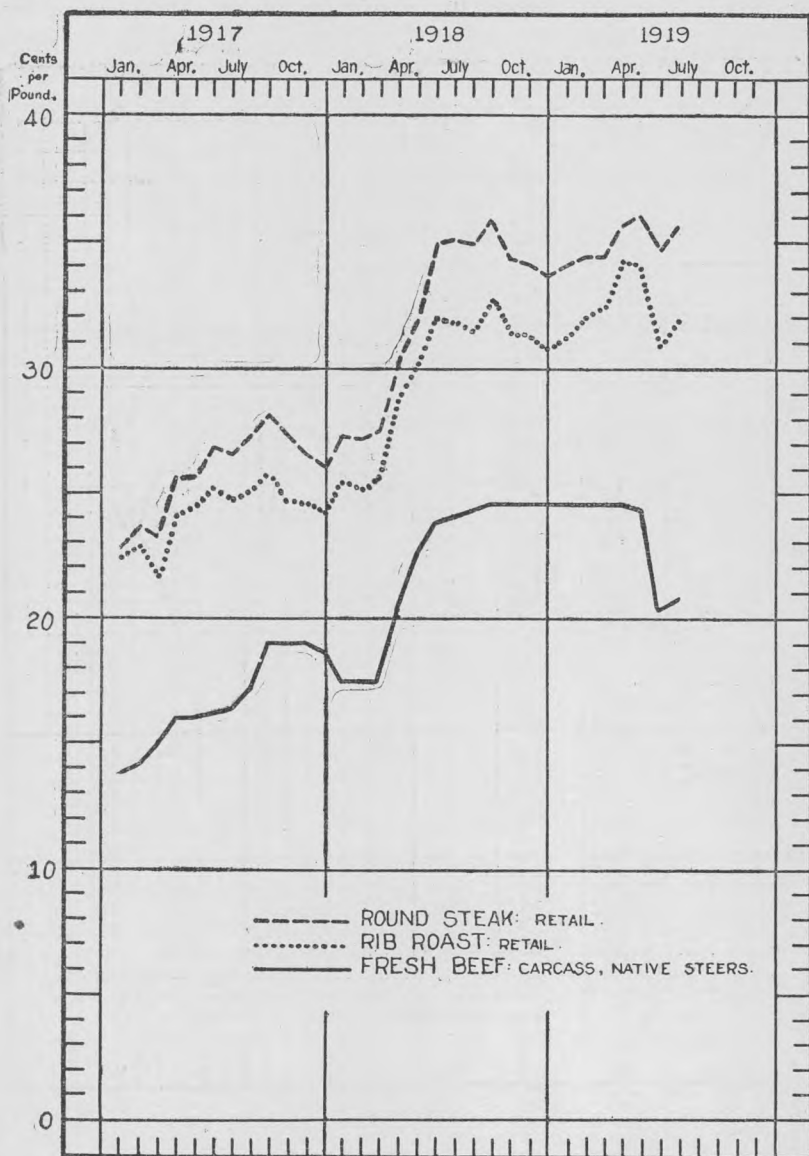


CHART E.

here, have increased to a much greater extent in the last few months than have cattle prices. According to the Census of Manufactures for 1914 the value of the hides, oleo oil, oleomargarine, and tallow

produced in the slaughtering and meat packing industry in that year amounted to approximately 105 millions of dollars, or one-fourth the value of the fresh beef produced. It is quite reasonable to suppose that the relative importance of these and the many other subsidiary beef products, as compared with beef, has greatly increased since 1914. When this fact is taken into consideration, the significance of the recent large increases in the prices of these commodities become apparent.

PRICES OF LIVE CATTLE AND IMPORTANT BEEF PRODUCTS AT CHICAGO, JANUARY, 1917, TO JULY, 1919.

Average money prices per pound.

Year and month.	Cattle, good to choice steers.	Fresh beef, carcass, native steers.	Hides, packers, heavy native steers.	Oleo oil, extra, wholesale.	Oleomargarine, wholesale.	Tallow, packers, prime, wholesale.	Rib roast, retail.	Round steak, retail.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Average for 1913	8.5	13.0	18.4	11.5	16.3	7.1	19.5	20.2
1917: January.....	10.5	13.8	33.5	20.5	22.5	11.5	22.3	22.7
February.....	11.1	14.1	31.8	20.8	22.5	11.6	22.8	23.6
March.....	11.9	14.9	33.5	19.3	22.5	12.4	21.6	23.3
April.....	12.3	16.0	33.5	29.3	24.5	13.9	24.1	25.6
May.....	12.5	16.0	31.5	23.4	25.5	16.6	24.4	25.7
June.....	12.6	16.2	33.0	24.5	25.5	18.9	25.1	25.9
July.....	12.6	16.4	33.0	21.3	25.5	17.8	24.6	26.6
August.....	13.2	17.1	32.0	19.4	25.5	14.9	25.1	27.3
September.....	15.0	19.0	33.0	21.3	29.5	17.6	25.8	28.1
October.....	14.7	19.0	33.8	23.8	28.5	17.3	24.7	27.3
November.....	14.4	19.0	35.3	24.3	28.5	16.9	24.5	26.5
December.....	13.2	18.7	35.0	21.4	28.5	17.9	24.2	26.0
1918: January.....	13.1	17.5	32.8	22.3	28.5	17.6	25.4	27.3
February.....	13.1	17.5	29.3	23.3	28.5	17.5	25.1	27.2
March.....	13.2	17.5	26.3	25.0	28.5	17.5	25.5	27.4
April.....	15.2	20.5	27.2	24.8	28.5	17.5	28.8	33.4
May.....	16.4	22.5	31.1	24.0	28.5	17.4	31.1	32.0
June.....	17.2	23.8	33.0	24.2	28.5	17.2	31.9	34.9
July.....	16.6	24.0	32.4	25.6	28.5	17.8	31.8	35.0
August.....	17.8	24.2	30.0	28.0	29.5	18.7	31.4	34.9
September.....	18.4	24.5	30.0	28.3	29.5	19.5	32.6	35.9
October.....	17.9	24.5	30.0	27.8	30.5	20.0	31.3	34.3
November.....	18.2	24.5	29.0	28.5	32.5	19.3	31.3	34.1
December.....	18.4	24.5	29.0	30.2	32.5	14.9	30.8	33.7
1919: January.....	18.4	24.5	28.0	31.3	32.5	11.0	31.1	34.0
February.....	18.5	24.5	28.0	30.2	32.5	10.1	32.0	34.4
March.....	18.6	24.5	27.6	28.3	31.5	10.3	32.4	34.4
April.....	18.3	24.5	29.5	29.4	31.5	12.6	34.2	35.7
May.....	17.7	24.3	35.1	31.7	34.5	14.9	34.1	36.0
June.....	15.5	20.3	40.8	32.9	35.5	16.0	30.8	34.6
July.....	16.9	20.8	48.0	33.8	35.5	20.5	31.9	35.5

Relative prices.

Average for 1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1917: January.....	123.8	106.2	182.2	177.6	138.5	162.7	114.4	112.4
February.....	130.8	109.1	172.6	179.8	138.5	164.5	116.8	116.9
March.....	139.5	115.1	165.8	166.8	138.5	175.1	110.8	115.3
April.....	144.7	123.6	165.8	175.5	150.8	196.3	123.6	126.7
May.....	146.6	123.6	171.3	202.6	156.9	235.2	125.1	127.2
June.....	147.5	124.7	179.4	212.3	156.9	267.0	128.7	133.4
July.....	147.6	126.5	179.4	184.1	156.9	251.1	126.2	131.7
August.....	154.9	132.3	174.0	167.9	156.9	210.5	128.7	135.1
September.....	176.2	146.7	179.4	184.1	163.1	248.4	132.2	139.1
October.....	172.5	146.7	183.5	205.8	175.4	244.0	126.7	135.1
November.....	169.1	146.7	191.7	210.1	175.4	238.8	125.6	131.2
December.....	155.6	144.4	190.3	185.3	175.4	252.9	124.1	128.8

PRICES OF LIVE CATTLE AND IMPORTANT BEEF PRODUCTS AT CHICAGO, JANUARY, 1917 TO JULY, 1919—Concluded.

Relative prices—Concluded.

Year and month.	Cattle, good to choice steers.	Fresh beef carcass, native steers.	Hides, packers, heavy native steers.	Olec oil, extrd, wholesale.	Oleomar-garine, wholesale.	Tallow, packers, prime, wholesale.	Rib roast, retail.	Round steak, retail.
1918: January.....	154.1	135.1	178.4	192.8	175.4	249.4	130.3	135.1
February.....	153.7	135.1	159.1	201.5	175.4	246.8	128.7	134.7
March.....	155.5	135.1	142.7	216.6	175.4	247.2	130.8	135.6
April.....	178.4	158.3	147.9	214.5	175.4	247.1	147.6	150.5
May.....	193.0	178.7	169.1	207.5	175.4	245.5	154.4	158.4
June.....	201.9	183.4	179.4	209.6	175.4	243.1	163.6	172.8
July.....	207.2	185.3	176.2	222.1	175.4	251.9	163.1	173.3
August.....	209.5	186.9	163.1	225.3	181.5	264.5	161.0	172.8
September.....	216.4	189.2	163.1	227.5	181.5	275.4	167.2	177.8
October.....	209.9	189.2	163.1	240.5	187.7	282.9	160.5	169.9
November.....	213.4	189.2	157.7	247.0	200.0	273.4	160.5	168.8
December.....	215.8	189.2	157.7	261.6	200.0	211.3	157.9	166.9
1919: January.....	216.4	189.2	152.3	270.8	200.0	154.9	159.5	168.3
February.....	217.1	189.2	152.3	261.6	200.0	142.7	164.1	170.3
March.....	218.3	189.2	160.2	244.8	193.8	145.0	166.2	170.3
April.....	215.4	189.2	160.4	254.6	193.8	177.6	175.4	176.7
May.....	208.6	189.2	191.0	274.5	212.3	210.0	174.9	178.2
June.....	181.7	156.4	221.6	285.2	218.5	226.3	157.9	171.3
July.....	198.3	160.2	261.0	292.5	218.5	290.4	163.6	175.7

Changes in Cost of Living in 31 Specified Cities.

CONTINUING reports of changes in the cost of living in industrial centers of the United States, as given in former numbers of the MONTHLY LABOR REVIEW,¹ the first table following shows increases during the period from December, 1914, to June, 1919, inclusive, for 18 shipbuilding centers on the Atlantic, Gulf, and Pacific coasts, and on the Great Lakes.

Taking the prices for December, 1914, as a base, the table shows in December of each of the ensuing years to 1918, inclusive, and in June, 1919, the per cent of increase in the prices of the various groups of items entering into the usual family budget.

Immediately following this table is a second table, giving the same kind of information for the period from December, 1917, to June, 1919, inclusive, for 13 interior cities. Figures for earlier years are not available for these cities. In this table the prices for December, 1917, are used as a base. Except as to years covered, the two tables are alike.

¹ MONTHLY REVIEW, March, April, June, 1918; MONTHLY LABOR REVIEW, August, September, November, 1918, and May, 1919.

PER CENT OF INCREASE IN COST OF LIVING FROM DECEMBER, 1914, TO DECEMBER, 1915, 1916, 1917, AND 1918, AND TO JUNE, 1919, IN 18 SHIPBUILDING CENTERS—Con.

Item of expenditure.	PORTLAND, ME.					BOSTON, MASS.				
	Per cent of increase from December, 1914, to—					Per cent of increase from December, 1914, to—				
	December, 1915.	December, 1916.	December, 1917.	December, 1918.	June, 1919.	December, 1915.	December, 1916.	December, 1917.	December, 1918.	June, 1919.
Food.....	¹ 1.96	18.59	49.83	86.82	80.62	¹ 0.33	18.03	45.76	74.88	67.93
Clothing:										
Male.....	1.09	8.98	31.45	82.27	91.75	6.06	20.95	45.31	112.79	127.00
Female.....	3.21	10.48	34.15	89.37	111.19	7.76	22.85	49.92	122.54	148.47
Total.....	2.13	9.72	32.78	85.77	103.79	6.63	21.86	47.53	117.48	137.88
Housing.....	.24	.61	2.38	2.48	5.74	1.07	.06	1.06	2.76	5.12
Fuel and light.....	.37	11.39	28.85	67.69	58.38	1.12	10.51	29.21	56.56	54.98
Furniture and furnishings.....	6.24	20.94	43.49	110.83	126.41	8.40	26.31	58.37	137.62	153.71
Miscellaneous.....	¹ 4.42	13.83	37.96	65.55	72.11	1.57	15.72	38.13	61.96	64.84
All items.....	¹ 4.42	13.83	37.96	72.23	74.25	1.57	15.72	38.13	70.60	72.78
	NEW YORK, N. Y.					PHILADELPHIA, PA.				
Food.....	1.34	16.26	55.28	82.62	75.32	0.34	18.92	54.41	80.67	75.52
Clothing:										
Male.....	4.78	20.32	51.40	126.39	138.62	3.30	16.15	54.11	119.61	139.37
Female.....	4.87	24.73	57.63	137.15	162.19	3.94	15.90	49.12	101.71	129.75
Total.....	4.82	22.31	54.21	131.25	151.60	3.60	16.03	51.33	111.16	135.91
Housing.....	¹ 1.10	¹ 0.05	2.63	6.47	13.38	¹ 2.29	¹ 1.72	2.60	8.00	11.30
Fuel and light.....	¹ 0.06	10.98	19.92	45.47	45.40	¹ 1.81	5.37	21.54	47.94	43.27
Furniture and furnishings.....	8.43	27.60	56.47	126.51	136.57	6.94	19.87	49.84	107.69	117.78
Miscellaneous.....	¹ 1.97	14.91	44.68	70.01	75.11	1.19	14.65	43.81	67.47	71.24
All items.....	¹ 1.97	14.91	44.68	77.28	79.22	1.19	14.65	43.81	73.86	76.21
	BALTIMORE, MD.					NORFOLK, VA.				
Food.....	¹ 4.08	20.87	64.35	96.35	91.05	0.75	22.38	63.89	86.18	89.83
Clothing:										
Male.....	2.46	22.97	49.55	98.66	122.06	1.60	10.33	37.15	97.61	107.65
Female.....	3.03	25.09	54.75	117.35	136.30	.....	1.68	26.02	91.58	101.91
Total.....	2.74	24.00	52.07	107.72	128.87	.80	5.98	31.55	94.58	104.78
Housing.....	¹ 1.18	.85	2.96	13.78	16.77	.07	¹ 1.72	¹ 1.72	38.96	46.52
Fuel and light.....	.49	9.14	25.54	45.97	37.07	.....	17.03	33.30	74.62	69.68
Furniture and furnishings.....	5.59	26.38	60.79	122.34	134.61	.62	8.73	38.96	105.51	110.71
Miscellaneous.....	¹ 1.37	18.51	51.27	78.71	82.75	.61	14.73	45.15	76.75	83.68
All items.....	¹ 1.37	18.51	51.27	84.68	83.99	.61	14.73	45.15	80.73	87.05
	SAVANNAH, GA.					JACKSONVILLE, FLA.				
Food.....	¹ 0.26	17.57	50.83	76.22	74.17	¹ 0.26	17.57	50.83	76.22	74.17
Clothing:										
Male.....	.....	25.62	60.03	137.90	153.52	10.35	35.06	74.76	136.56	144.08
Female.....	1.65	22.21	52.51	128.17	138.07	10.61	32.03	68.49	123.10	133.72
Total.....	.76	24.06	56.58	133.57	146.25	10.47	33.69	71.92	130.47	139.76
Housing.....	¹ 1.44	¹ 3.04	¹ 4.32	5.90	10.22	¹ 6.87	¹ 18.15	¹ 18.65	5.89	9.70
Fuel and light.....	¹ 1.30	¹ 1.65	21.11	37.50	35.49	.....	2.30	15.07	55.19	49.22
Furniture and furnishings.....	1.84	12.75	50.67	128.61	136.50	15.13	43.42	73.73	126.47	139.97
Miscellaneous.....	¹ 1.21	14.59	42.49	67.34	71.22	1.27	14.66	41.63	60.50	65.89
All items.....	¹ 1.21	14.59	42.49	74.98	79.76	1.27	14.66	41.63	71.52	77.48

¹ Decrease.

PER CENT OF INCREASE IN COST OF LIVING FROM DECEMBER, 1914, TO DECEMBER, 1915, 1916, 1917, AND 1918, AND TO JUNE, 1919, IN 18 SHIPBUILDING CENTERS—Con.

Item of expenditure.	MOBILE, ALA.					HOUSTON, TEX.				
	Per cent of increase from December, 1914, to—					Per cent of increase from December, 1914, to—				
	December, 1915.	December, 1916.	December, 1917.	December, 1918.	June, 1919.	December, 1915.	December, 1916.	December, 1917.	December, 1918.	June, 1919.
Food.....	¹ 1.04	19.92	57.32	80.56	83.63	¹ 1.04	19.92	57.32	86.13	85.65
Clothing:										
Male.....	1.77	9.12	37.91	74.64	85.89	3.11	24.76	49.32	117.38	125.01
Female.....	2.35	8.82	39.72	98.74	100.95	2.13	25.34	53.85	117.28	142.61
Total.....	2.04	8.98	38.76	85.99	93.99	2.66	25.04	51.49	117.33	134.80
Housing.....	¹ 1.86	¹ 4.33	¹ 3.60	11.16	11.86	¹ 2.29	¹ 7.34	¹ 7.72	¹ 1.68	1.89
Fuel and light.....	(2)	8.76	27.11	57.11	66.62	¹ 8.55	8.28	22.70	47.46	37.59
Furniture and furnishings.....	4.07	15.29	42.76	108.34	113.92	6.12	29.62	62.31	119.93	144.47
Miscellaneous.....	¹ 1.40	13.82	43.16	72.38	75.28	¹ 2.29	16.41	44.89	67.55	72.31
All items.....	¹ 1.40	13.82	43.16	71.37	76.64	¹ 2.29	16.41	44.89	75.67	80.22
	LOS ANGELES, CALIF.					SAN FRANCISCO AND OAKLAND, CALIF.				
Food.....	¹ 4.12	0.41	33.41	61.83	60.74	¹ 4.31	9.63	35.90	66.24	63.34
Clothing:										
Male.....	1.65	10.33	41.85	104.59	115.13	2.14	14.43	42.05	118.40	139.34
Female.....	3.95	18.36	48.29	113.79	130.57	2.77	14.53	45.07	99.55	127.33
Total.....	2.78	14.28	45.02	109.12	123.26	2.46	14.48	43.56	108.96	134.64
Housing.....	¹ 2.68	¹ 2.54	¹ 6.4	4.43	8.71	¹ 7.2	¹ 2.52	¹ 4.62	¹ 3.93	¹ 3.48
Fuel and light.....	.86	2.34	10.40	18.26	18.60	¹ 1.4	4.57	14.35	30.10	28.92
Furniture and furnishings.....	6.28	23.09	56.43	118.49	134.18	5.96	21.71	48.21	103.42	116.56
Miscellaneous.....	¹ 1.93	7.68	28.85	52.03	59.11	¹ 1.66	8.30	28.63	50.52	60.95
All items.....	¹ 1.93	7.68	28.85	58.03	65.07	¹ 1.66	8.30	28.63	57.77	65.58
	PORTLAND, OREG.					SEATTLE, WASH.				
Food.....	¹ 3.81	9.75	42.17	70.64	67.05	¹ 2.75	8.46	38.65	72.53	69.30
Clothing:										
Male.....	3.44	16.75	44.30	99.54	114.96	.79	10.87	34.81	89.88	96.05
Female.....	2.60	14.71	44.47	93.52	115.85	1.55	11.72	37.93	86.21	116.97
Total.....	3.03	15.75	44.38	96.59	115.46	1.19	11.31	36.44	87.97	110.21
Housing.....	¹ 10.91	¹ 19.55	¹ 22.16	12.28	20.14	¹ 2.42	¹ 5.41	¹ 5.55	44.81	51.45
Fuel and light.....	1.96	3.44	20.24	30.85	31.27	¹ 1.19	2.93	23.85	51.78	51.80
Furniture and furnishings.....	2.87	18.02	54.47	109.01	122.09	8.52	27.43	52.29	141.52	154.42
Miscellaneous.....	¹ 3.05	6.14	31.23	57.91	62.30	¹ 1.02	7.40	31.08	58.49	71.41
All items.....	¹ 3.05	6.14	31.23	64.24	69.16	¹ 1.02	7.40	31.08	69.87	74.01
	CHICAGO, ILL.					DETROIT, MICH.				
Food.....	2.66	25.23	53.42	78.72	73.29	4.05	26.51	59.69	82.46	86.40
Clothing:										
Male.....	8.51	26.53	51.91	137.06	146.12	1.70	19.35	46.91	123.66	141.40
Female.....	6.15	21.22	50.03	141.29	164.24	3.00	18.30	46.46	102.54	109.61
Total.....	7.48	24.21	50.58	138.91	157.07	2.31	18.86	46.70	113.82	125.20
Housing.....	¹ 0.8	.70	1.36	2.55	8.04	2.08	17.52	32.64	39.03	45.23
Fuel and light.....	1.93	6.64	19.34	37.06	35.65	1.62	9.94	30.20	47.56	47.57
Furniture and furnishings.....	5.91	19.96	47.45	108.89	126.94	8.73	24.50	50.40	107.31	129.31
Miscellaneous.....	3.01	19.51	41.78	58.72	61.70	3.51	22.25	49.85	72.58	80.26
All items.....	3.01	19.51	41.78	72.16	74.47	3.51	22.25	49.85	78.03	84.36

¹ Decrease.² No change.

PER CENT OF INCREASE IN COST OF LIVING FROM DECEMBER, 1914, TO DECEMBER, 1915, 1916, 1917, AND 1918, AND TO JUNE, 1919, IN 18 SHIPBUILDING CENTERS—Concluded.

Item of expenditure.	CLEVELAND, OHIO.					BUFFALO, N. Y.				
	Per cent of increase from December, 1914, to—					Per cent of increase from December, 1914, to—				
	December, 1915.	December, 1916.	December, 1917.	December, 1918.	June, 1919.	December, 1915.	December, 1916.	December, 1917.	December, 1918.	June, 1919.
Food.....	1.43	26.43	54.33	79.41	79.65	2.44	30.09	64.07	87.77	82.87
Clothing:										
Male.....	1.60	17.43	42.85	102.73	107.78	9.11	31.01	59.27	127.93	138.44
Female.....	2.36	18.57	44.65	102.38	134.92	8.76	27.92	57.54	117.51	141.37
Total.....	1.96	17.97	43.71	102.56	125.17	8.95	29.58	58.47	123.11	140.74
Housing.....	.12	.92	11.29	16.49	21.83	1.15	4.70	9.35	20.72	28.04
Fuel and light.....	.30	10.04	26.80	51.94	47.88	1.30	9.30	23.46	49.34	51.89
Furniture and furnishings.....	4.72	19.67	47.84	102.44	116.98	7.05	24.13	50.15	106.34	118.06
Miscellaneous.....	1.42	19.10	42.93	67.07	74.69	3.53	24.38	51.13	75.96	78.70
All items.....	1.42	19.10	42.93	71.36	77.23	3.53	24.38	51.13	80.91	84.23

PER CENT OF INCREASE IN COST OF LIVING FROM DECEMBER, 1917, TO DECEMBER, 1918, AND TO JUNE, 1919, IN 13 INTERIOR CITIES.

Item of expenditure.	ATLANTA, GA.		BIRMINGHAM, ALA.		CINCINNATI, OHIO.	
	Per cent of increase from December, 1917, to—		Per cent of increase from December, 1917, to—		Per cent of increase from December, 1917, to—	
	December, 1918.	June, 1919.	December, 1918.	June, 1919.	December, 1918.	June, 1919.
Food.....	18.95	17.98	17.72	18.26	15.32	18.06
Clothing:						
Male.....	43.32	46.40	30.72	37.55	41.71	53.56
Female.....	22.28	34.70	19.26	23.43	28.78	44.91
Total.....	29.05	40.69	23.85	29.84	33.80	48.34
Housing.....	14.03	14.46	8.10	12.84	.16	.81
Fuel and light.....	17.00	17.91	22.84	31.85	9.99	5.56
Furniture and furnishings.....	24.88	30.07	19.43	20.18	25.72	30.52
Miscellaneous.....	14.84	21.51	13.83	16.28	20.38	21.80
All items.....	19.63	23.27	16.98	19.78	17.27	21.05
Item of expenditure.	DENVER, COLO.		INDIANAPOLIS, IND.		KANSAS CITY, MO.	
	Per cent of increase from December, 1917, to—		Per cent of increase from December, 1917, to—		Per cent of increase from December, 1917, to—	
	December, 1918.	June, 1919.	December, 1918.	June, 1919.	December, 1918.	June, 1919.
Food.....	20.01	20.70	17.84	16.36	17.30	15.11
Clothing:						
Male.....	46.33	55.85	38.38	41.62	42.91	46.80
Female.....	36.87	51.82	28.12	33.83	39.03	43.14
Total.....	40.12	53.22	32.38	40.14	40.74	44.75
Housing.....	12.82	21.80	1.59	2.62	5.37	6.74
Fuel and light.....	8.14	8.38	19.75	16.66	18.01	9.62
Furniture and furnishings.....	22.59	31.28	18.87	24.83	31.14	37.91
Miscellaneous.....	14.82	17.70	21.86	26.82	15.56	20.83
All items.....	20.72	25.33	19.06	21.12	19.62	20.57

PER CENT OF INCREASE IN COST OF LIVING FROM DECEMBER, 1917, TO DECEMBER, 1918, AND TO JUNE 1919, IN 13 INTERIOR CITIES.—Concluded.

Item of expenditure.	MEMPHIS, TENN.		MINNEAPOLIS, MINN.		NEW ORLEANS, LA.	
	Per cent of increase from December 1917, to—		Per cent of increase from December, 1917, to—		Per cent of increase from December, 1917, to—	
	December, 1918.	June, 1919.	December, 1918.	June, 1919.	December, 1918.	June, 1919.
Food.....	20.33	22.69	17.71	21.44	16.56	17.40
Clothing:						
Male.....	32.91	40.91	30.62	44.71	44.39	54.66
Female.....	25.18	36.72	35.43	36.72	31.43	41.65
Total.....	27.72	38.33	33.49	40.14	36.75	48.83
Housing.....	1.03	8.19	1.10	1 2.01	(?)	.05
Fuel and light.....	26.80	23.43	14.71	13.41	19.70	20.76
Furniture and furnishings.....	25.37	30.65	18.08	23.55	23.75	29.95
Miscellaneous.....	16.13	20.94	12.27	15.90	15.85	17.54
All items.....	18.33	23.25	15.80	18.75	17.90	20.73

Item of expenditure.	PITTSBURGH, PA.		RICHMOND, VA.		ST. LOUIS, MO.		SCRANTON, PA.	
	Per cent of increase from December, 1917, to—		Per cent of increase from December, 1917, to—		Per cent of increase from December, 1917, to—		Per cent of increase from December, 1917, to—	
	December, 1918.	June, 1919.	December, 1918.	June, 1919.	December, 1918.	June, 1919.	December, 1918.	June, 1919.
Food.....	18.77	16.18	20.54	20.63	18.00	16.06	21.32	18.07
Clothing:								
Male.....	41.30	47.57	43.39	55.38	29.94	32.82	36.99	49.51
Female.....	33.00	44.15	27.19	31.81	34.93	44.33	32.61	49.59
Total.....	35.92	45.27	33.80	42.29	32.37	39.30	34.42	49.55
Housing.....	7.57	13.52	1.00	3.63	2.74	3.78	.51	6.23
Fuel and light.....	9.17	9.37	11.76	11.40	4.84	3.67	24.68	25.72
Furniture and furnishings.....	26.26	34.11	26.33	28.64	21.77	32.47	26.96	35.59
Miscellaneous.....	16.25	16.73	9.04	13.52	14.48	15.71	21.40	24.90
All items.....	19.82	21.82	17.88	20.60	16.69	17.85	21.89	25.03

¹ Decrease.

² No change.

Sickness and Cost of Living in New York City.

THE results of an investigation conducted by the bureau of preventable diseases of the New York City Health Department, under the direction of Dr. Louis I. Harris, furnished the data for a paper on "Some medical aspects of the high cost of living¹," read by Dr. Harris before the sociological section of the American Public Health Association at Chicago, December 11, 1918. The investigation was made to ascertain the living conditions of families

¹ Some Medical Aspects of the High Cost of Living, by Louis I. Harris. In American Journal of Public Health for July, 1919, pp. 491-504. Boston.

visited by public-health nurses for the primary purpose of supervising cases of tuberculosis, diphtheria, and scarlet fever. Of the 2,084 families studied, 772 were Hebrew, 478 Italian, 465 American, 210 Irish, 108 Austro-Hungarian and German, and 51 colored. These families consisted of 4,991 adults and 5,612 children, a total of 10,603 persons, and an average of 5.08 persons and 2.69 children per family. The average number of children in the families was as follows: Austro-Hungarian and German, 2.46; Italian, 3.43; Hebrew, 2.90; Irish, 2.26; American, 1.98; and colored, 1.42.

The total income of each family of 21 per cent of these families, which are believed to represent a fairly typical cross section of conditions in New York City, was \$600 per annum for an average number of about 5 persons per family during the beginning of 1918. The total income of each family of 30.5 per cent of the families was from \$600 to \$900 per annum, and of 21 per cent it was from \$900 to \$1,200. In other words, 51.5 per cent of the families had each a total income not exceeding \$900 per annum and about 72 per cent had each a total income not exceeding \$1,200.

Among these 10,603 persons there were 3,169 wage earners, of whom 493, or 15.5 per cent, were 16 years or under, 26.5 per cent of such children of 16 or under having had their academic or vocational training interrupted and been forced into industry into positions requiring unskilled labor in order to supplement the family earnings.

The effects of the high cost of living upon the family income even in the beginning of 1918 are emphasized in the following facts: Of the 2,084 families studied 9.1 per cent had been compelled to seek aid from charitable organizations for the first time; in 9.8 per cent of the homes the housewife had entered industry to add to the family income; 374, or 17.8 per cent, of the families had gone into debt directly on account of the high cost of living; and 120, or 5.7 per cent, were compelled to take in boarders who had not previously done so.

A sickness census taken in the course of this investigation showed that in 287 cases out of a total of 2,183 cases of illness, or in a little over 13 per cent of the cases recorded, recovery was very definitely retarded because of the increased cost of the essentials of life.

In 807 families out of total of 2,084 studied, or in a little over 37 per cent, meat was entirely eliminated from the dietary. In 388 families, or in about 17 per cent, the amount of meat purchased was appreciably reduced. In 828 families eggs were eliminated from the dietary; in 615 families butter was eliminated, and in 138 the quantity purchased was greatly reduced; in 143 sugar was abandoned and in 240 considerably reduced; in 293 the use of bottled milk was given up, all but 11 of these families using loose milk for bottled milk; and in 71 families the amount of milk used for children was very considerably reduced.

Report of Parliamentary Inquiry into High Cost of Living in Canada.

ON May 30, 1919, upon resolution introduced by the Canadian Minister of Finance, a special committee of the House of Commons was appointed—

for the purpose of inquiring forthwith as to the prices charged throughout Canada for foodstuffs, clothing, fuel, and other necessities of life, and as to the rates of profit made thereon by dealers and others concerned in their production, distribution, and sale; also as to rentals of dwelling houses in industrial centers of Canada and rates of return of capital invested therein, with power to send for persons, papers, and records, examine witnesses under oath, engage accountants and other necessary assistants, and to report to the House from time to time the result of their inquiry with any recommendations they may make with a view to affecting a reduction in such prices and rentals.

The report of this special committee was presented to the House of Commons on July 5. It is the result of evidence gathered at 48 sessions of the committee from persons representing milling, elevator, and cold-storage companies, grain producers and dealers, retail coal dealers, woolen manufacturers, wholesale jobbers in provisions, groceries, and fruit, and others. A wide range of commodities was covered, including meat and meat products, butter, eggs, flour, groceries, clothing, boots and shoes, and fuel, the testimony disclosing the processes of production, manufacture, and distribution, thus enabling the committee to establish the spread between the cost of production and the cost to the consumer, and to determine whether or not this is too great. The conclusions of the committee as published in the Canadian Official Record for July 10, 1919 (pp. 10 and 11), are as follows:

1. That so far as your committee are able to discern no material reduction in the cost of such commodities as above indicated can be expected, except by increasing the volume at a lower cost of production or by lowering the cost of distribution.

2. Your committee do not presume to say that there are no cases of undue inflation of prices, or of profiteering, but in the main it was their opinion that, having in mind the service which the consuming public demand, the margin between the actual cost of production and what the consumer pays for such commodities is reasonably narrow.

3. In their investigations your committee took the base cost paid to the farmer for such commodities as beef, cattle, hogs, lamb, dairy products, eggs, etc. Upon examining this phase of the subject your committee had before them representatives of the Department of Labor, the Bureau of Statistics, the Superintendent of the Experimental Farm, the Assistant Live Stock Commissioner, a professor from the Agricultural College at Guelph, representatives of the United Farmers of Ontario, dairymen, packers, cold-storage men, millers, grain dealers, cooperative organizations, consumers, officials of stockyards, and commission merchants; and, on the strength of the evidence received, your committee desires to state that the production cost of these articles, namely, the price paid to the farmer, is from 100 per cent to 115 per cent greater than it was five years ago. The prices of hogs have increased by

125 per cent on an average; beef cattle, 110 to 125 per cent; dairy products on the butter fat basis, and eggs from 100 to 110 per cent above normal. Your committee has considered the possibility of affecting some relief at this point, either (a) by fixing a price, or (b) by placing an embargo on the export of foodstuffs. After most careful consideration your committee is of the opinion that to do either of these things would result in most disastrous effects, because any effort on the part of the Government or Parliament at price fixing here or at attempting reductions in sale prices which the farmers are receiving would only intensify the present difficult situation for the reason that it would tend to dry up the source of supply by directing the productive energy of those now engaged in this industry into other channels; on the other hand, were the Government to place an embargo upon exports of any class of foodstuffs it would not only have the same effect, but the policy would be unsound on economic lines. It would have the effect of discouraging productive industries by restricting and limiting markets—and surely there is nothing more obvious than the necessity of encouraging to the greatest possible extent every class of production in order that through Canada's exports we may be enabled to meet our world obligations and pay for the commodities that we must import. * * *

Present Price of Wheat.

4. One notable factor—in fact, the most notable factor in the opinion of your committee—is the present price of wheat, which has not been inquired into with sufficient thoroughness. For many years the Department of Agriculture has been pursuing inquiries as to the cost of grain production, and these will be found in certain annual reports from the illustration and demonstration stations and experimental farms. One witness alone, a practical farmer, upon being sworn and examined, stated that wheat production cost \$2 per bushel. An examination of Government results leaves the amount very much in doubt, indeed, but your committee have felt obliged to accept the price fixed during the past two years as final, trusting that due inquiries were made when this price was fixed. If means existed for a precise finding on this point, your committee feel that they should have exhausted this question, because all other food prices in a measure are determined by the price of wheat. Your committee have to rest upon the authority stated, and do not attempt to say whether that price is fair and just, although they would add that the price as fixed was intended to be high enough to encourage production. While this level continues not only will the prices of bread and all cereals continue as they are but the base cost of all the other food products must continue to remain high, the reason being that wheat prices regulate, in a large degree, the prices of staple commodities.

5. Passing on to the spread between the base cost and what the consumer pays, your committee finds that while there may have been isolated cases of undue profits and other cases where poor business methods have resulted in high prices, on the whole the business has been carried on a margin of profit reasonably close to actual cost.

6. In the abattoir and packing-house business we find that without question the large companies are making a lot of money in the aggregate; they are doing this because of the efficiency of their methods and their large turnover, and not because of excessive profits on the commodities themselves.

7. In the milling industries the same conditions prevail. The gross margin covering cost of milling and the profits made is about four-fifths of 1 cent a pound of flour, while the net profit averages about one-tenth of 1 per cent. To illustrate what this means it has been shown that a reduction of 90 cents on a barrel of flour would make possible a reduction of one-half cent a loaf, on a 1½-pound loaf of bread, so that if all profits in this business were wiped out the possible reduction would be less than one-tenth of 1 cent on a 1½-pound loaf of bread.

7a. The same applies to dairy products and eggs. In the case of butter your committee find that the creameries are taking cream from the farmers and manufacturing it into butter at a gross cost of 3½ to 6 cents a pound, varying according to locality and distance the cream has to be hauled. This cost covers transportation charges, manufacturing costs, boxes, marketing, and any possible loss in collection. In this respect the evidence shows that one creamery only made any profit at all, and that was a very narrow one.

7b. Your committee also inquired into the question of cornering the market, and in this connection it was found that no such thing prevails. There is direct and keen competition, and any man having the money and wishing to do so can purchase direct from the producers any commodity he wishes, one case of eggs or one box of butter, etc., as the case may be. The same applies to meat products. Markets are wide open. Any butcher or retailer or consumer can compete in the open market with those who are engaged similarly.

Case of the Retailer.

8. In the case of the retailer your committee have found the spread to be greater with varying results, showing undue high prices in isolated cases only. But here again, as in the case of foodstuffs, the operations are carried on on a margin close to the actual cost. In this connection the consuming public have it in their power to reduce the cost from 5 to 15 per cent by using some of the cheaper grades of meat products or by being satisfied with a less expensive service. It has been shown that in many parts of Canada it is becoming difficult for retail merchants to dispose of any but the prime cuts of meat, the result being that the less choice lines must be sacrificed. Special attention in this connection has been given to the matter of bacon, which is sold in the English market in what is known as two Wiltshire sides; the Canadian market demands highly specialized grades, making necessary the curing of the same hog in eight or ten parts and in the most expensive way, and then it is only the choicest part that finds ready markets. These things naturally tend to a marked increase of the cost of the commodities actually in use.

9. The expensive and frequent deliveries at present called for add very materially to the cost of the goods. Whether this can be eliminated or not is a matter that can only be settled by the consuming public.

No Real Hoarding.

10. With reference to the question of hoarding, your committee had the records of the Cost of Living Branch of the Department of Labor, together with the evidence given before the committee, and it was found that there were no instances of anything that could be legitimately termed as hoarding. During the past six months, it is true, there was in storage in Canada a large quantity of frozen beef. This, however, was a product prepared for the British Food Commission, having been ordered by that commission before the signing of the armistice, and being held in storage subject to shipping instructions and not being a commodity marketable in Canada to a limited degree.

11. In general groceries the inquiry of your committee has not been sufficiently complete to enable us to deal in a comprehensive way with the subject either from the manufacturing or distributing standpoint. The same applies to fruits and fish. As far as your committee were able to go, the evidence points to the same general condition, namely, high costs of distribution with narrow net profits. In the wider range of general commodities your committee proceeded along the same lines as with foodstuffs, beginning with the manufacturer and ending with the consumer. Here it was found that greater variations and a wider spread existed in certain places, but again production and distribution costs seem to be the dominant factor in determining

prices. Your committee desire in this respect to direct the attention of the House to two specific lines, namely, boots and shoes and staple goods. In boots and shoes your committee found the increase of manufacturers' costs to be about 100 per cent, with the tendency still up, due to the increased price of leather and the advance in cost of labor. In this line manufacturers' profits range from almost zero to a maximum of 17 per cent. In staple goods the same conditions were found. Raw material and labor have brought manufacturers' costs to a full 100 per cent increase in many cases, and on the whole the specific profit on the goods is a small factor in the cost to the ultimate consumer. Two cases, however, came to the notice of your committee in these two lines of commodities where in their judgment excessive profits were taken.

Matter of Distribution.

12. Coming to the matter of distribution in these lines your committee found a great spread, and the cost of doing business under present conditions imposes a heavy burden on the consuming public. In the case of boots and shoes the goods go largely direct from the factory to the retail stores, where an average spread of from 30 to 50 per cent is made for staple lines and a much higher one in special lines. In this connection your committee desire to point out that in all the evidence before them relating to manufacturers and retailers it was made abundantly clear that the special or exclusive style of footwear demanded by the public tends to increase the cost in a very marked degree. It was pointed out, for instance, by one retailer whose gross margin was the lowest that came under the review of your committee that on 30 pairs of special ladies' boots in stock in 1918 only two pairs were sold in the regular way and the remaining 28 pairs had to be sacrificed at a price less than cost. This instance might be multiplied many times in every retail store investigated.

13. In staple goods such as woolens, cottons, etc., the spread from the factory to the retailer is about 75 per cent, namely, 15 to 25 per cent to the wholesaler and an average of 50 per cent to the retailer. In the main the evidence shows that notwithstanding these high gross margins the net profit is small when computed either on capital or turnover. It does seem, however, that these costs of doing business are high. The elements entering into these high costs are rents, municipal taxes, and labor, and in investigating these your committee found that in one place where rent counted for 5 per cent of the total turnover the gross rent value yielded on the property only produced 5 per cent on the assessed value.

14. In the case of fuel your committee were able to investigate actual conditions in two cities only, but have closely checked the records in the Department of Labor and the Bureau of Statistics collected for the Fuel Controller, wherein it was found that a marked increase in the price of coal was due to (a) increased cost at the mines; (b) transportation; (c) distribution; and that the margin of profit in the cases investigated was very small.

15. In respect to leather, rubber goods, building materials, plumbers' supplies, general hardware, and house rents your committee report that they had not time to inquire into these matters.

Conclusion Reached.

16. While before the war there was a steady rise in the price of commodities, during the war a greater advance in prices occurred, and the indications point to goods remaining for a considerable time, if not permanently, on a higher price level. Scarcity of material and destruction due to war have partly caused this rise in price, but even more, the expansion in currency and credit have caused a general money depreciation,

and as values or prices are expressed in terms of money which is really a quantity of counters, the doubling of the number of counters and the lessening of the quantity of commodities give a resultant higher price. It must be remembered that the expansion of bank credit has been proportioned to the increase in the prices of production and that the banks were called upon to furnish immensely larger sums to facilitate trade than the period prior to the war. Huge dealings have been made possible to companies with comparatively small capital by a generous policy of credits on the part of the banks. The accumulation of reserves by the trading corporations of the country is a means of making us less dependent upon foreign borrowings and putting our business on a sounder basis, and no proper criticism may be directed to the policy of thus increasing the capital employed in business.

17. While corporations were required in peace times to make reports of their annual statements and these were open to public inspection, private partnership firms have only been required during war time to make these returns to the Cost of Living Commission and the Food Board. Prior to making any such returns satisfactory examination of the internal trade of the country was impossible.

Prices now Unstable.

18. It can not be said that the higher price level has become fixed. All the evidence is to the effect that under the present circumstances prices are unstable. Whether they will go higher, stand where they are, or fall, has not and apparently can not be determined.

19. The truth is that the adjustment of the changed conditions has not yet been achieved, and any weighing of the factors affecting it in advance is impracticable. So many factors operating can only find their true adjustment in the actual operation of business.

20. While individual prices of the present as compared with 1914 appear extravagantly high, comparison of the price of any commodity to-day with prices of other commodities of to-day presents through all classes a uniformity of increase.

21. While the underlying conditions above referred to have increased prices, the close attention and control by Government agencies over the country's trade has been a large factor in preventing exceptional rises in some commodities, and in securing the uniformity referred to.

22. The committee's investigation has shown that many of the companies engaged in trade have increased their capitalization during the past five or six years very largely. Before the war there had been many mergers, and very considerable stock watering, and a steady increase in prices have enabled corporations to make large profits and bring inflated issues to the dividend-bearing stage. Some of the profiteering was inevitable through the increase in value of stocks held, and justifiable in view of subsequent expected depreciation of the value of stock when adjustment takes place. These companies which have built up reserves without capitalizing their earnings may justify upon the course they have followed. Yet with this allowance, the fact remains that in many businesses the profits have been very high, and required that the Government should take cognizance of the situation. Your committee in their second report therefore recommend to the House the establishment of a Board of Commerce having powers of regulation and control of the present abnormal situation.

23. Individual cases of high profits have been discovered, but these are probably no more numerous or excessive than during ordinary times of peace. In some cases these are due to war orders, in other cases to speculation and efficiency, and again in other cases to a favored condition and greed.

Wasteful Buying.

24. The committee desire to point out that some of the responsibility for higher living costs, in their opinion, rests upon the consumer's wasteful buying, as, for example, in the case of meats. The ordering of household supplies by telephone, where the usual habit is to order the best, may be mentioned as another case, and this has a distinct relationship to the third, namely, delivery costs. These are, no doubt, run up by an indiscriminate use of the telephone in making several orders to the retailer in the course of a day. During the period of high wages which has attended the increase in prices the public has been demanding a high class of goods of all descriptions, which is a matter entirely within the control of consumers. Lack of diligence in buying is also a factor in increasing living costs.

25. The committee feel that the industrial expansion due to munition making in Canada is another cause of high prices. The big wages offered drew large numbers of people from the rural districts to the cities. This movement in Canada had been in progress for some time before the war, but was then accelerated. The result has been a scarcity of labor on the farms, and some very considerable reduction in the production of the farms. Many of these people are loath to return to farming, and there is consequently labor congestion in the cities. There may be no way to correct this condition but the stern alternatives presented by a business depression.

Remedies Suggested.

26. Your committee in their interim report recommended the constitution of a board of commerce, which would continue and extend the work done not only by this committee, but by the various controls the Government has put in operation during the war. The publicity given to the investigations of such a board will have a steadying effect. Its powers of regulation applied to trade practices and agreements will speed reform, and large questions of policy where trade tends to combinations and restrictions may be submitted to the board for advisory action.

27. Your committee also inquired into the question of coöperation and had before them representatives of several cooperative bodies, and in each case the evidence given was to the effect that great difficulty was experienced in securing goods direct from the manufacturers and wholesalers. While your committee had not sufficient time to warrant definite conclusions, they are of the opinion that the whole question of cooperative buying and distribution should be carefully investigated, for the reason that in all lines investigated the greatest spread was found to have occurred in the distribution from the manufacturer to the consumer.

28. The specific remedy for these conditions can only be expressed in general terms: Get our men back into productive industry as rapidly as possible. Every war in the past has resulted in greatly increased prices of commodities, and the only way in which nations have been able to rehabilitate themselves in the post war periods has been by intensive application to productive industry. Having said this, your committee do not feel that they should leave the subject without strongly urging what they consider to be the paramount necessity at the present time, namely, the need of getting our people to see the situation as it is. Canada must get more men into productive activity if our people are going to cope with the conditions now confronting them. Your committee desire to emphasize the need of united effort in order to restore the waste of the last five years, so that Canada may be brought back to normal conditions. In the final analysis the solution of the whole problem rests in a willingness on the part of all the Canadian people to seize and make use of the splendid opportunities before them.

Prices of Foodstuffs in Federal District, Brazil.

ACCORDING to official information,¹ the Public Food Commission of Brazil, in accordance with its Resolution No. 93, dated March 8, 1919, and modifications of its Resolution No. 103, dated April 9, 1919, put into effect the following prices on foodstuffs sold in the Federal District:

WHOLESALE AND RETAIL PRICES OF FOOD IN FEDERAL DISTRICT, BRAZIL,
APRIL, 1919.^a

Article.	Unit.	Wholesale.	Retail.
Bacon.....	Pound.....	\$0.162	\$0.187
Beans:			
Special.....	do.....	.045	.055
White and butter.....	do.....	.057	.067
Bread, special:			
Delivered at home.....	do.....	(b)	.125
Delivered at bakery.....	do.....	(b)	.112
Codfish, special.....	do.....	.349	.399
Coffee, ground or roasted, special.....	do.....	.224	.237
Corn.....	do.....	(b)	.030
Corn meal:			
Fine.....	do.....	.634	.047
Coarse, special.....	do.....	.030	.057
Dried meats, special.....	do.....	.274	.299
Eggs, fresh.....	Dozen.....	.440	.495
Fish, fresh, first quality.....	Pound.....	(b)	.623
Lard, in tin of any weight.....	do.....	.230	.249
Meats:			
Fresh, superior.....	do.....	.124	.150
Pork, fresh.....	do.....	.187	.212
Pork, salt.....	do.....	.224	.249
Onions, special.....	do.....	.112	.137
Potatoes, special.....	do.....	.045	.055
Rice:			
Polished.....	do.....	.108	.125
First quality.....	do.....	.100	.112
Sugar, refined, first quality.....	do.....	.115	.122
Salt, refined:			
Foreign, glass.....	do.....	.200	.224
Domestic, glass.....	do.....	.150	.175
Wheat flour.....	do.....	.074	.087

^a Conversions are made on the basis of 1 milreis=27.5 cents, which is the exchange value as reported in U. S. Treasury Department Circular No. 1, July 1, 1919.

^b Not quoted.

German Railway Strike Settled by Grant of Cheaper Food in Lieu of Higher Pay.

THE Kölnische Zeitung² reports that in the discussion in the Prussian Assembly, on June 27, of the situation arising from the railway strike, the Minister of Finance stated that the measures to be introduced as a result of the demands of the organized workers and minor officials would, in the course of the next three months, lay a financial burden of at least 500 million marks on the Prussian State, a burden that would strain its resources to the utmost.

¹ United States. Department of State. Report of American Vice Consul, Rio Janeiro, Brazil, April 24, 1919.

² Kölnische Zeitung. Cologne, June 28, 1919.

By raising direct taxation and the railway rates it had been hoped to close the year with a deficit of only 800 million marks, but as things now stand the deficit of the State railways alone will amount to approximately 4 billion marks for the year, if the second half proves as unprofitable as the first. At the end of April there was a floating debt of 6 billion marks, which had increased to 8 billion marks by the end of June. The 10 billion credit already granted would thus be insufficient, and a further grant of 4 billion marks would be necessary.

The Minister of Railways condemned the railway strike as adding to the existing outside blockade an inside one. Without railway traffic it would be impossible to maintain the food supply. The total demands of the railway men would run into some 4 billion marks. It was impossible to meet expenditure on such a scale by increased taxation, and a still further increase of railway rates would have disastrous effects on the economic life of the country. To decrease the staff would simply result in an increase of unemployment. The only way to get over the difficulty was by lowering the price of food. An agreement had therefore been come to whereby the National Government, the State, and the municipalities were to expend the sum of 1½ billion marks for this purpose. The price of rice would be brought down from 3 marks to 1.75 marks, of pulse from 2 marks to 1.25 marks, of the extra flour ration from 2.20 marks to 0.80 marks, of foreign meat from 11 marks to 5 marks, of bacon from 8 marks to 4 marks, of potatoes from 0.25 mark to 0.12 mark per pound. The costs would be heavy but would have to be borne for the next three months.

The special commission to deal with the railwaymen's demand met on June 27. The Government made the following proposals:¹

(1) In view of the fact that any increase in wages or salaries merely involves a rise in the price of food and other necessaries the Government sets its face against further increases in pay, but on the other hand—

(2) It will bring about an immediate and considerable fall in the price of fresh foodstuffs while guaranteeing definite weekly supplies—a measure which for the next three months will necessitate an expenditure of 1½ billion marks, which will be borne jointly by the Empire, the State, and the municipalities. The Government in this matter proceeds from the standpoint that it is not only the railwaymen who suffer from the dearness of everything, but the population as a whole. The weekly saving for a family of four under this scheme will amount to about 30 marks.

(3) It will immediately, in consultation with the representatives of the railwaymen's organizations, create a body representing the railway workers' interests, and the question of works councils will be dealt with.

The representatives of the railwaymen's organizations, including a representative of the Union of German Railway Officials, declared themselves in agreement with these proposals.

¹ Deutsche Allgemeine Zeitung. Berlin, June 28, 1919.

PROVISION FOR THE DISABLED.

Regulations Governing Reinstatement of War Risk Insurance by Discharged Service Men.

IN DECEMBER, 1918, the Secretary of the Treasury issued a statement¹ urging all soldiers and sailors to "hold on to Uncle Sam's insurance" and cautioning them against allowing their insurance to lapse and thus deprive themselves or their dependents of the benefits provided. Subsequently, in February, 1919, the Bureau of War Risk Insurance announced the conditions governing the conversion, within five years, of Government life insurance policies.²

Many of the men upon discharge from the service allowed their insurance to lapse by failure to continue their premium payments. This action automatically cut them off from all opportunity to enjoy continued insurance protection at rates far below those charged by any private insurance company. However, it appears that many of the soldiers and sailors either have not felt able to continue their premium payments or have not thoroughly understood the privileges under Government insurance relative to conversion of policies, etc., and as a result have allowed the original policies to lapse. The Secretary of the Treasury, desiring to give these service men every opportunity to continue their insurance, issued a decision on July 25, 1919, permitting discharged soldiers, sailors, and marines who have allowed their insurance to lapse to reinstate it within 18 months after discharge without paying back premiums. All the applicant will be asked to do is to pay the premium on the amount of insurance to be reinstated for the month of grace in which he was covered (that is, the month in which the insurance lapsed), and for the first month of the reinstated insurance. Thus, if a man dropped \$10,000 of insurance in January, 1919, and applies for reinstatement the first of October for \$5,000, all he will have to pay will be the premium for January (the month of grace) and the premium for October, on \$5,000. He will not have to pay the premium for the intervening months. It is stipulated, however, that the former service man be in as good health as at date of discharge. The text of the new regulation (T. D. 47 W. R.) is as follows:

By virtue of the authority conferred in section 13 of the War Risk Insurance Act the following regulation is issued relative to the payment of premiums and the lapsa-

¹ See MONTHLY LABOR REVIEW for February, 1919, p. 91.

² *Idem*, April, pp. 221, 222.

tion, cancellation, and reinstatement of yearly renewable term insurance granted under the provisions of the War Risk Insurance Act, and applicable after separation from the active military or naval service:

1. When any person insured under the provisions of the War Risk Insurance Act leaves the active military or naval service for reasons not precluding the continuation of insurance, the monthly premiums which, had he remained in the service, would have been payable on the last day of the calendar month in which he was discharged, will be payable on the first day of the calendar month following the date of his discharge, and thereafter monthly premiums shall be payable on the first day of each calendar month. The premium payable on the first day of any calendar month may, however, be paid at any time during such month, which shall constitute a grace period for the payment of such premium. If the premium is not paid before the expiration of such grace period the insurance shall lapse and terminate.

2. In every case where reinstatement, in whole or in part, of lapsed or canceled insurance is desired, the insured shall file with the Bureau of War Risk Insurance a signed application therefor, and make tender of the premium for one month (the grace period) on the amount of insurance to be reinstated, and also of the amount of at least one month's premium on the reinstated insurance. In cases where the insured desires to convert his lapsed term insurance he shall make tender of the premium for one month (the grace period) on the amount of term insurance to be reinstated and converted, and also of the first premium on the converted insurance.

3. Insurance lapsed or canceled may be reinstated within eighteen months after the month of discharge, provided the insured is in as good health as at date of discharge or at the expiration of the grace period, whichever is the later date, and so states in his application; and may be reinstated after eighteen months succeeding the month of discharge, provided such insurance has not been lapsed for more than one year, under the following conditions:

(a) Within three calendar months succeeding the grace period if the insured is in as good health as at the expiration of the grace period and so states in his application.

(b) Within eleven calendar months succeeding the grace period if the insured is in as good health as at the expiration of the grace period and so states in his application and includes therewith a formal report of examination made by a reputable physician substantiating said statement to the satisfaction of the Director of the Bureau of War Risk Insurance.

4. Treasury Decision 45 W. R. and all other regulations heretofore made which conflict with the foregoing are hereby revoked.

EMPLOYEES' REPRESENTATION.

Employees' Representation in the United States.

THE subject of employees' representation has recently become of great interest in this country to those employers and employees who are seeking to find common ground on which they may meet in the endeavor to eliminate the strife which has characterized too frequently the relations of capital and labor. Because of the general interest in the subject and the demand for a collection of the available material for the use of those interested in the inauguration or development of such plans, a study has been undertaken by this Bureau of the various forms in use, the scope of the plans, and the degree of success with which they have met.

From correspondence preliminary to the field study the following list has been compiled which contains examples of plans comprising nearly all stages of the development of the shop committee idea. Firms which claim to have a shop committee system, but which in reality have only a welfare committee or committees, have not been included, since such committees, having no real voice in determining conditions of employment and acting only in an advisory capacity, can hardly be regarded as part of a plan of industrial democracy. The list is not exhaustive, but will serve to indicate somewhat the rapid growth in the number of these plans in the past few months, the majority of them having been inaugurated since the latter part of 1918.

Partial List of Firms that have Inaugurated some Form of Representative Shop Committee Plan.

American Multigraph Co.....	Cleveland, Ohio.
Atlanta Gas Light Co.....	Atlanta, Ga.
Bedford Stone Club.....	Bedford, Ind.
Bethlehem Shipbuilding Corporation.....	Bethlehem, Pa.
Bethlehem Steel Co.....	South Bethlehem, Pa.
Blumenthal & Co., Sidney.....	New York, N. Y.
Bridgeport Brass Co.....	Bridgeport, Conn.
Carr Mills.....	Durham, N. C.
Carroll Foundry & Machine Co.....	Bucyrus, Ohio.
Colorado Fuel & Iron Co.....	Pueblo and Denver, Colo.
David B. Edmund (Inc.).....	Passaic, N. J.
Davis Coal & Coke Co.....	Baltimore, Md.

De Muth Manufacturing Co.....	New York, N. Y.
Dutchess Manufacturing Co.....	Poughkeepsie, N. Y.
Filene's Sons Co., William.....	Boston, Mass.
Garner Print Works.....	Wappingers Falls, N. Y.
General Electric Co.....	Pittsfield and Lynn, Mass.
Goodyear Tire & Rubber Co.....	Akron, Ohio.
Hart, Schaffner & Marx.....	Chicago, Ill.
Hickey-Freeman Co.....	Rochester, N. Y.
Inland Steel Co.....	Indiana Harbor, Ind.
International Harvester Co.....	Chicago, Ill.
Irving-Pitt Manufacturing Co.....	Kansas City, Mo.
Joseph & Feiss Co.....	Cleveland, Ohio.
Keystone Steel & Wire Co.....	Peoria, Ill.
Leeds & Northrup Co.....	Philadelphia, Pa.
Loyal Legion of Loggers and Lumbermen.....	Portland, Oreg.
Lukens Steel Co.....	Coatesville, Pa.
Midvale Steel & Ordnance Co.....	Nicetown and Johnstown, Pa.
Miller Lock Co.....	Philadelphia, Pa.
Packard Piano Co.....	Fort Wayne, Ind.
Passaic Metalware Co.....	Passaic, N. J.
Philadelphia Rapid Transit Co.....	Philadelphia, Pa.
Pittsfield Machine & Tool Co.....	Pittsfield, Mass.
Plumb, Fayette R., Co.....	Philadelphia, Pa.
Power Specialty Co.....	Danville, N. Y.
Printz Biedermann Co.....	Cleveland, Ohio.
Proctor & Gamble Co.....	Ivorydale, Ohio.
Riverside and Dan River Cotton Mills.....	Danville, Va.
Sprague Electric Works.....	Bloomfield, N. J.
Standard Oil Co. of New Jersey.....	Bayonne, N. J.
Timken-Detroit Axle Co.....	Detroit, Mich.
Virginia Bridge & Iron Co.....	Roanoke, Va.
Youngstown Sheet & Tube Co.....	Youngstown, Ohio.

As the movement is comparatively so recent it would be surprising if there were an extended amount of literature upon the subject. The following list of references may prove suggestive, however, and, together with the available English material, largely on the Whitley councils, and the articles which appear frequently in the current periodicals, will serve as a working basis for those wishing to make a study of the subject:

Selected List of References on Employees' Representation Plans.

- Alford, L. P. The status of industrial relations. Published by the American Society of Mechanical Engineers, 29 W. 39th Street, New York, 1919. 39 pp.
- Bloomfield, Meyer. Workshop committees. (In his *Management and men*. The Century Co., New York, 1919. pp. 546-571.)
- Bureau of Industrial Research. American shop committee plans. A digest of twenty plans for employees' representation through joint committees introduced by American companies. 465 W. 23d Street, New York. 1919. 37 pp.
- Commons, John R. The shop (Chapter 12). The world (Chapter 17). (In his *Industrial goodwill*. McGraw-Hill Book Co., New York. 1919.)

- Cooke, Morris L. An all-American basis for industry. Philadelphia, 1109 Finance Building, 1919. 16 pp.
- King, W. L. Mackenzie. Representation in industry. (In his *Industry and humanity*. Houghton Mifflin Co., New York, 1918. pp. 364-529.)
- Leiserson, W. M. Employment management, employee representation and industrial democracy. Published by U. S. Department of Labor, Government Printing Office, Washington, D. C., 1919. 15 pp.
- Leitch, John. Man to man. B. C. Forbes Co., 299 Broadway, New York, 1919. 249 pp.
- Self government in industry. City Club Bulletin. Chicago, November 18, 1918.
- Stoddard, W. L. The shop committee. The Macmillan Co., New York, 1919. 105 pp.
- United States Bureau of Labor Statistics. Bulletin No. 255. Joint standing industrial councils in Great Britain. Government Printing Office, Washington, D. C. (In press.)
- Wolfe, A. B. Works committees and joint industrial councils. Published by United States Shipping Board, Philadelphia, Pa., 1919. 254 pp.

German Workers' Councils—Their Organizations and Functions.

COMPILED BY ALFRED MAYLANDER.

GERMANY in her defeat and disappointment is inclined to seek short cuts to salvation. The bolshevist idea of workers' councils (*Arbeiterräte*), which last January was looked upon only as a bogey of the Spartacists, is now materializing as a possible Government measure. The present article, which undertakes to throw some light on the proposed organization and functions of the workers' councils and on the precise status planned for them in the new economic structure of Germany, is based on a detailed and specific announcement of the Government as to its legislative program with respect to workers' councils, comments in the German press on this program, and the resolutions adopted by the second congress of workers' councils.

The Government's Program.

On March 1, 1919, the German National Government declared its intention of incorporating the council system into either the constitution or the administrative machinery. A few weeks later a second and more detailed announcement was issued by the Government on the same question. It is summarized below from an article published in *Soziale Praxis*:¹

1. The growth of the "workers' councils" has produced seeds from which may arise a new social and economic constitution.

¹ *Soziale Praxis und Archiv für Volkswohlfahrt*, Berlin, April 17, 1919.

2. The Government is of the opinion that the conception underlying the movement for the formation of these councils is of a twofold nature—the worker, as such, is striving for the direct and independent assertion of his interests within the works at which he is employed, and also as one of the general public, and at the same time is striving to achieve the right to cooperate in the process of production itself—a process in which his employer has hitherto had sole control—his desire being to cooperate in a status superior to that of a mere wage-worker, i. e., from a position which will afford him a view of his industry as a whole, so that he may help toward its development.

3. The Government is guided by the idea that the worker is a producer as well as a worker.

4. The organization of industry will be based on two kinds of councils:

i. The workers' council (*Arbeiterrat*), composed of three grades, viz., (a) that within the individual works, the works' council (*Betriebsarbeiterrat*); (b) that for the district, the district workers' council (*Bezirksarbeiterrat*); (c) that for the whole country, the national workers' council (*Reichsarbeiterrat*).

ii. The joint industrial council (*Wirtschaftsrat*), of which there will be two grades, (b) and (c), as above.

5. The function of the workers' council will be to safeguard the interests of the workers, as such, by means of socio-political action. It is not intended to displace, but rather to supplement, the trade-union. The social influence exerted by the trade-unions is very great, but it lacks statutory sanction. The utterances of a trade-union have the character of private utterances only, since the union members represent a part only of the workers in the trade, to say nothing of the fact that in the same trade there may be two or more unions of divergent political tendencies.

6. The workers' councils, on the other hand, are designed to comprise all the workers, whether they are organized or not; to open up a common field of activity for all trade-unionists irrespective of political tendency; and to supply them with a statutory organ of representation.

7. Within any given establishment the works' council (called for short *Betriebsrat*, will proclaim the fact that even the individual establishment represents a community possessing common labor interests. It will not be the function of the works' council to regulate wages and other working conditions, however, the intention being that this should still continue to be a function of the trade-unions.

8. The works' council will, in short, take over the functions of the existing works' committees along with certain others. (It is, how-

ever, not yet certain whether the latter will be absolutely absorbed or superseded by the new workers' councils or whether the two kinds of institution may not function side by side in the same establishment.)

9. It is not proposed to abridge in any way the owner's freedom in the management of his works. "Even in a nationalized works it will be necessary that the management be left a free hand; the essential thing is that the works' council should be able to get an insight into the whole of the business processes of the establishment."

10. Instead of losing their influence the trade-unions, if they know how to adapt themselves to the new state of things, will rather gain in influence.

11. The joint industrial councils are intended to give the workers, as producers, a share in the aggregate productive effort of the Nation. "Organized effort to promote production is an elementary prerequisite for socialization of any kind."

Workers and employers—in fact, all belonging to either side who are engaged in the trade—will have equal representation on these councils. "In a nonsocialized concern it is impossible to dispense with the entrepreneur. With socialization of establishments by the workers employed in them the Government will have nothing to do. * * * It will nevertheless be possible for the joint industrial council to prepare the way for legal socialization by devising forms of joint production and by cultivating the capacity of joint administration. For this reason the bill regards the joint industrial councils as organs specially qualified for the carrying out of the socialization laws."

12. The joint industrial councils are accorded powers for influencing legislation, inasmuch as they are to have the right of initiating legislation. They will be able to keep clear of the party differences which divide the members of the universally-elected parliaments, since the conflicting social forces will be confronting each other directly and unhampered by any political commitments in special corporations. The political parliament will remain sovereign in the matter of accepting or rejecting legislative proposals submitted to it by the national joint industrial council.

13. The joint industrial councils will also be able to acquire influence over the administration since they are to take over specific socio-political duties from the general administration. They will, for example, prepare the administrative regulations for giving effect to labor and similar laws, and grant necessary exemption from the observance of such laws.

Hostility of the Trade-Unions.

The leading principles laid down in the above announcement, while very comprehensive, are vague. They do not plainly define the relations of the workers' and joint industrial councils to existing occupational organizations.

An all-important matter is the relation of the trade-unions and other social occupational organizations to the new representation by councils. A short time ago there was a definitely hostile opinion throughout the trade-unions. The *Courier*, the organ of the transport workers, contemptuously called the workers' councils "trade-union substitutes." Schildbach, an expert in the constitution and management of trade-unions, writing in the "*Sächsische Volkstimme*" (Mar. 9, 1919), dwelt on the great practical difficulties which would arise from the substitution for trade-unions, with their long experience and developed organization, of so new a creation. He showed how much trade-unions have already done toward the regulation of production and prices.

The *Korrespondent*, the organ of the printers, in an article headed "*Tarifgemeinschaft oder Berufsgemeinschaft*," (Mar. 20, 1919), emphasized the possibilities of development of the joint boards for supervising collective agreements (*Tarifgemeinschaften*), such as already exist in the printing, glove-making, and other trades.

The linking up of the wages agreement with the prices agreement has, within the last 10 years, exercised considerable influence on the regulation of production. Moreover, the joint industrial leagues (*Arbeitsgemeinschaften*) which have sprung up on all sides during the war between the employers' associations and the trade-unions have been created for the purpose of dealing not only with social questions pertaining to the occupation, but also with the problems which industry in general has to solve, viz, the providing of raw materials, the distribution of orders, the technical improvements in the industry, etc.

The *Correspondenzblatt*,¹ the organ of the executive committee of the Social-Democratic trade-unions, pointed out that far too little regard was being paid to the conflicting interests of the trade-unions, etc. The same journal opposed the permanent establishment of the workers' councils as works councils. Joint control, it thinks, means party politics; and work which has been done by large associations, both of employers and workers, can not be compressed within the scope of a works council. The workers' councils are political organs of the revolution and can only act as such. Their

¹ *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands*. "Die Zukunft der Arbeiterräte." Vol. 29, No. 10. Berlin, Mar. 8, 1919.

origin, their one-sided composition, their whole range of ideas point to that fact. They are accustomed to rule and control, and all this would be of no use in economic life. Industrial establishments would be plunged into political unrest and production would be paralyzed.

At the conference of the presidents of the federations of the German Social-Democratic trade-unions at Berlin, February 1 and 2, 1919, Legien, the chairman of the executive committee, spoke as follows:¹

The works council is not an efficient organization. It breaks up the unity of the occupational branch, and, contrary to trade-union principles, it makes wages dependent on the prosperity of individual enterprises. All the laws of solidarity which now operate and which require that the general body of workers shall take the part of the weaker and less favorably placed would cease to operate and everyone would grab what he could get for himself.

The Views of a Social Reformer.

Dr. Waldemar Zimmermann, editor of *Soziale Praxis* and one of the best-known social reformers of Germany, in an article headed "Germany and socio-economic democracy,"² expresses his views on workers' councils as follows:

There is a good deal of obscurity as to the future functions of workers' councils, and by many they are regarded as a foreign growth of evil omen. Nevertheless, they have already taken deep root among the ideas prevalent among the workers, not merely because they indicate a way of escape from the terrors of communism, but on account of a widespread dissatisfaction with the trade-unions, whose notable increase within the last few years has been quantitative rather than qualitative. This dissatisfaction is in part due to the rapid changes in the conditions of labor, with which the trade-unions have been unable to keep pace. Wages, for instance, have been forced up far beyond the dreams or even the desires of the unions. A still more notable war transformation which has affected trade-unions is the tremendous increase of composite large-scale industrial establishments. These form an industrial cosmos within their own boundaries, and yet their workers—their occupations being different—belong to different trade-unions, the result being that the trade-unions are comparatively powerless. Against these large-scale concerns many trade-union leaders themselves have long emphasized the desirability of combining on the basis of the establishment rather than on that of the occupation, especially in view of the trend toward the extension of establishments. This principle has long been accepted in the organization of the brewers, shipyard workers, communal workers, and railroad workers. The idea was spreading also in mining and large-scale machinery and metal industries. The war made impossible so drastic a transformation, but it contributed to the existing sense of diversity of interests among the various members of the same trade-union.

Furthermore, war has helped to reduce class differences and thus to assimilate the different levels of workers in the same establishment. For large establishments works councils seem to be the most natural form of union, but for small ones they are superfluous. Members of small establishments desire to have the right of election

¹ *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands*. Vol. 29, No. 6, p. 47. Berlin, Feb. 8, 1919.

² *Soziale Praxis und Archiv für Volkswohlfahrt*. Vol. 28, Nos. 27 and 28. Berlin, Apr. 3 and 10, 1919.

to workers' councils, although the latter have no affinity with the works councils. Works councils have indeed in some cases been established apart from and in opposition to the trade-union concerned, but such a proceeding is contrary to socialistic solidarity. All that these councils do could be done by a committee of the trade-union (workers and salaried employees). Many trade-unions have shown themselves in sympathy with works councils if these are based on the trade-unions. "The Courier," the organ of the transport workers, has pronounced in favor of the development of the works committees into works councils, and the leaders of the Miners' Union have cooperated in the negotiations of the Government with regard to the establishment of works councils for coal mines. Ellinger, the leader-writer of the official organ of the Building Trades' Union, in an article in the "Neue Zeit," emphasizes the fact that works committees have paved the way for works councils. But it would be well to have clear ideas as to what works councils can and what they can not do. Their functions must grow gradually. Only in the course of time will they be capable of controlling the establishment and its production both commercially and technically.

Jäckel, in his "The road to the democratic constitutional factory (*Auf dem Wege zur Demokratisch-Konstitutionellen Fabrik*)," points out that their members will fluctuate and therefore will find it difficult to get a good grasp of the conditions of the whole industry, such as an experienced trade-union leader has acquired. But instances can be cited in which the works councils can even now usefully promote production. Even a capitalist, a banker named Wallach, suggests that workers and salaried employees can be represented in the concern in the same way as shareholders are represented on the board of directors in a joint-stock company. Moreover, works councils will form a link between the establishment and the trade-union in comparing the individual profit of a single firm with the average profits of the branch of industry, in order to get a true estimate of what should be the workers' share. They would also promote inventiveness and take counsel with other works councils in the same or allied industries.

But with the complicated tangle of ideas, which has its root in the workmen's council system and the needs of labor organization in large-scale establishments, are intertwined tendrils and blossoms from another root, viz., the old demand of labor for statutory representation in chambers of labor, similar to the representation which the employing classes possess in their chambers of commerce, chambers of handicrafts, chambers of agriculture, etc.

Besides a representation of their vocational interests on the social side by means of trade-unions, and extending vertically through each industry, labor has felt the need of a form of organization on territorial lines, cutting horizontally through all classes of labor irrespective of the industry, and intended to promote the economic and cultural interests common to all workers as a class. The trades councils organized by the trade-unions have proved inadequate agencies for this purpose, partly owing to demarcation disputes, but chiefly owing to lack of public recognition and official standing. In 1918, this thirty-year-old demand for statutory representation in chambers of labor was at length to be fulfilled; but the Imperial Government refused to concede territorially organized chambers and insisted on the organization of the chambers according to trade or industry, thus deliberately ignoring the fact that the workers were already well organized from the vocational point of view. In short, another opportunity of satisfying the demands of working men while they were still moderate was missed. Now we have the workers' councils clamoring, not merely for the legal rights and duties which would have accrued to the chambers of labor, but for much more besides.

What the workers' committee or works' council is to do for the individual establishment is to be done by the local or district workers' councils for the economic or

industrial district. The root idea of this popular feeling is a natural and healthy desire for a counterpoise against the mechanical and political abstraction—the State. Its natural affinity is rather with local and district chambers of labor than with works' councils.

Dr. Sinzheimer, in his article "The future of the workers' councils," does not hesitate to suggest class-political privileges for the workers' councils. This, however, is in opposition to the principle he has himself laid down that "collective agreements and joint industrial leagues are the centers round which the functions of the workers' councils are to be grouped." Here employers and employees meet on an equal footing, because all agreements presuppose two parties, and both employer and employed are essential to the carrying on of production. As long as labor still rests on agreements, and the present system of management remains, the legal regulation and the control of labor must be either in the joint control of employers and workers or in neutral official hands. The new principles do not imply either the absolutism of the employer or the domination of the worker; they stand for a constitutional democratic organization of labor, which shall place on an equal footing the rights of master and men, and can be practically worked out only by means of honestly made agreements.

The more far reaching the plans for basing the control of production on the workers' councils, the greater will be the need for rigid observance of this principle. Such tremendous tasks can be undertaken satisfactorily only by joint industrial councils, such as Great Britain has already established in 19 industries.

Resolutions of the Second Congress of Workers' Councils.

How the workers' councils themselves wish to have their organization and functions arranged may be perceived from the following resolutions passed by the second congress of workers' councils held in Berlin, April 8 to 14, 1919:¹

Guiding Principles.

1. The foundation of the socialistic republic must be the socialistic democracy. The bourgeois democracy in their representative system estimate the people according to their numbers only. The socialistic democracy must supplement this by endeavoring to represent the people on the basis of their activities as workpeople.

2. This can best be done by the creation of chambers of labor, in which all working Germans, organized under their respective occupations, shall have the right of voting.

3. For this purpose every trade, taking into consideration every category of workers employed in it (including the managers), shall form a joint industrial council, to which the individual categories shall send their representatives. Agriculture and the liberal professions shall form corresponding representative bodies.

3a. The joint industrial councils shall be constituted by a system of elections. The elections shall take place according to individual establishments or by groups of establishments.

3b. The joint industrial council of the individual branch of industry of the commune shall unite with the corresponding councils of the same branch for the district, Province, State, and Republic to form a national joint industrial council.

4. Every joint industrial council shall elect delegates to the chamber of labor, which shall be based on the smallest economic unit.

5. Communes which form one economic unit shall be amalgamated.

¹Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands, Berlin, April 26, 1919.

6. The joint industrial councils of districts, Provinces, States, and of the whole Republic shall do likewise. A supreme people's chamber and a chamber of labor shall finally be constituted.

7. Every law shall require the consent of both chambers; but a law which in three successive years is passed without any change by the people's chamber (communal representative body, district committee, provincial representative body, State diet, and Reichstag) shall acquire legal force.

8. Each of the two chambers shall have the right to demand a plebiscite.

9. Bills of an economic nature and, in particular, bills relating to socialization shall, as a rule, be initiated in the chamber of labor. Bills of a general, political, and cultural character shall, as a rule, be initiated in the people's chamber. The distribution of representatives among various occupations shall be regulated by a special law.

Trade-Unions.

1. The trade-unions shall be the representatives of the workers in every occupation. The executive organs of the trade-unions in the establishments shall be the workers' committees. They are to fulfill the functions hitherto discharged by the workers', salaried employees', and officials' committees and to extend these functions.

2. The regulation of working and wage conditions in any branch of industry or any other occupation shall proceed from organization to organization, viz., between trade-union and employers' association.

3. While the workers' councils shall form the representative body of the workers for questions of production in the joint industrial councils, the joint industrial leagues previously established, in which the employers' associations work in conjunction with the trade-unions, shall serve as the organs for the regulation of wage and working conditions and of all other occupational questions.

4. The joint industrial councils are the representatives of the productive effort which is made in common by the workers and employers. The workers shall be represented in this by the workers' councils. The joint industrial council is the foundation on which socialization will be built up.

Guiding Principles for the Socialization of Economic Life.

The economic emancipation of the proletariat is not possible without the socialization of economic life. The proletariat can only free itself by its own strength. For this purpose the organized class-conscious proletariat forms the most powerful driving force, and of this the workers' councils may, in the present economic condition of Germany, be regarded as the finest and most powerful organization. Only their power warrants the most rapid socialization, and that only if in branches of industry not merely the workers but also representatives of the consumers and of technical and economic science are adequately represented. The consumers are attracted by low prices, the workers by wage increases, short working hours, security of livelihood, and transformation from mere tools for the enrichment of others into cooperators in a socialized system of production, free and enjoying equal rights. In view, however, of the economic collapse caused by the war, socialization can not immediately be effected universally by any method of production. Much more important is the immediate curtailment of working hours, the security of existence, and the free participation of the workers in production.

A reorganization of economic life can only be effected by degrees. But so much the more urgent is it that the work shall be promoted by a Government that is resolved to promote socialization as energetically as possible, and that will not allow itself to be misled by the opposition of the former authorities, the capitalists, the large land

owners, and the bureaucrats. The present Government shows no such resolution. Only a purely socialistic Government, supported by the will of the German proletariat, could give the socialization law that impulse which would inspire workers with interest in their work, would make an end of strikes and disorders, and would create an atmosphere favorable to national convalescence.

Austrian Law Establishing Works Councils.

THE *Neue Freie Presse*¹ announces the promulgation of a law making the establishment of works councils obligatory. The provisions of the law which came into force July 25, 1919, may be summarized as follows:

In all factories and all other establishments where at least 20 workers are employed continuously for wages the election of a works council is obligatory. In works under Government departments and in establishments subject to Government control, workers' councils having, however, a peculiar basis, are to be elected. The functions of the councils are comprehensive. They have to attend to the concluding, maintaining, and interpreting of collective agreements, and in doing so they have to cooperate with the trade-unions. The fixing of piecework and time wage rates, of average wages, and of minimum wages, where such matters have not been fixed by collective agreements and subjected to a system of conciliation and arbitration, is likewise entrusted to the councils. Furthermore, they have to cooperate in the conclusion and amendment of labor contracts, to supervise the enforcement of protective labor laws and social insurance laws, and to cooperate in the maintenance of discipline. Fines are not to be imposed upon workers except by a committee consisting of an employers' and a workers' representative.

The councils are authorized to examine pay rolls and to control the payment of wages. They are to participate in the management of all welfare institutions, even when these have been established and are maintained at the sole expense of the employer. With respect to the dismissal of manual workers or salaried employees the council may appeal to the board of conciliation against any dismissal on the ground that it is due to political feeling or to resentment against trade-union activity. Generally, members of the council can not be dismissed unless they have been guilty of conduct which would incur dismissal under the existing law. In other cases, members of the council may not be dismissed without the sanction of the board of conciliation.

The above-mentioned powers are very similar to those exercised in the past by the workers' committees of many large concerns. A

¹ *Neue Freie Presse*, Vienna, May 25, 1919.

novel feature is introduced in the provision that the employer may, and if the council makes the demand must convene a monthly conference to discuss jointly improvements in the plant and machinery and the general administration of the establishment.

In commercial businesses where at least 30 salaried employees and manual workers are employed, as well as in all factories and mines, the council is entitled to demand that a balance sheet shall be submitted to it once a year, together with a profit and loss account and statistics of wages. In joint stock companies the council is entitled to elect two of the members of the board of directors. These are to have the same rights as the other directors, except that they are not to have the right to sign documents for the company nor to receive directors' fees.

The right of electing members of the council appertains to every employee over 18 years of age who has been employed for at least one month in the establishment concerned. Persons of 24 years of age and upwards who have been employed for at least six months are eligible as members of the council. One-fourth of the council may be composed of persons not entitled to vote, such persons being, however, members of the executive committee of the trade-union to which the employees of the establishment belong. The employer may make a deduction from the wages of his employees towards defraying the expenses of the council.

EMPLOYMENT AND UNEMPLOYMENT.

Reabsorption of Labor, and Unemployment in the United Kingdom.¹

By BENJAMIN M. SQUIRES.

THE total number of men demobilized from the Forces in the United Kingdom as of June 26, 1919, was 3,056,035, of which number 127,825 were officers and 2,928,210 were other ranks. On the same date 27,603 women had been demobilized from the several women's auxiliary branches of the service. Presumably all women in these branches of the service will be demobilized, in which case 51,637 are yet to be released. The total number of men to be released has not been finally determined. It was originally expected that 156,537 officers and 2,725,819 other ranks would be demobilized.

DEMOBILIZATION OF HIS MAJESTY'S FORCES, BY SERVICE AND RANK, UP TO JUNE 26, 1919.

Service and rank.	Strength at signing of armistice. ^a	Numbers to be demobilized. ^b	Numbers demobilized or discharged up to June 26, 1919.
Royal Navy.			
Officers.....	35,419	21,719	14,811
Other ranks.....	379,514	171,814	211,609
Army:			
Officers.....	172,400	114,600	97,495
Other ranks.....	3,595,284	2,373,284	2,525,509
Royal Air Force:			
Officers.....	26,726	20,218	^c 15,519
Other ranks.....	256,063	180,721	^c 191,092
Total:			
Officers.....	234,545	156,537	127,825
Other ranks.....	4,230,861	2,725,819	2,928,210

^a Less subsequent deaths, desertions, granted commissions, etc., and plus new recruitments.

^b Original expectations.

^c 1,099 officers and 3,526 other ranks returned to units (Navy and Army) or repatriated.

It is not known how many civilians were engaged in war work at the time of the signing of the armistice or how many have been released subsequent thereto. Probably no industry, however, was wholly unaffected by the war or could be put immediately on a

¹ Unless otherwise indicated the figures used in this article are copied from the weekly reports on demobilization and resettlement prepared under the direction of the Controller of Statistics of the British Ministry of Labor.

peace-time basis. The comprehensive reconstruction program of the British Government is evidence of the completeness with which industry had been mobilized for war purposes.

As a part of the program of reconstruction it was planned to demobilize the Forces by industries and only as rapidly as industry was prepared to absorb them. A further precautionary measure was taken by providing temporary out-of-work benefits payable for 26 weeks to those demobilized from the Forces and for 13 weeks to civilians. The scheme was later extended in the case of unemployed civilians to provide payment, at a reduced rate and with certain restrictions which will be mentioned later, for 13 additional weeks.¹

The plan to demobilize by industries and in accordance with industrial needs was not strictly followed. The chief argument against it was that it gave civilians the preference in employment. Apart from this, however, there was a general insistence that the Forces be released as quickly as possible. Of the 3,056,035 thus far demobilized, the dispersal certificates of 2,787,009 have been analyzed by occupations as follows:

DEMobilIZATION OF HIS MAJESTY'S FORCES BY INDUSTRIAL GROUPS AS OF
JUNE 26, 1919.

Industrial group.	Officers and other ranks.		Total.*	
	Army and Royal Air Force.	Royal Navy.	Number.	Per cent.
Agriculture.....	234,753	11,268	246,021	8.6
Seamen and fishermen.....	27,909	43,655	71,564	2.8
Coal and shale mining.....	257,028	12,083	269,111	9.7
Food, drink, and tobacco.....	66,903	3,792	70,695	2.5
Textile trades <i>a</i>	89,705	4,551	94,256	3.4
Shoe and leather trades.....	49,735	2,021	51,756	1.9
Shipbuilding.....	32,066	5,335	37,401	1.4
Engineering and metal trades <i>b</i>	339,146	31,353	370,499	13.3
Brick and building trades.....	230,091	11,317	241,408	8.7
Railways and transport <i>c</i>	262,919	17,534	280,453	10.1
Employees of public authorities.....	114,002	7,769	121,771	4.4
General laborers.....	105,347	8,426	113,773	4.1
Commercial and clerical employees.....	345,112	17,542	362,654	13.0
Domestic and personal employees.....	71,717	3,534	75,251	2.7
Professional men.....	33,110	495	33,605	1.2
Students and teachers.....	54,585	1,694	56,279	2.0
Other groups.....	270,957	19,555	290,512	10.4
Total.....	2,585,085	201,924	2,787,009	100.0

a Woolen, worsted, cotton, dyeing, etc.

b Iron, steel and tin plate manufacture, iron founding and molding, engineering, and other metal trades.

c Railway workers, dock and wharf laborers, carters and motor drivers.

The following table shows the progress of demobilization of the Forces as indicated by the cumulative number of "donation" policies issued, and their reabsorption into industry as measured by the

¹ MONTHLY LABOR REVIEW, May, 1919, pp. 85-100.

difference between total policies issued and the number remaining "lodged" at any given date:

PROGRESS OF REABSORPTION OF HIS MAJESTY'S FORCES INTO INDUSTRY.

Date.	Men.					
	Policies issued by Exchanges.	Furlough expired.	Policies lodged.	Per cent unem- ployed.	Reabsorbed.	Per cent reab- sorbed.
Jan. 3.....	32, 138		23, 938	74.5	8, 200	25.5
Jan. 10.....	42, 728	3, 547	31, 543	68.0	14, 732	32.0
Jan. 17.....	53, 009	28, 409	40, 400	49.3	41, 102	50.7
Jan. 24.....	65, 373		47, 209			
Jan. 31.....	78, 285	78, 024	53, 316	34.0	103, 603	66.0
Feb. 7.....	91, 530	152, 336	63, 277	26.0	180, 589	74.0
Feb. 14.....	109, 136	283, 508	84, 297	21.5	308, 347	78.5
Feb. 21.....	131, 979	453, 213	132, 471	22.5	452, 721	77.5
Feb. 28.....	157, 425	645, 463	165, 429	20.6	637, 459	79.4
Mar. 7.....	185, 634	839, 142	200, 686	19.5	824, 090	80.5
Mar. 14.....	216, 934	1, 008, 830	235, 737	19.4	990, 027	80.6
Mar. 21.....	247, 725	1, 152, 636	264, 257	18.9	1, 136, 104	81.1
Mar. 28.....	275, 295	1, 272, 490	305, 251	19.7	1, 242, 534	80.3
Apr. 4.....	311, 340	1, 385, 029	336, 570	19.9	1, 359, 799	80.1
Apr. 11.....	340, 805	1, 460, 236	347, 895	19.4	1, 453, 146	80.6
Apr. 17.....	363, 079	1, 535, 616	369, 992	19.5	1, 528, 703	80.5
Apr. 25.....	388, 925	1, 604, 134	379, 799	19.0	1, 612, 260	81.0
May 2.....	413, 119	1, 669, 864	402, 151	19.3	1, 680, 832	80.7
May 9.....	437, 428	1, 733, 239	408, 491	18.8	1, 762, 176	81.2
May 16.....	459, 127	1, 780, 083	401, 753	17.9	1, 837, 457	82.1
May 23.....	478, 801	1, 820, 403	400, 097	17.4	1, 899, 107	82.6
May 30.....	498, 861	1, 860, 292	384, 919	16.3	1, 974, 234	83.7
June 6.....	514, 982	1, 892, 712	383, 570	15.9	2, 024, 124	84.1
June 13.....	529, 355	1, 924, 866	376, 735	15.3	2, 077, 486	84.7

Date.	Women.					Total reabsorbed.	
	Policies issued.	Policies lodged.	Percent unem- ployed.	Reab- sorbed.	Percent reab- sorbed.	Number.	Per cent.
Jan. 3.....	1, 374	50	3.6	1, 324	96.4	9, 534	28.4
Jan. 10.....	1, 466	88	6.0	1, 378	94.0	16, 110	33.8
Jan. 17.....	1, 595	131	8.2	1, 464	91.8	42, 566	51.2
Jan. 24.....	1, 831	170	9.3	1, 661	90.7		
Jan. 31.....	2, 001	238	11.9	1, 763	88.1	105, 366	66.0
Feb. 7.....	2, 236	380	17.0	1, 856	83.0	182, 445	74.1
Feb. 14.....	2, 444	394	16.1	2, 050	83.9	310, 397	78.5
Feb. 21.....	2, 646	841	31.9	1, 805	68.1	454, 526	77.5
Feb. 28.....	2, 819	828	29.5	1, 991	70.6	639, 450	79.5
Mar. 7.....	2, 992	1, 025	34.1	1, 967	65.9	826, 057	80.5
Mar. 14.....	3, 268	1, 161	35.5	2, 107	64.5	992, 134	80.6
Mar. 21.....	3, 437	995	29.0	2, 442	71.0	1, 138, 546	81.0
Mar. 28.....	3, 626	1, 012	28.0	2, 614	72.0	1, 245, 148	80.0
Apr. 4.....	3, 877	961	24.8	2, 916	76.2	1, 362, 715	80.1
Apr. 11.....	4, 327	917	21.2	3, 410	78.8	1, 456, 556	80.7
Apr. 17.....	4, 554	1, 013	22.2	3, 541	77.8	1, 532, 244	80.5
Apr. 25.....	5, 007	1, 258	25.1	3, 749	74.9	1, 616, 009	81.0
May 2.....	5, 325	1, 316	24.7	4, 009	75.3	1, 684, 841	81.0
May 9.....	5, 603	1, 468	26.2	4, 135	73.8	1, 766, 311	81.0
May 16.....	5, 841	1, 603	27.5	4, 238	72.5	1, 841, 695	82.0
May 23.....	6, 084	1, 939	31.9	4, 145	68.1	1, 903, 252	82.5
May 30.....	6, 305	2, 002	31.7	4, 303	68.3	1, 978, 537	83.6
June 6.....	6, 584	2, 082	31.6	4, 502	68.4	2, 028, 626	84.0
June 13.....	6, 769	2, 033	30.0	4, 736	70.0	2, 082, 222	84.5

It would appear from the above figures that remarkable progress has been made in placing in industry those released from the Forces. On June 13, 1919, only 376,735 men, or 15.3 per cent, of those released were unemployed, 2,077,486 having been reabsorbed into industry. Women released from the Forces have not been so rapidly absorbed, 2,033, or 30 per cent, being unemployed on that date as against 4,736 reabsorbed. Figures subsequent to May 28, 1919, are not a true indication of reabsorption, however, since that date marks the expiration of the first policies issued, and the number remaining "lodged" thereafter may not represent the total number unemployed.¹ Moreover, the figures do not at any time take into account policies suspended or canceled for any reason.

The following table shows similarly for civilians the cumulative number of policies issued, the number remaining lodged at specified dates, and the number of unemployed persons reabsorbed into industry as indicated by the difference between policies issued and policies lodged at a given date. For reasons given later, the figures do not include Ireland.

¹ The out-of-work donation scheme went into effect Nov. 25, 1918, but those released from the Forces are on furlough with pay for 30 days before the "donation" or unemployment benefit begins.

PROGRESS OF REABSORPTION OF CIVILIANS INTO INDUSTRY IN GREAT BRITAIN.

Date.	Men.					Women.					Boys.					Girls.					Total civilians reabsorbed.	
	Policies issued.	Policies lodged.	Per cent un-employ- ed.	Reab- sorbed.	Per cent reab- sorbed.	Policies issued.	Policies lodged.	Per cent un-employ- ed.	Reab- sorbed.	Per cent reab- sorbed.	Policies issued.	Policies lodged.	Per cent un-employ- ed.	Reab- sorbed.	Per cent reab- sorbed.	Policies issued.	Policies lodged.	Per cent un-employ- ed.	Reab- sorbed.	Per cent reab- sorbed.	Number.	Per cent.
1919.																						
Jan. 3	147,215	86,943	59.0	60,272	41.0	315,075	218,410	69.3	96,665	30.7	22,517	16,396	72.8	6,121	27.2	22,668	13,071	57.6	9,597	42.4	172,655	34.0
Jan. 10	179,991	102,500	57.0	77,491	43.0	364,736	249,926	68.6	114,810	31.4	27,752	15,773	56.8	11,979	43.2	28,066	16,034	57.2	12,032	42.8	216,312	36.0
Jan. 17	211,718	115,481	54.5	96,237	45.5	415,822	291,188	70.1	124,634	29.9	33,120	16,921	51.2	16,199	48.8	33,400	17,493	52.4	15,907	47.6	252,977	36.4
Jan. 24	234,909	130,267	55.5	104,642	44.5	457,130	333,311	72.2	123,819	27.8	36,633	18,381	50.2	18,252	49.8	37,104	21,679	58.4	15,425	41.6	262,138	34.2
Jan. 31	266,292	146,634	55.1	119,658	44.9	506,487	379,169	74.9	127,318	25.1	42,816	20,777	48.5	22,039	51.5	43,576	23,860	54.8	19,716	45.2	288,716	33.5
Feb. 7	294,556	156,685	53.2	137,871	46.8	552,835	404,081	73.1	148,754	26.9	48,091	22,632	47.1	25,459	52.9	47,792	25,231	52.8	22,561	47.2	334,645	36.4
Feb. 14	321,296	172,643	53.8	148,653	46.2	593,723	449,521	75.8	144,202	24.2	52,722	24,471	46.5	28,251	53.5	51,409	26,380	51.3	25,029	48.7	346,135	33.0
Feb. 21	347,396	176,767	50.9	170,629	49.1	630,434	441,174	70.0	189,260	30.0	57,132	25,834	45.3	31,298	54.7	54,855	29,508	53.8	25,347	46.2	416,534	38.2
Feb. 28	368,912	185,622	50.4	183,290	49.6	666,369	464,235	69.7	202,134	30.3	61,616	24,333	39.4	37,283	60.6	58,023	29,201	50.4	28,822	49.6	451,529	39.0
Mar. 7	391,586	194,915	49.8	196,671	50.2	699,901	469,089	67.1	230,812	32.9	66,369	25,151	37.9	41,218	62.1	60,862	33,050	54.3	27,812	45.7	496,513	40.8
Mar. 14	413,173	190,012	46.0	223,161	54.0	733,255	470,668	64.2	262,587	35.8	72,063	25,491	35.4	46,572	64.6	63,938	30,114	47.3	33,824	52.7	566,144	44.2
Mar. 21	436,394	192,832	44.2	243,562	55.8	788,776	480,051	59.9	308,725	40.1	76,549	27,064	35.4	49,485	64.6	67,272	27,294	40.6	39,978	59.4	641,750	47.6
Mar. 28	459,376	194,336	42.3	265,040	57.7	808,060	473,683	58.6	334,377	41.4	81,125	25,821	31.8	55,304	68.2	71,714	28,229	39.4	43,485	60.6	698,206	49.2
Apr. 4	483,387	201,188	41.6	282,199	58.4	846,603	461,363	54.5	385,240	45.5	85,541	25,845	30.2	59,696	69.8	75,844	29,757	39.2	46,087	60.8	773,222	51.8
Apr. 11	505,141	206,088	40.8	299,053	59.2	879,949	449,927	51.2	430,021	48.8	89,199	25,704	28.8	63,494	71.2	79,714	29,635	37.2	50,779	62.8	842,647	54.2
Apr. 17	522,131	195,613	37.1	326,518	62.9	907,435	443,027	48.8	464,408	51.2	92,398	23,560	25.5	68,839	74.5	82,729	27,939	33.6	54,070	66.4	914,555	57.0
Apr. 25	541,271	200,631	37.0	340,640	63.0	933,292	434,881	46.5	498,411	53.5	95,462	23,343	24.4	72,119	75.6	85,720	28,451	33.2	57,269	66.8	968,439	58.5
May 2	568,753	199,223	35.7	359,530	64.3	960,263	414,135	43.2	546,128	56.8	98,767	22,704	23.0	76,063	77.0	88,789	28,700	32.4	60,089	67.6	1,041,810	61.1
May 9	574,921	176,050	30.7	398,871	69.3	981,187	357,586	36.4	623,651	63.6	101,146	18,836	18.6	82,310	81.4	91,332	20,353	22.2	70,979	77.8	1,175,811	67.0
May 16	589,742	164,144	27.8	425,598	72.2	1,000,791	303,482	30.3	697,309	69.7	103,460	16,497	15.9	86,963	84.1	93,728	16,506	17.6	77,222	82.4	1,287,092	72.8
May 23	602,464	149,961	24.9	452,503	75.1	1,014,379	240,659	23.7	773,720	76.3	105,170	14,635	13.9	90,535	86.1	95,281	14,816	15.0	80,965	85.0	1,397,723	76.0
May 30	613,072	137,226	22.4	475,846	77.6	1,024,202	198,630	19.4	825,572	80.6	106,513	12,610	11.8	93,903	88.2	96,336	12,705	13.2	83,631	86.8	1,478,952	80.3
June 6	621,675	122,900	19.8	498,775	80.2	1,030,811	164,000	15.9	866,811	84.1	107,642	10,173	9.5	97,469	90.5	97,202	9,543	9.8	87,659	90.2	1,550,714	83.5
June 13	629,951	111,402	17.7	518,549	82.3	1,038,433	137,575	13.2	900,858	86.8	108,528	8,154	7.5	100,374	92.5	98,024	7,407	7.5	90,617	92.5	1,610,388	85.9

[747]

The preceding table shows that on June 13, 1919, 1,610,388, or 85.9 per cent of all unemployed civilians in Great Britain from November 25, 1918, to June 13, 1919, had been reabsorbed by industry. Of this number 518,539 were men; 900,858, women; 100,374, boys; and 90,617, girls. The highest percentage of unemployment was among men—17.7 per cent. Women were 13.2 per cent unemployed; boys, 7.5 per cent; girls, 7.5 per cent. Policies had been issued during the period to 629,951 men, 1,038,433 women, 108,528 boys, and 98,024 girls, a total of 1,874,936.

Factors Affecting Significance of Returns.

Unfortunately, however, the figures are not of exact significance either as indicating the extent of unemployment or the numbers returned to industry. For a number of weeks after the out-of-work donation became effective the policies issued no doubt represented cumulative unemployment and policies remaining lodged represented nearly all who were unemployed at a given time. A scheme affecting such large numbers, however, and providing what in pre-war times at least would have been a liberal wage, was bound to meet with abuses. In the weekly returns for March 20, 1919, it was announced that variations in figures might be due to the stoppage of benefits in Great Britain as the result of the comparison of policies with ration books which took place during the week ending March 20 and to the increase in the number of civilian policies on which the first 13 weeks' benefits had been received and which were awaiting decision as to the extension of benefits.

It was stated further that a large number of holders of expired policies had made no application for extension, this being particularly true in the case of women, and being ascribed to the greater stringency of the qualification requirements for the extended donation and to the lower scale of donation.

Moreover, a complete revision of the registers was undertaken early in May, 1919, to classify workers under occupations to which they seemed best suited rather than those at which they had worked during the war. This had the effect of transferring a large number of workers from insured to uninsured trades. Though not for the time being affecting their right to out-of-work benefits, this reclassification meant that holders of policies must be willing to accept what in the estimation of employment committees was suitable employment rather than work at which they may have been employed during the war.

Restriction of benefits in Ireland.—Then, too, these out-of-work donation figures give no accurate indication of unemployment in Ireland. In March, 1919, announcement was made that "the

conditions in Ireland following on the cessation of hostilities vary so materially from those arising in Great Britain as to make it necessary to limit the scheme in the future to demobilized members of H. M. Forces, insured trades, and trades certified by the Lord Lieutenant of Ireland, as being occupations in which a substantial amount of unemployment has been directly caused by the cessation of hostilities," and that, accordingly, after March 6, 1919, only the following civilians would be entitled to out-of-work donation: "(a) Workpeople who are insured under the National Insurance (Unemployment) Acts 1911-1918, and have paid not less than 10 contributions since July, 1914, and before November 25, 1918; (b) in the case of trades certified by the Lord Lieutenant of Ireland as being trades in which there is a substantial amount of unemployment directly caused by the cessation of hostilities, persons of such classes as are specified in the certificate who were ordinarily employed in those trades during last year."¹

Two months later the following statement was issued:

The Lord Lieutenant of Ireland has certified that there is in the trades mentioned below a substantial amount of unemployment caused directly by the cessation of hostilities:

1. Persons employed in munition factories other than in insured trades and who were, in respect of such employment, contributors under the national health insurance scheme for not less than three months prior to November 25, 1918.

2. Workpeople employed abroad on Government work in trades which are insured trades in this country, for not less than 10 weeks, between July, 1914, and November 25, 1918.

Civilian workers who have been so employed will accordingly, on satisfying the other conditions of the scheme, be entitled during unemployment to claim donation under the out-of-work donation scheme as amended for Ireland.²

Part-time employment.—Another factor affecting the accuracy of returns has been the inclusion of short-time employment. In the returns for April 12, 1919, it was stated that a large decrease in the number of women's policies was partly accounted for by the fluctuations in short-time employment.

The statistical returns of donations issued to and held by textile workers on short-time employment are subject to considerable uncertainty, largely owing to the arrangements made in many cases of considerable magnitude where policies are issued and donations paid otherwise than through the employment exchanges. Large numbers of persons who are working alternate weeks under short-time schemes are now drawing the out-of-work donation and of course tend unduly to swell the records of unemployment in the divisions concerned. Such persons are not unemployed in the full sense of the term though their period of enforced idleness must not be left completely out of account in recording the state of employment.

On the other hand it is found that the records of donation policies lodged have not up to the present included the whole of the policies on which short-time donation

¹ Labour Gazette, London, March, 1919, p. 88.

² Labour Gazette, London, May, 1919, p. 216.

is being paid. In many cases the volume of short-time employment is so considerable as to have made it necessary to adopt special arrangements, by which the donation is paid through the mills or by trades-unions. In such cases the policies are not lodged with the exchanges and there is no doubt that large numbers are consequently omitted by some of the exchanges. The importance of this factor in the unemployment records will be realized when it is stated that an examination of the policies lodged at the exchanges on April 4 shows that more than 10 per cent of the total number in receipt of out-of-work donation from employment exchanges were drawing the donation under short-time schemes. The proportion would of course have been higher if all short-time workers paid otherwise than through the exchanges had been included.

The incompleteness of the record is such as to make it advisable to separate entirely the returns of short-time employment from those of complete employment.¹

Employment Department Circular 12/20 states that on and after May 9, 1919, policies lodged are not to include short-time policies.

Action of Employment Committee with Regard to Civilian Policies.

Civilian policies are dealt with by employment committees, juvenile committees, and port labor committees whose functions are: (1) The granting or refusing of original policies; (2) the granting or refusing of extended policies; and (3) the review of existing policies. Extended insurance is issued by them only to persons (*a*) normally in employment, (*b*) generally seeking work, and (*c*) unable to find it, the payment of benefits not to begin before the expiration of six days after the last day for which donation was payable under the original policy.

On May 3, 1919, it was announced that instructions had been issued for an immediate review of policies held by civilians (*a*) who had been submitted for employment six times without being placed or who would fail to obtain work if the demand for labor were normal, and were, therefore, practically unplaceable; (*b*) who were employed less than 26 weeks in 1918; (*c*) who were married women, except those normally employed in a staple industry in which married women are ordinarily employed; (*d*) who were not registered as seeking work on November 25, 1918, and were unemployed for four weeks or more before they first registered after that date; and (*e*) who were over 70 years of age.

The following table shows the work of these employment committees, juvenile committees, and port labor committees up to June 14, 1919:

¹ Weekly report on Demobilization and Resettlement, Apr. 19, 1919.

ACTION TAKEN ON CIVILIAN POLICIES BY EMPLOYMENT COMMITTEES, JUVENILE EMPLOYMENT COMMITTEES, AND PORT LABOR COMMITTEES UP TO JUNE 14, 1919.

Item.	Men.	Boys.	Women.	Girls.	Total.
Applications for original policies:					
Applications granted.....	7,339	591	5,655	535	14,120
Applications refused.....	816	54	1,557	60	2,487
Total cases dealt with.....	8,155	645	7,212	595	16,607
Percentage of refusal.....	10	8.4	21.6	10.1	15.0
Applications outstanding.....	6,200	807	5,880	566	13,453
Applications for extended policies:					
Applications granted.....	4,148	230	4,101	253	8,732
Applications refused.....	623	43	1,789	62	2,517
Total cases dealt with.....	4,771	273	5,890	315	11,249
Percentage of refusal.....	13.1	15.8	30.4	19.7	22.4
Applications outstanding.....	2,571	141	4,872	182	7,766
Review of existing policies:					
Policies continued—					
(a) For full period.....	16,809	1,595	13,107	1,349	32,860
(b) For provisional period.....	4,932	667	5,221	576	11,396
Policies canceled.....	3,131	324	9,323	538	13,316
Total policies reviewed.....	24,872	2,586	27,651	2,463	57,572
Percentage canceled.....	12.6	12.5	33.7	21.8	23.1
Cases adjourned.....	3,795	215	3,814	261	8,085

It is seen that the percentage of refusals to grant original or extended policies, as well as the percentage of cancellations of existing policies, is highest in the case of women. Of the total policies canceled during the period, 3,058, or 22.9 per cent, were on the ground that the holders were practically unplaceable, and 3,340, or 25.1 per cent, were married women not ordinarily in employment.

Reasons for cancellation of policies.

	Number.	Per cent.
Practically unplaceable.....	3,058	22.9
Employed less than 26 weeks in 1918.....	1,919	14.4
Married women not ordinarily in employment.....	3,340	25.1
Unemployed but unregistered for four weeks prior to Nov. 23, 1918.....	1,066	8.0
Over 70 years of age.....	130	1.0
In business on own account immediately prior to, or dur- ing the war, etc.....	478	3.6
Other reasons.....	3,325	25.0
Total.....	13,316	100.0

Action Taken on Out-of-Work Donation Policies by Committees, Appeals Officers, and Courts of Referees.

The following cumulative statements show the number and disposal of applications for extended policies, the results of inspection of existing policies, and the action of appeals officers and courts of

referees on cases in which policies were refused or donation suspended by employment exchanges or committees:

CUMULATIVE NUMBER OF APPLICATIONS FOR EXTENDED OUT-OF-WORK DONATION POLICIES, AND ACTION TAKEN.

Date.	Applications received.				Applications allowed without reference to committee.			
	Men.	Women.	Juveniles.	Total.	Men.	Women.	Juveniles.	Total.
1919.								
Mar. 19.....	5,867	19,454	921	26,242	2,742	3,690	161	6,593
Mar. 26.....	10,560	33,022	1,737	45,319	5,348	7,420	426	13,194
Apr. 2.....	15,215	44,480	2,704	62,459	7,830	10,391	739	18,960
Apr. 9.....	19,315	54,479	3,239	77,033	9,843	14,047	973	24,863
Apr. 16.....	28,467	70,473	4,370	103,310	13,929	18,240	1,342	33,511
Apr. 23.....	32,314	77,788	4,389	114,491	15,566	20,122	1,372	37,060
Apr. 30.....	39,443	90,380	5,199	135,022	18,920	23,493	1,684	44,097
May 7.....	45,599	101,447	5,756	152,802	21,833	26,626	1,860	50,319
May 14.....	51,520	111,359	6,513	169,392	24,314	28,826	2,232	55,372
May 21.....	56,129	117,170	6,989	180,288	26,169	30,309	2,487	58,965
May 28.....	61,066	123,066	7,506	191,638	28,267	31,978	2,733	62,978
June 4.....	64,470	128,185	7,945	200,600	29,512	33,383	2,942	65,837
June 11.....	66,706	131,631	8,215	206,552	30,577	34,750	3,075	68,402

Date.	Applications granted by employment committee.				Applications refused by employment committee.			
	Men.	Women.	Juveniles.	Total.	Men.	Women.	Juveniles.	Total.
1919.								
Mar. 19.....	1,117	3,929	232	5,278	370	3,255	122	3,747
Mar. 26.....	2,505	8,119	542	11,166	796	6,836	274	7,906
Apr. 2.....	3,763	12,321	873	16,957	1,192	10,303	412	11,907
Apr. 9.....	5,391	16,212	1,003	22,606	1,764	12,950	498	15,212
Apr. 16.....	8,129	22,627	1,427	32,183	2,569	17,148	727	20,444
Apr. 23.....	9,023	24,843	1,455	35,321	2,998	19,101	779	22,878
Apr. 30.....	11,117	28,558	1,757	41,432	4,017	22,631	939	27,587
May 7.....	13,206	32,618	2,011	47,835	5,122	26,821	1,058	33,001
May 14.....	15,312	37,069	2,312	54,693	6,316	31,122	1,216	38,654
May 21.....	17,311	40,318	2,491	60,120	7,255	34,243	1,342	42,840
May 28.....	19,620	44,095	2,677	66,392	8,480	36,698	1,429	46,607
June 4.....	21,730	47,430	2,858	72,018	9,298	39,236	1,607	50,141
June 11.....	23,039	49,479	2,974	75,492	9,797	40,269	1,627	51,693

CUMULATIVE NUMBER OF POLICIES SUSPENDED FOR EACH CAUSE, AS THE RESULT OF THE "SCRUTINY" OF POLICIES (GREAT BRITAIN ONLY).

Week ending—	Policies on which payment was suspended because of—									Total policies on which payment was suspended.		
	Discrepancies found.			Nonproduction of books, etc.			Other reasons.					
	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.
1919.												
Mar. 14.....	267	962	1,229	3,182	4,876	8,058	163	117	280	3,612	5,955	9,567
Mar. 21.....	324	1,233	1,557	4,015	6,217	10,232	177	155	332	4,516	7,605	12,121
Mar. 28.....	343	1,463	1,806	4,473	6,909	11,382	224	167	391	5,040	8,539	13,579
Apr. 4.....	350	1,499	1,849	4,830	7,506	12,336	233	169	402	5,413	9,174	14,587
Apr. 11.....	358	1,532	1,890	5,163	7,895	13,058	240	190	430	5,761	9,617	15,378
Apr. 18.....	358	1,561	1,919	5,381	8,165	13,546	241	191	432	5,980	9,917	15,897
Apr. 25.....	361	1,575	1,936	5,656	8,430	14,086	245	197	442	6,262	10,202	16,464
May 2.....	363	1,591	1,954	5,833	8,569	14,402	250	205	455	6,446	10,365	16,811
May 9.....	364	1,607	1,971	5,998	8,701	14,699	254	215	469	6,616	10,523	17,139
May 20.....	364	1,619	1,983	6,148	8,792	14,940	275	230	505	6,787	10,641	17,428
May 27.....	366	1,631	1,997	6,253	8,849	15,102	291	238	519	6,910	10,718	17,628
June 3.....	369	1,639	2,008	6,361	8,913	15,274	292	239	531	7,022	10,791	17,813
June 10.....	378	1,669	2,047	6,399	8,921	15,320	292	239	531	7,069	10,829	17,989
June 17.....	378	1,675	2,053	6,502	8,953	15,455	292	239	531	7,172	10,867	18,039

¹ 10 days.

NUMBER (CUMULATIVE) AND DISPOSAL OF CASES REFERRED TO APPEALS OFFICERS AND COURTS OF REFEREES (GREAT BRITAIN ONLY).

Period ending—	Number of cases referred to appeals officers.	Number of cases—		
		Allowed by appeals officers.	Heard by courts of referees.	Out-standing.
1918.				
Dec. 12.....	4,400	833	970	2,597
Dec. 19.....	8,254	1,450	2,801	3,785
1919.				
Jan. 2.....	12,622	2,067	5,768	4,529
Jan. 9.....	16,678	2,631	8,581	5,195
Jan. 16.....	21,380	3,289	11,356	6,367
Jan. 23.....	26,541	3,872	14,925	7,311
Jan. 30.....	33,584	4,422	18,817	9,790
Feb. 6.....	40,483	5,158	23,160	11,442
Feb. 13.....	48,043	5,742	28,424	13,104
Feb. 20.....	56,661	6,506	35,719	13,641
Feb. 27.....	65,490	7,048	43,544	14,068
Mar. 6.....	74,509	7,710	53,042	12,892
Mar. 13.....	83,595	8,165	62,985	11,467
Mar. 20.....	92,522	8,677	73,238	9,609
Mar. 27.....	102,601	9,150	82,523	9,794
Apr. 3.....	112,607	9,529	91,553	10,319
Apr. 10.....	124,613	10,063	102,439	10,830
Apr. 17.....	136,139	10,634	112,771	11,212
Apr. 24.....	141,870	10,959	117,872	11,378
May 1.....	152,877	11,377	128,581	11,214
May 8.....	167,851	11,939	139,675	13,710
May 15.....	179,639	12,406	152,441	12,667
May 22.....	191,589	12,804	164,888	11,614
May 29.....	202,984	13,152	176,815	10,408
June 5.....	212,672	13,372	187,142	9,507
June 12.....	218,510	13,525	194,619	7,615

The following statement shows the number of cases disallowed for each reason:

NUMBER OF CASES DISALLOWED BY COURTS OF REFEREES FOR EACH SPECIFIED CAUSE.

Grounds for disallowance.	Number disallowed.	Per cent disallowed.
Left employment voluntarily.....	31,109	24.9
Refusal to accept suitable employment.....	68,313	54.6
Dismissal for unsatisfactory conduct.....	12,928	10.3
Trade dispute.....	7,076	5.7
Other grounds.....	5,610	4.5
Total.....	125,036	100.0

It will be noted that a total of 206,552 applications for extended policies had been received up to June 11, 1919, and that 51,693, or approximately 25 per cent, had been refused. As a result of the "scrutiny" of existing policies 18,039 had been suspended up to June 17, 1919, and up to June 12, 1919, there had been 218,510 cases referred to appeals officers. Of these, 13,525 had been allowed by the appeals officers; 194,619 were heard by courts of referees; and 7,615 were outstanding. An analysis of 167,382 cases heard by courts of referees shows that 74.6 per cent were disallowed. Refusal to accept suitable employment was the ground for disallowance in 68,313, or 54.6 per cent, of the cases disallowed.

Duration of Unemployment.

Some indication of the duration of unemployment is given in the following table in which the policies lodged are analyzed according to the period for which payments were made during the week ended June 20, 1919:

NUMBER OF POLICIES LODGED ON WHICH PAYMENTS FOR EACH CLASSIFIED PERIOD WERE MADE DURING THE WEEK ENDING JUNE 20, 1919.¹

Item.	Policies lodged but no payments made.	1 to 48 days.	49 to 60 days.	61 to 78 days.	79 to 120 days.	121 to 138 days.	139 to 155 days.	156 days.	Total.
Civilians:									
Men.....	8,786	45,981	12,897	18,755	16,954	6,875	4,736	1,174	116,158
Boys.....	896	3,868	734	1,079	684	176	96	18	7,551
Women.....	9,739	44,177	15,274	27,202	17,363	10,192	7,010	1,692	132,649
Girls.....	1,000	3,202	837	1,319	707	239	138	49	7,491
Total.....	20,421	97,228	29,742	48,355	35,708	17,482	11,980	2,933	263,849
		1 to 60 days.	61 to 120 days.	121 to 155 days.					
His Majesty's Forces:									
Men.....	23,081	204,337	125,868	20,596	5,257				379,139
Women.....	104	1,365	546	85	8				2,108
Total.....	23,185	205,702	126,414	20,681	5,265				381,247

¹ This statement does not include figures for persons in part-time employment.

As the preceding table shows, on 2,933 civilian policies and 5,265 policies issued to members of His Majesty's Forces, payment of benefit was concluded during the week ended June 20, 1919. Policies began to expire during the week ended May 30, 1919, 395 members of His Majesty's Forces having received the maximum number of payments under the scheme. During the week ended June 6, 1919, the policies of 741 civilians and 2,222 members of His Majesty's Forces ran out; during the week ended June 13, 1919, the expiring policies numbered 1,971 and 2,695, respectively.

Part-Time Policies.

An analysis, by type and industry, of short-time policies remaining lodged is shown below. As previously explained, the policies issued to persons in part-time employment were at first included with those issued to persons continuously unemployed. The decline in the number of short-time policies has been rapid and it may be assumed that the industries chiefly affected are becoming more stable.

NUMBER OF SHORT-TIME POLICIES LODGED AT EACH SPECIFIED DATE, BY TYPE OF POLICY.

Type of policy.	May 23, 1919.	May 30, 1919.	June 6, 1919.	June 13, 1919.
Men:				
Civilians.....	20,110	17,577	14,689	12,417
His Majesty's forces.....	3,102	3,027	3,663	2,256
Total.....	23,212	20,604	18,352	14,673
Women:				
Civilians.....	61,967	55,813	50,824	35,528
His Majesty's forces.....	1	4	24	21
Total.....	61,968	55,817	50,848	35,549
Boys.....	4,824	4,406	3,997	3,170
Girls.....	10,764	9,731	9,141	6,890
Grand total.....	100,768	90,558	82,338	60,282

NUMBER OF SHORT-TIME POLICIES LODGED AT EACH SPECIFIED DATE, BY INDUSTRY.

Industry.	May 23, 1919.	May 30, 1919.	June 6, 1919.	June 13, 1919.
Insured industries:				
Engineering and iron founding.....	337	398	596	446
Chemicals, etc.....	269	241	298	25
Iron, steel, and other metal production.....	328	369	859	825
Metal manufactures.....	718	696	191	193
Other insured industries.....	78	62	53	128
Total.....	1,730	1,766	1,997	1,617
Uninsured industries:				
Conveyance of men, goods, and messages... ..	180	133	90	61
Mines and quarries.....	40	49	29	38
Textiles:				
Cotton.....	18,867	14,463	9,346	6,827
Woolen and worsted.....	1,130	1,036	1,162	1,217
Other, including printing, dyeing, etc.....	74,443	69,898	65,786	44,098
Commercial.....	42	26	30	24
Food, drink, and tobacco.....	170	35	17	28
Workers in dress.....	919	396	1,136	4,674
Domestic offices and services.....	107	127	118	96
General laborers, factory workers, etc.....	133	174	171	148
Other uninsured industries.....	3,007	2,445	2,456	1,454
Total.....	99,038	88,792	80,341	58,065
Grand total.....	100,768	90,558	82,338	60,282

The Employment Situation June 20, 1919.

As has been stated, it is apparent that a number of disturbing factors serve to lessen the significance of out-of-work donation figures as an indication of unemployment. The only other indication of total unemployment is the number on the "live" registers of employment exchanges. In this connection, however, the Employment Department states, "It is found that when policies are issued to workers under short-time claims, the names of such workers are generally added to the live registers of the exchanges, although in fact the exchanges may not return the actual policies as lodged in their weekly reports. This is undoubtedly one of the principal reasons for the marked excess of numbers on the live registers over the number of donation policies lodged. The practice of individual exchanges is not uniform in this respect and an instruction is, therefore, being issued standardizing the procedure."¹ Employment exchanges do not now report as on the live registers those persons reregistering in consequence of part-time work.

It will be noted, too, that as policies expire, are canceled, or are refused, the holders or applicants do not necessarily remain on the live register, so there is no way of determining from available figures how many persons not drawing out-of-work donation are nevertheless unemployed. None of the sets of figures shown hereafter should be taken as an absolute measure of unemployment.

The two accompanying graphs (Charts A and B) show, respectively, the total number of policies lodged and persons on the live registers at specified dates. The difference between policies lodged and numbers on the live registers has been explained previously. It is interesting to note that the crest was reached nearly six weeks after the Government began the examination of existing policies and adopted stricter regulations in the issuance of policies. The new regulations for Ireland were effective March 6, 1919. On and after May 9, 1919, short-time policies were omitted from the total. The results of the Government's examination and review were shown for the first time in the weekly report of March 14, 1919. The largest number of outstanding policies in any one week was for the week ending May 2, 1919. The largest number on the live registers occurred during the week ending April 25, 1919. It is certain, therefore, that the total number of unemployed is in excess of the figures shown, and that the downward trend is not so rapid as the figures indicate.

¹ Weekly report on Demobilization and Resettlement, April 19, 1919.

UNEMPLOYMENT DONATION POLICIES REMAINING LODGED, BY TYPE OF POLICY.

Week ending—	Men.			Boys.	Women.			Girls.	Grand total.
	Civilians.	His Majesty's forces.	Total.		Civilians.	His Majesty's forces.	Total.		
1918.									
Nov. 29.....	16,336	4,698	21,334	2,088	45,107	11	45,118	1,263	69,803
Dec. 6.....	31,768	11,264	43,032	4,801	77,824	62	77,886	2,864	128,583
Dec. 13.....	43,989	15,547	59,536	8,015	122,228	81	122,309	6,909	196,799
Dec. 20.....	63,413	18,604	82,017	11,128	167,009	37	167,046	9,170	269,361
1919.									
Jan. 3.....	101,390	23,938	125,328	16,988	224,955	50	225,005	13,374	380,695
Jan. 10.....	119,315	31,543	150,858	16,462	265,479	88	265,567	16,365	449,252
Jan. 17.....	139,113	40,400	179,513	18,131	303,813	131	303,944	18,018	519,606
Jan. 24.....	156,671	47,209	203,880	20,543	343,742	170	343,912	22,259	590,594
Jan. 31.....	177,361	53,316	230,677	22,562	399,864	238	400,102	25,362	678,703
Feb. 7.....	191,371	63,277	254,648	24,538	427,734	380	428,114	26,790	734,090
Feb. 14.....	212,205	84,298	296,503	26,752	452,810	394	453,204	28,183	804,642
Feb. 21.....	218,278	132,471	350,749	28,195	470,294	841	471,135	31,544	881,623
Feb. 28.....	227,836	165,429	393,265	28,019	494,471	828	495,299	32,037	948,620
Mar. 7.....	234,402	200,686	435,088	27,356	494,365	1,025	495,390	34,398	992,232
Mar. 14.....	208,540	233,737	444,277	26,327	485,784	1,161	486,945	31,070	988,619
Mar. 21.....	207,973	264,257	472,230	27,567	474,452	995	475,447	28,082	1,003,326
Mar. 28.....	209,486	305,251	514,737	26,461	488,655	4,012	489,667	29,380	1,060,245
Apr. 4.....	214,263	336,570	550,833	26,148	469,555	961	470,516	30,189	1,077,686
Apr. 11.....	217,538	347,895	565,433	26,093	457,446	917	458,363	30,134	1,080,023
Apr. 18.....	210,119	369,992	580,111	23,882	452,144	1,013	453,157	29,279	1,086,429
Apr. 25.....	215,687	379,799	595,486	23,679	443,941	1,258	445,199	28,964	1,093,328
May 2.....	214,761	402,151	616,912	23,040	422,890	1,316	424,206	29,242	1,093,400
May 9.....	191,651	408,491	600,142	10,175	366,536	1,468	364,604	20,871	1,008,192
May 16.....	178,284	401,753	580,037	16,845	312,373	1,603	313,976	17,023	927,881
May 23.....	164,569	400,097	564,666	14,988	250,010	1,939	251,949	14,869	846,472
May 30.....	150,250	384,919	535,169	12,912	207,897	2,002	209,899	13,231	771,211
June 6.....	135,317	383,570	518,887	10,405	169,621	2,082	171,703	9,880	710,875
June 13.....	123,134	376,735	499,869	8,439	146,578	2,033	148,611	7,910	664,829
June 20.....	116,158	379,139	495,297	7,551	132,649	2,108	134,757	7,491	645,096

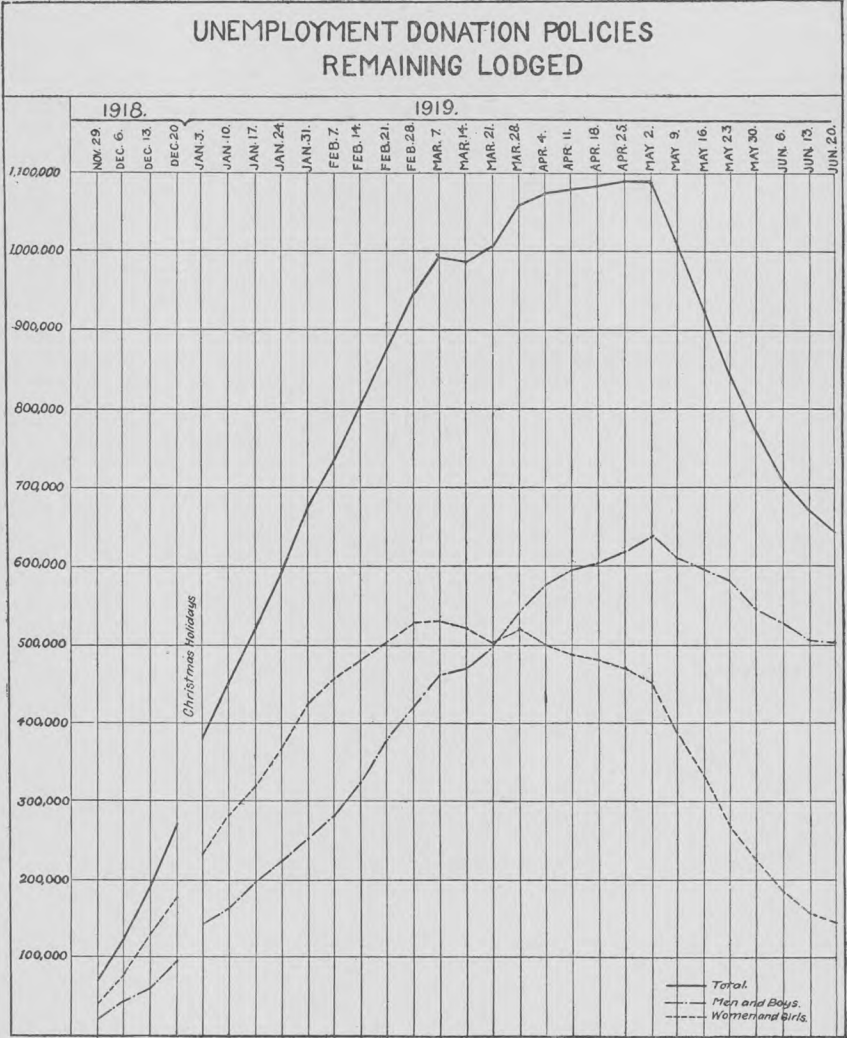


CHART A.

NUMBER OF PERSONS ON LIVE REGISTERS OF EMPLOYMENT EXCHANGES
ON SPECIFIED DATE.

Date.	Men.	Boys.	Women.	Girls.	Total.
Dec. 6..... 1918.	60,582	10,756	109,269	8,663	189,270
Jan. 10..... 1919.	183,335	26,391	327,715	26,451	563,892
Feb. 7.....	303,477	32,448	479,328	34,243	849,496
Feb. 14.....	335,911	34,837	503,704	37,208	911,660
Feb. 21.....	376,952	35,907	533,837	36,203	982,899
Feb. 28.....	416,150	35,476	549,261	35,958	1,036,845
Mar. 7.....	449,365	34,040	558,572	33,891	1,075,868
Mar. 14.....	486,555	34,541	561,392	36,016	1,118,504
Mar. 21.....	527,559	33,429	565,740	35,482	1,162,210
Mar. 28.....	503,368	33,304	563,190	35,756	1,195,618
Apr. 4.....	579,373	33,909	559,379	36,365	1,229,026
Apr. 11.....	613,129	32,000	539,311	35,159	1,219,599
Apr. 18.....	630,999	30,500	547,735	35,164	1,244,398
Apr. 25.....	657,804	31,243	533,430	34,683	1,257,160
May 2.....	665,099	30,474	513,143	33,957	1,242,673
May 9.....	653,270	26,834	449,145	29,154	1,158,403
May 16.....	637,573	24,845	400,080	25,103	1,087,601
May 23.....	616,992	22,464	343,636	21,936	1,005,027
May 30.....	592,665	19,072	300,768	18,804	931,309
June 6.....	569,098	17,026	256,038	16,544	858,706
June 13.....	563,934	15,821	229,660	14,573	823,988
June 20.....	547,531	15,012	213,206	14,393	790,142

The foregoing explanation is applicable also to the following table classifying policies lodged, by occupation, and showing for specified dates the per cent policies lodged formed of the total number of workers in the industry. The figures may be taken as indicating approximately but not absolutely the unemployment in the several industries.

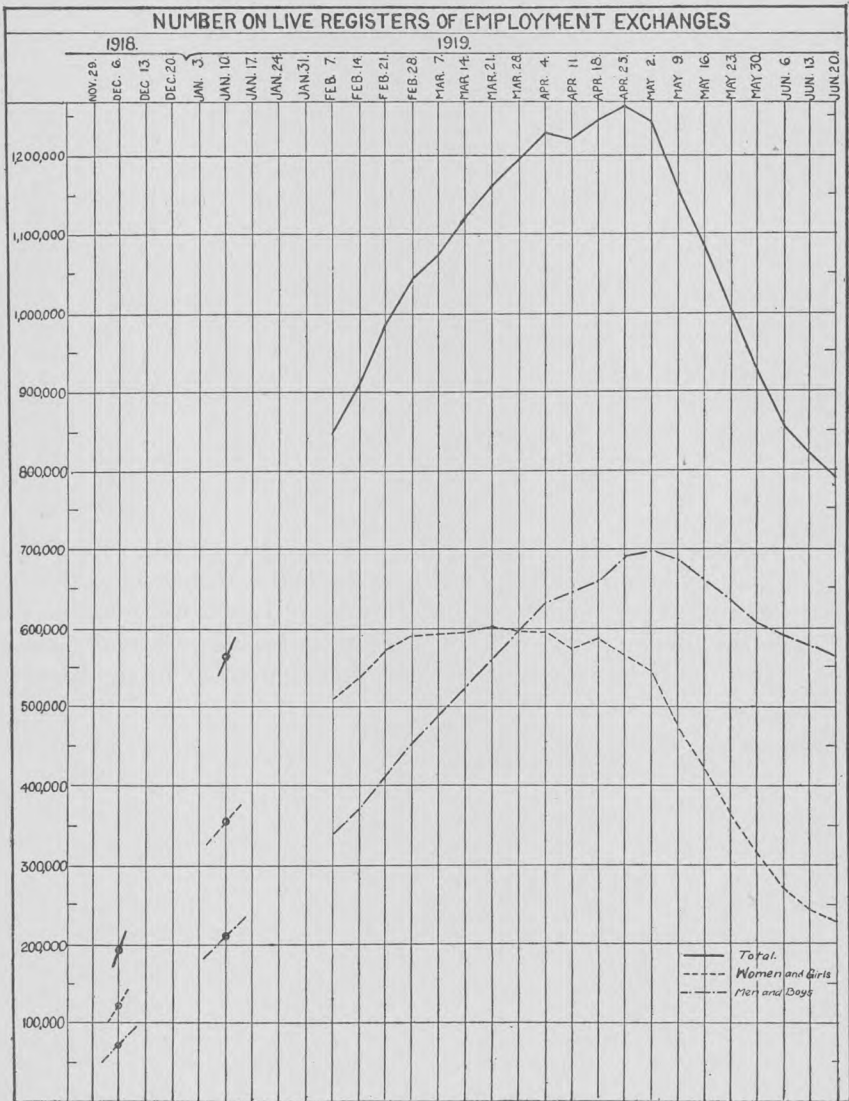


CHART B.

NUMBER OF CIVILIAN AND HIS MAJESTY'S FORCES OUT-OF-WORK DONATION POLICIES REMAINING LODGED ON SPECIFIED DATES, BY INDUSTRIES, AND PER CENT SUCH POLICIES FORM OF TOTAL WORKERS IN EACH INDUSTRY.

Industry.	Total workers. ¹	Policies lodged on—				
		Mar. 7, 1919.	Apr. 4, 1919.	May 2, 1919.	May 30, 1919.	June 20, 1919.
Insured industries:						
Building and works of construction.....	593,659	65,925	63,691	63,217	46,680	37,974
Shipbuilding.....	266,188	17,349	15,902	16,360	13,763	12,277
Engineering and iron founding.....	1,412,693	197,717	171,125	146,791	107,779	87,746
Construction of vehicles.....	167,660	14,514	13,913	12,398	7,786	6,079
Sawmilling, packing case manufacturing, etc.....	89,583	9,212	8,024	6,917	5,205	4,346
Ammunition.....	253,913	33,616	15,336	6,343	2,253	1,305
Chemicals, etc.....	104,915	6,788	5,682	5,214	3,570	2,900
Iron, steel, and other metal production.....	207,790	6,265	8,933	7,766	5,243	6,212
Metal manufactures.....	280,157	24,027	22,933	22,235	14,483	9,929
Brick, tiles, etc.....	31,450	1,494	1,861	2,025	1,259	1,012
Other insured industries.....	153,702	8,110	7,968	7,515	4,926	3,811
Total.....	3,561,710	385,017	335,368	296,781	212,947	173,591
Uninsured industries:						
Agriculture.....	1,175,000	13,569	10,299	12,071	11,338	10,637
Conveyance of men, goods, and messages.....	975,000	76,834	101,624	118,343	109,356	101,882
Mines and quarries.....	1,030,000	13,781	18,032	17,651	13,994	13,451
Textiles:						
Cotton.....	500,000	² 61,572	² 99,381	² 110,456	² 43,178	² 30,856
Woolen and worsted.....	270,000	5,502	7,734	8,172	4,529	3,100
Other (including printing, dyeing, etc.).....	360,000	35,032	52,597	60,342	29,530	27,871
Commercial.....	1,700,000	37,975	52,232	56,366	51,724	43,710
Food, drink, and tobacco.....	480,000	19,201	25,049	27,348	18,607	14,185
Workers in dress.....	750,000	34,385	36,456	33,634	18,655	14,197
Domestic offices, and servants.....	2,500,000	77,360	95,962	100,776	63,574	46,774
General laborers, factory workers, etc.....	(³)	138,704	150,660	154,745	118,865	106,827
Other uninsured industries.....	(³)	93,300	92,292	94,715	74,914	58,015
Total.....		607,215	742,318	796,619	558,264	471,505
Grand total.....		992,232	1,077,686	1,093,400	771,211	645,096

¹ The total number of workers in each industry has been calculated thus—for insured trades, books current January, 1919; for uninsured trades Board of Trade returns for July 1918 and census figures for 1911.

² Full amount of unemployment in cotton trade is not shown, certain figures for out-of-work donation policies lodged under the Cotton Control Board scheme not being included.

³ No reliable figures available.

NUMBER OF CIVILIAN AND HIS MAJESTY'S FORCES OUT-OF-WORK DONATION POLICIES REMAINING LODGED ON SPECIFIED DATES, BY INDUSTRIES, AND PER CENT SUCH POLICIES FORM OF TOTAL WORKERS IN EACH INDUSTRY—Concluded.

Industry.	Total workers. ¹	Per cent policies are of total workers.				
		Mar. 7, 1919.	Apr. 4, 1919.	May 2, 1919.	May 30, 1919.	June 20, 1919.
Insured industries:						
Building and works of construction.....	593,659	11.10	10.73	10.65	7.86	6.40
Shipbuilding.....	266,188	6.52	5.97	6.15	5.17	4.61
Engineering and iron foundry.....	1,412,693	14.00	12.11	10.39	7.63	6.21
Construction of vehicles.....	167,660	8.66	8.30	7.39	4.64	3.63
Sawmilling, packing case manufactur- ing, etc.....	89,583	10.28	8.96	7.72	5.81	4.85
Ammunition.....	253,913	13.24	6.04	2.50	.89	.51
Chemicals, etc.....	104,915	6.47	5.42	4.97	3.40	2.76
Iron, steel, and other metal production.....	207,790	.....	.....	.....	.....	.....
Metal manufactures.....	280,157	6.21	6.53	6.15	4.04	3.31
Brick, tiles, etc.....	31,450	4.75	5.92	6.44	4.00	3.22
Other insured industries.....	153,702	5.27	5.18	4.89	3.20	2.47
Total.....	3,561,710	10.81	9.42	8.33	5.98	4.87
Uninsured industries:						
Agriculture.....	1,175,000	1.15	.88	1.03	.96	.91
Conveyance of men, goods, and messages.....	975,000	7.88	10.42	12.14	11.22	10.45
Mines and quarries.....	1,030,000	1.34	1.75	1.71	1.36	1.31
Textiles:						
Cotton.....	500,000	12.31	19.88	22.09	8.64	6.17
Woolen and worsted.....	270,000	2.04	2.86	3.03	1.68	1.15
Other (including printing, dyeing, etc.).....	360,000	9.73	14.61	16.76	8.20	7.74
Commercial.....	1,700,000	2.23	3.07	3.43	3.04	2.57
Food, drink, and tobacco.....	480,000	4.00	5.22	5.70	3.88	2.96
Workers in dress.....	750,000	4.58	4.86	4.48	2.49	1.89
Domestic offices and servants.....	2,500,000	3.09	3.84	4.03	2.54	1.87
General laborers, factory workers, etc.....	(²)	.....	.....	.....	.....	.....
Other uninsured industries.....	(²)	.....	.....	.....	.....	.....

¹ The total number of workers in each industry has been calculated thus—for insured trades, books current January, 1919; for uninsured trades Board of Trade returns for July, 1918, and census figures for 1911.

² No reliable figures.

The number of extended policies remaining lodged on June 20 are classified by industries in the following table. These figures are included in the previous statement.

NUMBER OF EXTENDED-DONATION POLICIES, GRANTED TO CIVILIANS, REMAINING LODGED UP TO JUNE 20, 1919, BY INDUSTRY.

Industry.	Number of extended-donation policies remaining lodged, June 20, 1919, granted to—				
	Men.	Boys.	Women.	Girls.	Total.
Insured industries:					
Building and works of construction.....	4,735	30	72	5	4,842
Shipbuilding.....	815	17	41		873
Engineering and iron founding.....	9,658	355	3,551	97	13,661
Construction of vehicles.....	596	12	574	1	1,183
Sawmilling, packing case manufacturing, etc.....	369	25	138	13	545
Ammunition.....	154	9	216	13	392
Chemicals, etc.....	222	9	129	1	361
Iron and steel and other metal production.....	285	3	69	4	361
Metal manufactures.....	374	12	1,296	26	1,708
Brick, tile, etc.....	57	1	127	4	189
Other insured industries.....	139	4	376		519
Total.....	17,404	477	6,589	164	24,634
Uninsured industries:					
Agriculture.....	64	3	67	1	135
Conveyance of men, goods, and messages.....	2,605	47	803	15	3,470
Mines and quarries.....	491	40	154	13	698
Textiles:					
Cotton.....	1,467	83	7,098	170	8,818
Woolen and worsted.....	107	1	173	3	284
Other (including printing, dyeing, etc.).....	997	33	3,166	113	4,309
Commercial.....	1,130	55	1,421	187	2,793
Food, drink, and tobacco.....	192	2	1,240	19	1,453
Workers in dress.....	176	1	1,559	38	1,774
Domestic offices, and services.....	309		5,134	67	5,510
General laborers, factory workers, etc.....	3,734	197	5,270	184	9,385
Other uninsured industries.....	1,063	35	3,583	159	4,840
Total.....	12,335	497	29,668	969	43,469
Grand total.....	29,739	974	36,257	1,133	68,103

It will be noted from the table following that the policies lodged by members of the Forces on June 20 constituted 61.1 per cent of all policies lodged in the uninsured trades, though in the insured trades these policies formed only 53.6 per cent. The smaller percentage in the insured trades is no doubt due to the relatively fewer men from these trades in the Forces. That nearly three-fifths (59.1 per cent) of the total policies lodged were those of men from the Forces is probably accounted for by the fact that the policies of such men are subjected to less strict scrutiny than are those held by civilians, and entitle them to extended insurance for 26 weeks without the question, arising in the case of civilian policies, of whether such extension would be justified.

TOTAL POLICIES LODGED, AND NUMBER AND PER CENT OF TOTAL POLICIES LODGED BY MEMBERS OF HIS MAJESTY'S FORCES, UP TO JUNE 20, 1919, BY INDUSTRY.

Industry.	Total policies lodged June 20, 1919.	His Majesty's Forces policies lodged, June 20, 1919.	
		Number.	Per cent of total.
Insured industries:			
Building and works of construction.....	37,974	21,645	57.0
Shipbuilding.....	12,277	7,359	59.0
Engineering and iron founding.....	87,746	48,637	55.4
Construction of vehicles.....	6,079	3,205	52.7
Saw milling, packing, case manufacturing, etc.....	4,346	2,495	57.4
Ammunition.....	1,305	321	24.6
Chemicals, etc.....	2,900	1,189	41.0
Iron, steel, and other metal production.....	6,212	2,548	41.0
Metal manufactures.....	9,929	3,826	38.5
Brick, tiles, etc.....	1,012	438	43.3
Other insured industries.....	3,811	1,350	35.6
Total.....	173,591	93,021	53.6
Uninsured industries:			
Agriculture.....	10,637	9,459	88.9
Conveyance of men, goods, and messages.....	101,882	84,180	82.6
Mines and quarries.....	13,451	9,208	68.5
Textiles:			
Cotton.....	30,856	8,099	26.2
Woolen and worsted.....	3,100	1,316	42.5
Other (including printing, dyeing, etc.).....	27,871	6,074	21.8
Commercial:			
Food, drink, and tobacco.....	43,710	26,094	59.7
Workers in dress.....	14,185	6,680	47.1
Domestic offices, and services.....	14,197	6,209	43.7
General laborers, factory workers, etc.....	46,774	19,519	41.7
Other uninsured industries.....	106,827	75,234	70.4
	58,015	36,154	62.3
Total.....	471,505	288,226	61.1
Grand total.....	645,096	381,247	59.1

In striking contrast with the figures showing policies lodged or numbers on the live registers are the figures showing the labor demands locally unsatisfied. It must be borne in mind, however, that employees must be registered to receive the employment insurance, but that employers are not required to list their employment needs with the labor exchanges. The figures shown in the following table represent simply the vacancies notified to the employment exchanges which had not been filled on the specified dates:

NUMBER OF VACANCIES REPORTED TO EMPLOYMENT EXCHANGES BY EMPLOYERS UNFILLED ON EACH SPECIFIED DATE.

Date.	Number asked for by employers.			Date.	Number asked for by employers.		
	Men.	Women.	Total.		Men.	Women.	Total.
1918.				1919.			
Dec. 13.....	47,105	1,251	48,366	Mar. 21.....	18,298	2,542	20,840
Dec. 20.....	47,153	1,033	48,186	Mar. 28.....	17,606	2,642	20,248
1919.				Apr. 4.....	16,845	3,047	19,892
Jan. 3.....	51,085	959	52,044	Apr. 11.....	17,338	3,423	20,761
Jan. 10.....	49,669	964	50,633	Apr. 18.....	15,521	3,694	19,215
Jan. 17.....	47,288	1,530	48,818	Apr. 25.....	15,486	3,835	19,321
Jan. 24.....	43,411	2,631	46,042	May 2.....	16,073	4,096	20,169
Jan. 31.....	41,267	2,330	43,597	May 9.....	17,625	4,170	21,795
Feb. 7.....	37,416	2,811	40,227	May 16.....	17,495	4,428	21,923
Feb. 14.....	32,697	3,055	35,752	May 23.....	18,598	4,534	23,132
Feb. 21.....	28,857	3,051	31,908	May 30.....	19,538	4,767	24,305
Feb. 28.....	23,845	3,228	27,073	June 6.....	19,275	5,553	24,828
Mar. 7.....	21,937	3,325	25,262	June 13.....	19,397	6,341	25,738
Mar. 14.....	19,746	3,470	23,216	June 20.....	19,964	6,978	26,942

Training and Placement of Disabled Soldiers and Sailors.

The following tables show the results of the various training schemes for disabled soldiers and sailors:

CUMULATIVE NUMBER OF DISABLED SOLDIERS AND SAILORS WHO HAVE RECEIVED OR ARE RECEIVING TRAINING FOR INDUSTRY.

Week ending—	Number trained or in training under the Ministry of Labor in technical institutes, factories, etc.				
	Number under training at beginning of week.	Number admitted during week.	Number discharged during week.	Number under training at end of week.	Number discharged to date.
Apr. 30, 1919.....	9,085	258	130	9,213	13,006
May 7, 1919.....	9,213	291	163	9,341	13,169
May 14, 1919.....	9,341	282	136	9,487	13,305
May 21, 1919.....	9,487	368	240	9,615	13,545
May 28, 1919.....	9,615	351	258	9,708	13,803
June 4, 1919.....	9,708	310	194	9,824	13,997
June 11, 1919.....	9,824	298	141	9,981	14,138
June 18, 1919.....	9,981	361	337	10,005	14,475
June 25, 1919.....	10,005	303	213	10,095	14,688

Week ending—	Trained or in training in Lord Roberts's and St. Dunstan's workshops, etc.				
	Number under training at beginning of week.	Number admitted during week.	Number discharged during week.	Number in training at end of week.	Number discharged to date.
Apr. 30, 1919.....	1,282	18	28	1,272	1,841
May 7, 1919.....	1,272	5	8	1,269	1,849
May 14, 1919.....	1,269	5	12	1,262	1,861
May 21, 1919.....	1,262	6	7	1,262	1,867
May 28, 1919.....	1,262	10	6	1,265	1,874
June 4, 1919.....	1,265	4	16	1,253	1,890
June 11, 1919.....	1,253	.....	6	1,247	1,896
June 18, 1919.....	1,247	7	7	1,247	1,903
June 25, 1919.....	1,247	11	3	1,255	1,906

CUMULATIVE NUMBER OF DISABLED SOLDIERS AND SAILORS WHO HAVE RECEIVED
OR ARE RECEIVING TRAINING FOR INDUSTRY—Concluded.

Week ending—	Total trained or in training.				
	Number under training at beginning of week.	Number admitted during week.	Number discharged during week.	Number in training at end of week.	Number discharged to date.
Apr. 30, 1919.....	10,367	276	158	10,485	14,847
May 7, 1919.....	10,485	296	171	10,610	15,018
May 14, 1919.....	10,610	287	148	10,749	15,166
May 21, 1919.....	10,749	374	246	10,877	15,412
May 28, 1919.....	10,877	361	265	10,973	15,677
June 4, 1919.....	10,973	314	210	11,077	15,887
June 11, 1919.....	11,077	298	147	11,228	16,034
June 18, 1919.....	11,228	368	-344	11,252	16,378
June 25, 1919.....	11,252	314	216	11,350	16,594

NUMBER OF DISABLED SOLDIERS AND SAILORS TRAINED OR IN TRAINING UNDER
THE MINISTRY OF LABOR, BY COURSE OF TRAINING.

Course of training.	Training begun during June, 1919.	Training terminated during June, 1919.	In training on June 25, 1919.	Number trained, up to June 25, 1919.
Agriculture and forestry.....	1	2	527	393
Aircraft.....	5	4	27	15
Architecture.....	6	.....	36	41
Arts and craft.....	28	6	117	42
Baking and confectionery.....	10	2	19	11
Boot and shoe.....	169	123	1,517	1,112
Brush making.....	3	1	14	21
Building.....	98	29	469	218
Cane and weaving.....	18	4	151	94
Chemistry.....	8	3	66	27
Cinema.....	6	27	53	291
Commercial.....	183	194	1,320	1,381
Cutlery.....	.....	.....	1	1
Dental mechanics.....	25	5	235	100
Diamond work.....	10	26	273	222
Domestic service.....	6	3	14	14
Engineering:				
Civil.....	1	.....	2	.....
Electrical.....	118	110	894	1,231
Marine.....	3	3	19	10
Mechanical.....	215	122	1,325	981
Furniture.....	63	29	392	194
Glass.....	1	2	20	24
Gold and silver.....	39	20	380	117
Hairdressing.....	17	8	55	34
Leather.....	20	11	156	180
Lip reading.....	9	7	62	59
Massage.....	.....	.....	17	14
Mining.....	8	10	46	38
Navigation.....	1	1	3	8
Photography.....	3	4	17	24
Printing.....	14	7	79	71
Professional.....	11	7	41	22
Public service.....	3	1	2	12
Sanitary inspection.....	9	2	59	27
Scientific instruments.....	2	2	23	15
Sports equipment.....	.....	1	6	9
Straw hat.....	1	.....	11	19
Surgical appliances.....	2	3	30	18
Tailoring.....	57	42	467	234
Textile.....	21	8	109	103
Toy making.....	.....	1	12	21
Transport.....	56	40	228	381
Wheelwright, etc.....	6	2	16	6
Miscellaneous.....	16	12	74	63
Total analyzed.....	1,272	885	9,384	7,868
Not yet analyzed.....	.....	.....	711	6,820
Grand total.....	1,272	885	10,095	14,688

NUMBER OF REGISTRATIONS AND PLACEMENTS OF DISABLED SOLDIERS, SAILORS AND AIRMEN, GREAT BRITAIN, BY INDUSTRY.

Number on live registration, May 9, 1919.	New registrations during month ended June 6, 1919.	Placements during month ended June 6, 1919.	Number lapsed, canceled, etc.	Number on live register, June 6, 1919.
37,983	13,859	3,771	10,218	39,231

Industry.	Placements ¹ during month ended—			Total placements ¹ up to June 6, 1919.
	April 11, 1919.	May 9, 1919.	June 6, 1919.	
Insured industries:				
Building and works of construction.....	332	299	334	2,361
Shipbuilding.....	95	63	74	652
Engineering and iron founding.....	436	541	589	5,357
Construction of vehicles.....	31	33	59	288
Sawmilling, packing case manufacture, etc.....	36	51	37	319
Chemicals, etc.....	72	63	54	838
Iron and steel and other metal production, and metal manufactures.....	42	56	73	518
Total.....	1,044	1,106	1,202	10,303
Uninsured industries:				
Agriculture.....	107	98	92	553
Conveyance of men, goods, and messages.....	509	442	517	5,591
Mines and quarries.....	37	65	58	286
Textiles: Cotton, woolen and worsted, and other (including printing, dyeing, etc.).....	72	72	123	584
Commercial, and food, drink, and tobacco.....	457	349	445	4,370
Workers in dress.....	37	43	45	283
Domestic offices, and services.....	142	161	161	1,123
General laborers, factory workers, etc.....	479	336	633	3,881
Other uninsured industries.....	426	415	495	3,291
Total.....	2,257	2,031	2,569	19,962
Grand total.....	3,301	3,137	3,771	30,265

¹ First placements only. Subsequent placements amount to 1,985 for the whole period, 165 for the month ended June 5, 1919, and 219 for the month ended June 6, 1919.

It will be observed that on June 25, 1919, there were 11,350 disabled soldiers and sailors in training for various occupations and that 16,594 had been discharged after undergoing a period of training. The largest number in training in any one industry was 1,517 in the boot and shoe industry. The next largest was in mechanical engineering. The largest number trained in any one industry was 1,381 in commercial work. Electrical engineering is the second in importance, 1,231 having been trained for this work. The placement figures include those receiving employment without undergoing training, so that it can not be shown how many thus trained received employment. Total placements up to June 6, 1919, amounted to 30,265. On this date there were 39,231 on the live registers of employment exchanges.

Apprenticeship Schemes.

Up to June 16, 1919, employment exchanges had received 4,487 applications from employers and 5,817 applications from former apprentices for the completion of interrupted apprenticeships. A total of 3,823 agreements had been submitted to employers for completion, and 2,203 completed agreements had been sent to the training department.

In the table following is shown, cumulatively, the number of applications made in the United Kingdom for the completion of apprenticeships interrupted by the war.

CUMULATIVE NUMBER OF APPLICATIONS MADE UNDER "INTERRUPTED APPRENTICESHIP" SCHEME, UNITED KINGDOM.

Period ending—	Applica- tions from employers.	Applica- tions from apprentices.	Agreements submitted to em- ployers for completion	Completed agreements sent to training de- partment.
May 5, 1919.....	233	417	153	9
May 12, 1919.....	532	912	404	77
May 19, 1919.....	1,125	1,684	936	237
May 26, 1919.....	1,882	2,670	1,687	667
June 2, 1919.....	2,759	3,797	2,504	1,078
June 9, 1919.....	3,620	4,827	3,093	1,414
June 16, 1919.....	4,487	5,817	3,823	2,203

The number of interrupted-apprenticeship applications up to June 16, 1919, classified by industry, are shown below:

NUMBER OF APPLICATIONS MADE UNDER EACH SPECIFIED SCHEME OF APPRENTICESHIP UP TO JUNE 16, 1919, UNITED KINGDOM.

Industry.	Applica- tions from employers.	Applica- tions from appren- tices.	Agreement submitted to employ- ers for completion.	Completed agreements sent to training depart- ment.
Engineering.....	2,262	3,086	2,035	1,157
Furniture.....	289	351	240	171
Shipbuilding.....	330	416	244	135
Coach, motor body, van, etc.....	132	153	131	49
Scottish baking.....	79	89	69	43
Printing and allied industries.....	594	688	528	346
Iron founding.....	154	150	106	82
Electric contracting.....	77	114	54	37
Building.....	415	605	351	152
Brush making.....	4	5	3	2
Printing, etc. (Scotland).....	45	35	28	17
Silk.....	4	3	.....	.....
Bookbinding, etc.....	37	33	19	10
Blacksmith's and farrier's industry.....	2	2	1	.....
Not yet analyzed.....	63	89	14	2
Total.....	4,487	5,817	3,823	2,203

Training of Unemployed Women.

The following figures, showing the results of the scheme for the training of unemployed women, are significant chiefly because of the apparent lack of interest in the scheme. The total of 2,761 women who up to June 18, 1919, had taken advantage of the opportunity offered for training, as compared with the number of women on the live registers of employment exchanges, indicates that the scheme is practically a failure. In the weekly report on demobilization and resettlement for June 20, 1919, it is stated that "the cumulative total of considerably below 3,000 makes it appear that unemployed women have little ambition to take advantage of the opportunity offered."

Number of women applicants in Great Britain for training in specified occupations up to June 18, 1919.

	Number of applicants.
Domestic service.....	580
Clothing.....	887
Laundry.....	54
Food trades.....	18
Textiles.....	124
Metal trades.....	23
Paper, printing, etc.....	66
Clerical and commercial.....	169
All others.....	536
Total.....	2,457
Housewifery, etc.....	304
Grand total.....	2,761

Employment in Selected Industries in July, 1919.

THE Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in July, 1919, from representative establishments in 13 manufacturing industries. Comparing the figures of July of this year with those of identical establishments for July, 1918, it appears that in five industries there are increases in the number of persons employed. The largest increase, 13.2 per cent, appears in automobile manufacturing. Eight industries show decreases, the largest being 24.9 per cent in cigar manufacturing.

Ten of the 13 industries show an increase in the total amount of the pay roll for July, 1919, as compared with July, 1918, and 3, a decrease. Percentage increases of 23.2, 23.1, and 17.9 appear in silk, automobile manufacturing, and boots and shoes, respectively.

A decrease of 14.2 per cent is found in cigar manufacturing, while car building and repairing and iron and steel show respective decreases of 13 and 10.5 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JULY, 1918, AND JULY, 1919.

Industry.	Establishments reporting for July both years.	Period of pay roll.	Number on pay roll in July—		Per cent of increase (+) or decrease (-).	Amount of pay roll in July—		Per cent of increase (+) or decrease (-).
			1918	1919		1918	1919	
Automobile manufacturing...	41	1 week..	87,728	99,306	+13.2	\$2,237,372	\$2,754,297	+23.1
Boots and shoes.....	61	..do....	46,344	47,008	+ 1.4	833,441	982,773	+17.9
Car building and repairing..	47	½ month.	56,912	49,737	-12.6	2,998,598	2,609,108	-13.0
Cigar manufacturing.....	53	1 week..	18,662	14,022	-24.9	279,787	240,192	-14.2
Men's ready-made clothing...	31	..do....	18,395	16,861	- 8.3	359,435	411,908	+14.6
Cotton finishing.....	17	..do....	14,957	14,801	- 1.0	291,209	329,566	+13.2
Cotton manufacturing.....	56	..do....	54,317	56,885	+ 4.7	901,073	1,026,176	+13.9
Hosiery and underwear.....	59	..do....	30,359	28,242	- 7.0	447,233	462,837	+ 3.5
Iron and steel.....	104	½ month.	198,554	169,335	-14.7	11,282,678	10,102,974	-10.5
Leather manufacturing.....	32	1 week..	17,497	17,175	- 1.8	360,964	396,421	+ 9.8
Paper making.....	48	..do....	26,152	24,481	- 6.4	540,807	549,586	+ 1.6
Silk.....	45	2 weeks.	14,526	15,544	+ 7.0	442,883	545,795	+23.2
Woolen.....	49	1 week..	45,775	45,790	(1)	861,161	962,529	+11.8

¹ Increase of less than one-tenth of 1 per cent.

The following table shows the number of persons actually working on the last full day of the reported pay period in July, 1918, and July, 1919. The number of establishments reporting on this question is small and this fact should be taken into consideration when studying these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON THE LAST FULL DAY'S OPERATION IN JULY, 1918, AND JULY, 1919.

Industry.	Establishments reporting for July both years.	Period of pay roll.	Number actually working on last full day of reported pay period in July—		Per cent of increase (+) or decrease (-).
			1918	1919	
Automobile manufacturing.....	25	1 week....	58,084	73,978	+27.4
Boots and shoes.....	16	..do....	8,865	7,348	-17.1
Car building and repairing.....	45	½ month....	49,269	44,004	-10.7
Cigar manufacturing.....	17	1 week....	4,449	4,437	- .3
Men's ready-made clothing.....	6	..do....	6,856	7,146	+ 4.2
Cotton finishing.....	13	..do....	10,470	10,165	- 2.9
Cotton manufacturing.....	34	..do....	26,015	27,483	+ 5.6
Hosiery and underwear.....	20	..do....	11,824	11,296	- 4.5
Iron and steel.....	81	½ month....	158,018	135,719	-14.1
Leather manufacturing.....	16	1 week....	12,317	11,653	- 5.4
Paper making.....	17	..do....	12,015	10,659	-11.3
Silk.....	21	2 weeks....	8,293	9,084	+ 9.5
Woolen.....	40	1 week....	34,162	35,299	+ 3.3

Comparative data for July, 1919, and June, 1919, appear in the following table. The figures show that in 12 industries there was an increase in the number of persons on the pay roll in July as compared with June, and in one industry, a decrease. The greatest increase,

8.5 per cent, is shown in men's ready-made clothing, while a decrease of 11 per cent appears in cigar manufacturing.

When comparing July, 1919, with June of this year, 10 industries show an increase in the amount of money paid to employees and 3 show a decrease. The most important increase is 12.7 per cent in men's ready-made clothing. Woolen, automobile manufacturing, and cotton finishing show respective increases of 6, 5.3, and 5.1 per cent. Cigar manufacturing shows the largest decrease, 6.6 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JUNE AND JULY, 1919.

Industry.	Establishments reporting for June and July.	Period of pay roll	Number on pay roll in—		Per cent of increase (+) or decrease (-).	Amount of pay roll in—		Per cent of increase (+) or decrease (-).
			June, 1919.	July, 1919.		June, 1919.	July, 1919.	
Automobile manufacturing...	38	1 week...	91,725	95,477	+ 4.1	\$2,517,435	\$2,651,641	+ 5.3
Boots and shoes.....	60	do.....	47,712	47,781	+ .1	980,011	998,561	+ 1.9
Car building and repairing...	41	½ month...	43,105	43,310	+ .5	2,278,555	2,269,531	- .4
Cigar manufacturing.....	51	1 week...	14,800	13,177	-11.0	242,633	226,685	- 6.6
Men's ready-made clothing...	40	do.....	9,791	10,625	+ 8.5	223,932	252,350	+12.7
Cotton finishing.....	17	do.....	14,402	14,801	+ 2.8	313,554	329,566	+ 5.1
Cotton manufacturing.....	52	do.....	51,653	52,567	+ 1.8	942,239	956,745	+ 1.5
Hosiery and underwear.....	56	do.....	26,740	27,271	+ 2.0	428,902	448,300	+ 4.5
Iron and steel.....	98	½ month...	165,545	170,421	+ 2.9	10,206,906	10,263,889	+ .6
Leather manufacturing.....	32	1 week...	16,870	17,175	+ 1.8	381,926	396,421	+ 3.8
Paper making.....	47	do.....	22,488	23,061	+ 2.5	509,586	523,142	+ 2.7
Silk.....	44	2 weeks...	14,322	14,635	+ 2.2	511,703	505,477	- 1.2
Woolen.....	49	1 week...	44,155	45,790	+ 3.7	908,455	962,529	+ 6.0

A comparatively small number of establishments reported as to the number of persons working on the last full day of the reported pay periods. The following table gives in comparable form the figures for June and July, 1919:

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON THE LAST FULL DAY'S OPERATION IN JUNE AND JULY, 1919.

Industry.	Establishments reporting for June and July.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (-).
			June, 1919.	July, 1919.	
Automobile manufacturing.....	24	1 week....	69,127	71,356	+3.2
Boots and shoes.....	23	do.....	13,078	12,570	-3.9
Car building and repairing.....	40	½ month...	37,680	38,936	+3.3
Cigar manufacturing.....	18	1 week....	4,454	4,402	-1.2
Men's ready-made clothing.....	4	do.....	464	471	+1.5
Cotton finishing.....	14	do.....	10,737	10,915	+1.5
Cotton manufacturing.....	33	do.....	25,140	25,709	+2.3
Hosiery and underwear.....	20	do.....	10,943	11,250	+2.8
Iron and steel.....	88	½ month...	138,236	143,842	+4.1
Leather manufacturing.....	17	1 week....	12,745	12,883	+1.1
Paper making.....	18	do.....	9,830	10,502	+6.8
Silk.....	31	2 weeks...	11,308	11,725	+3.7
Woolen.....	45	1 week....	34,121	36,638	+7.4

Changes in Wage Rates.

In 11 of the 13 industries there were establishments reporting wage-rate increases and in one, iron and steel, a decrease during the period June 15 to July 15, 1919. Of the establishments reporting, many did not answer the inquiry relative to this item, but in such cases it is not likely that changes were made.

Automobile manufacturing: An increase of about 10 per cent to approximately 25 per cent of the help was given in one establishment. About 31 per cent of the force in one plant received an increase of $8\frac{3}{4}$ per cent. One plant increased 4 per cent of the employees $2\frac{1}{2}$ cents per hour, $7\frac{1}{2}$ per cent, 5 cents per hour, and 2 per cent, $7\frac{1}{2}$ cents per hour. The average hourly productive rate in one plant was increased 0.017 cent. Two concerns reported increases but gave no particulars.

Boots and shoes: Two plants granted a 20 per cent increase, which affected 25 per cent of the employees in one plant and 21 per cent of the force in the other. The war bonus in one establishment was dropped and an increase of 20 per cent given to the entire force. An increase of 15 per cent, affecting about 10 per cent of the employees, was given by one concern. Four establishments reported increases of 10 per cent, which affected all of the employees in two plants, the entire force except the foremen in another, and about 49 per cent of the employees in the fourth plant, which also gave the remainder of the force a 4 per cent increase. One concern gave all of the week and piece workers a 10 per cent bonus. The entire force in one plant received an increase of $8\frac{1}{3}$ per cent.

Cigar manufacturing: Approximately 90 per cent of the force in one factory received an increase of about 10 per cent. An 8 per cent increase to slightly more than 5 per cent of the employees was given by another factory. One concern reported an increase but gave no further particulars.

Men's ready-made clothing: Practically all of the employees in one establishment were increased 15 to 20 per cent. One establishment granted an increase of $12\frac{1}{2}$ per cent, but made no mention as to the percentage of employees affected. The entire force in one establishment received an increase of \$3 per week. One firm reported an increase and two other firms gave an increase to all of the workers, but they all failed to give any further data.

Cotton finishing: An increase of 10 per cent was reported by one plant, which failed to give the number of persons receiving the increase.

Cotton manufacturing: Two plants granted a 15 per cent increase, affecting all of the employees in the first plant, while no data in regard to the number of persons affected were given by the second

plant. An increase of 10 per cent to practically the whole force was reported by one establishment, and another establishment reported an increase of about 10 per cent. The whole force in one mill received an 8 per cent increase.

Hosiery and underwear: A 10 to 15 per cent advance in wages was made by one concern, and an increase of $12\frac{1}{2}$ per cent was granted to all of the employees by another concern. Three plants reported a 10 per cent increase, affecting the entire force in one plant, while the number affected was not given by the other two plants.

Iron and steel: One-third of the force in one plant were given an increase of 10 per cent, while one-third of the force received a 3 per cent increase, and 50 per cent of the force in a second plant were given a 10 per cent bonus. An increase of $4\frac{1}{2}$ per cent was granted to all of the employees in one factory. All of the hot-mill men in one establishment were decreased 13 per cent, and 65 per cent of the force in another establishment were decreased 10 per cent. Decreases of $7\frac{1}{2}$ per cent were made by two plants, affecting 50 per cent of the force in one plant and one-third of the force in the second plant; while approximately 50 per cent of the employees in one establishment were decreased about $7\frac{1}{2}$ per cent. Forty per cent of the force in one plant were decreased 7 per cent. A decrease of about 5 per cent, affecting approximately 35 per cent of the employees, was reported by one establishment, and a decrease of 0.0466 per cent, affecting about 1 per cent of the force, was made by another establishment.

Leather manufacturing: Approximately two-thirds of the force in one establishment received an increase of about 25 per cent, which was retroactive to May 1, 1919. An increase of 20 per cent was given to 50 per cent of the force in one establishment, while the remaining 50 per cent received an 11 per cent increase. All of the employees in one establishment received an increase of about 15 per cent. Three plants reported a 10 per cent increase, which affected the entire force in one plant, 18 per cent of the employees in the second, and 17 per cent of the employees in the third plant. An increase of approximately $7\frac{1}{2}$ per cent to all of the employees was granted by one concern.

Paper making: One establishment gave the entire force an increase of 15 per cent. Two mills granted all of the employees a 10 per cent increase. Fifty per cent of the force in one plant received a 7 per cent increase, and one mill gave the entire force an increase of about 4 cents per hour.

Silk: Four establishments reported an increase of 15 per cent, affecting practically the entire force in one mill, about 85 per cent of the force in another mill, 50 per cent of the employees in the third

mill, which also gave the remaining 50 per cent of the force an increase of 10 per cent, while the fourth plant failed to state the number of persons receiving the increase. An increase of about 15 per cent was granted to all of the employees in one mill. About 59 per cent of the force in one establishment received an increase of $12\frac{1}{2}$ per cent. The entire force in two plants and about 70 per cent of the employees in a third plant received an increase of 10 per cent. All of the employees in another establishment were given an increase of about 9 per cent. One plant reported an increase of $7\frac{1}{2}$ per cent, giving no further particulars, and two establishments granted all of the employees an increase of 6 per cent. The entire force in one mill received an increase of 4 per cent. Nine establishments gave an increase of \$2 per week per person.

Decreased Employment of Women in France.

IN DECEMBER, 1918, the French Minister of Labor sent out a circular addressed to the factory inspectors throughout the country inquiring as to the extent to which war factories had been adapted to the needs of peace production, and requesting also information as to the number, by sex, of employees of each establishment both before the war and at the time of the inquiry. The results of this inquiry have not yet been made public, but figures showing the number of employees before the armistice and at the time of the inquiry in 952 establishments wholly or partly converted to a peace footing are given in a recent publication.¹ According to this statement, the number of employees had changed as follows:

EMPLOYEES, BY SEX, IN 952 ESTABLISHMENTS BEFORE AND AFTER THE ARMISTICE.

Period.	Male.	Female.	Total.
Before the armistice.....	261,924	109,775	371,699
March 15, 1919.....	194,648	48,768	243,416

This shows a decrease of 25.7 per cent in the number of male employees, while the number of female employees had diminished by 55.6 per cent. The situation differed widely in different places. The largest numerical decrease was shown in Paris, where the number of women employed in 247 establishments fell from 47,980 before the armistice to 20,705 on March 15, a decrease of 27,275. The greatest percentage of decrease was found in Bordeaux, where the number of female employees in 118 establishments sunk from 7,057 before the armistice to 1,239 on March 15, a decrease of 82.4 per cent.

¹ Bulletin du Ministère du Travail et de la Prévoyance Sociale, Jan.-Mar., 1919, pp. 1-9, Transformation des usines de guerre en vue des productions de paix.

The inspectors state that there is a marked difference between factories established before the war which were taken over for war purposes and factories started during the war especially for the production of war necessities. The factories of the first class have, in general, returned to their former line of work, retaining most, if not all, of their employees; in some cases, where the factory has been enlarged during the war, the number of employees is greater than before hostilities began. Factories of the second class, especially those devoted to the production of aircraft, must be materially changed before they can be used for the production of peace needs, and it is from these that the dismissals have mainly taken place.

Unemployment and Unemployment Relief in Germany during First Four Months of 1919.

COMPILED BY ALFRED MAYLANDER.

GERMANY, like other belligerent countries, had made plans to keep down unemployment on the termination of hostilities by means of gradual demobilization, an efficient employment service, emergency public works, and other measures. When the war ended in a rout of its armies and the overthrow of its Government, these plans for demobilization and economic reconstruction could not be carried out. War industries employing hundreds of thousands came to a standstill overnight; demobilization of the vast armed forces was effected within a few weeks.

In this crisis the employment service failed to work satisfactorily. Furthermore, a lack of raw materials and a shortage of coal and of rolling stock contributed to the difficulties of the situation. The people, when offered employment, demanded preposterously high wages and their efficiency decreased to such an extent that some establishments report a fall in the per capita output to one-fourth of that of prewar days.

The unemployed increased in number from month to month. In an article in the *Frankfurter Zeitung*¹ Dr. Blaum pointed out how high the rate of unemployment was in Germany in March, four months after the cessation of hostilities, in spite of the large extent to which the male labor power of the country had been depleted by the war and its concomitants. He said:

Germany at the present time, as compared with prewar days, has lost an enormous number of workers belonging to all branches of trade and industry—1,700,000 men have been killed, 600,000 have been severely injured, and at the time of writing about 800,000 are still prisoners. Over 1,000,000 foreign workers have left the country. So

¹ *Frankfurter Zeitung*, Frankfurt on the Main, Mar. 12, 1919.

that altogether there are about 4,000,000 fewer workers in the country now than there were on the outbreak of the war. Yet, strange to say, there are now over 1,000,000 unemployed persons in Germany.

Official Labor Market Statistics.

As regards unemployment in January, 1919, the German Bureau of Labor Statistics published the following statement:

Reports received by the Bureau indicate that the general industrial situation underwent further deterioration during January. Violent disputes concerning wages, which extend to wider and wider circles, often without any comprehension of the interdependence of economic interests, and which threaten ultimately to become disastrous for the nation, together with wanton strikes, which are partly political in nature, menace the economic foundation of the State. The various branches of industry are most heavily burdened by these labor disputes, and the very urgent economic reconstruction is more and more delayed. Reorganization in industrial undertakings is rendered impossible and in this way the spirit of enterprise is practically crippled. In addition there are difficulties arising from the increasing unwillingness to work and the decline of production among a large part of the industrial population, which is due partly to insufficient nourishment and partly to other causes, as for example the transition from piece wages to time wages. Owing to these conditions, to increasing scarcity of coal, and to difficulties of transport, the state of employment continues to deteriorate, and curtailment of operation, shutdowns, and reductions of the hours of labor continue to become more frequent. All the principal branches of industry, particularly the textile and metal trades, show these conditions in common. In the iron and steel industry the cessation of traffic between the right and left banks of the Rhine and the lack of "Minette" ores from Lorraine, together with the impossibility of importing Swedish ore, threaten to bring about a complete shutdown. Under such serious conditions considerable dismissals of workmen on a large scale have had to be carried out, and the number of unemployed has consequently increased in an alarming degree. It is true that relief works have been undertaken in all parts of Germany, but these have been considerably hindered through the frost, while the disinclination of the workers of the large towns to take up employment in lignite mining or in agriculture must also be reckoned with. Some of this reluctance is due to the unsatisfactory conditions as regards food and housing accommodation, and, in the case of agriculture, to the low rate of wages. In spite of the various revisions of the order of November 13, 1918, relating to unemployment relief, which was based on the principle of obligation to work, the number of persons without employment has largely augmented. In the whole of Germany it increased from about 500,000 at the beginning of January to over 900,000 at the beginning of February. In Westphalia the number exceeded 16,000; in the Rhine Province it was nearly 117,000; in Saxony over 163,000. In the occupied districts the numbers declined; on January 9 they were 1,768 in Coblenz, 31,453 in Cologne, 3,319 in Trevis, 13,261 in Aix-la-Chapelle, while on the 29th of the same month the figures were 1,370 in Coblenz, 27,005 in Cologne, 2,772 in Treves, and 8,788 in Aix-la-Chapelle.

Statistics derived from the reports of employment exchanges show the numbers of unemployed entitled to benefits to have been at various periods of 1919 as follows:

Beginning of January, about.....	500, 000
Beginning of February.....	999, 369
Early in March.....	1, 076, 368
March 31.....	1, 053, 854
April 19.....	914, 959
End of April.....	829, 758

In Greater Berlin figures in February showed 260,917 unemployed at the beginning of the month and about 275,000 at its close.

Returns of the operations of employment exchanges show the numbers of applications per 100 vacancies in the winter and spring of 1918 and 1919 as follows:

NUMBER OF APPLICATIONS PER 100 VACANCIES IN SPECIFIED MONTHS IN 1918 AND 1919.

Sex.	1918					1919			
	Jan.	Feb.	Mar.	Apr.	Dec.	Jan.	Feb.	Mar.	Apr.
Males.....	62	53	(a)	62	131	188	205	168	155
Females.....	99	93	(a)	90	157	217	203	159	149

a Not reported.

Unemployment returns furnished by federations of trade-unions are as follows:

STATEMENT OF EXTENT OF UNEMPLOYMENT FURNISHED BY FEDERATIONS OF TRADE-UNIONS IN SPECIFIED MONTHS IN 1919.

Item.	January, 1919.	February, 1919.	March, 1919.	April, 1919.
Number of federations reporting.....	31	29	34	32
Total membership.....	2,508,000	2,616,732	2,399,157	3,051,521
Number of members unemployed.....	162,898	157,558	110,269	166,836
Per cent of members unemployed.....	6.5	6.0	3.8	5.5
Per cent of members unemployed in corresponding month of 1918.....	1.1	(a)	0.9	0.8

a Not reported.

The causes of this serious situation are considered variously to be (1) the psychology of the people, who lack the sense of personal responsibility, having become more and more accustomed to do what is ordered; (2) violent disputes concerning wages and other conditions; (3) a growing dislike of work; (4) scarcity of materials; and (5) difficulties of transport.

Unemployment Among Seamen.

The Hamburgischer Correspondent ¹ states that by the peace conditions requiring the delivery of the German shipping and shipbuilding production to the Allies, some 60,000 to 70,000 German seamen are deprived of employment. Many of these have by their own efforts found work in sea fishing, in agriculture, in trades, and in commerce. In the meantime the Government has arranged that as many seamen as possible shall be engaged by the Mine Sweeping and State Sea Fishery Departments, and shall have preference in the selection of

¹ Hamburgischer Correspondent, Hamburg, May 12, 1919.

workmen in shipyards, in net and cordage factories, in the docks service and warehouses, and in the harbor and canal construction. The Ministry of Public Works is reserving for unemployed seamen half the situations available for civilian candidates. The Ministry of Agriculture states that 10,000 to 14,000 men could be employed weekly in agriculture, and it is officially announced that in time 100,000 men will be engaged in the inland canal construction and that 2,000 situations are being reserved for mercantile sailors. The shipowners are doing what they can to enable their employees to tide over the time till they find other work. The Central Association of German Shipowners has recommended that its members pay the salaries of captains and ships' officers till July 1, and pay to those returning from abroad and from captivity three months' salary from the day of their arrival; further, those returning from handing over the German ships are to receive a month's pay from the date of their dismissal.

Order Regulating Unemployment Relief.

Shortly after the conclusion of the armistice a supreme national authority, with the title "National Office for Economic Demobilization" (*Reichsamt für Wirtschaftliche Demobilmachung*), was established for transferring German economic life into peace channels.¹ The head of the War Raw Materials Department, Col. Koeth, was appointed to preside over this office. On November 13, 1918, the new office issued an order making it obligatory for all municipalities (communes or unions of communes) to institute an unemployment relief, which from a legal point of view is not to be regarded as poor relief. For the granting of this relief the order laid down the following principles:

Expenses are to be borne one-sixth by the municipality, two-sixths by the Federal State and three-sixths by the National Treasury. The share of the last named may be increased in the case of poorer municipalities. Demobilized soldiers are to receive relief in their place of residence before the war, and they may journey to such destination at the cost of the municipality they are leaving.

Relief is to be paid only to persons over 14 years of age, able and willing to work, who in consequence of the war are indigent owing to unemployment. Indigence is presumed only when, in consequence of total or partial unemployment, the income of the person, together with the income of the members of his family living with him, has been so reduced that he is no longer in a position to meet his necessary living expenses. Women are to receive relief only if they are dependent on their own exertions for a living. Persons whose former supporters return home from the army able to work are not to receive unemployment relief.

Unemployed persons are bound by the order to accept any suitable work assigned to them by the employment exchange, even if outside their own trade and place

¹ Deutsche Allgemeine Zeitung, Berlin, Nov. 14, 1918.

of residence, especially in the locality where they were formerly employed and in the locality where they lived before the war, even if shorter hours are involved, provided that they are offered for the work assigned them suitable wages as customary in the locality, that the work is not injurious to their health, that their lodging is morally unobjectionable, and in the case of married men, that the maintenance of their family is not impossible.

The nature and amount of relief, the fixing of a waiting period of at most one week for unemployed persons (with the exception of ex-soldiers), and the further payment of their sickness insurance premiums, are to be left to the judgment of the commune or communal union. These must see, however, that the relief granted is sufficient and that it equals the local wage fixed in accordance with the Imperial Workmen's Insurance Code, and that it is increased for the supporter of a family in accordance with the size of the family. In place of money grants relief in kind may be given.

Should workers in consequence of a temporary shutdown or a limitation of their work fail to work the number of hours per week usual in their establishments without overtime, they are to receive unemployment relief for the hours they have missed, provided that 70 per cent of their regular earnings is not equal to twice the sum given in relief in case of total unemployment.

The communes or unions of communes may make the unemployment relief, especially in the case of juvenile workers, dependent on further considerations, e. g., attendance at schools, training courses, workshops, etc. They may determine causes for the exclusion of persons from the benefits of unemployment relief, e. g., misuse of benefits, failure to conform with the regulations, etc.

No regard shall be paid to small amounts of property, such as small savings, household goods, etc., in defining necessitous cases. Relief which the unemployed may receive through his own providence or that of others, as from a pension, may be taken into account in the relief granted by the commune or communal union only when the unemployment relief, other relief, and the pension taken together are four times the amount of the local wages.

For the carrying out of the unemployment relief the order provides that welfare committees are to be established, to which representatives of the employers and workers are to be appointed in equal numbers.

The order came into force on the day of its promulgation (Nov. 13, 1918) and is to remain in force for at least one year.

Rates of Unemployment Grants in Individual Municipalities.

In pursuance of the order of November 13, 1918, of the National Office for Economic Demobilization, ordinances regulating unemployment relief were soon issued by all German municipalities.

In Berlin the amount of the unemployment relief in case of total unemployment was fixed for each week day as follows:¹ For male persons over 17 years of age, 4 marks (95.2 cents); for those between 14 and 17 years, 3 marks (71.4 cents); for female persons over 17 years, 3 marks (71.4 cents); and for those between 14 and 17 years, 2.50 marks (59.5 cents). In addition each unemployed person was to receive 1 mark (23.8 cents) a day for his wife, for each child under

¹ Vossische Zeitung, Berlin, Dec. 2, 1918. Morning edition.

14 years of age, and for each other member of his household who is unable to earn a living and whom he is legally obligated to support. In case of partial unemployment owing to a shortening of the hours of labor, and provided that the earnings from wages amount to less than 70 per cent of the normal earnings, the ordinance provided for payment of a corresponding part of the above rates of unemployment relief, i. e., of one-half the rates in case of reduction of the daily hours of labor to four hours or less, and of one-fourth in case the hours of labor are between four and six hours. Payment of the relief is to take place weekly. Members of the Free, Christian, and Hirsch-Dunker trade-unions are to be paid these unemployment benefits through their unions, and all other unemployed persons directly through their communes.

Similar moderate rates of unemployment relief were introduced in all other German municipalities, but the unemployed soon became dissatisfied with the rates fixed. In this connection the "Soziale Praxis" says: ¹

Under the pressure of local workers' and soldiers' councils or of demonstrations of the unemployed, the unemployment benefits have been screwed up to such a level that they have become inducements to people to abandon work so that they may draw the increased benefits. They will accept work only for exorbitant wages. Heavy and unpleasant work—agriculture work in particular—is refused. Simultaneously the high unemployment benefits act as a perpetual incitement to fresh demands for higher wages and salaries. It is opposed to all sound principles that an official of an employment exchange, working hard all day, should get a salary that is less than the unemployment benefit. The following is a list of the recently fixed unemployment benefits in a number of municipalities:

RATES OF UNEMPLOYMENT BENEFITS PAID IN SPECIFIED GERMAN CITIES, JANUARY, 1919.

Municipality.	Rate per day, Sundays included.	Municipality.	Rate per day, Sundays included.
<i>Frankfort on the Main.</i>		<i>Nuremberg and Furth.</i>	
Single persons living with their parents:	<i>Marks.</i>	Males over 21 years.....	<i>Marks.</i> 6.00 (\$1.428)
Over 21 years.....	4.50 (\$1.071)	Females over 21 years.....	4.00 (.952)
From 18 to 21 years.....	4.00 (.952)	Males 16 to 21 years.....	5.00 (1.190)
Under 18 years.....	3.30 (.785)	Females 16 to 21 years.....	3.00 (.714)
Single persons living in lodgings:		Males under 16 years.....	3.00 (.714)
Over 21 years.....	6.00 (1.428)	Females under 16 years.....	2.10 (.500)
From 18 to 21 years.....	5.50 (1.309)	Extra for wife and parents unable to work.....	2.00 (.476)
Under 18 years.....	5.00 (1.190)	Other dependents 16 to 21 years....	1.50 (.357)
Married persons without children..	8.00 (1.904)	Other dependents under 16 years..	1.00 (.238)
Family with 5 children.....	12.00 (2.856)		
<i>Stuttgart.</i>		<i>Kiel and Hamburg.</i>	
Single male persons over 21 years..	6.00 (1.428)	Husband.....	8.00 (1.904)
Single male persons 16 to 21 years..	5.00 (1.190)	Extra for wife.....	2.00 (.476)
Single male persons under 16 years..	3.30 (.785)	Extra for each child.....	1.50 (.357)
Married man.....	7.00 (1.666)		
Extra for wife.....	2.00 (.476)		
Extra for each child.....	1.00 (.238)		

¹ Soziale Praxis und Archiv für Volkswohlfahrt. Vol. 28, No. 17. Berlin, Jan. 23, 1919.

At Cologne, benefits similar to those above specified are paid and in addition the charges at the communal kitchens are reduced by 50 per cent, this being equivalent to a grant of 2 marks (47.6 cents) a week. Of 23,000 unemployed persons, only 300 make use of this privilege.

Naturally the unemployed are flocking to the large cities in which high unemployment benefits are being paid, and agriculture and other rural industries are languishing for lack of labor, and the future supply of foodstuffs is thereby endangered. The coal mines of Westphalia, Saxony, Silesia, and Thuringia are all unable to find sufficient labor. * * * More necessary than all new decrees is the determination to carry out inflexibly the existing regulations, and especially to resist the constantly renewed efforts for the increase of the relief rates. Otherwise we are only at the beginning of a state of unemployment which will be brought about by the inability of our industries to compete with foreign industries working with lower wages and cheaper raw materials.

Amendment of Decree Relating to Unemployment Relief.

In order to lessen the congestion of the unemployed in the large cities, the Demobilization Office on January 15, 1919, announced the amendment of the order of November 13, 1918, relating to unemployment relief.¹ The following are the principal amendments:

1. Persons who during the war came from another district to take up work may receive assistance in the district to which they came for not longer than four weeks in all, even if it has not been possible to assign them suitable work.

2. The local authorities are bound to refuse or withdraw assistance if the unemployed person declines to accept work assigned to him. (This obligation on the local authorities did not previously exist, but endeavors were made to exert moral compulsion on the unemployed to accept work offered.)

3. The withdrawal of unemployment relief may not take place before two weeks after the promulgation of the present decree.

Free Travel for the Unemployed.

The *Deutsche Allgemeine Zeitung*² announces that in virtue of an order of the Demobilization Office relating to suspension, dismissal, and discharge of workers during the period of economic demobilization, workers who are traveling to their homes in the first five days after notice has been given, will receive free travel permits for themselves and their families on production of the police removal permit and a certificate of the employer as to the date when notice was given. The costs will be defrayed by the Imperial Railroad Administration. The order applies to all industrial workers within the meaning of the Industrial Code, and so far as railroads are concerned, to the workmen employed in the workshops.

¹ *Kölnische Zeitung*, Cologne, Jan. 24, 1919.

² *Deutsche Allgemeine Zeitung*, Berlin, Jan. 25, 1919.

Grants to Agricultural Laborers.

According to the *Deutsche Allgemeine Zeitung*¹ an order has been issued which may alleviate the shortage of agricultural labor. Considerable advantages are secured to laborers seeking employment on the land, and the employment bureau system is made more uniform. The following provisions of the order are of special importance:

Persons of either sex now out of work and formerly employed in agriculture or forestry will receive special advantages as soon as they report to the communal authorities at their place of residence that they have accepted a situation in agriculture or forestry, and are therefore obliged to change their place of residence. In the first place they will be given free railroad transportation to their place of destination and will receive suitable assistance in meeting their traveling expenses. Similar advantages accrue to the members of the family of the worker who intend to accompany or follow him to his place of destination. Meanwhile, the commune of the last place of residence must be assured that lodgings in the new place of employment are secured, and must attempt to have the man's goods and chattels transferred by rail free of charge. This regulation is obviously of the greatest importance, since it removes an objection against a change into the country raised by many who are willing to work.

When it is impossible for a worker to take with him the members of his family, these are to receive "family grants" while the employment in agriculture or forestry lasts.

The commune or communal union of the worker's last place of residence is to cover the above expenditures from the unemployment relief funds.

Higher Scale of Unemployment Relief Demanded.

Warnings in the press against the granting of too high unemployment allowances are numerous. The *Vossische Zeitung*,² to quote only one daily paper, says:

The chief cause of the unemployment is the disinclination to work which is fostered by the rates of unemployment relief which are in operation, and which have been fixed irrespective of the requirements of the recipient. Local authorities should be empowered to investigate each case on its merits and fix the rate of relief accordingly. The 10 or 12 billion marks which unemployment relief will claim per year is a mere trifle compared with the irreparable damage being inflicted on German industry by the pernicious and disintegrating influence of unemployment relief upon the diligence and industry of the workers.

¹ *Deutsche Allgemeine Zeitung*, Berlin, Mar. 19, 1919.

² *Vossische Zeitung*, Berlin, Feb. 7, 1919.

In spite of such warnings the so-called "Committee on Unemployment" has laid before the National Ministry of Labor the draft of a new bill for the relief of unemployment.¹ The new bill demands a grant of 10 marks (\$2.38) per day for an unemployed man over 18 years of age, 4 marks (95.2 cents) for his wife, and 2 marks (47.6 cents) for every child under 14. A man with a wife and three children would thus be entitled to an income amounting to about 7,000 marks (\$1,666) per year in the form of unemployment relief. Pensions for disablement and separation allowances are not to be deducted from the grants.

¹ Kölnische Zeitung, Cologne, Apr. 25, 1919.

WAGES AND HOURS OF LABOR.

Wages and Hours of Labor in the United States.

THE industrial survey, carried on by the United States Bureau of Labor Statistics at the request of the War Industries Board, gathered information concerning wages and hours of labor of 444,549 employees. Of this number, 39,791 were in hotels and restaurants and 404,758 in other industries. As the information concerning the hotel and restaurant employees does not lend itself to presentation in the form selected for use in other industries, those employees are entirely omitted from consideration in the body of this article. They are treated separately in tables and text to be found on pages 190 to 217.

Of the 404,758 employees in other industries, 318,946 are males and 85,812 are females. They are distributed over 28 industries and 43 States. The industries were selected chiefly on the basis of the number of wage earners employed in them, as reported in the 1915 Census of Manufactures. The States were selected for each industry separately on the same basis. The number of States covered in the different industries varied from 1 in anthracite coal mining to 28 in the foundry industry. Three industries with large numbers of employees were omitted from the survey because they had recently been covered by the Bureau in a similar investigation. These industries were the manufacture of cotton goods, woolen and worsted goods, and boots and shoes. The following table gives the names of the industries included in the first part of the report and the number of States and employees included in each industry:

NUMBER OF STATES AND OF EMPLOYEES INCLUDED, BY INDUSTRY.

Industry.	Number of States.	Number of employees.	Industry.	Number of States.	Number of employees.
Automobiles.....	7	18,434	Leather.....	9	8,974
Boxes, paper.....	10	6,102	Logging.....	21	7,330
Brick and tile.....	11	1,773	Lumber.....	22	18,022
Cars.....	14	15,606	Machine shops:		
Chemicals.....	25	29,188	Machine tools.....	11	7,971
Cigars.....	10	16,501	Other machinery.....	27	14,931
Clothing, men's.....	9	19,651	Millwork.....	13	5,154
Clothing, women's.....	7	9,909	Overalls.....	19	6,797
Coal.....	18	56,757	Paper and pulp.....	14	8,326
Confectionery.....	19	15,546	Pottery.....	4	3,257
Electrical machinery.....	8	5,987	Rubber.....	9	18,554
Foundry.....	28	15,423	Silk.....	7	9,363
Furniture.....	13	11,530	Typewriters, adding machines, etc.....	10	12,303
Glass.....	9	13,641			
Hosiery and underwear.....	15	15,981	Total.....	43	404,758
Iron and steel.....	15	31,747			

In nearly all cases the information on which the tables are based was gathered directly from the pay rolls of the companies by agents of the Bureau. In a few instances schedules were accepted which had been filled out by the employers, but only when the Bureau was convinced that the information contained in them was thoroughly dependable.

The figures for hours and earnings given in the tables are based on hours actually worked by each individual employee and earnings actually received by him in one pay-roll period. In the case of pieceworkers many establishments had no record of time actually worked. No such establishment was included in the survey unless some arrangement could be made for securing a reliable record of the time actually worked by pieceworkers day by day throughout the period.

The only difficulty in determining actual earnings during any given time was encountered in the comparatively few establishments in which the pay-roll periods and the periods of distributing bonus did not coincide. Such establishments were taken only when some way could be discovered of determining the amount of bonus to which each employee became entitled as a result of his labor during the period for which his earnings were ascertained. The amount given as his earnings for the period includes the bonus.

In nearly all cases the data given are based on the records of a single pay-roll period. Occasionally it was necessary to include two or more pay-roll periods in order to synchronize the pay-roll period and the bonus period. The length of the period varies. The great majority of pay-roll periods are for one week, some are for two weeks or a half month, while in a few industries in some localities monthly pay-roll periods are found.

By far the larger part of the pay-roll periods fall within the first four months of 1919. In some instances, however, special conditions made it necessary to use data from earlier periods, and on account of the necessity of having a record kept of the time of pieceworkers a number of pay-roll periods for May and a few running into the first week of June had to be included. Practically all of the information falls within a period of nine months. The distribution of pay-roll periods by months is as follows: 1918—June, 1; August, 1; September, 24; October, 63; November, 47; December, 217. 1919—January, 506; February, 455; March, 463; April, 371; May, 223, June, 8.

The original plans for the survey were outlined before the end of the war. The purpose was to obtain a report of war-time industrial conditions as a matter of historical record and as a practical guide in regulating conditions of employment during the further progress of the war. The unexpectedly early termination of the war brought

in its train sudden and great changes in industrial activities. What the report reflects, therefore, is the abnormal and unsettled conditions of the early days of reconstruction, rather than the characteristics of war-time production.

The information summarized in the following tables came into the Bureau in the form of detailed reports of the hours actually worked and the pay received by each of 404,758 employees in establishments with pay-roll periods varying from a week to a month in length. Before any use could be made of this information, whether for purposes of tabulation or as the basis of comparisons and generalizations, it was necessary to reduce hours worked on the one hand and earnings received on the other hand to some common basis.

In the case of hours this purpose was accomplished by the following method: The number of hours actually worked by each employee during the pay-roll period was divided by the number of workdays in the period, Sundays and holidays being omitted. Thus in the case of one-week pay rolls the number of hours worked by each employee was divided by six. The quotient is the number of hours per day that the employee would have worked if the hours actually worked by him had been distributed uniformly through what are generally recognized as the workdays of his pay-roll period. That is the figure referred to in the table as "Average number of hours per week day."

In a similar manner the earnings of all employees were reduced to a common denominator by a method long in use in the Bureau. The total earnings of each employee for the entire pay-roll period were divided by the number of hours which he actually worked during that period. The quotient is the number of cents that the employee would have earned each hour if his actual earnings had been distributed uniformly through the hours worked by him.

In using the figures presented in this report it must be borne in mind that the present survey fell upon a period of unusually abnormal and disturbed industrial conditions. For that reason the figures can not be relied upon as an index of hours and earnings in normal times, nor can comparisons be made between hours or earnings in different industries or localities without proper allowance for possible abnormal conditions. Especially where a single industry is included in the totals of any State and that industry was in an abnormal condition at the time of the survey, the figures for hours and earnings in the State must be used with caution. For example, during the time when schedules for coal mining in the western States were being filled out, the industry was in a very depressed condition. Practically no mines were operating full time; many were closed down entirely. It was necessary to include in the survey a considerable number of mines running little if any over half time. The result of this condition of

affairs is seen in the short hours worked on the average in such States as Kansas, Utah, and Wyoming, in which employees in coal mines constituted all or a large part of the whole number of employees scheduled for the State. It is possible also that hourly earnings in the same States are somewhat higher than normal, owing to the effort of the workers whose hours were limited to earn as much as possible during their shortened work time. The extent of the influence of part-time pay rolls may be conjectured from the following facts: The tabulated information concerning male employees was obtained from 2,365 pay rolls. Of this number 156, or 6.6 per cent, were for part-time pay rolls. For female employees 15 schedules out of 1,121, or 1.3 per cent, were for part-time pay-roll periods.

These limitations, however, apply to a relatively small number of States, and those, too, which are of comparatively little prominence industrially. For most of the States the figures are so large that the influence of exceptionally abnormal conditions in a single industry is lost in the totals. For all of the industries and for the highly developed industrial States the figures in the tables may be relied upon as giving a fair representation of hours and earnings in industrial establishments at the time when the survey was made.

In these comparable forms of average hours worked per week day through the pay-roll period and average earnings received per hour worked the tables on pages 182 to 186 give in summary form the basic facts about the hours and earnings of 318,946 male and 85,812 female wage earners in the United States. In the first of these tables the employees are grouped by industries with all States and occupations combined, while in the second table the same employees are grouped by States, with all industries combined. In both tables data for male and female employees are given separately. In the table on pages 182 and 183 it will be seen that in a few industries a comparatively small number of employees are listed. This is particularly true of female employees in the foundry, iron and steel, and machine tool industries, and of males in the overall industry. The explanation of this condition lies in the fact that the employees in these industries are predominantly of one sex.

In the table on pages 184 to 186 a similar condition will be found to exist with reference to a number of States, and especially in the number of female employees found in them. As the plan of the survey was outlined on the basis of industries and not States, the number of industries included in different States varies greatly. Here again the explanation of the small numbers is to be found in the fact that the type of industry investigated by the survey is only slightly developed in many States. The numbers included are fairly representative of a particular class of employees in the State, but they can not be

regarded as furnishing a sufficiently broad basis for generalizations as to the hours and earnings of employees in general in that State.

In using these small numbers, whether for any particular industry or for any particular State, constant consideration should be given on the one hand to the States from which the data for the industry were gathered, and on the other hand to the industries to which data for the State apply. In the following table is given the information needed to enable the reader to make the proper allowance for the conditions just referred to. From this table it may readily be ascertained either what States were included in the survey of any industry or what industries are included in the totals for any State. In all cases the sex of the employees is indicated. Thus the letters "M. F." in the tenth line of the second column indicate that both male and female employees were tabulated in the paper box industry in the State of Illinois.

A final word of caution may be necessary as to the real significance of the figures in the following tables. Hours and earnings are in no sense normal or full-time hours and earnings. They are averages based on the hours actually worked and the pay actually received by all the people given on the pay rolls as working at any one of the selected occupations, whether those people worked all, or only a part, of the pay-roll period. For example the figure 7.6, representing the average number of hours per week day worked by all male employees, indicates that in the particular pay-roll periods covered by the survey the 318,946 males about whom information was secured actually worked a number of hours equivalent to an individual average of 7.6 hours a day for six days a week. If each employee had worked the same number of hours a day and six days a week, all would have needed to work 7.6 hours a day to make up the total number of hours actually worked by them. Similarly average earnings per hour of 56.1 cents for all male employees indicate that if each male employee had received 56.1 cents for every hour worked by him his aggregate earnings would equal the amount actually received by him during the pay-roll period.

CORRELATION OF STATES AND INDUSTRIES.

State.	Automobile.	Box, paper.	Bricks.	Car.	Chemical.	Cigar.	Clothing, men's.	Clothing, women's.	Coal.	Confectionery.	Electrical machinery.	Foundry.	Furniture.	Glass.	Hosiery and underwear.	Iron and steel.	Leather.	Logging.	Lumber.	Machine tools.	Other machinery.	Millwork.	Overalls.	Paper and pulp.	Pottery.	Rubber.	Silk.	Typewriters.
Alabama.....					M.F.				M.			M.				M.		M.	M.		M.							
Arkansas.....																			M.	M.								
California.....			M.		M.					M.F.		M.				M.	M.F.		M.		M.		M.F.					
Colorado.....									M.																			
Connecticut.....		M.F.			M.						M.F.				M.F.					M.F.				M.F.	M.F.	M.F.	M.F.	
Delaware.....																												
Florida.....					M.F.	M.F.											M.F.			M.								
Georgia.....					M.F.						M.F.	M.			M.F.				M.	M.		M.						
Idaho.....																												
Illinois.....	M.F.	M.F.	M.	M.	M.	M.F.	M.F.	M.F.	M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.	M.	M.F.		M.		M.		M.F.		M.F.	M.F.	M.F.	M.F.
Indiana.....	M.F.			M.	M.	M.F.	M.F.	M.F.	M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.	M.				M.F.	M.	M.	M.F.					M.F.
Iowa.....			M.	M.	M.F.	M.			M.	M.F.		M.F.									M.	M.	M.F.					
Kansas.....					M.F.				M.																			
Kentucky.....										M.F.		M.F.										M.						
Louisiana.....					M.F.															M.								
Maine.....																				M.								
Maryland.....			M.	M.	M.	M.F.	M.F.	M.F.	M.	M.F.	M.	M.	M.F.	M.F.					M.	M.	M.		M.F.			M.F.	M.F.	
Massachusetts.....		M.F.		M.	M.	M.F.	M.F.	M.F.	M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.		M.F.											
Michigan.....	M.F.	M.F.	M.		M.F.	M.F.	M.F.	M.F.	M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.		M.			M.					M.F.			M.F.
Minnesota.....					M.F.	M.F.				M.F.		M.			M.F.					M.								
Mississippi.....																												
Missouri.....		M.F.	M.	M.	M.F.		M.F.	M.F.	M.	M.F.		M.	M.F.							M.			M.F.					M.F.
Montana.....																												
New Hampshire.....									M.																			
New Jersey.....		M.F.	M.	M.		M.F.	M.F.			M.F.	M.F.	M.F.	M.F.	M.F.		M.	M.F.			M.F.	M.		M.F.	M.F.	M.F.	M.F.	M.F.	M.F.
New Mexico.....																												
New York.....	M.F.	M.F.	M.	M.	M.F.	M.F.	M.F.	M.F.	M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.	M.	M.F.			M.		M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.
North Carolina.....					M.																							
Ohio.....	M.F.	M.F.	M.	M.	M.F.	M.F.	M.F.	M.F.	M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.	M.				M.	M.	M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.
Oklahoma.....					M.																							
Oregon.....				M.						M.F.		M.								M.	M.	M.		M.F.				
Pennsylvania.....	M.F.	M.F.	M.	M.	M.F.	M.F.	M.F.	M.F.	M.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.	M.F.			M.	M.	M.	M.F.	M.F.				M.F.
Rhode Island.....																												
South Carolina.....																												
Tennessee.....				M.		M.F.			M.	M.F.		M.F.	M.F.		M.F.	M.				M.	M.	M.	M.F.					
Texas.....					M.																							
Utah.....									M.																			
Vermont.....																												
Virginia.....				M.	M.				M.					M.F.	M.F.	M.				M.	M.			M.F.				M.F.
Washington.....										M.F.		M.			M.					M.	M.				M.F.			
West Virginia.....				M.					M.					M.F.		M.F.				M.	M.				M.F.			
Wisconsin.....	M.F.	M.F.		M.	M.F.				M.	M.F.		M.	M.F.		M.		M.F.			M.	M.	M.	M.F.	M.F.				M.F.
Wyoming.....									M.																			

AVERAGE AND CLASSIFIED HOURS PER DAY AND

Males.

Industry.	Number of States.	Number of employ-ees.	Average number of hours per week day.	Employees whose average hours per week day for pay-roll period were—											
				Under 4.	4 and under 5.	5 and under 6.	6 and under 7.	7 and under 8.	8 and under 9.	9 and under 10.	10 and under 11.	11 and under 12.	12 and over.		
Automobiles.....	7	17,812	8.2	694	365	455	1,022	2,888	6,057	4,820	1,086	327	98		
Boxes, paper.....	10	1,805	8.3	76	37	48	65	148	774	475	126	46	10		
Brick.....	11	1,773	7.7	143	74	109	209	335	410	273	101	34	85		
Cars.....	14	15,606	7.8	1,037	600	779	1,577	2,582	3,987	3,452	1,244	323	25		
Chemicals.....	25	28,478	8.4	2,990	851	1,250	1,844	5,390	6,338	4,272	1,336	2,367	2		
Cigars.....	10	5,223	7.8	150	89	238	755	1,900	1,006	986	207	.....	2	
Clothing, men's.....	9	9,926	7.8	286	209	448	776	2,796	4,898	426	55	13	19		
Clothing, women's.....	7	3,127	8.1	69	22	35	116	527	1,832	460	66	.....	.....
Coal:															
Anthracite.....	11	6,216	7.4	1,615	625	1,047	2,083	3,383	4,199	1,372	802	473	617		
Bituminous.....	18	40,541	5.5	8,382	9,134	8,027	5,770	4,253	2,697	1,256	535	215	272		
Confectionery.....	19	4,370	8.7	188	62	99	141	241	1,119	1,932	366	168	54		
Electrical machinery.....	8	4,369	7.9	100	70	107	300	1,011	1,842	844	73	16	6		
Foundries.....	28	15,340	8.2	686	420	521	1,115	2,311	4,011	3,840	1,631	441	364		
Furniture.....	13	10,615	8.5	540	191	247	366	756	1,999	4,724	1,649	108	35		
Glass.....	9	11,738	7.7	1,221	697	653	1,180	2,282	2,196	1,463	803	452	791		
Hosiery and underwear.....	15	2,607	7.7	123	81	300	171	275	935	524	166	22	10		
Iron and steel.....	15	31,588	7.8	5,968	1,910	1,946	3,685	2,776	2,450	2,599	2,525	2,232	5,497		
Leather.....	9	7,920	8.1	434	194	258	597	830	3,174	1,238	989	147	59		
Logging.....	21	7,330	6.0	2,294	506	579	564	859	941	603	828	114	42		
Lumber.....	22	18,022	7.2	3,157	756	1,076	1,413	2,284	3,036	2,503	3,330	347	170		
Machine shops:															
Machine tools.....	11	7,817	8.6	338	151	248	298	571	1,768	3,063	1,022	318	40		
Other machinery.....	27	14,931	8.2	566	339	470	822	2,097	5,286	3,491	1,081	481	298		
Millwork.....	13	5,154	8.1	271	100	118	198	889	1,607	1,465	471	22	13		
Overalls.....	19	358	7.1	15	14	30	46	142	98	8	3	1	1		
Paper and pulp.....	14	6,379	8.6	188	114	152	261	357	2,787	1,263	532	281	444		
Pottery.....	4	2,142	7.1	134	125	241	415	468	490	197	72	.....	.....
Rubber.....	9	15,134	8.2	365	378	726	1,741	2,682	4,021	3,079	1,455	415	272		
Silk.....	7	3,755	8.0	195	109	103	176	460	1,694	816	152	23	27		
Typewriters.....	10	8,870	8.6	198	110	173	474	585	2,969	3,199	889	215	58		
Total.....	43	318,946	7.6	32,423	18,333	20,483	28,180	41,768	74,273	56,709	26,531	8,570	11,676		

Females.

Industry.	Number of States.	Number of employ-ees.	Average number of hours per week day.	Employees whose average hours per week day for pay-roll period were—											
				Under 4.	4 and under 5.	5 and under 6.	6 and under 7.	7 and under 8.	8 and under 9.	9 and under 10.	10 and under 11.	11 and under 12.	12 and over.		
Automobiles.....	7	622	7.8	28	15	26	44	133	252	122	2	.....	.....
Boxes, paper.....	10	4,297	7.5	273	111	135	355	711	2,392	297	23	.....	.....
Chemicals.....	16	710	7.5	40	32	26	62	192	262	76	18	1	1		
Cigars.....	10	11,278	7.6	567	345	541	1,350	2,733	3,506	2,165	91	.....	.....
Clothing, men's.....	9	9,725	7.3	408	254	595	1,227	2,655	3,265	204	12	7	.....	
Clothing, women's.....	7	6,782	7.4	303	190	289	688	2,153	3,000	155	2	.....	.....
Confectionery.....	19	11,176	7.4	874	459	552	1,266	2,591	3,638	1,795	1	.....	.....
Electrical machinery.....	8	1,618	7.6	50	31	49	140	481	733	134	.....	.....	.....
Foundries.....	11	83	7.1	.....	5	8	15	43	6	.....	.....	.....	.....
Furniture.....	12	915	8.1	46	25	29	50	114	243	330	78	.....	.....
Glass.....	9	1,903	7.3	173	85	114	202	353	546	391	37	2	.....	
Hosiery and underwear.....	15	13,374	7.6	524	355	1,040	1,247	2,453	4,990	2,505	260	.....	.....
Iron and steel.....	2	159	6.1	21	14	10	53	60	1	.....	.....	.....	.....
Leather.....	8	1,054	6.9	93	65	147	87	120	489	51	.....	.....	.....
Machine tools.....	6	154	7.7	4	2	8	14	31	89	6	.....	.....	.....
Overalls.....	19	6,439	6.7	283	357	713	1,493	2,415	1,138	40	.....	.....	.....
Paper and pulp.....	14	1,947	8.0	45	52	54	128	264	863	531	9	1	.....	
Pottery.....	4	1,115	6.8	80	67	85	242	365	241	33	2	.....	.....
Rubber.....	4	3,420	7.6	76	80	179	541	924	980	637	3	.....	.....
Silk.....	7	5,608	7.8	219	169	140	440	1,073	2,359	1,189	6	.....	13	
Typewriters.....	10	3,433	7.8	177	62	89	319	395	1,714	520	157	.....	.....
Total.....	32	85,812	7.5	4,284	2,775	4,829	9,943	20,261	31,805	11,187	703	11	14		

EARNINGS PER HOUR, BY SEX AND INDUSTRY.

Males.

Average earnings per hour.	Employees whose earnings per hour were—													
	Under 20 cents.	20 and under 30 cents.	30 and under 40 cents.	40 and under 50 cents.	50 and under 60 cents.	60 and under 70 cents.	70 and under 80 cents.	80 and under 90 cents.	90 cents and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$1.75.	\$1.75 and under \$2.	\$2 and over.
\$0.571	17	1,110	4,943	5,319	3,322	1,799	803	369	123	6			1	
.384	50	331	630	535	165	94								
.460		30	614	545	269	156	68	39	11	21				
.498		146	1,279	2,642	2,562	2,071	2,255	1,871	1,498	1,155	114	5	7	1
.456	75	1,217	7,903	10,525	4,470	2,520	1,215	448	63	24	18			
.446	108	817	1,422	1,242	737	457	257	102	55	26				
.558	12	186	1,009	2,250	2,819	2,263	839	282	154	104	6	2		
.724		25	149	286	521	654	559	297	238	271	100	26		1
.616		478	822	3,312	5,703	2,072	1,141	845	683	756	266	90	30	18
.723	36	464	1,803	4,036	7,548	10,790	4,378	3,573	2,791	3,548	1,033	350	128	63
.359	126	1,039	1,991	843	247	92	20	12						
.527	3	260	610	1,200	839	636	502	239	53	26	1			
.545	2	88	1,520	5,506	3,205	2,226	1,426	988	257	118	3	1		
.348	236	2,777	4,406	2,300	607	235	43	11						
.502	130	1,111	4,257	2,530	672	616	770	491	453	533	125	50		
.467	57	281	641	588	556	285	119	80						
.748	6	515	1,683	9,509	5,812	2,298	2,093	1,828	1,561	2,914	1,413	767	408	781
.521		168	1,267	2,498	2,061	937	599	262	79	47	2			
.434	152	1,336	1,668	1,542	1,246	1,048	212	126						
.358	617	5,118	6,398	2,702	2,619	370	64	75	18	33	8			
.542		36	850	2,761	2,057	1,114	480	226	140	135	17	1		
.599	5	81	1,535	4,281	3,188	2,362	1,769	1,131	351	185	31	10	1	1
.401	49	976	1,524	1,461	741	271	127	5						
.583	1	10	36	62	53	118	31	27	12	7	1			
.490		70	782	3,255	1,291	556	280	145						
.646	12	76	224	378	362	255	266	240	163	138	23	5		
.497	1	203	2,854	4,009	2,543	2,178	1,500	781	524	477	58	6		
.456	32	165	515	1,909	724	327	59	24						
.496	5	323	2,055	2,439	1,782	1,228	818	201	14	5				
.561	1715	18364	51557	80089	60718	41551	23689	15152	9487	10646	3225	1313	575	865

Females.

Average earnings per hour.	Employees whose earnings per hour were—													
	Under 16 cents.	16 and under 20 cents.	20 and under 25 cents.	25 and under 30 cents.	30 and under 40 cents.	40 and under 50 cents.	50 and under 60 cents.	60 and under 70 cents.	70 and under 80 cents.	80 and under 90 cents.	90 cents and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and over.
\$0.380		10	27	47	309	168	43	16	2					
.242	315	944	1,359	834	718	115	11	1						
.272	20	162	78	133	278	37	2							
.326	740	1,055	1,650	1,692	3,020	2,207	723	148	38	1	3	1		
.338	186	556	1,184	1,864	3,400	1,789	512	170	45	13	5	1		
.368	169	336	1,040	1,119	1,997	1,017	584	236	121	163				
.231	1,369	2,648	3,675	1,715	1,408	271	53	21	9	7				
.322	12	94	291	419	478	190	96	30	5	2	1			
.333		1	21	9	31	13	8							
.214	130	186	356	190	45	8								
.231	204	484	551	340	302	19	2	1						
.286	670	1,310	2,937	4,090	1,122	183	16	1	3					
.419			4	39	107	5	2	1	1					
.317	16	14	132	254	468	123	32	15						
.345			13	13	96	26	6							
.305	387	560	1,102	21,349	1,920	838	204	63	12	2	2			
.278	34	61	405	934	459	43	11							
.324	5	80	196	268	325	156	58	17	6	1	2	1		
.325		158	584	723	1,370	385	145	49	12	3				
.335	110	333	996	1,072	1,613	863	445	139	26	11				
.300	17	152	546	1,225	1,089	349	53	2						
.301	4384	9144	17143	17246	23455	9846	3176	917	278	237	13	3		

AVERAGE AND CLASSIFIED HOURS PER DAY AND EARNINGS PER HOUR, BY SEX AND STATE.

Sex and State.	Number of industries.	Number of employ-ees.	Average hours work- ed per week day.	Employees whose average hours per week day for pay-roll period were—											Average earn- ings per hour work- ed.	Employees whose earnings per hour worked were—													
				Under 4.	4 and under 5.	5 and under 6.	6 and under 7.	7 and under 8.	8 and under 9.	9 and under 10.	10 and under 11.	11 and under 12.	12 and over.	Under 20 cts.		20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 and under 80 cts.	80 and under 90 cts.	90 cts. and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$1.75.	\$1.75 and under \$2.	\$2 and over.	
<i>Males.</i>																													
Alabama.....	7	4920	7.6	813	307	391	562	450	593	326	660	328	490	80	423	107	1253	1582	838	348	221	257	132	56	75	27	9	5	10
Arkansas.....	2	1190	7.5	177	40	69	111	110	203	221	233	18	8	300	1	617	522	32	7	2	2	7	.....	.....	.....	.....	.....	.....	.....
California.....	11	6051	7.3	768	234	251	495	1075	2100	681	258	113	76	577	2	69	902	2149	1288	479	364	368	127	114	30	60	36	63	
Colorado.....	4	4396	5.9	950	681	511	535	624	613	399	75	21	17	659	5	50	105	1197	611	1080	409	281	212	272	70	26	7	13	
Connecticut.....	11	5465	8.4	150	101	102	258	525	1996	1740	464	89	40	509	6	179	1375	1519	1118	518	323	160	120	131	15	.....	.....	.....	.....
Delaware.....	4	962	7.4	69	49	83	73	112	386	154	28	2	6	596	.....	.....	6	65	218	234	171	94	159	12	3	.....	.....	.....	.....
Florida.....	4	3395	8.1	267	79	125	257	440	901	796	435	57	38	336	215	1308	1055	452	199	96	43	23	2	2	.....	.....	.....	.....	.....
Georgia.....	8	3068	7.5	553	88	216	390	187	321	585	608	103	107	306	322	882	1373	339	71	42	33	5	.....	1	.....	.....	.....	.....	.....
Idaho.....	3	843	5.0	322	108	64	45	154	131	13	4	1	1	510	.....	.....	8	271	494	48	12	8	2	.....	.....	.....	.....	.....	.....
Illinois.....	23	28074	7.4	2637	2439	2300	2090	3582	7068	4669	1761	549	379	623	39	496	3341	7493	5325	4063	2110	1582	1413	1576	368	152	47	69	
Indiana.....	18	17241	7.7	1794	1334	1120	1432	1652	2980	3504	2140	658	627	615	89	1008	2767	3700	2268	2475	1579	1116	729	909	235	136	90	140	
Iowa.....	9	4501	7.5	430	512	662	235	407	444	1099	522	79	81	538	13	202	1717	707	749	432	242	137	117	14	3	2	.....	.....
Kansas.....	2	2310	5.2	714	609	287	190	172	173	97	33	16	19	703	3	36	152	389	297	549	193	191	172	218	76	25	8	1	
Kentucky.....	5	4071	6.3	809	566	493	573	439	383	374	224	82	128	574	13	173	757	1026	970	328	211	180	110	175	84	22	11	11	
Louisiana.....	3	3604	8.7	265	44	130	212	173	606	315	1516	122	215	356	93	803	2102	173	115	149	92	64	2	11	.....	.....	.....	.....	.....
Maine.....	5	2122	8.8	27	20	41	67	116	662	808	276	66	39	471	.....	.....	15	523	869	443	180	74	16	2	.....	.....	.....	.....	.....
Maryland.....	13	4439	7.3	442	348	376	346	702	1371	550	93	62	148	584	67	207	403	1027	873	996	283	181	156	181	45	9	10	1	
Massachusetts.....	20	14108	8.2	420	249	630	1029	2631	4810	2571	1078	336	354	416	9	315	3028	4507	2777	1800	1000	440	131	89	10	2	.....	.....
Michigan.....	18	16618	8.0	948	445	617	1342	2401	5038	3967	1417	290	153	541	8	739	2544	4071	3445	2834	1688	767	333	175	13	.....	1	.....
Minnesota.....	9	3239	7.8	411	106	108	137	305	899	678	520	52	23	480	22	96	1002	1054	474	258	157	90	31	46	8	.....	.....	.....	.....
Mississippi.....	2	1490	6.7	320	81	121	143	201	247	179	150	25	23	208	6	431	983	46	10	4	1	9	.....	.....	.....	.....	.....	.....	.....
Missouri.....	14	7199	7.7	570	554	428	396	655	1371	2125	497	152	44	541	30	456	1649	1329	1083	1287	717	399	137	90	13	7	2	.....
Montana.....	2	914	6.2	236	44	66	61	123	228	143	9	2	2	462	.....	.....	1	621	222	57	4	2	3	4	.....	.....	.....	.....	.....
New Hampshire.....	4	699	7.9	15	10	134	63	40	227	145	24	12	29	468	4	25	146	276	154	70	24	.....	.....	.....	.....	.....	.....	.....	.....
New Jersey.....	21	11699	8.2	648	372	459	773	1701	3453	2551	815	340	587	529	11	223	1661	4443	2038	1476	972	443	214	186	27	5	.....	.....	.....
New Mexico.....	2	1131	5.9	139	197	269	162	177	119	47	18	3	.....	671	4	27	70	145	135	394	108	98	56	68	16	5	5	.....
New York.....	24	21950	7.3	890	510	603	1501	3086	8249	4152	1735	530	694	542	60	915	3106	6184	4839	3020	2161	786	290	382	126	30	19	32	
North Carolina.....	7	2840	7.6	380	87	189	251	316	463	576	435	72	71	326	105	883	1066	723	41	16	5	1	1	.....	.....	.....	.....	.....	.....
Ohio.....	24	30305	7.7	2367	1165	1821	3319	4575	7589	5886	1667	612	1304	622	47	641	3586	7930	6217	4122	2576	1794	1178	1364	386	184	76	204	
Oklahoma.....	2	1585	7.2	183	153	182	195	143	184	428	49	33	35	635	17	71	229	456	428	161	55	56	63	36	10	2	1

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An examination of the tables will bring out many interesting facts, a few of which may be specially noted. The 318,946 males reported in the tables worked on the average 7.6 hours per week day. In the different industries the time worked by males varied from 5.5 hours per week day in the bituminous coal industry to 8.7 hours in the confectionery industry; while in the different States the hours worked varied from 4.9 in Wyoming to 8.8 in Maine. For the United States as a whole 32,423 males worked less than four hours a day on the average through the week days of the pay-roll period, while at the other extreme no fewer than 11,676 men worked at the rate of 12 hours a day or more for the same period. But in spite of the large numbers at the extremes, 172,750 males, or 54.2 per cent of the entire number, worked at least 7 but less than 10 hours a day on the average.

For the 85,812 females whose hours and wages are recorded the average number of hours per day worked was 7.5. In the iron and steel industry women worked the fewest hours, or at the rate of 6.1 hours per week day, while in the furniture industry they showed an average of 8.1 hours per day. Among the States Alabama was at one extreme with an average of 5.7 hours, and Louisiana at the other with 9.1 hours. Less than four hours a day was worked by 4,284 females and 12 hours or over by 14, while 52,066, or 60.7 per cent of the entire number, worked 7 hours and under 9 hours per day.

The hourly earnings of all the men averaged 56.1 cents per hour worked. Among the industries the lowest average, 34.8 cents per hour, is found in the furniture industry, while the highest, 74.8 cents, is found in the iron and steel industry. Among the States Arkansas shows the lowest average, 30 cents per hour, and Wyoming the highest, 85.2 cents. There were 1,715 men who earned less than 20 cents an hour, 865 who earned \$2 an hour or more, and 140,807, or 44.1 per cent of the entire number, who earned 40 cents and less than 60 cents per hour.

The average earnings of the women were 30.1 cents per hour worked. Among the industries the furniture industry, with average earnings of 21.4 cents per hour, stands lowest, and the iron and steel industry, with an average of 41.9 cents, stands highest. Among the States Kentucky at the one extreme has an average of 14.1 cents per hour, and Rhode Island at the other extreme 37.4 cents per hour. There were 4,384 women who earned less than 16 cents per hour, while only 3 earned as much as \$1 per hour. There were 57,844, or 67.4 per cent of the entire number of women, who earned 20 and under 40 cents per hour.

The selection of industries and establishments for the survey was made with no regard for the relative numbers of men and women

engaged in them. For that reason it may be legitimate to use these general tables as the basis for deductions concerning the part taken by women in industrial life, and concerning the relative hours and earnings of men and women. In the industries included in the survey women constitute 21.2 per cent of the total number of employees. The relative hours of men and women, 7.6 per day for men and 7.5 for women, show much less difference than would have been expected, and considerably less than would be found in a normal period. As was pointed out above, 6.6 per cent of the establishments from which data concerning male employees were secured were working part time, while only 1.3 per cent of the establishments in which women were employed were so working. The abnormally low hours of male employees are to a considerable extent due to the large number of men in the bituminous coal industry with an average of only 5.5 hours per day. If the 40,541 bituminous coal miners are omitted from the calculation, the average for men becomes slightly in excess of 7.9 hours, or practically 8 hours per day. A negligible percentage of women are reported with an average as high as 11 hours a day, while 20,246 men, 6.3 per cent of the total number, are so reported. Women are more regular at their work than men, so far as may be judged from the fact that 15.9 per cent of the men averaged less than 5 hours a day while 8.2 per cent of the women showed as low an average.

The earnings of men and women as represented in these industries are far apart, the average for men being 56.1 cents per hour, while that for women is 30.1 cents per hour. Of the men, 1,715, or almost exactly one-half of 1 per cent, receive less than 20 cents an hour, while of the women 13,528, or 15.7 per cent, are in that wage group. At the other extreme 3 women only were found with a wage as high as \$1 an hour, while of the men 16,624, or 5.2 per cent of the total number, received \$1 an hour or more, and of this number 865 received \$2 an hour or more.

Very unequal percentages of men and women were found in the industries covered by the survey. If the industries are grouped in accordance with the percentage of women employed in them it will be seen that in 7 of them no women were employed; in 9 they constituted less than 25 per cent of the total number of employees; in 5 industries they constituted between 25 and 50 per cent; in 5 between 50 and 75 per cent; while in 2 industries over 75 per cent were women. If the average hourly earnings of the men are computed separately for each group the resulting averages are 58.6 cents, 55 cents, 52.9 cents, 46.7 cents, and 48.1 cents per hour. Whatever may be the explanation of such a condition it seems that the earnings of men in the different groups vary inversely with the

percentage of women in them. The only exception is to be found in the industries with women constituting over 75 per cent of the employees. In that group the earnings of men average 1.4 cents per hour more than in the preceding group. The earnings of women show no constant variation. For the four groups of industries in which women are found the average earnings for female employees are 29.5 cents, 32.2 cents, 29.8 cents, and 29.2 cents per hour. The slight superiority in the earnings of women in industries in which large numbers of men are employed appears more clearly if the figures for the 14 industries in which women constitute less than 50 per cent of the employees are compared with those in the seven industries in which women are in a majority. For the former group the earnings of women are 31.3 cents per hour, for the latter 29.6 cents. Male employees in the 21 industries with no women or a minority of women receive 56.3 cents per hour, while in the seven industries in which women are in a majority men receive on the average 47 cents per hour.

The earnings of men and women contained in this report, covering a large number of individuals in a great variety of industries and occupations, give a fairly reliable index of the relative economic position of men and women in the industrial life of the country. Undoubtedly a considerable part of the difference between the earnings of men and women is to be accounted for by the fact that women in industry are usually younger than men, less experienced, and frequently less interested in their work. But in the face of such pronounced differences between the earnings of male and female employees as these figures indicate, the question whether the women are performing work of equal value with that done by men loses much of its importance. The more fundamental question is whether the women are receiving a reward either proportionate to the industrial effort put forth by them or adequate for the needs of civilized life. Unquestionably the economic well-being of society would be promoted by a reduction in the gap between the earnings of men and women, and if that consummation were realized economic forces could be depended upon to cause such a redistribution of the available supply of labor of each sex as would bring the value of the service performed into equitable relation to the pay received.

Wages and Hours of Hotel and Restaurant Employees.

Conditions fundamental to the hotel and restaurant business made it necessary to collect and present wage and hour data regarding the employees in this industry in a form quite distinct from that used in other industries included in the industrial survey. First, the hotel and restaurant business naturally centers in cities, not in States. For this reason 26 cities in 20 States and the District of Columbia were selected from which to secure the desired information. An alphabetical list of the cities will be found in the table on page 193. It is to be regretted that the hotels in Chicago, the second largest city in the country, are missing from the tables. Their omission is due to the refusal of the hotel association of that city to cooperate with the Bureau in obtaining this important information for the first time on a nation-wide scale. In every other city cordial cooperation was extended to the Bureau by both hotel and restaurant associations and by individual employers. So far as was consistent with a representative geographic distribution the largest cities in the country were chosen as offering the greatest variety in the conditions which might influence the wages and hours of employees. The results of the study represent therefore the conditions in large cities only, except in so far as the general wage scale in force in a large city of any one section may influence the wages received by persons engaged in similar occupations in smaller cities in the same district. In these large cities during the months from January to June, for which period the information was collected, the hotels were for the most part found to be running at full capacity, so that the figures presented show probably a more normal condition in this industry than existed in most other industries.

The survey includes 153 hotels and 258 restaurants. An effort was made to secure a proportionate representation of hotels of the commercial and residential types, and of hotels and restaurants in which the prices charged and the accommodations offered vary as greatly as possible. The selection of types was limited by the decision to include in the survey only such hotels as ran a dining room or leased out their dining room, opening from the hotel lobby, to other parties, who had it in active operation. A hotel with a leased-out dining room, however, was included only when there were not enough hotels running their own dining rooms to give a fair picture of conditions in the city. The omission of hotels without dining rooms excludes the small hotels which charge the lowest rate. In cities where the union demands have a definite effect

on wage and hour conditions a fair proportion of both union and nonunion establishments was included.

In accordance with the policy adopted by the industrial survey all clerical and strictly managerial help were omitted from the study, and only such occupations covered as are peculiar to the industry. The occupation terms used in the presentation of the data are those found in common use in the majority of establishments. Data for two occupations have been combined in a few cases where one group was very small and the work of that group was closely related to that of another group. In the majority of establishments information was secured for one pay-roll period. This is one month or one-half month in most of the hotels except in the city of Boston, where the State law requires the weekly payment of all persons engaged in industry, and one week in the majority of restaurants, although it was found that the large and high-priced restaurants often follow the custom common in hotels of paying by the month. Except for a few small but representative restaurants, all information regarding wages was secured by the agents of the Bureau directly from written pay rolls. Wherever time cards were used by the establishment the hours of daily work were verified from such cards, and where they were not used the same information was secured from the auditor and heads of departments. Because the hours during which the hotel or restaurant is open conform not to the convenience of the operators or operatives in the industry but to the convenience of the public, there is found a prevalence of split shifts and shifts varying from day to day, even among individuals engaged in the same occupation. This renders any estimate of average daily hours or hourly earnings for all employees impossible.

In hotels the number of days off with pay given to the employee during the pay period was also verified from time cards. In several instances time cards showed employees not receiving the days off said to be granted them. Hotel employees in several occupations, namely, bellmen, 'bus boys, cleaners, dishwashers, doormen, helps hall waiters, housemen, kitchen help, maids, porters, and storeroom helpers, are usually expected to work every day, with no days off. In restaurants, however, the proportion of employees regularly receiving days off is much larger than in hotels.

In addition to the money wage paid it is customary in the industry to furnish to the employees meals or room or both. In order that due weight might be given to the value of these forms of additional compensation, as accurate information as possible was secured regarding the number of meals and the form of lodging, if any,

received by each individual employee. Estimates were also secured from the manager of the establishment of the money value of such meals and lodging. These estimates, however, varied extremely from establishment to establishment even in the same city. It seemed best, therefore, to present all wage data for each group of employees according to the number of meals and the lodging tendered him in addition to his wage, rather than make any attempt to place a money value upon such additional compensation. The table on pages 197 to 217 give this wage data in the form of a daily wage rate. The table on page 193 and the accompanying description give a picture of the estimated value of meals and lodging.

The laundry work done by the establishment for the employee and the uniforms furnished him in some instances also have a minor effect upon his wage, and information was gathered on both these points. The limit of space for this article, however, prevents the presentation of this material at the present time. As the investigation showed that the furnishing of such uniforms or laundry is usually a favor granted by the individual employer with little regard for its monetary value, the estimate of the value of these articles would modify the value of the wage but little.

The prevalence of tipping has also its undoubted influence upon the hours and wages of bellmen, door men, baggage porters, and waiters. The expectation of receiving tips often induces the employee to work longer than his scheduled working hours and leads the employer to consider that he is not responsible for providing an adequate wage to people engaged in these occupations. The heads of departments were always asked to estimate the value of such tips, and the summary of these estimates may be found in the following table:

VALUE OF THREE MEALS FOR ALL EMPLOYEES AND OF TIPS PER DAY FOR EMPLOYEES IN FOUR OCCUPATIONS, AS ESTIMATED BY HOTEL MANAGERS, BY CITY.

City.	Estimated value of—														
	3 meals.			Tips per day for—											
				Bellmen.			Maids.			Porters.			Waiters.		
	High-est.	Low-est.	Aver- age.	High-est.	Low-est.	Aver- age.	High-est.	Low-est.	Aver- age.	High-est.	Low-est.	Aver- age.	High-est.	Low-est.	Aver- age.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Atlanta.....	1.04	0.20	0.81	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Boston.....	1.07	.43	.72	2.67	1.00	1.56	0.71	0.27	0.51	1.00	0.71	0.90	4.20	1.29	2.81
Buffalo.....	1.50	.50	.97	3.33	.67	1.78	.71	.33	.40	1.00	.33	.62	3.67	.83	2.48
Cincinnati.....	1.40	.42	.74	2.80	1.00	1.45	1.43	.20	.55	1.43	1.14	1.29	2.33	.50	1.54
Cleveland.....	1.25	.50	.86	4.00	1.00	2.28	1.43	.43	.76	2.00	.83	1.42	4.17	1.00	2.98
Denver.....	2.00	.33	1.12	3.00	2.00	2.33	.50	.33	.37	2.00	.40	1.35	5.00	1.00	2.32
Detroit.....	1.50	.50	1.01	3.33	1.33	2.42	1.00	.17	.48	.67	.43	.55	4.00	1.00	2.83
Indianapolis.....	1.15	.47	.71	2.67	.67	1.47	.20	.07	.14	.13	.13	.13	2.86	.92	1.46
Kansas City.....	1.50	.50	.91	4.13	1.00	2.37	.21	.07	.15	6.00	.50	.53	3.00	.07	1.16
Los Angeles.....	2.00	.50	1.06	3.33	.67	2.50	.33	.33	.33	3.33	.83	2.28	3.00	.67	2.20
Louisville.....	1.00	.50	.80	1.50	.93	1.27	1.00	.47	.65	1.50	1.00	1.25	2.00	1.00	1.26
Milwaukee.....	1.50	.30	.79	4.17	1.33	2.57	.33	.27	.30	4.67	1.00	3.22	4.00	1.17	2.29
Memphis.....	1.50	.47	.69	2.50	2.00	2.17	.67	.50	.56	2.00	1.33	1.67	3.33	1.00	2.00
Minneapolis.....	1.50	.30	.93	4.00	.86	2.23	.20	.20	.20	2.00	1.33	1.67	5.00	1.00	2.61
New Orleans.....	1.50	.62	.92	1.67	1.67	1.67	1.50	.47	.88	(1)	(1)	(1)	4.00	1.00	2.25
New York.....	1.67	.67	1.02	4.17	.75	2.07	.83	.07	.49	3.00	.50	1.60	4.17	2.50	3.10
Omaha.....	1.50	.50	.90	5.00	1.00	2.79	.17	.07	.11	1.00	.75	.87	3.21	1.00	2.32
Philadelphia.....	1.25	.67	1.04	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pittsburgh.....	1.05	.40	.85	3.33	.83	1.78	.93	.03	.23	4.00	3.33	3.67	5.00	1.67	2.89
Portland.....	1.00	.67	.90	(1)	(1)	(1)	(1)	(1)	(1)	3.33	1.67	2.50	3.50	.71	2.28
St. Louis.....	1.55	.60	.89	4.67	.67	2.26	.67	.13	.30	2.50	.75	1.81	5.00	.47	2.12
Salt Lake City.....	1.20	.70	.91	3.00	1.50	2.17	(1)	(1)	(1)	(1)	(1)	(1)	1.50	1.00	1.33
San Francisco.....	1.50	.50	.96	5.00	3.00	3.78	.33	.27	.30	4.17	1.50	2.63	3.50	.33	1.83
Seattle.....	1.67	.50	1.03	3.33	2.00	2.53	(1)	(1)	(1)	3.33	2.00	2.53	3.35	1.50	2.35
Washington.....	1.67	.42	1.04	2.50	1.07	1.95	1.00	.33	.54	2.00	1.50	1.75	5.00	2.50	3.67

¹ No estimate obtained.

The estimated value of meals and lodging obtained from hotel managers reveals a lack of any standard for appraising such forms of remuneration. Great variations were found, not only between cities and between establishments within the same city, but even between occupations in the same establishment. For this reason the highest and the lowest, as well as the average, estimates of the value of the food furnished are recorded in the table. This average was obtained by using each establishment as a unit, regardless of the number employed in it. In a very few hotels the values have been carefully worked out. In others the only figures obtainable were those claimed by the hotel proprietors as deductions on their income tax returns. In most cases, however, the estimates were such as seemed reasonable to the auditor or manager.

An estimate of the value of lodging was omitted from the preceding table because of the extremes reported. Usually the housekeeper has a room with bath which would rent for \$1.50 to \$3 a day. Similar accommodations are provided for the steward or chef, where lodging is furnished them. Maids, kitchen help, dishwashers, cleaners, housemen, and others in less skilled occupations are housed in dormitories

or buildings separate from the hotel, or occupy space in the hotel which can not be rented to guests. Under these conditions the estimated value of the lodging ranges from 17 cents to 40 cents a day.

In the hotels where different estimates of the value of food were given for different occupations, kitchen help, dishwashers, and maids are the group with the lowest estimate. When bellmen, cleaners, and porters are given meals they also belong to this group. Waiters and 'buses have more choice in the selection of food, so that for them the estimate is often higher. Cooks, stewards, housekeepers, head waiters, and checkers are frequently not restricted as to amount or kind of food. When the estimated value of the food for these employees was given as \$2 and over it was omitted from the table, since it was so much higher than the estimate for other workers receiving meals.

Estimates for tips were secured for the following occupations: In hotels for bellmen, 'buses, doormen, maids, porters and waiters, and in restaurants for waiters. Estimates from hotels and restaurants in Atlanta and Philadelphia were too scattered to be used. Estimates of waiters' tips in restaurants have not been tabulated as they were found to average about the same as those for waiters in hotels. As estimates for doormen's tips were obtainable in only a few instances, and were in those cases comparable to those received by porters, they have been omitted from the table. 'Buses generally do not receive tips directly from patrons but do receive an amount varying with the good will of the waiters whom they assist. For this reason estimates of the value of their tips were difficult to obtain and have also been omitted from the table. These tips are usually small. It will be noted that there is in almost every case a great variation between the highest and lowest estimates for each occupation within each city. This difference is often due to the different classes of establishments included in the survey. Generally estimates for gratuities were higher for the employees of the higher priced hotels. In each city in which information was secured, the estimates given for maids were exceedingly low. The lowest estimate received for them was 3 cents as compared with a minimum of 33 cents for waiters and 67 cents for bellmen.

The table on pages 197 to 203 gives wage data for men and women in each occupation in all cities, and the table on pages 204 to 217 gives the same information for all occupations in each city. The following paragraphs are explanatory of the two tables:

In the hotel and restaurant industry the daily rate of wages bears a fairly close relation to the actual earnings for each day worked, because of the comparatively small amount of overtime paid for in addition to the regular wage, and because of the prevalence of full-

time work. The preliminary wage data is therefore presented in rate tables, although such tables unfortunately do not bring out the extreme unsteadiness of employment which will be evident in the table showing the amount earned in the days worked. In order to present all data in one table the weekly and monthly rates have been reduced to daily rates calculated as follows: Monthly rates of wages were divided by 30 and weekly rates by 6 or 7, according as the employee was paid on a 6 or 7 day basis. Thus in every case the daily rate represents the amount the employee actually received for every full day worked. Every person employed in the hotel or restaurant during the pay period for which the information was gathered is represented in the table except those working by the hour. These were omitted because their daily hours were so irregular that no daily rate could be arrived at.

The data regarding men and women have been tabulated separately, except for one male housekeeper, who, being the only one found in the country, has been tabulated with the women. He earned between \$6 and \$7 a day.

As has been stated, the occupation terms used in the tables are those commonly used in the industry. Where a person on the pay roll worked at more than one occupation, he is tabulated in the occupation in which he spent the majority of his time. Checkers are the men or women who check the food on waiters' trays as they come from the kitchen into the dining room. All who clean in any department have been grouped together as cleaners. House men, who are general utility men in the housekeeping department, often do a considerable amount of cleaning, but they have been kept in a separate group because the occupation is large and peculiar to hotels. As in small establishments utility men in the back of the house, like yardmen and garbage men, often combine their duties with kitchen work it seemed logical to combine these occupations. There are, however, no women acting as general utility workers. Pantry helpers, exclusive of dishwashers, and counter men and women serving the food in cafeterias have been combined, because of the similarity of the occupations, the chief difference being that the latter work out in the dining room. Men and women serving food behind counters to customers seated at the counter are included among waiters, as they set up a service for the patron and have an opportunity to receive tips. In small establishments the steward acts as his own storeroom man. These two occupations have therefore been tabulated together, although stewards in large establishments are of course much more highly paid than storeroom men.

In the table giving the information for all occupations in each city the group receiving three meals predominates. The other

additional compensation varies considerably, however, with the city. Within the city also the individual schedules show apparently little standardization in the giving of meals or lodging. In the table showing the employees in each occupation throughout the country, it will be noticed that there are large groups of employees in the housekeeping and service departments who receive neither meals nor lodging. In restaurants and the commissary departments of hotels practically all employees receive some meals. One large restaurant in New York and a few hotels, however, have succeeded in placing their waiters and 'buses on a strictly money wage.

Many differences are readily noticeable between the data for men and women. The most striking contrast is in the wages paid in the same occupation, often when the duties involved are so clearly defined that it seems as if the work done by each sex must be practically identical. In the group receiving three meals the largest number of 'bus boys is paid \$1.50 a day, 'bus girls \$1.25 a day; men checkers \$2 and \$3 a day, women \$1.50 a day; men cleaners \$2 a day, women \$1; men dishwashers \$1.50 a day, women \$1; men waiters \$1.25 a day, women \$1; storeroom men \$2 and \$3 a day, women \$1.25 a day. These wages for men and women, although they are employed in comparatively unskilled occupations, seem low, even with due consideration for the value of the meals provided. In the skilled occupations the highest wages paid to women fall in the \$6 group while several men receive \$10 a day.

The preponderance of men in hotels in the activities usually regarded as woman's work in the home is another striking feature of the situation. In restaurants on the other hand about an equal number of men and women are employed in the routine kitchen work, although men monopolize the cooking. Where women are employed as cooks it is evident from their low wages that they are expected to perform the less skilled parts of the work.

Lodging is much more frequently granted to women than to men even in the same occupations, as is shown by the fact that about one-fourth of the women working as kitchen or pantry helpers receive lodging. About one-third of the maids and three-fourths of the housekeepers receive lodging.

The most striking feature of the tables is the low average money wage received in the majority of occupations. This indicates the need for a scientific study of the advisability of paying a straight money wage in this industry, and of the value to the employee of meals and lodging tendered in lieu of wages. Such a study would afford a basis for comparing the earnings of these employees with their cost of living, and with the wages paid persons engaged in occupations in other industries which require a similar degree of skill.

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY OCCUPATION, ROOM, AND MEALS.

[A very few employees received only 1 meal every second day. This condition has been tabulated under 1 meal in this table.]

Occupation, room, and meals.	Number of employees.			Average rate of wages per day.	Employees whose rate of wages per day was—													
	Hotels.	Restaurants.	Total.		Under 50 cents.	50 and under 75 cents.	75 cents and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	\$10 and over.
<i>Bells.</i>																		
Males:																		
Room and 3 meals.....	26		26	\$0.65	11	6	3	5		1								
3 meals.....	456		456	.86	48	179	133	27	25	18	17		3					
2 meals.....	5		5	.96		1	3		1									
1 meal.....	50		50	1.05	2	10	2	29	1	3			3					
Nothing.....	1,231		1,231	.91	81	526	187	236	63	60	48	20	9	1				
Total.....	1,768		1,768															
Females:																		
3 meals.....	18		18	.90			11	7										
Nothing.....	38		38	.98			24	7	3	4								
Total.....	56		56															
<i>Buses.</i>																		
Males:																		
Room and 3 meals.....	5		5	.93				2	3									
3 meals.....	1,192	745	1,937	1.52	7	9	79	473	471	509	299	62	27	1				
2 meals.....	19	177	196	1.60	8	7	19	33	15	47	38	9	20					
1 meal.....	39	30	69	1.02	1	21	11	15	9	11	1							
Nothing.....	114	24	138	1.31		1	2	66	30	36	3							
Total.....	1,369	976	2,345															
Females:																		
Room and 3 meals.....	5		5	1.00				5										
3 meals.....	117	303	420	1.40	3	14	32	61	139	129	40	1		1				
2 meals.....	3	87	90	1.26		4	7	28	36	12	2			1				
1 meal.....	2	25	27	.82		15	5	3	3	1								
Nothing.....	14		14	.99			1	13										
Total.....	141	415	556															

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RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY OCCUPATION, ROOM, AND MEALS—Continued.

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Occupation, room, and meals.	Number of employees.			Average rate of wages per day.	Employees whose rate of wages per day was—												
	Hotels.	Restaurants.	Total.		Under 50 cents.	50 and under 75 cents.	75 cents and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	$10 and over.
<i>Butchers and oyster men.</i>																	
Males:																	
Room and 3 meals.....	6		6	1.75				2	2			1	1				
3 meals.....	279	104	383	2.74													
2 meals.....	4	21	25	3.03			2	6	8	32	75	123	5	107	26	4	
Total.....	289	125	414														
<i>Butchers.</i>																	
Females:																	
Room and 3 meals.....	1		1	1.42					1								
3 meals.....	4		4	1.39				1	1	2							
Total.....	5		5														
<i>Checkers.</i>																	
Males:																	
Room and 3 meals.....	5		5	1.77					1	3		1					
3 meals.....	115	32	147	2.59			1	1	8	20	40	25	43	6	3		
2 meals.....	7	21	28	3.10				1	1	4	4	5	7	2			
Nothing.....	1	9	10	3.35								1	7	2			1
Total.....	128	62	190														
Females:																	
Room and 3 meals.....	28		28	1.54			1	6	8	11	2						
3 meals.....	254	32	336	1.87			3	12	34	140	116	25	5		1		
2 meals.....	18	39	57	1.88				1	10	23	14	5	4				
1 meal.....	1	2	3	1.27						1							
Nothing.....	3		3	2.58								3					
Total.....	304	123	427														
<i>Cleaners.</i>																	
Males:																	
Room and 3 meals.....	13		13	1.39		1	1	4		6	1						
Room only.....	2		2	2.33							2						
3 meals.....	332	310	642	1.85		1	7	66	85	176	222	55	30				
2 meals.....	62	59	121	2.07							15	6	15	2			

1 meal.....	71	8	79	1.92			5	13	23	23	13	2						
Nothing.....	192	7	199	1.82	1		29	35	40	71	14	9						
Total.....	672	384	1,056															
Females:																		
Room and 3 meals.....	258		258	.89	112	75	43	5	20	3								
Room and 2 meals.....	2		2	.64	2													
Room only.....	2		2	.93	2													
3 meals.....	137	43	180	1.18	41	14	55	32	26	11	1							
2 meals.....	96	65	161	.92	20	15	74	31	17	4								
1 meal.....	81	33	114	1.25	5	8	57	16	23	4	1							
Nothing.....	425	14	439	1.39	5	8	103	173	118	35	2							
Total.....	1,001	155	1,156															
<i>Cooks.</i>																		
Males:																		
Room and 3 meals.....	32		32	3.23				1		7	7	10	4	3				
3 meals.....	1,818	1,416	3,234	3.57		1	9	10	87	352	647	1,172	526	277	98	31	24	
2 meals.....	31	135	166	4.02					1	8	22	60	27	32	13	3		
1 meal.....	5	5	5	3.07			1			1		2	1	1	1			
Nothing.....		3	3	4.69								1	1	1	1			
Total.....	1,881	1,559	3,440															
Females:																		
Room and 3 meals.....	10		10	1.52			1	6	1	2								
3 meals.....	85	193	278	2.16	2	2	25	28	56	79	41	39	5	1				
2 meals.....	3	58	61	2.37				4	12	23	14	5	1	2				
Total.....	98	251	349															
<i>Dishwashers.</i>																		
Males:																		
Room and 3 meals.....	34		34	1.19	1	4	17	7	3	2								
3 meals.....	1,605	684	2,289	1.73	13	33	177	327	1,103	440	143	47	5	1				
2 meals.....	21	68	89	2.12		2	3	4	25	30	10	14	1					
1 meal.....	4	11	15	.90	1	11	2	1										
Nothing.....	1	1	1	.57	1													
Total.....	1,664	764	2,428															
Females:																		
Room and 3 meals.....	109		109	1.00	8	33	50	17	1									
3 meals.....	743	568	1,311	1.28	69	196	465	267	342	54	7	1						
2 meals.....	72	171	243	1.34	4	33	56	84	41	16		9						
1 meal.....	1	48	49	.87	18	13	12	6										
Nothing.....	12		12	1.46			1		11									
Total.....	937	787	1,724															

[8071]

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY OCCUPATION, ROOM, AND MEALS—Continued.

200

MONTHLY LABOR REVIEW.

Occupation, room, and meals.	Number of employees.			Average rate of wages per day.	Employees whose rate of wages per day was—													
	Hotels.	Restaurants.	Total.		Under 50 cents.	50 and under 75 cents.	75 cents and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	\$10 and over.
<i>Door men.</i>																		
Males:																		
Room and 3 meals.....	1		1	\$1.71					1									
3 meals.....	41	1	42	1.53			7	16	6	11								
2 meals.....	8	5	13	1.86		1		1	8				1					
1 meal.....	2		2	1.33				2										
Nothing.....	114		114	1.66			2	30	52	21	6							
Total.....	166	6	172															
<i>Helps hall waiters.</i>																		
Males:																		
Room and 3 meals.....	3		3	1.17		1		1	1									
3 meals.....	147	3	150	1.59		1	31	10	78	22	4	1						
2 meals.....		4	4	2.00														
Total.....	150	7	157															
Females:																		
Room and 3 meals.....	39		39	1.00														
3 meals.....	191	10	201	1.25	1	1	9	28	49	85	30	5						
Total.....	230	10	240															
<i>Housekeepers.</i>																		
Females:																		
Room and 3 meals.....	327		327	1.94			8	44	56	110	43	22	26	11	3	4		
Room and 1 meal.....	1		1	2.00							1							
Room only.....	19		19	2.31				1	5	2	2	4	4	1				
3 meals.....	27		27	2.21				2	4	4	10	3		3				
1 meal.....	3		3	2.17						1	1	1				1		
Nothing.....	32		32	2.06					5	11	8	6	1	1				
Total.....	409		409															

[808]

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY OCCUPATION, ROOM, AND MEALS—Concluded.

202

MONTHLY LABOR REVIEW.

Occupation, room, and meals.	Number of employees.			Average rate of wages per day.	Employees whose rate of wages per day was—													
	Hotels.	Restaurants.	Total.		Under 50 cents.	50 and under 75 cents.	75 cents and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$8.	\$8 and under \$10.	\$10 and over.	
<i>Maids.</i>																		
Females:																		
Room and 3 meals.....	1,722		1,722	\$0.84	8	590	801	300	5	18								
Room only.....	107		107	1.29			9	49	30	19								
3 meals.....	448		448	1.10		52	53	197	140	4	2							
2 meals.....	65		65	1.11			13	31	21									
1 meal.....	202		202	1.45		22	2	112	11	55								
Nothing.....	1,611		1,611	1.34		11	83	381	837	158	133	3						
Total.....	4,155		4,155															
<i>Pantry and counter helpers.</i>																		
[S10] Males:																		
Room and 3 meals.....	3	2	5	2.03				1	1	3								
3 meals.....	513	441	954	2.18			4	20	88	276	263	161	118	18	6			
2 meals.....	8	53	61	2.07		2		10	2	18	12	5	9	3				
1 meal.....	7	7	7	1.36		1		3	1	1		1						
Total.....	524	503	1,027															
Females:																		
Room and 3 meals.....	146	7	153	1.14		2	25	76	30	18	1	1						
3 meals.....	366	814	1,180	1.55		9	29	200	209	512	157	53	11					
2 meals.....	24	307	331	1.59		1	14	59	73	107	52	21	3	1				
1 meal.....	3	9	12	1.22		2	3	2	1	1	3							
Nothing.....		1	1	.25	1													
Total.....	539	1,138	1,677															
<i>Porters, baggage.</i>																		
[S10] Males:																		
Room and 3 meals.....	11		11	1.27		2	1	4	3		1							
Room only.....	3		3	1.50						3								
3 meals.....	119		119	1.39		21	12	29	17	17	13	5	3	1	1			
2 meals.....	6		6	1.33		1		2		3								

1 meal.....	13		13	1.50			1	1	7	2		2							
Nothing.....	172		172	1.41	24	14	15	25	17	32	21	15	6	3					
Total.....	324		324																
<i>Stewards and storeroom helpers.</i>																			
Males:																			
Room and 3 meals.....	15	1	16	3.62					1	3		4	1	3	2	1	1		
3 meals.....	438	189	627	3.07			9	24	95	123	119	130	55	37	22	12			1
2 meals.....	11	12	23	2.73					8	3	5	2	2	3					
Nothing.....	5		5	3.40						1	1	1	1						
Total.....	469	202	671																
Females:																			
Room and 3 meals.....	43		43	1.45			1	13	16	6	3	3	1						
3 meals.....	50	6	56	1.54				5	26	12	6	3	1	3					
2 meals.....	1	3	4	2.25						1	2		1						
Total.....	94	9	103																
<i>Waiters.</i>																			
Males:																			
Room and 3 meals.....	9		9	1.17				8				1							
3 meals.....	3,749	1,403	5,152	1.79			36	179	654	1,817	789	702	421	365	119	51	15	4	
2 meals.....	213	503	716	1.83	4	46	29	119	104	146	49	158	31	18	8	3	1		
1 meal.....	92	193	285	1.51		29	37	56	32	74	29	3	13	8	3	1			
Nothing.....	474	103	577	1.59		11	26	104	183	191	10	8	36	3	4	1			
Total.....	4,537	2,202	6,739																
Females:																			
Room and 3 meals.....	42	6	48	1.09		12	11	3	14	8									
3 meals.....	871	1,392	2,263	1.46	10	73	98	636	526	531	272	46	67	3	1				
2 meals.....	178	646	824	1.40		74	83	242	101	211	29	34	48	2					
1 meal.....	44	130	174	1.87	2	90	42	22	1	3	11	3							
Nothing.....	27	7	34	1.30			1	26		5	2								
Total.....	1,162	2,181	3,343																
Total, males.....	16,410	7,506	23,916																
Total, females.....	10,060	5,816	15,876																
Grand total.....	26,470	13,322	39,792																

[S11]

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY CITY, ROOM, AND MEALS.

[A very few employees received only 1 meal every second day. This condition has been tabulated under 1 meal in this table.]

[812]

City, room, and meals.	Months in which pay-roll periods occurred.	Number of establishments.		Number of employees in—			Average rate of wages per day.	Employees whose rate of wages per day was—													
		Hotels.	Restaurants.	Hotels.	Restaurants.	Total.		Under 50 cts.	50 and under 75 cts.	75 cts. and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	\$10 and over
<i>Atlanta, Ga.</i>																					
Males:																					
Room and 3 meals.....				8		8	\$3.42							1	3	2		2			
3 meals.....				321	155	476	1.51	31	90	170	43	22	44	30	35	6	4	1			
2 meals.....					4	4	1.73				1	2	1								
1 meal.....				17		17	.95	10			1	5	1								
Nothing.....				87		87	.99	23	20	30	8	2	1								
Total.....	January and February.	6	8	433	159	592															
Females:																					
Room and 3 meals.....				36		36	1.05	9	15	3	3	3	1	2							
3 meals.....				201	73	274	1.00	103	48	52	50	12	6	1	2						
2 meals.....				39	32	71	.85	43	15	8	1	3	1								
1 meal.....				31		31	.79	25	2	3	1										
Nothing.....				54		54	.91	2	42	7		2	1								
Total.....	January and February.	6	8	361	105	466															
<i>Boston, Mass.</i>																					
Males:																					
Room and 3 meals.....				22		22	1.07	10	1	1	7	2									1
Room and 2 meals.....				1		1	1.71														
3 meals.....				757	290	1,047	2.20	6	26	34	10	190	235	199	141	154	30	14	7		1
2 meals.....				53	18	68	1.29	6	11		27	7	8	4	1	3	1				
1 meal.....				1	4	5	.99	1	2		1			1							
Nothing.....				23		23	1.20			16		4	1	2							
Total.....	March.....	8	10	854	312	1,166															

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY CITY, ROOM, AND MEALS—Continued.

[S14]

City, room, and meals.	Months in which pay-roll periods occurred.	Number of establishments.		Number of employees in—			Average rate of wages per day.	Employees whose rate of wages per day was—													
		Hotels.	Restaurants.	Hotels.	Restaurants.	Total.		Under 50 cts.	50 and under 75 cts.	75 cts. and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	\$10 and over.
<i>Cincinnati, Ohio.</i>																					
Males:																					
Room and 3 meals.....				14		14	\$0.84														
Room only.....				6		6	1.39														
3 meals.....				329	165	494	1.78	18	3	9	53	193	70	61	31	39	9	6	1		1
2 meals.....				1	6	7	1.70						3	1	1						
1 meal.....				1		1	1.50						1	1							
Nothing.....				30	1	31	1.11							2		1					
Total.....	February and March.	5	11	381	172	553															
Females:																					
Room and 3 meals.....				83		83	.82														
Room only.....				15		15	1.10														
3 meals.....				70	141	211	1.19	1	20	20	92	43	28	4		1					
2 meals.....					73	73	1.35					15	11	5							
1 meal.....				10	26	36	.79					10									
Nothing.....				96	1	97	1.00	1	6		84	6									
Total.....	February and March.			274	240	514															
<i>Cleveland, Ohio.</i>																					
Males:																					
Room and 3 meals.....				5		5	1.84				3				1	1					
3 meals.....				501	127	621	2.54	1		2	16	23	131	254	38	78	52	16	9	5	2
2 meals.....					85	85	2.53			1		1	15	42	8	5	4	6	3		
1 meal.....				21	16	37	2.15			2		6		15	10	2					
Nothing.....				127		127	1.24			49	2	19	10	11	23	7					
Total.....	April and May....	6	8	654	228	882															

RATE OF WAGES PER DAY FOR ALL HOTELS AND RESTAURANT EMPLOYEES, BY CITY, ROOM, AND MEALS—Continued.

[1816]

City, room, and meals.	Months in which pay-roll periods occurred.	Number of establishments.		Number of employees in—			Average rate of wages per day.	Employees whose rate of wages per day was—													
		Hotels.	Restaurants.	Hotels.	Restaurants.	Total.		Under 50 cts.	50 and under 75 cts.	75 cts. and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	\$10 and over.
<i>Indianapolis, Ind.</i>																					
Males:																					
Room only.....				2		2	\$1.13				1	1									
3 meals.....				155	100	255	1.74			5	89	50	40	28	26	9	4	2	2		
2 meals.....				3	1	4	1.37				2	1									
1 meal.....				2		2	1.17				2										
Nothing.....				121		121	1.06	20	36	7	15	9	17	16	1						
Total.....	February and March.	7	8	283	101	384															
Females:																					
Room and 3 meals.....				31		31	1.01		17	5	2	3	1	2		1					
Room and 1 meal.....				1		1	1.00				14										
Room only.....				13		13	1.15				12				1						
3 meals.....				127	90	217	1.14		28	38	90	34	15	9	2	1					
2 meals.....				2		2	1.43				2										
1 meal.....				41	1	42	1.04		1		28										
Nothing.....				75		75	1.17		1		45	27	1		1						
Total.....	February and March.	7	8	290	91	381															
<i>Kansas City, Mo.</i>																					
Males:																					
Room only.....				1		1	2.00							1							
3 meals.....				600	119	719	1.78	4	1	1	176	233	112	69	38	64	11	6	1	2	
2 meals.....				4	23	27	2.00	6			1	1	7	6	2		2	2			
1 meal.....				12	1	13	1.32				1	11	1								
Nothing.....				111		111	1.20	23	37		2	1	11	33	3	1					
Total.....	March and April.	5	8	728	143	871															

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY CITY, ROOM, AND MEALS—Continued.

City, room, and meals.	Months in which pay-roll periods occurred.	Number of establishments.		Number of employees.			Average rate of wages per day.	Employees whose rate of wages per day was—													
		Hotels.	Restaurants.	Hotels.	Restaurants.	Total.		Under 50 cts.	50 and under 75 cts.	75 cts. and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	\$10 and over.
<i>Memphis, Tenn.</i>																					
Males:																					
Room and 3 meals.....				3	1	4	\$2.14							2		2					
3 meals.....				171	77	248	1.45	4	43	28	57	38		22	19	15	19	1	2		
2 meals.....					1	1	1.67							1							
Total.....	January, February, and March.	3	6	174	79	253															
Females:																					
Room and 3 meals.....				8		8	1.21			4	1	2				1					
3 meals.....				115	62	177	1.87		64	64	30	12	6	1							
2 meals.....				14	6	20	.93		1	14	2	2	1								
1 meal.....					6	6	.83			6											
Nothing.....				9		9	1.00				9										
Total.....	January, February, and March.	3	6	146	74	220															
<i>Milwaukee, Wis.</i>																					
Males:																					
Rooms and 3 meals.....				49		49	1.19		4	1	26	14	3		1						
3 meals.....				210	96	306	1.95	8	11	2	24	69	73	50	26	31	6	3	3		
2 meals.....					4	4	2.36						2	1		1					
1 meal.....					3	3	1.02				3										
Nothing.....				16	8	24	1.60		8	3	1	3	3	1	2	1	1		1		
Total.....	April and May....	5	8	275	111	386															
Females:																					
Room and 3 meals.....				162		162	1.04		11	62	63	15	6	3	1	1					
3 meals.....				94	148	242	1.39			13	83	87	25	22	8	4					
2 meals.....				1	13	14	2.00					5	2	4	3						

[818]

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY CITY, ROOM, AND MEALS—Continued.

18201

City, room, and meals.	Months in which pay-roll periods occurred.	Number of establishments.		Number of employees in—			Average rate of wages per day.	Employees whose rate of wages per day was—												
		Hotels.	Restaurants.	Hotels.	Restaurants.	Total.		Under 50 cts.	50 and under 75 cts.	75 cts. and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	$10 and over.
<i>New York, N. Y.</i>																				
Males:																				
Room and 3 meals.....				1	2	3	\$2.17													
3 meals.....				3,022	1,123	4,145	2.10	18	51	162	1,026	1,055	746	411	424	150	62	21	15	4
2 meals.....				71	207	279	1.86	39	14	27	39	64	23	24	30	12	4	2		
1 meal.....				45	122	165	1.41	18	6	65	3	45	14	6	7	2	1			
Nothing.....				403	120	523	1.56	24	2	54	118	119	37	111	36	16	3	2	1	
Total.....	February, March, and April.	12	24	3,542	1,574	5,115														
Females:																				
Room and 3 meals.....				751		751	.93	483	82	97	14	50	16	2	2	1	1		3	
3 meals.....				716	185	901	1.53	3	32	193	273	234	131	21	13			1		
2 meals.....				43	206	249	1.43	17	13	91	41	27	41	12	6			1		
1 meal.....					29	29	.99	13	6			10								
Nothing.....				182		182	1.35	2	24	5	121	8	21		1					
Total.....	February, March, and April.	12	24	1,692	420	2,112														
<i>Omaha, Nebr.</i>																				
Males:																				
Room and 3 meals.....				15		15	1.45				10	5								
3 meals.....				214	126	340	2.18	7		20	57	90	62	47	36	7	11	3		
2 meals.....				4		4	.92	2		2										
1 meal.....				6		6	2.00				1		4	1						
Nothing.....				90		90	1.61	3	23	11	1	34	9	6	1	1	1			
Total.....	March and April.	6	8	329	126	455														
Females:																				
Room and 3 meals.....				56		56	1.07	12	2	26	7	8				1				
Room only.....				1		1	2.33						1							
3 meals.....				86	113	199	1.56	1	3	35	64	61	25	8	2					

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES' BY CITY, ROOM, AND MEALS—Continued.

[822]

City, room, and meals.	Months in which pay-roll periods occurred.	Number of establishments.		Number of employees in—			Average rate of wages per day.	Employees whose rate of wages per day was—													
		Hotels.	Restaurants.	Hotels.	Restaurants.	Total.		Under 50 cts.	50 and under 75 cts.	75 cts. and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	\$10 and over.
<i>Portland, Ore.</i>																					
Males:																					
Room and 3 meals.....				1		1	\$1.83														
3 meals.....				186	185	371	3.78														
2 meals.....				11	13	24	3.59														
1 meal.....				11	1	12	2.48														
Nothing.....				53		53	1.77														
Total.....	April and May.....	5	8	262	199	461															
Females:																					
Room and 3 meals.....				2		2	3.17														
Room only.....				2		2	2.67														
3 meals.....				66	201	267	2.00	10	1												
2 meals.....				35	11	46	2.02														
1 meal.....				66		66	1.81														
Nothing.....				73		73	1.77														
Total.....	April and May.....	4	9	244	212	456															
<i>St. Louis, Mo.</i>																					
Males:																					
Room and 3 meals.....				16		16	1.04														
3 meals.....				476	153	629	1.96	10	9	4	2	12	1	1							
2 meals.....				17	74	91	1.96														
1 meal.....				1	7	8	1.06														
Nothing.....				89		89	.95	30	11												
Total.....	February, March, and April.....	6	13	599	234	833															

RATE OF WAGES PER DAY FOR ALL HOTEL AND RESTAURANT EMPLOYEES, BY CITY, ROOM, AND MEALS—Concluded.

[824]

City, room, and meals.	Months in which pay-roll periods occurred.	Number of establishments.		Number of employees in—			Average rate of wages per day.	Employees whose rate of wages per day was—												
		Hotels.	Restaurants.	Hotels.	Restaurants.	Total.		Under 50 cts.	50 and under 75 cts.	75 cts. and under \$1.	\$1 and under \$1.25.	\$1.25 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$8.	\$8 and under \$10.	$10 and over.
<i>Seattle, Wash.</i>																				
Males:																				
Room and 3 meals.....				9		9	\$1.93		4		3		1	1	1					
Room only.....				2		2	2.75					1	1							
3 meals.....				177	124	301	3.11		3	2	17	47	24	48	87	38	21	14		1
2 meals.....				7	80	87	3.72		1	3	3	1	1	47	9	15	6			
1 meal.....				14	2	16	.98		9	1										
Nothing.....				79	2	81	2.23		7	9	14	10	22	14	5					
Total.....	May and June.....	6	10	288	208	496														
Females:																				
Room and 3 meals.....				2		2	3.00				1				1					
Room only.....				3		3	3.61							2	1					
3 meals.....				52	64	116	2.33		4	7	36	9	18	40	2					
2 meals.....				9	122	131	2.48				34	21	21	55						
1 meal.....				15		15	1.79			3	10	1	1							
Nothing.....				141		141	2.03				134	7								
Total.....	May and June.....	8	10	222	186	408														
<i>Washington, D. C.</i>																				
Males:																				
Room and 3 meals.....				2		2	.84		1	1										
3 meals.....				563	212	775	2.20		46	44	74	45	98	215	71	125	31	19	4	2
2 meals.....				29	2	31	1.57		1	3	6	2	9	8	1	1				
1 meal.....				6	16	22	.94		13	6		2	1							
Nothing.....				92	1	93	1.37		16	47	2	4	15	5	4					
Total.....	January and February.....	6	9	692	231	923														

Union Wage Scales in the District of Columbia.

A STUDY which has just been made of union wage scales in the District of Columbia, including 58 trades and occupations, shows an increase of 71 per cent in the scales in force, from May 15, 1913, to August 9, 1919.

In many occupations members of unions are receiving considerably more than the scale calls for, and the above percentage, therefore, is unquestionably less than the real increase in wages received.

Minimum Scale of Wages in the Building Trades on the 8-Hour Basis.

THE following table of minimum scale of wages on the 8-hour basis, payable in the building trades, was compiled in the office of the secretary of the building trades department of the American Federation of Labor and included in the secretary's report at the 13th annual convention of the department, held at Atlantic City, June 4-7, 1919.¹ This information was gathered through a questionnaire sent out by the building trades department to all local unions, and the rates are in practically every case those agreed upon for the year beginning in May, 1919. It is understood that in many instances workers are receiving more than the minimum scale as shown here.

¹ Report of Proceedings of the 13th Annual Convention of the Building Trades Department, American Federation of Labor, held at Atlantic City, N. J., June 4-7, 1919. Pp. 48-50. Washington, 1919.

MINIMUM SCALE OF WAGES IN BUILDING TRADES ON 8-HOUR BASIS.

Locality.	As- bes- tork- ers.	Brick- layers.	Bridge and struc- tural iron work- ers.	Car- pen- ters.	Cem- ent fin- ish- ers.	Elec- tri- cians.	Elev- ator con- struc- tors.	Hoist- ing engi- neers.	Gran- ite cut- ters.	Build- ing labo- rers.	Lath ers.	Mar- ble work- ers and pol- ish- ers.	Sheet- metal work- ers.	Paint- ers.	Plas- ter- ers.	Plumb- ers.	Com- posi- tion roof- ers.	Slate and tile roof- ers.	Steam fit- ters.	Stone cut- ters.	Tile lay- ers.
Alameda County, Calif. ¹		\$1.12 $\frac{1}{2}$	\$1.00	\$0.87 $\frac{1}{2}$		\$0.87 $\frac{1}{2}$		\$1.00		\$0.75	\$1.00		\$1.00	\$0.87 $\frac{1}{2}$	\$1.00	\$1.00		\$1.00	\$1.00	\$0.75	\$0.75
Albany, N. Y. ¹	\$0.60	.75	.90	.70		\$0.75		\$0.70	.95	\$0.70	.75	\$0.75	.75	.62 $\frac{1}{2}$	.75	.70	\$0.65	\$0.65	.70	\$0.75	\$0.75
Ann Arbor, Mich.		.85	.75	.75		.75								.75	.85	.75			.75		
Asheville, N. C.		.75	.55	.75		.75							.62 $\frac{1}{2}$	.50	.75	.75					
Ashland, Ky.		.87 $\frac{1}{2}$	.75	.70		.70							.75	.65	.75	.62 $\frac{1}{2}$					.75
Atlantic County, N. J. ¹		.80		.87 $\frac{1}{2}$		.87 $\frac{1}{2}$		.60		.60	.75	.75	.75	.80	.80	.87 $\frac{1}{2}$	.62 $\frac{1}{2}$	.75			.75
Augusta, Ga.		.62 $\frac{1}{2}$		.62 $\frac{1}{2}$		.50		.78			.60	.62 $\frac{1}{2}$	.62 $\frac{1}{2}$	.55	.62 $\frac{1}{2}$	.62 $\frac{1}{2}$			.62 $\frac{1}{2}$		
Baltimore, Md. ¹	.80	1.00	.87 $\frac{1}{2}$	.70	.75	.75	.78	.80	.68 $\frac{1}{2}$		.75	.62 $\frac{1}{2}$	.68 $\frac{1}{2}$	.83 $\frac{1}{2}$	.75	.75	.75	.75	.80	.80	
Bath, Me. ¹				.70		.60				.50			.70	.70	.80	.80			.80		
Belleville, Ill. ¹			.80	.70	1.00	.65	.65			.45	.75	.65	.60	1.00	1.00	.75	.70				
Benton, Ill.		1.00		.75						.75	1.00		1.00	1.00							
Bergen County, N. J. ¹				.65		.75				.50	.75	.75	.62 $\frac{1}{2}$	.75	.75	.75			.75		
Billings, Mont. ¹		1.00		.87 $\frac{1}{2}$		.75		.81 $\frac{1}{2}$		.50 $\frac{1}{2}$	1.00	.82 $\frac{1}{2}$	.81 $\frac{1}{2}$	1.12 $\frac{1}{2}$	1.00				.68 $\frac{1}{2}$		
Binghamton, N. Y. ¹		.75		.60		.60		.70		.45	.50	.50	.50	.75	.75	.68 $\frac{1}{2}$			.68 $\frac{1}{2}$		
Bridgeport, Conn. ¹		.75	.90	.70	.75	.75	.75	.75	.75	.82 $\frac{1}{2}$			.75	.70	.75	.75		.90	.75	.75	
Buffalo, N. Y. ¹			.85	.75		.70	.69	.70					.70	.70				.62 $\frac{1}{2}$		.75	
Butte, Mont. ¹		1.00	1.00	1.00		1.00				.87 $\frac{1}{2}$	1.00		1.00	1.00	1.12 $\frac{1}{2}$	1.12 $\frac{1}{2}$			1.12 $\frac{1}{2}$		
Champaign-Urbana, Ill.		1.00		.70	.62 $\frac{1}{2}$	.75		.75		.50	.62 $\frac{1}{2}$	.65	.60	.87 $\frac{1}{2}$	.81 $\frac{1}{2}$	.81 $\frac{1}{2}$			.81 $\frac{1}{2}$	.62 $\frac{1}{2}$	
Charleston, W. Va. ¹			.87 $\frac{1}{2}$	.70		.75	.70	.75		.55	.68 $\frac{1}{2}$	.70	.70	.81 $\frac{1}{2}$	.75	.70	.80	.80	.75	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$
Chicago, Ill. ¹	.81 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.80	.75	.87 $\frac{1}{2}$	.75	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.57 $\frac{1}{2}$	.80	.83 $\frac{1}{2}$	.75	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.90	.65	.90	.90	.81 $\frac{1}{2}$	.75
Cleveland, Ohio ¹		.90	.90	.80	.90	.90	.75	.90	.75	.55	.85		.90	.85							
Contra Costa County, Calif. ¹		1.12 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$		.75		.75		.75	.87 $\frac{1}{2}$	.80	.83 $\frac{1}{2}$	1.00	1.00	.68 $\frac{1}{2}$			1.00		
Dayton, Ohio ¹			.87 $\frac{1}{2}$	.75	.60	.80		.80		.60	.80	.75	.75	.65	.82 $\frac{1}{2}$	.80			.80		
Denver, Colo. ¹	.81 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.82 $\frac{1}{2}$	.72 $\frac{1}{2}$	.93 $\frac{1}{2}$		.69 $\frac{1}{2}$	.75		.87 $\frac{1}{2}$	1.00		.87 $\frac{1}{2}$			.87 $\frac{1}{2}$		
Detroit, Mich. ¹	.80	1.00	.90	.80	.93 $\frac{1}{2}$	.90		.90		.65	.75	.85	.80	.80	.87 $\frac{1}{2}$	.90			.90	1.00	.81 $\frac{1}{2}$
East St. Louis, Ill. ¹	.75		.80		1.00	.87 $\frac{1}{2}$	.82 $\frac{1}{2}$	1.00			.80		.82 $\frac{1}{2}$	.70	1.00	1.00	.75		1.00		
Elgin, Ill. ¹				.65		.75								.52 $\frac{1}{2}$		.75					
Elizabeth, N. J. ¹				.75		.75				.50	.87 $\frac{1}{2}$		.87 $\frac{1}{2}$	.75				1.00			
Elmira, N. Y. ¹		.75		.57 $\frac{1}{2}$		.56 $\frac{1}{2}$				.62 $\frac{1}{2}$		.56 $\frac{1}{2}$	.50			.68		.59 $\frac{1}{2}$	.68		
Everett, Wash. ¹		1.00		.75	.87 $\frac{1}{2}$					.75	1.00		.87 $\frac{1}{2}$	.75	1.00	1.00			1.00		
Fall River, Mass. ¹		.75		.62 $\frac{1}{2}$		.70				.60			.62 $\frac{1}{2}$	.60	.75	.67 $\frac{1}{2}$			.67 $\frac{1}{2}$	.75	
Fitchburg, Mass. ¹		.70		.65		.70							.60	.60	.70	.75			.75		
Fond du Lac, Wis.		.70		.60		.60							.52 $\frac{1}{2}$	.60	.75	.75			.75		
Fort Wayne, Ind. ¹		.82 $\frac{1}{2}$	.75	.72	.60	.62 $\frac{1}{2}$		.70		.50	8.50		.65	.60	.70	.65			.65		
Fresno County, Calif. ¹		1.00	.87 $\frac{1}{2}$	.81 $\frac{1}{2}$		.62 $\frac{1}{2}$		.87 $\frac{1}{2}$		.62 $\frac{1}{2}$	1.00		1.00	.81 $\frac{1}{2}$	1.00	1.03 $\frac{1}{2}$			1.00		
Galveston, Tex. ¹			.80	.75		.62 $\frac{1}{2}$		.75					.75			1.00			1.00		
Gary, Ind. ¹	.80			.80	1.00	.87 $\frac{1}{2}$				.80	1.00		1.00	.85	1.00	.93 $\frac{1}{2}$	1.00		.93 $\frac{1}{2}$		
Grand Rapids, Mich. ¹	.80			.60		.65	.75	.55						.65	.75	.75			.81 $\frac{1}{2}$		

¹ Saturday half holiday in this locality.

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MINIMUM SCALE OF WAGES IN BUILDING TRADES ON 8-HOUR BASIS—Concluded.

Locality.	As- bes- tos work- ers.	Brick- lay- ers.	Bridge and struc- tural iron work- ers.	Car- pen- ters.	Cem- ent fin- ish- ers.	Elec- tri- cians.	Elev- ator con- struc- tors.	Hoist- ing en- gine- ers.	Gran- ite cut- ters.	Build- ing labo- rers.	Lath- ers.	Mar- ble work- ers and pol- ish- ers.	Sheet- metal work- ers.	Paint- ers.	Plas- ter- ers.	Plumb- ers.	Com- posi- tion roof- ers.	Slate and tile roof- ers.	Steam fitters.	Stone cut- ters.	Tile lay- ers.
Great Falls, Mont. ¹		\$1.00	\$0.82 $\frac{1}{2}$	\$0.82 $\frac{1}{2}$		\$0.85		\$0.85		\$0.62 $\frac{1}{2}$	\$1.00		\$0.85	\$0.85	\$1.00	\$1.00	\$0.87 $\frac{1}{2}$		\$1.00		
Greenfield, Mass.				.60									.55	.55	.62 $\frac{1}{2}$					.62 $\frac{1}{2}$	
Greenwich, Conn. ¹		.75		.75		.75				.50	.68 $\frac{1}{2}$		.75	.75	.75					.75	
Harrisburg, Pa. ¹		.87 $\frac{1}{2}$		.68 $\frac{1}{2}$	\$0.75	.75				.40			.65	.75	.75					.75	
Hartford, Conn. ¹		.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.75	.87 $\frac{1}{2}$	.75						\$0.71 $\frac{1}{2}$	.75	.87 $\frac{1}{2}$	.75					.75	\$0.71 $\frac{1}{2}$
Haverhill, Mass. ¹		.80		.65	.60	.60						.60	.55	.81 $\frac{1}{2}$	.65		\$0.65		.65		
Helena, Mont.		1.00		.75	1.00	.75				.62 $\frac{1}{2}$	.90		.75	1.00	1.00				1.00	\$1.00	
Houston, Tex. ¹	\$0.75	1.00	.80	.75	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	\$0.60	.87 $\frac{1}{2}$	\$1.00	.50	.87 $\frac{1}{2}$		.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	1.00	1.00		.87 $\frac{1}{2}$	1.00		
Jacksonville, Fla. ¹		.75			.75	.75				.30	.75			.75	.75	.75			.75		
Jamestown, N. Y.				.60		.62 $\frac{1}{2}$							.50	.53 $\frac{1}{2}$	.62 $\frac{1}{2}$				.62 $\frac{1}{2}$		
Kansas City, Mo.	.75	1.00	.90	.85	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.90	.90		.57 $\frac{1}{2}$	.87 $\frac{1}{2}$		.75	.82 $\frac{1}{2}$	1.00	1.00			1.00	.75	.87 $\frac{1}{2}$
Kern County, Calif. ¹		1.00		.87 $\frac{1}{2}$		1.00		.75		.68 $\frac{1}{2}$			.93 $\frac{1}{2}$	.87 $\frac{1}{2}$		1.00					
LaFayette, Ind. ¹		.85		.70		.60		.65		.60	.60		.70	.70	.75	.70					
Lake Charles, La. ¹		1.00		.75	.75	.75							.75	.75	.87 $\frac{1}{2}$						
Lake County, Ill.		.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.85	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.70	.80	.87 $\frac{1}{2}$	.75	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$			.87 $\frac{1}{2}$	.87 $\frac{1}{2}$	.87 $\frac{1}{2}$
Los Angeles Calif. ¹			.75	.75		.72 $\frac{1}{2}$	.62 $\frac{1}{2}$	.75		.68 $\frac{1}{2}$	.87 $\frac{1}{2}$		.68 $\frac{1}{2}$	.62 $\frac{1}{2}$	.87 $\frac{1}{2}$						.75
La Crosse, Wis. ¹		.75		.50		.45				.45	.65	.80		.65	.62 $\frac{1}{2}$	.82 $\frac{1}{2}$	.65				
Lawrence, Mass. ¹		.80		.70	.82 $\frac{1}{2}$	.75		.75		.45	.65	.80		.65	.62 $\frac{1}{2}$	.82 $\frac{1}{2}$	.75	.60		.75	
Louisville, Ky. ¹			.80	.60		.75		.85						.50	.62 $\frac{1}{2}$	.75	.70			.75	
Lowell, Mass. ¹		.80		.70	.75	.75				.65	.75		.68	.65	.75	.75	.75			.75	
Lynn, Mass. ¹		.85		.70	.75	.75				.60	.81 $\frac{1}{2}$		.75	.70	.85	.75	.70	.70		.75	
Macon, Ga. ¹		.75		.60	.50	.60				.35			.75	.50	.75	.75	.75			.75	
Manchester, N. H. ¹		.75		.60	.60	.60					.75		.50	.50	.70	.70	.70			.70	.75
Manitowoc, Wis.		.75		.70		.87 $\frac{1}{2}$		.80					.60	.65	.75	.75				.75	
Marion County, Calif. ¹				.75		.75				.50	.87 $\frac{1}{2}$			.87 $\frac{1}{2}$							
Marion County, Ind. ¹	.62 $\frac{1}{2}$	.85	.85	.60	.65	.70	.65	.72 $\frac{1}{2}$			.57		.70	.65	.75		.87 $\frac{1}{2}$			.87 $\frac{1}{2}$	
Miami, Fla. ¹		1.00	.81 $\frac{1}{2}$	1.00		.81 $\frac{1}{2}$		.80			.75		.75	.81 $\frac{1}{2}$	1.00	1.00			1.00		
Michigan City, Ind.				.70		.60					.70		.60	.60	1.00				.60		
Miles City, Mont.				.87 $\frac{1}{2}$	.75	.81 $\frac{1}{2}$				.60			.81 $\frac{1}{2}$		1.00						
Milwaukee, Wis. ¹	.65	.90	.80	.70	.70	.75	.58 $\frac{1}{2}$	.90		.55	.70	.75		.60	.87 $\frac{1}{2}$	.75	.75		.68 $\frac{1}{2}$		.72 $\frac{1}{2}$
Monmouth County, N. J. ¹		.62 $\frac{1}{2}$		.44	.62 $\frac{1}{2}$	.75				.44	.44		.75	.62 $\frac{1}{2}$	.44	.75	.75	.75		.75	
Muskegon, Mich. ¹		.75		.65	.80	.65					.70		.55	.65	.70	.65				.65	
Nashville, Tenn. ¹		.80	.75	.55		.65		.70		.30			.65	.62 $\frac{1}{2}$	.75	.87 $\frac{1}{2}$				.87 $\frac{1}{2}$	
New Brunswick, N. J. ¹		.80			.75	.75				.50			.75	.62 $\frac{1}{2}$	.75	.75		.87 $\frac{1}{2}$		.75	
Newburgh, N. Y. ¹		.75		.75		.70				.56			.56	.60	.75	.75		.70		.75	
New Haven, Conn. ¹		.82 $\frac{1}{2}$	.92 $\frac{1}{2}$	.65	.82 $\frac{1}{2}$	.75		.75	.82 $\frac{1}{2}$		.82 $\frac{1}{2}$		.75	.62 $\frac{1}{2}$	.82 $\frac{1}{2}$	.62 $\frac{1}{2}$		.75		.62 $\frac{1}{2}$	
New London, Conn. ¹		.75		.67 $\frac{1}{2}$	.70	.70				.87 $\frac{1}{2}$	.56 $\frac{1}{2}$	.43 $\frac{1}{2}$		.80	.65	.70				.70	
Newport News, Va. ¹		.80	.87 $\frac{1}{2}$.75		1.00							.80	.75	.75	.75				.75	
New Rochelle, N. Y. ¹				.75		.75					.87 $\frac{1}{2}$.75	.81 $\frac{1}{2}$							

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New York, N. Y. ¹80	.87½	.75	.75	.85	.93½	.86	.50	.75	.65½	.75	.75	.93½	.75	.59½	.81½	.75	.81½
Ogden, Utah ¹	1.00	.75	.55	.75	.75	.75	.87½	.60	.75	.70	.75	.75	1.00	1.00	.70	.75	1.00	.75
Oklahoma City, Okla. ¹	1.00	.75	.87½	.75	.75	.75	.87½	.60	.75	.70	.75	.75	1.00	1.00	.70	.75	1.00	.75
Orange and Montclair, N. J. ¹.....		.65	.75	.75	.75	.75	.75	.50	.75	.75	.75	.52½	.75	.62½	.87½	.65	.75	.75
Ottawa, Canada ¹.....	.75	.60	.60	.60	.65	.65	.90	.50	.75	.75	.75	.50	.70	.65	.70	.65	.75	.75
Peoria, Ill. ¹.....		.76½	.75	.65	.80	.80	.90	.75	.60	.65	.65	.75	.80	.70	.75	.80	.70	.82½
Philadelphia, Pa. ¹.....	.80	.90	.92½	.80	.87½	.82½	.80	.75	.87½	.75	.75	.75	.80	.75	.80	.87½	.82½	.82½
Phoenix, Ariz. ¹	1.00	.81½	.87½	.75	.75	.75	.75	.62½	.87½	.87½	.75	1.00	1.00	1.00	1.00	.75	.75	.75
Pittsburg, Kans. ¹.....		.75	.75	.75	.75	.75	.75	.62½	.87½	.87½	.75	1.00	1.00	1.00	1.00	.75	.75	.75
Plainfield, N. J. ¹.....	.85	.75	.80	.80	.80	.80	.80	.50	.81½	.75	.75	.75	.85	.75	.62½	.75	.75	.75
Pocatello, Idaho ¹	1.12½	.81½	1.00	.85	.85	.85	.85	.62½	.87½	.87½	.75	.87½	1.00	.75	.75	.75	.75	.75
Quincy, Ill. ¹.....		.62½	.62½	.65	.65	.65	.65	.50	.50	.50	.50	.50	.60	.60	.60	.60	.60	.60
Rochester, N. Y. ¹.....	.62½	.87½	.90	.80	.87½	.87½	.81½	.91	.90	.72	.76	.75	.87½	.87½	.62½	.50	.87½	.72
Rockford, Ill. ¹.....		.85	.70	.70	.75	.75	.75	.47½	.70	.72	.65	.60	.75	.87½	.87½	.87½	.87½	.87½
Rock Island, Ill. ¹.....		.82½	.73	.70	.75	.75	.70½	.45	.87½	.87½	.75	.75	.87½	.87½	.70	.70	.87½	.87½
Rome, N. Y. ¹.....	.75	.60	.60	.60	.60	.60	.60	.50	.50	.50	.60	.65	.65	.65	.65	.65	.65	.65
Salt Lake City, Utah ¹	1.00	1.00	.81½	.75	.87½	.75	.82½	.62½	.82½	.82½	.82½	1.00	1.00	1.00	1.00	1.00	1.00	.75
San Antonio, Tex. ¹	1.00	.75	.75	.75	.75	.75	.75	.30	.87½	.75	.75	1.00	.93½	.75	.75	.93½	.93½	.93½
San Francisco, Calif. ¹.....	.80	1.12½	1.00	.87½	.85	1.00	.93½	.87½	1.00	.65½	1.00	.87½	1.12½	1.00	1.00	1.00	1.00	.87½
San Joaquin County, Calif. ¹.....		.75	.75	.75	.75	.75	.68½	.62½	.93½	.81½	.75	.87½	.93½	.93½	.93½	.93½	.93½	.93½
Santa Clara County, Calif. ¹	1.00	.87½	.87½	.87½	.87½	1.00	.87½	.87½	1.00	1.00	1.00	.87½	1.12½	1.00	1.00	1.00	1.00	.87½
Santa Cruz County, Calif. ¹	1.00	.62½	.65	.65	.65	.65	.56½	.50	.75	.75	.62½	1.12½	.80	.80	.80	.80	.80	.80
Sapulpa, Okla. ¹	1.00	.85	.85	.85	.85	.85	.85	.50	.75	.75	.75	.85	1.00	1.00	1.00	1.00	1.00	1.00
Schenectady, N. Y. ¹.....	.90	.70	.90	.62½	.62½	.62½	.62½	.45	.90	.65	.75	.90	.75	.75	.75	.75	.75	.90
Sheboygan, Wis. ¹.....	.65	.55	.60	.55	.55	.55	.55	.45	.55	.52½	.55	.65	.62½	.62½	.62½	.62½	.62½	.62½
Sioux City, Iowa ¹.....	.87½	.85	.75	.87½	.75	.80	.80	.57½	.75	.70	.75	.87½	.87½	.87½	.87½	.87½	.87½	.87½
Sonoma County, Calif. ¹.....	.87½	.68½	.68½	.68½	.68½	.68½	.68½	.62½	.87½	.87½	.62½	.87½	.87½	.87½	.87½	.87½	.87½	.87½
Spokane, Wash. ¹.....	.62½	1.00	1.00	.75	1.00	.75	.62½	.87½	.62½	.87½	1.00	.78½	.87½	1.00	.87½	.62½	.78½	.87½
St. Joseph and Benton Harbor, Mich. ¹.....	.85	.75	.75	.75	.75	.75	.75	.45	.85	.75	.50	.85	.75	.75	.75	.75	.75	.75
St. Joseph, Mo. ¹	1.00	.75	.75	.75	.75	.75	.75	.45	.85	.75	.50	.85	.75	.75	.75	.75	.75	.75
St. Paul, Minn. ¹.....	.65	.87½	.80	.60	.65	.68½	.67½	.42½	.62½	.75	.70	.62½	.90	.75	.70	.75	.75	.75
St. Petersburg, Fla. ¹.....		.75	.65	.75	.62½	.62½	.62½	.37½	.62½	.65	.65	.65	.75	.87½	.75	.75	.75	.75
Syracuse, N. Y. ¹.....		.75	.75	.62½	.70	.75	.75	.42½	.65	.65	.65	.65	.75	.70	.70	.70	.75	.87½
Taunton, Mass. ¹.....	.75	.60	.60	.60	.60	.60	.60	.50	.75	.75	.75	.60	.75	.65	.65	.65	.65	.65
Toledo, Ohio ¹.....	.82½	.90	.90	.75	.75	.75	.75	.45	.75	.80	.80	.62½	.87½	.75	.75	.75	.75	.68½
Topeka, Kans. ¹.....	.87½	.75	.75	.70	.70	.70	.70	.45	.75	.55	.50	.87½	.87½	.75	.75	.75	.75	.68½
Trenton, N. J. ¹.....	.80	1.00	.75	.80	.82½	.82½	.82½	.60	.75	.80	.75	.75	.87½	.87½	.87½	.87½	.87½	.80
Tucson, Ariz. ¹	1.00	.80	.85	.87½	.87½	.87½	.87½	.43½	.62½	.62½	.80	.87½	.87½	.87½	.87½	.87½	.87½	.87½
Tulare County, Calif. ¹	1.00	.75	.75	.75	.75	.75	.75	.62½	.87½	.87½	.62½	.87½	.87½	.87½	.87½	.87½	.87½	.87½
Walla Walla, Wash. ¹	1.00	.75	.75	.75	.75	.75	.75	.62½	.87½	.87½	.75	1.00	.87½	.87½	.87½	.87½	.87½	.87½
Washington, D. C. ¹.....	.75	.87½	.92½	.75	1.00	.80	.92½	.40	.81½	.75	.75	.87½	.87½	.87½	.87½	.87½	.87½	.87½
Watertown N. Y. ¹.....	.62½	.62½	.62½	.62½	.62½	.62½	.62½	.60	.80	.80	.60	.80	.70	.70	.70	.70	.70	.70
West Palm Beach, Fla. ¹.....	.87½	.75	.75	.75	.75	.75	.75	.50	.87½	.87½	.75	.87½	.87½	.87½	.87½	.87½	.87½	.87½
Wichita, Kans. ¹	1.00	.75	.87½	.87½	.87½	.87½	.87½	.56½	.87½	.87½	.75	.85	1.00	.75	.75	.75	.75	.75
Winona, Minn. ¹.....	.60	.60	.45	.45	.45	.45	.45	.50	.50	.50	.50	.70	.56½	.56½	.56½	.56½	.56½	.56½
Worcester, Mass. ¹.....	.75	.85	.65	.75	.60	.70	.75	.55	.60	.60	.60	.62½	.75	.75	.75	.75	.75	.75
Youngstown, Ohio ¹.....	.75	.90	.90	.75	.75	.82½	.80	.45	.60	.75	.68½	.87½	.90	.90	.90	.90	.90	.90
Yuba County, Calif. ¹75	.75	.75	.75	.75	.75	.50	.75	.75	.75	.75	.75	.75	.75	.75	.75	.75

¹ Saturday half holiday in this locality.

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Earnings in New York State Factories in June, 1919.¹

REPORTS received by the New York State Industrial Commission from 1,648 firms with over 550,000 employees indicate that factory workers of the State earned an average of \$22.51 a week in June, this being an increase of 28 cents over the average for May. This present increase in weekly earnings, it is stated, is due strictly to increased rates of pay, as the tendency of hours is downward rather than upward.

Firms reporting increases include those producing cement, brick, silverware, furniture, leather and leather goods, fur goods, paper, wood pulp, and paper products, and sugar and other foods. A considerable number of textile and clothing manufacturers are also among those noting an increase in rates of pay. Among the textile manufacturers in which increases were given are silk, carpets and rugs, worsted yarns and cloth, cotton cloth, knit goods, embroideries and lace, and cordage. In the clothing industries some increases in wage rates were reported in men's clothing and men's furnishings. In numerous cases in women's clothing, hours were reduced and rates advanced sufficiently to give the same daily wages as before.

A considerable number of the firms reported a decrease in hours in June. In many of such cases, however, the reduced hours are simply a matter of closing on Saturday afternoons for the summer, but it appears that numerous reductions mark a permanent change from a nine-hour day to an eight-hour day.

The Industrial Commission states that in the five years since June, 1914, when its present system of records was initiated, the average weekly earnings of factory workers have risen from \$12.70 to \$22.51, an increase of 77.2 per cent. Reviewing the wage movement during these past five years, it appears that the upward movement started about June, 1915. The increase from that month to June, 1916, was nearly 20 per cent and from June, 1916, to June, 1917, the increase was about 17 per cent. The greatest gain was nearly 30 per cent during the year of June, 1917, to June, 1918. The last year, June, 1918, to June, 1919, shows an increase of 10 per cent in the earnings of factory workers, according to the records of the commission.

During the past year, the increase for the various industrial groups ranges from 6 to 21 per cent. The metal industries show the least increase, the reasons given for this being that wages were

¹ Data furnished the Bureau by New York State Industrial Commission.

very high last year compared with other industries, and because business has fallen off in most branches since that time.

The total amount paid in wages was higher in all branches of manufacturing, with the exception of metals, in June than in May. The total for the metal industries was affected by numerous strikes and by dull business conditions in some branches.

The total of wages paid in all manufacturing industries of the State in June of this year was nearly double the amount paid five years ago, declares the Commission. The bulk of wages paid, however, can no longer be taken as an index of the expansion of business because of the great increase in prices and in wages. The number of people employed now gives a better measure of business conditions.

The following statement shows the average weekly earnings of New York factory workers in June, by industrial groups:

Stone, clay, and glass.....	\$24.19
Metals and machinery.....	25.16
Wood manufactures.....	20.75
Furs, leather, and rubber.....	22.16
Chemicals, oils, and paints.....	22.44
Paper manufacture.....	25.84
Printing and paper goods.....	23.71
Textiles.....	17.89
Clothing.....	18.82
Food, liquors, and tobacco.....	21.25
Water, light, and power.....	26.53
	<hr/>
All industries.....	22.51

Changes in Wages and Hours of Labor in Canada.¹

THE table following is a summary of the wages and hours of labor as fixed by the more important industrial agreements recently reported to the Canadian Department of Labor:²

WAGES AND HOURS OF LABOR IN CANADA AS FIXED BY RECENT INDUSTRIAL AGREEMENTS.

Industry and occupation.	Locality.	Wages per hour.	Hours per week.	Date agreement came into effect.
BUILDING AND CONSTRUCTION.				
Blacksmiths, general fire.....	Niagara Falls, Ont.	\$ 0.80	44	May, 1919.
Blacksmiths, heavy fire.....	do.	3.90	44	Do.
Bricklayers and masons.....	Brantford, Ont.	.70	44	Do.
Do.....	Hamilton, Ont.	.75	44	Do.
Bricklayers, masons, and plasterers.....	Calgary, Alta.	.925	44	July, 1919.
Bridge and structural iron workers.....	Niagara Falls, Ont.	3.85	44	May, 1919.
Carpenters.....	Brant County, Ont.	3.60	50	Do.
Do.....	Hamilton, Ont.	3.65	44	Do.
Do.....	Niagara Falls, Ont.	3.70	44	Do.
Carpenters and joiners.....	Guelph, Ont.	3.55	48	Do.
Do.....	Niagara Falls, Ont.	3.70	44	Do.
Cement finishers.....	Ottawa, Ont.	.60	44	Do.
Electricians.....	Niagara Falls, Ont.	3.80	44	Do.
Granite workers:				
Cutters, sharpeners, machine and lathe men.....	Vancouver, B.C.	47.00	44	(5).
Polishers and sawyers.....	do.	46.00	44	(5).
Laborers, general.....	Niagara Falls, Ont.	3.50	44	May, 1919.
Linemen.....	do.	3.75	44	Do.
Machinery movers and riggers.....	do.	3.65	44	Do.
Machinists.....	do.	3.80	44	Do.
Painters, decorators, and paper hangers.....	Montreal, Que.	3.45	50	Apr., 1919.
Painters, decorators, etc.....	Hamilton, Ont.	3.525	44	Do.
Painters, paper hangers, etc.....	Niagara Falls, Ont.	3.70	44	May, 1919.
Painters, sign, and decorators.....	do.	3.80	44	Do.
Plasterers.....	Ottawa, Ont.	.70	44	Do.
Plasterers and cement finishers.....	Hamilton, Ont.	.70	44	Do.
Plumbers and steam fitters.....	Edmonton, Alta.	6.80	44	June, 1919.
Do.....	Stratford, Ont.	.60	7 8/9	May, 1919.
Plumbers, steam and general pipe fitters.....	Niagara Falls, Ont.	3.80	44	Do.
Plumbers, steam fitters, and tinsmiths.....	Fredericton, N.B.	44.50	48	Do.
Steam and operating engineers:				
Drag lines and cableways.....	Niagara Falls, Ont.	212.00	44	Do.
Locomotive cranes, orange peels, and clam shells.....	do.	97.50	44	Do.
Two-drum hoists.....	do.	97.50	44	Do.
Steam shovels and dredges:				
Cranemen.....	do.	162.00	44	Do.
Engineers.....	do.	212.00	44	Do.
Firemen.....	do.	122.00	44	Do.
Watchmen.....	do.	95.00	44	Do.

¹ Data taken from Labour Gazette (Ottawa) for July, 1919.

² See article on the same subject in the MONTHLY LABOR REVIEW for August, 1919, pp. 185-192.

³ Minimum.

⁴ Per day.

⁵ Not reported. "Effective for 1919-20."

⁶ Minimum. After Sept. 1, 1919, the rate will be 85 cents.

⁷ Average hours per day.

⁸ Minimum; per month.

⁹ Minimum; per day.

WAGES AND HOURS OF LABOR IN CANADA AS FIXED BY RECENT INDUSTRIAL AGREEMENTS—Continued.

Industry and occupation.	Locality.	Wages per hour.	Hours per week.	Date agreement came into effect.
BOILER MAKING AND IRON SHIPBUILDING.				
Holders-on, drillers, reamers, countersinkers, punch and shear men.	Victoria, B. C...	1 \$5.00	44	Jan., 1919.
Leading men and layers-out.....	.....do.....	1 9.00	44	Do.
Rivet heaters.....	.....do.....	1 5.00	44	Do.
Ship fitters, boiler makers, riveters, calkers, welders, and burners.	.....do.....	1 7.50	44	Do.
SHIPBUILDING.				
Countersinkers.....	Collingwood, Ont	2 51	44	May, 1919.
Drillers.....	.....do.....	2 525	44	Do.
Heaters.....	.....do.....	2 475	44	Do.
Holders-on.....	.....do.....	2 58	44	Do.
Laborers.....	.....do.....	2 45	44	Do.
Layers-out, boiler shop.....	.....do.....	2 80	44	Do.
Punch shed machine hands.....	.....do.....	2 55	44	Do.
Reamers and bolters.....	.....do.....	2 475	44	Do.
Red leaders.....	.....do.....	2 475	44	Do.
Riggers.....	.....do.....	2 55	44	Do.
Stage builders.....	.....do.....	2 475	44	Do.
PRINTING AND PUBLISHING.				
Compositors, machine (newspaper) (day).....	St. Johns, N. B..	3 22.00	48	(4)
Compositors, machine (newspaper) (night).....	.....do.....	3 25.00	45	(4)
Floormen and ad. men (newspaper) (day).....	.....do.....	3 19.00	48	(4)
Floormen and ad. men (newspaper) (night).....	.....do.....	3 21.00	45	(4)
Machinists (newspaper) (day).....	.....do.....	3 22.00	48	(4)
Machinists (newspaper) (night).....	.....do.....	3 25.00	45	(4)
Proof readers (newspaper) (day).....	.....do.....	3 19.00	48	(4)
Proof readers (newspaper) (night).....	.....do.....	3 21.00	45	(4)
Compositors, machine, and machinists (book and job).	.....do.....	3 22.00	48	(4)
Pressmen in charge (day).....	.....do.....	3 20.00	1 8	(4)
Pressmen in charge (night).....	.....do.....	3 22.00	1 8	(4)
Pressmen, second (day).....	.....do.....	3 16.00	1 8	(4)
Pressmen, second (night).....	.....do.....	3 18.00	1 8	(4)
Pressmen, assistant (day).....	.....do.....	3 14.00	1 8	(4)
Pressmen, assistant (night).....	.....do.....	3 16.00	1 8	(4)
Stereotypers (day).....	.....do.....	3 16.00	1 8	(4)
Stereotypers (night).....	.....do.....	3 18.00	1 8	(4)
Compositors (hand and machine), floor men, stonemen, make-ups, proof readers, and type casters, on day work.	Toronto, Ont...	6 32.00	48	June, 1919.
Pressmen.....	.....do.....	3 32.00	48	Do.
Press assistants.....	.....do.....	3 25.00	48	Do.
Pressmen, rotary.....	.....do.....	3 34.00	48	Do.
Rotary assistants.....	.....do.....	40.00	48	Do.
Compositors (hand and machine), stonemen, make-ups, proof readers, and machinists (book and job).	Edmonton, Alta.	3 27.00	48	Do.
Machinist-operators and caster men (2 machines or under).	.....do.....	6 76	7 48	May, 1919.
Compositors (hand and machine), make-ups, ad. men, bankmen, proof readers, and machinists.	Moose Jaw, Sask.	8 805	7 48	Do.
Compositors (hand and machine), make-ups, ad. men, bankmen, proof readers, and machinists.	Moose Jaw, Sask.	8 5.33 $\frac{1}{3}$	9 8	Nov., 1918.
SHIPPING AND LONGSHORE WORK.				
Chief engineers, passenger steamers, 3,000 tons or over, and freight steamers of 5,000 tons or over.	Toronto, Ont...	10 2,400.00	(11)	Season 1919.
Second engineers, passenger steamers, 3,000 tons or over, and freight steamers of 5,000 tons or over.	.....do.....	12 180.00	(11)	Do.
Chief engineers, passenger steamers under 25 N. H. P.	.....do.....	12 125.00	(11)	Do.
Second engineers, passenger steamers from 45 N. H. P. to 25 N. H. P., or freight steamers requiring third-class engineers.	.....do.....	12 110.00	(11)	Do.
Chief engineers, freight steamers requiring third-class engineer.	.....do.....	12 155.00	(11)	Do.

1 Per day.

2 Minimum.

3 Per week.

4 Not reported. "In effect for 1919."

5 Per week. Rate for night work is 15 per cent higher.

6 For night work \$2 per week additional.

7 For night work 45 hours.

8 Per day. For night work, \$0.50 additional.

9 Per day; 7 $\frac{1}{2}$ hours per night.

10 Per year.

11 Not reported.

12 Per month.

WAGES AND HOURS OF LABOR IN CANADA AS FIXED BY RECENT INDUSTRIAL AGREEMENTS—Concluded.

Industry and occupation.	Locality.	Wages per hour.	Hours per week.	Date agreement came into effect.
SHIPPING AND LONGSHORE WORK—continued.				
Chief engineers, tug steamers requiring second-class engineer.	Toronto, Ont....	1 \$165.00	(²)	Season 1919.
Chief engineers, tug steamers under 25 N. H. P.	do.....	1 130.00	(²)	Do.
Second engineers, tug steamers requiring second-class engineer.	do.....	1 130.00	(²)	Nov., 1918.
Second engineers, tug steamers under 25 N. H. P.	do.....	1 105.00	(²)	Do.
Firemen (coal) and storekeepers.	Vancouver, B. C.	1 90.00	(²)	Do.
Firemen, oil.....	do.....	1 80.00	(²)	Do.
Coal passers.....	do.....	1 75.00	(²)	Do.
Wipers.....	do.....	1 55.00	(²)	Do.
Longshoremen (daytime):				
General cargo.....	do.....	.80	³ 8	Jan., 1919.
Trimming bulk grains; ship-loading cargo in sacks; licorice (uncovered), caustic soda, soda ash, asbestos, cement, plaster, scrap tin, gypsum, tallow, oriental and fish oils, etc.	do.....	.90	³ 8	Do.
Coal, cargo or bunker; loading lumber.....	do.....	.85	³ 8	Do.
Side runners, hatch tenders, double-winch and donkey drivers.	do.....	.95	³ 8	Do.
Foreign coastwise—				
Ship and dock.....	do.....	.75	³ 8	Do.
Tallow, caustic soda, asbestos, gypsum, ore, etc.	do.....	.85	³ 8	Do.
Coastwise (British Columbia and Puget Sound):				
Ship and dock.....	do.....	.65	³ 8	Do.
Double-winch driving.....	do.....	.85	³ 8	Do.
Tallow, asbestos, scrap tin, gypsum, oriental and fish oils, etc.	do.....	.75	³ 8	Do.
Explosives and damaged cargo.....	do.....	1.00	³ 8	Do.
STREET AND ELECTRIC RAILWAYS.				
Conductors and motormen:				
First 6 months.....	Regina, Sask....	\$.36	⁵ 54	Do.
Second 6 months.....	do.....	\$.40	⁵ 54	Do.
Second year.....	do.....	\$.43	⁵ 54	Do.
Third year.....	do.....	\$.45	⁵ 54	Do.
Fourth year and after.....	do.....	\$.48	⁵ 54	Do.
Car cleaners:				
First year.....	do.....	.35	(²)	Do.
Second year.....	do.....	.375	(²)	Do.
Third year and after.....	do.....	.40	(²)	Do.
Painters.....	do.....	.50	(²)	Do.
Machinists.....	do.....	.45	(²)	Do.
Teamsters.....	do.....	.40	(²)	Do.
Switchmen.....	do.....	.45	(²)	Do.
EXPRESS COMPANY.				
Wagon men and motormen:				
First 6 months.....	(²)	1 90.00	⁶ 8	May, 1919.
Second 6 months.....	(²)	1 95.00	⁶ 8	Do.
Second year.....	(²)	1 100.00	⁶ 8	Do.
Third year.....	(²)	1 106.25	⁶ 8	Do.
Wagon helpers.....	(²)	1 80.00	⁶ 8	Do.
Porters:				
First 6 months.....	(²)	1 87.50	⁶ 8	Do.
Second 6 months.....	(²)	1 90.00	⁶ 8	Do.
Warehousemen (checkers, scalemen, and car loaders):				
First year.....	(²)	1 100.00	⁶ 8	Do.
Second year.....	(²)	1 106.25	⁶ 8	Do.
Stablenen.....	Toronto, Montreal, Winnipeg, and Calgary.	7 90.00	⁶ 8	Do.
Messengers:				
First-class runs.....	(²)	⁸ 140.00	⁶ 8	Do.
Second-class runs.....	(²)	⁸ 130.00	⁶ 8	Do.
Third-class runs.....	(²)	⁸ 120.00	⁶ 8	Do.
Fourth-class runs (1st year).....	(²)	⁸ 120.00	⁶ 8	Do.
Fourth-class runs (2d year).....	(²)	⁸ 110.00	⁶ 8	Do.

¹ Per month.² Not reported.³ Per day.⁴ Allowed one-half hour each day for reporting.⁵ Maximum.⁶ Per day. Not including employees in train messenger service and at offices having ⁵ employees or less.⁷ Maximum, per month.⁸ Per month; and $1\frac{1}{2}$ cents per mile for each mile in excess of 6,000 made in any month on regular run.

Canadian Civil Service Bonus Schedule.

REGULATIONS governing the payment of the Canadian civil-service bonus of \$10,000,000 are included in an order in council issued on July 15, 1919. Embraced in the order is the schedule of payments which are to be made each month and are retroactive to April 1, 1919. The following is the text of that portion of the order in council, as published in the Canadian Official Record for July 17, 1919, giving the schedule and regulations:

Regulations for a Cost of Living Bonus for Employees in the Civil Service of Canada, Prepared by the Civil Service Commission.

Cost of Living Bonus.

SECTION 1. In addition to all salaries now received by the employees in the civil service, a special cost of living bonus for the fiscal year commencing April 1, 1919, shall be paid to all persons employed in the civil service in Canada, in the groups named below, subject to the provisions and exceptions enumerated: *Provided:* That no section of these regulations shall be construed to mean that an employee qualified hereunder to participate in the bonus shall receive a continued salary and bonus for the present fiscal year less than the combined salary bonus and living allowance entitled to be received by the employee for the fiscal year ending March 31, 1919.

Bonus Groups.

SEC. 2. Group I. (a)—Any person the supporting head of a household, receiving less than \$1,200 per year for full-time service and not otherwise excluded by the provisions of these regulations, shall receive a bonus for the fiscal year of \$420, payable in monthly installments of \$35 each. For the purpose of these regulations a married man supporting a family shall be considered the head of a household. The Civil Service Commission shall have power to make regulations to be approved by the Governor in Council, classifying as heads of households other persons, the sole support of dependents, who, in the opinion of the commission, are subject to responsibilities equivalent to those of the head of a family, and on the basis of such regulations shall have power to make rulings as to the receipt of bonus by persons coming under such regulations.

(b) Any person the supporting head of a household, receiving \$1,200 or over and less than \$3,000 per year for full-time service, and not otherwise excluded by the provisions of these regulations, shall receive for the fiscal year the bonus indicated for such person's salary group.

TABLE A.

Receiving an income of—	And less than—	Bonus for fiscal year.	In monthly payments of—	Receiving an income of—	And less than—	Bonus for fiscal year.	In monthly payments of—
\$1,200	\$1,320	\$396	\$33	\$2,160	\$2,280	\$204	\$17
1,320	1,440	372	31	2,280	2,400	180	15
1,440	1,560	348	29	2,400	2,520	156	13
1,560	1,680	324	27	2,520	2,640	132	11
1,680	1,800	300	25	2,640	2,760	108	9
1,800	1,920	276	23	2,760	2,880	84	7
1,920	2,040	252	21	2,880	3,000	60	5
2,040	2,160	228	19				

Group II (a).—Any person 21 years of age or over not the head of a household receiving less than \$960 per year for full-time service, and not otherwise excluded by the provisions of these regulations, shall receive a bonus for the fiscal year of \$252 payable in monthly instalments of \$21 each.

(b) Any other person 21 years of age or over not the head of a household, receiving \$960 or over and less than \$1,800 per year for full-time service and not otherwise excluded by the provisions of these regulations, shall receive for the fiscal year the bonus below indicated for such person's salary group.

TABLE B.

Receiving an income of—	And less than—	Bonus for fiscal year.	In monthly payments of—	Receiving an income of—	And less than—	Bonus for fiscal year.	In monthly payments of—
\$960	\$1,080	\$222	\$18.50	\$1,440	\$1,560	\$102	\$8.50
1,080	1,200	192	16.00	1,460	1,680	72	6.00
1,200	1,320	162	13.50	1,680	1,800	42	3.50
1,320	1,440	132	11 00				

Group III.—Any person less than 21 years of age and 18 years or over, not the head of a household, receiving less than \$1,200 for full-time service and not otherwise excluded by the provisions of these regulations, shall receive a bonus for the fiscal year of \$150 payable in monthly instalments of \$12.50 each.

Provisional Bonus Deducted.

SEC. 3. The amount of the first current payment made to the employee under these regulations shall be determined as the difference between the amount of the bonus as computed under the provisions of these regulations and the total amount of the War Bonus already paid to the employee for the period. Provided, that where the total amount of War Bonus paid for the period is in excess of the amount of bonus as computed under the provisions of these regulations, payment shall be made in the future on the basis of these regulations, but no section therein contained shall be construed as requiring the refund by the employee of any part of such War Bonus, rightfully received by the employee.

Change of Employee's Bonus Group.

SEC. 4. When a change in the salary of an employee entails a change in the amount of bonus due such employee, the bonus shall be computed at the new rate, as shown by the employees' service record of the Civil Service Commission or by the records of the department, for the whole month next following such change of salary. When a change in the age of an employee, or in his responsibility to dependents, changes the amount of the bonus due the employee, the following proof of such change of bonus group shall be submitted to the Civil Service Commission: (1) the statutory declaration of the employee, stating and affirming the truth of the facts constituting such change in status; (2) a statement by the head of the branch in which the person is employed, that he is satisfied as to the validity of the change of status of the employee; (3) such additional proof as the head of the branch may require the employee to submit, or as may be necessary in the opinion of the Civil Service Commission, to establish the validity of the change of status.

Definition of Income of Employee.

SEC. 5. In determining the income received by an employee all salary, wages, piecework earnings, and special allowances for all purposes, except payment for overtime, received by the employee from the Dominion Government shall be included.

Living Allowances.

SEC. 6. In the case of a person receiving living allowances, such as quarters, food, and so forth, in kind or in money, the value of such allowances as computed by the head of the department and approved by the Civil Service Commission, shall be considered as constituting part of the total income received by the employee, but there shall be deducted from the bonus of the employee such proportion of the total bonus as the value of such living allowance may bear to the total income so computed.

Absences.

SEC. 7. Absences on leave with pay of the type customarily allowed by the department to salaried employees, but not to exceed one month in a six-month period, shall not be considered as affecting the status of the employee as a full-time employee.

Salaries in Excess of the Classification.

SEC. 8. Subject to the provisions of Section I, an employee receiving a salary in excess of the amount provided by the pending Civil Service Classification for the class in which he is employed, when his classification becomes effective, shall receive only so much salary and bonus total as would be provided by the maximum salary for the class plus such bonus as the bonus group of the employee would then entitle him to.

Time of Payment.

SEC. 9. Bonus shall be paid on the fifteenth day of each calendar month (or other regular pay day of the department) for the calendar month preceding such pay day. For new employees entering the service, current bonus shall be computed from the date of entering the service, provided that no payments shall be made until the employee has been in service a full month, and that employees remaining in the service for less than a month shall not be entitled to receive bonus.

Method of Payment.

SEC. 10. Payments of bonus made under these regulations shall in each case be made by separate check or pay envelope, specifically designated by the title "Cost of Living Bonus."

Misrepresentation of Bonus Group.

SEC. 11. Proof of willful falsification or misstatement of facts, of a nature intended to enable a Civil Service employee to obtain a bonus in excess of that to which he is entitled, shall constitute grounds for dismissal from the service.

Extinguishment of Bonus by Salary Increases.

SEC. 12. In the case of any general increases in the class salary rates of an occupational group, the amounts of such increases shall be deducted from the bonuses paid to the members of the group receiving the increase. These regulations shall automatically cease to operate for any occupational group, or for all groups, when the amount of increases so given shall be sufficient to extinguish the bonuses for the group or groups.

Persons Receiving "Prevailing Rates."

SEC. 13. Persons whose rate of pay is determined as the prevailing rate paid for similar work in the region in which they work shall not be entitled to participation in the bonus.

Part Time.

SEC. 14. Persons whose duties do not require their full time, or whose public functions are incidental to their occupation, or who are permitted while in the service to

accept employment or engage in commerce or industry, shall not be entitled to participation in the bonus; provided, that persons giving their full time to the service for periods of a month or more, shall receive bonus pro rata for the period worked, in accordance with the provisions of these regulations.

Revision and Interpretation.

SEC. 14. The provisions of these regulations shall be subject to such revision and compensatory adjustment as may be equitable and necessary when the pending classification becomes effective for any portions of the service. For the purposes of departmental uniformity in administration, the Civil Service Commission shall make such application or interpretation of these regulations as may be necessary, subject to such rulings as may be made by the Governor in Council.

Increase in Wages in British Columbia Shipyards.

AN AGREEMENT effective June 1, 1918, governing "the operation of shipbuilding and allied manufacturing plants in the Province of British Columbia" and fixing rates of pay, provided that wage rates should be changed quarterly as might be warranted by fluctuation in the cost of living and that all grievances arising which the parties were unable to settle between themselves should be referred to an adjuster, whose decision should be final. It was also provided that during the life of the agreement there should be no strikes or lockouts. The full text of this agreement, including the new rates of pay, was published in the MONTHLY LABOR REVIEW for August, 1918 (pp. 157-160). Subsequently, in accordance with the terms of the agreement, the wages of these workers have been adjusted four times, based on official information on the cost of living as published in the Labor Gazette (Ottawa). The latest change announced by the adjuster on June 25, effective as from June 1, grants an increase of 2.75 cents per hour, the increase in foods, fuel, and rents from the middle of February to the middle of May, 1919, being shown to be 70 cents per week, or equal to an increase in wages of 1.6 cents per hour for a 44-hour week, while the increase in clothing and other necessities was found to be equal to a further increase of 1.1 cents per hour. The changes that have been made in the four adjustments are indicated in the following statement, which shows a net increase of 5.5 cents over the original wage scale provided in the agreement:

Sept. 1, 1918.....	2.00 cents per hour increase.
Dec. 1, 1918.....	2.75 cents per hour increase.
Mar. 1, 1919.....	2.00 cents per hour decrease.
June 1, 1919.....	2.75 cents per hour increase.

Rates of Pay, etc., Fixed by National Maritime Board, Great Britain.

STANDARD rates of pay, hours of labor, and other determinations applicable to navigating officers, engineer officers, firemen, oilers, sailors, and employees in the catering department, down to the end of 1918, are set forth in a pamphlet issued in January, 1919, by the National Maritime Board, Great Britain.¹ It is explained that these rates are both maximum and minimum and may neither be increased nor reduced, and that they include all bonuses and additions to pay, with the exception of the special war-risk bonus² given by the Government as from October 7, 1918, and other payments which are indicated at their proper places in the various schedules. The war-risk bonus amounts to £3 (\$14.60) per month in the case of vessels whose crews are on monthly articles, and to 10s. (\$2.43) per week in the case of those on weekly articles, and should be added to the pay of all ratings on board for whom national standard rates of pay have been fixed, except ordinary seamen, boys, apprentices, and first-voyage trimmers, who are to be paid one-half the bonus. These standard rates of pay apply to all vessels the crews of which are engaged in the United Kingdom on ordinary Board of Trade articles except those trading either wholly or in part within partially "smooth water limits" and those sailing under the "share system," salvage vessels, cable steamers, tugboats, etc. The rates are in most cases retroactive to October 6, 1917. They are presented under two general headings—those applicable to passenger liners and to cargo liners and general trading (or cargo) vessels.

The following table compiled from the report shows the standard rates of pay as determined by the National Maritime Board. The rates shown are for employees "with certificate," in all occupations in which certificates are issued. For some occupations lower rates are paid employees without certificate and in some occupations slightly higher rates are paid employees having certificates of superior rating, that is, certificates for positions higher than those occupied.

¹ The Shipping Federation (Ltd.). The National Maritime Board. Standard rates of pay, hours of labor, and other determinations. London. Spottiswoode, Ballantyne & Co. (Ltd.). 1919. 34 pp.

² The war-risk bonus applies throughout the whole of the voyage any part of which is through waters which have been the scene of submarine activity; to coasting vessels equally with oversea vessels tradings to and from the United Kingdom, unless such trading be confined to "smooth water limits" as defined by the Board of Trade.

STANDARD RATES OF PAY DETERMINED BY THE NATIONAL MARITIME BOARD,
GREAT BRITAIN, AS FROM OCT. 7, 1918.

Class of vessel and occupation.	Gross tonnage.	Rate per month.			
		Begin at—	After 1 year.	After 2 years.	After 3 years.
<i>Foreign trade vessels.</i>					
<i>Foreign-going passenger liners:</i>					
First mate.....	1,000-5,000.....	\$121.66	\$126.53	\$131.40	\$136.26
	5,001-9,000.....	126.53	131.40	136.26	141.13
	9,001-13,000.....	131.40	136.26	141.13	146.00
	13,001-18,000.....	136.26	141.13	146.00	150.86
Second mate.....	1,000-5,000.....	104.63	107.06	109.49	.....
	5,001-13,000.....	107.06	109.49	111.93	.....
	13,001-18,000.....	109.49	111.93	114.36	.....
Third mate.....	1,000-9,000.....	92.46	97.33	102.20	.....
	9,001-18,000.....	94.89	99.76	104.63	.....
Fourth mate.....	1,000-18,000.....	82.73	.....	.....	.....
Junior.....	1,000-18,000.....	80.29	.....	.....	.....
Chief engineer.....	1,000-5,000.....	150.86	160.59	170.33	¹ 180.06
	5,001-9,000.....	160.59	170.33	180.06	¹ 189.79
	9,001-13,000.....	170.33	180.06	189.79	¹ 199.53
	13,001-18,000.....	180.06	189.79	199.53	¹ 209.26
Second engineer.....	1,000-5,000.....	121.66	126.53	131.40	136.26
	5,001-9,000.....	126.53	131.40	136.26	141.13
	9,001-13,000.....	131.40	136.26	141.13	146.00
	13,001-18,000.....	136.26	141.13	146.00	150.86
Third engineer.....	1,000-5,000.....	107.06	111.93	116.80	.....
	5,001-9,000.....	109.50	114.36	119.23	.....
	9,001-13,000.....	109.50	114.36	119.23	.....
	13,001-18,000.....	111.93	116.80	121.66	.....
Fourth engineer.....	1,000-5,000.....	92.46	97.33	102.20	.....
	5,001-9,000.....	92.46	97.33	102.20	.....
	9,001-13,000.....	94.90	97.76	104.63	.....
	13,001-18,000.....	94.90	99.76	104.63	.....
Fifth engineer.....	1,000-18,000.....	82.73	.....	.....	.....
Sixth engineer.....	1,000-18,000.....	80.30	.....	.....	.....
<i>Cargo liners and general traders:</i>					
First mate.....	201-500.....	87.60	90.03	92.46	97.33
	501-1,000.....	97.33	99.76	102.20	107.06
	1,001-3,000.....	102.20	104.63	107.06	111.93
	3,001-5,000.....	107.06	109.49	111.93	116.80
	5,001-7,000.....	111.93	114.36	116.80	121.66
	7,001-9,000.....	116.80	119.23	121.66	126.53
	9,001-12,000.....	121.66	124.09	126.53	131.40
	12,001 and over.....	126.53	128.96	131.40	136.26
Second mate.....	201-500.....	87.60	90.03	.....	.....
	501-1,000.....	90.03	92.46	.....	.....
	1,001-3,000.....	92.46	94.89	.....	.....
	3,001-7,000.....	94.89	97.33	.....	.....
	7,001-9,000.....	97.33	99.76	.....	.....
	9,001-12,000.....	99.76	102.20	.....	.....
	12,001 and over.....	102.20	104.63	.....	.....
Third mate.....	501-1,000.....	77.86	.....	.....	.....
	1,001-9,000.....	82.73	.....	.....	.....
	9,001 and over.....	85.16	.....	.....	.....
Fourth mate.....	501 and over.....	77.86	.....	.....	.....
Chief engineer.....	501-1,000.....	116.80	126.53	136.26	² 146.00
	1,001-3,000.....	121.66	131.40	141.13	² 150.86
	3,001-5,000.....	126.53	136.26	146.00	² 155.73
	5,001-7,000.....	131.40	141.13	150.86	² 160.59
	7,001-9,000.....	136.26	146.00	155.73	² 165.46
	9,001-12,000.....	141.13	150.86	160.59	² 170.33
	12,001 and over.....	146.00	155.73	165.46	² 175.19
Second engineer.....	501-1,000.....	102.20	104.63	107.06	² 111.93
	1,001-3,000.....	107.06	109.50	111.93	116.80
	3,001-5,000.....	111.93	114.36	116.80	121.66
	5,001-7,000.....	116.80	119.23	121.66	126.53
	7,001-9,000.....	121.66	124.10	126.53	131.40
	9,001-12,000.....	126.53	128.96	131.40	136.26
	12,001 and over.....	131.40	133.83	136.26	141.13
Third engineer.....	501-1,000.....	92.46	94.90	.....	.....
	1,001-3,000.....	94.90	97.33	.....	.....
	3,001-5,000.....	97.33	99.76	.....	.....
	5,001-7,000.....	99.76	102.20	.....	.....
	7,001-9,000.....	102.20	104.63	.....	.....
	9,001-12,000.....	104.63	107.06	.....	.....
	12,001 and over.....	107.06	109.50	.....	.....
Fourth engineer.....	1,001-9,000.....	82.73	.....	.....	.....
	9,001 and over.....	85.16	.....	.....	.....
Fifth or junior.....	1,001 and over.....	77.86	.....	.....	.....

¹ After four years there is an increase of \$9.73 per month and after five years a further increase of \$9.73 per month.

² After five years there is an increase of \$9.73 per month.

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STANDARD RATES OF PAY DETERMINED BY THE NATIONAL MARITIME BOARD,
GREAT BRITAIN, AS FROM OCT. 7, 1918—Continued.

Class of vessel and occupation.	Gross tonnage.	Rate per month.			
		Begin at—	After 1 year.	After 2 years.	After 3 years.
<i>Home trade vessels.</i>					
Passenger vessels having speed of under 15 knots: ¹					
First mate.....	101-200.....	\$26.77	\$27.37	\$27.98	.....
	201-500.....	29.20	29.81	30.42	\$31.63
	501-1,000.....	30.42	31.02	31.63	32.85
	1,001 and over.....	31.63	32.24	32.85	34.07
Second mate.....	101-200.....	23.12	23.72	24.33	.....
	201-500.....	29.20	29.81	30.42	31.63
	501-1,000.....	30.42	31.02	31.63	32.85
	1,001 and over.....	31.63	32.24	32.85	34.07
Third mate.....	1,001 and over.....	27.98	.....	.....	.....
Chief engineer.....	101-200.....	30.42	31.02	32.24	.....
	201-500.....	32.85	33.46	34.07	\$35.28
	501-1,000.....	36.50	37.11	37.72	\$38.93
	1,001 and over.....	37.72	38.32	38.93	\$40.15
Second engineer.....	101-200.....	26.77	27.37	27.98	.....
	201-500.....	29.20	29.81	30.42	31.63
	501-1,000.....	32.85	33.46	34.07	35.28
	1,001 and over.....	34.07	34.67	35.28	35.50
Third engineer.....	101-200.....	23.12	23.72	24.33	.....
	201-500.....	25.55	26.16	26.77	27.98
	501-1,000.....	30.42	31.02	31.63	32.85
	1,001 and over.....	31.63	32.24	32.85	34.07
Fourth engineer.....	501 and over.....	25.55	.....	.....	.....
Fifth engineer.....	501 and over.....	24.33	.....	.....	.....
General trading vessels:					
First mate.....	101-200.....	24.33	24.94	25.55	.....
	201-500.....	26.77	27.37	27.98	29.20
	501-1,000.....	27.98	28.59	29.20	30.42
	1,001 and over.....	29.20	29.81	30.42	31.63
Second mate.....	101-200.....	20.68	21.29	21.90	.....
	201-500.....	26.77	27.37	27.98	29.20
	501-1,000.....	27.98	28.59	29.20	30.42
	1,001 and over.....	29.20	29.81	30.42	31.63
Third mate.....	1,001 and over.....	25.55	.....	.....	.....
Chief engineer.....	101-200.....	27.98	28.59	29.20	.....
	201-500.....	30.42	31.02	31.63	\$32.85
	501-1,000.....	34.07	34.67	35.28	\$37.50
	1,001 and over.....	35.28	35.89	36.50	\$37.72
Second engineer.....	101-200.....	24.33	24.94	25.55	.....
	201-500.....	26.77	27.37	27.98	29.20
	501-1,000.....	30.42	31.02	31.63	32.85
	1,001 and over.....	31.63	32.24	32.85	34.07
Third engineer.....	101-200.....	20.68	21.29	21.90	.....
	201-500.....	23.12	23.72	24.33	25.55
	501-1,000.....	27.98	28.59	29.20	30.42
	1,001 and over.....	29.20	29.81	30.42	31.63
Fourth engineer.....	501 and over.....	25.55	.....	.....	.....

Occupation.	On monthly articles (with free food).	On weekly articles (finding own food).
Able-bodied "sailor," "seamen," or "deckhand".....	\$55.96	\$18.86
Boatswains.....	63.26	20.08
Boatswains' mates.....	58.40	.....
Carpenters:		
Vessels up to 8,000 tons gross.....	68.13	.....
Vessels 8,001 to 10,000 tons gross.....	73.00	.....
Vessels 10,001 to 12,000 tons gross.....	77.86	.....
Vessels 12,001 to 25,000 tons gross.....	82.73	.....
Vessels over 25,000 tons gross.....	87.60	.....
All tonnages.....	.....	20.08
Carpenters' mates, and joiners:		
Vessels up to 8,000 tons gross.....	63.26	.....
Vessels 8,001 to 10,000 tons gross.....	63.26	.....
Vessels 10,001 to 12,000 tons gross.....	68.13	.....
Vessels 12,001 to 25,000 tons gross.....	68.13	.....
Vessels over 25,000 tons gross.....	73.00	.....
Cranemen.....	.....	19.47

¹ On vessels having a speed of 15 knots and over the rates are to be as given in this table with the addition of \$3.65 per week.

² After 5 years there is an increase of \$1.22 per week.

STANDARD RATES OF PAY DETERMINED BY THE NATIONAL MARITIME BOARD,
GREAT BRITAIN, AS FROM OCT. 7, 1918—Concluded.

Occupation.	On monthly articles (with free food).	On weekly articles (finding own food).
Diesel engine greasers.....		
Donkeymen.....	\$63.26	
Firemen.....	63.26	\$20.08
Firemen, leading (where carried).....	58.40	18.86
Firemen, first leading.....	60.83	
Greasers.....	63.26	
Lamp trimmers.....	60.83	19.47
Launchmen (if so rated on articles).....	58.40	19.47
Painters (if so rated on articles).....	60.83	
Pumpmen on oil-carrying vessels.....	58.40	
Quartermasters.....	58.40	19.47
Sailmakers on sailing ships.....	63.26	
Storekeepers, deck.....	58.40	
Storekeepers, engine room.....	63.26	
Storekeepers, engine room, assistant (if so rated on articles).....	60.83	
Trimmers of over one month's sea service.....	55.96	18.25
Trimmers of less than one month's sea service.....	37.72	11.55
Water tenders (if so rated on articles).....	60.83	

Class of vessel and occupation.	Monthly rate (with free food) on vessels carrying—			
	90 hands and over, white, or 113 hands and over, mixed crews.	60 to 89 hands, white, or 75 to 112 hands, mixed crews.	21 to 59 hands, white, or 76 to 74 hands, mixed crews.	20 hands and under, white, or 25 hands and under, mixed crews.
<i>Foreign-going vessels.</i>				
Cargo liners and general trading vessels: ¹				
Catering department—				
Chief steward.....	\$87.60	\$82.73	\$77.86	
Second steward.....	68.13	² 53.53	52.32	
Mess-room steward.....	52.32	52.32	51.10	\$51.10
Assistant steward.....	52.32	52.32	48.67	
Stewardess.....	52.32	52.32	48.67	
Chief cook.....	82.73	77.86	73.00	
Ship's cook.....	68.13	63.26		
Second cook.....	58.40	53.53	53.53	
Assistant cook.....	53.53	52.32	48.67	
Baker.....	63.26	58.40		
Assistant baker.....	53.53			
Butcher.....	63.26	58.40		
Second cook and baker.....	60.83	55.96		
Storekeeper.....	58.40	³ 55.96		
Pantryman.....	58.40			
Saloon steward.....		52.32		
Boys of ratings below assistant steward.....		26.15	26.15	26.15
Cook-steward.....				73.00
Steward ⁴				73.00
Cook ⁴				63.26

Class of vessel and occupation.	Weekly rates.	Class of vessel and occupation.	Weekly rates.
<i>Home trade vessels.</i>		<i>Home trade vessels—Concluded.</i>	
Passenger vessels (with free food):		Cargo vessels (finding own food):	
Chief steward.....	\$21.90	Cook-steward.....	\$20.69
Second steward.....	17.03	Cook-stewardess.....	20.69
Assistant steward.....	12.16	Mess-room steward.....	15.82
Stewardess.....	12.16	Boys.....	11.19
Pantrymen.....	13.38	Steward ⁴	20.69
Chief cook.....	18.25	Cook ⁴	18.25
Second cook.....	14.60		
Storekeeper.....	14.60		
Assistant cook.....	12.16		
Mess-room steward.....	12.16		
Boys.....	6.09		

¹ The only information given for passenger liners is the amount of increase over previous rates. A mixed crew is composed of white and natives.

² \$58.40 when storekeeper is also carried.

³ When carried in addition to second steward.

⁴ When carried instead of a cook-steward.

Forty-Eight Hour Week and Wage Agreements in British Textile Industries.

A CABLEGRAM from the consul at Manchester, England, dated July 10, 1919, and published in Commerce Reports, issued by the Bureau of Foreign and Domestic Commerce, makes the following statement:

It was unanimously agreed July 9 at a joint meeting of representatives of the Federation of Master Cotton Spinners' Association (Ltd.), the Cotton Spinners and Manufacturers Association, the Legislative Council of the United Textile Factory Workers' Association, and the executive committees of the Amalgamated Association of Card and Blowing Room Operatives, the Amalgamated Association of Operative Cotton Spinners, the Amalgamated Weavers' Association, the Amalgamated Association of Reamers, Twisters, Drawers, and Machine Workers, the General Union of Associations of Loom Overlookers, the Mill Warpers' Amalgamation, the Warpers' Amalgamation and the Bleachers', Dyers', and Finishers' Amalgamation, held for the purpose of discussing the question of wages and hours in the cotton industry, to recommend the following for acceptance by all the various organizations:

First. A 48-hour working week.

Second. An advance on the standard piece-price list rates of wages of 30 per cent.

Third. In the case of those workmen whose wages are not governed by the standard piece-price list an equivalent alteration in rates of pay.

Fourth. From the date of its coming into operation, the 48-hour working week to remain in operation for a period of 12 months, and after the expiration of that period one month's notice to be given by either side of any desired alteration.

Fifth. When work is resumed, the altered rates of pay to come into operation and until April 30, 1920, to remain in operation without change; an alteration in such rates of pay being desired by either side they must give one month's notice, but such shall not be given at an earlier date than March 31, 1920. Recommendation is made for the reopening of the mills for work on Monday morning, next, July 14.

Prices and Wages in France.¹

IN A booklet on prices and wages, the French Association for the Prevention of Unemployment says: "It is a very widespread opinion that never has labor been better paid than in our day. Undoubtedly the nominal rate of wages has risen, notably in war industries; but the essential point is to ascertain whether the purchasing power of the new wages exceeds that of previous wages, is merely equivalent, or is in fact smaller."

In making a comparison of the rates of increase of prices and wages, retail prices are first considered.

¹ La Vie Chère et la Hausse des Salaires. Bulletin No. 17-18, August-September, 1918, Association Française pour la Lutte contre le Chômage et pour l'Organisation du Marché du Travail.

Cost of Living.

An investigation, carried on by the French Bureau of General Statistics, of the cost per year of 13 essential commodities (11 food, gasoline, and fuel alcohol) for a family of 4 persons, gives the following index figures for all of France.¹

1911, first quarter.....	1,014
1913, first quarter.....	1,020
1915, first quarter.....	1,105
1916, first quarter.....	1,336
1917, first quarter.....	1,547
1917, fourth quarter.....	2,008
1918, first quarter.....	2,120
1918, second quarter.....	2,331

Index numbers for the years 1914 to 1918, and the per cent of increase each year over 1914, for Paris are shown, as follows:

INDEX NUMBERS OF COST OF LIVING IN PARIS, 1914 TO 1918, AND PER CENT OF INCREASE EACH YEAR OVER 1914.

Date.	Index numbers.	Per cent of increase over 1914.
January, 1914.....	1,075	.....
January, 1915.....	1,295	a 22
January, 1916.....	1,439	b 37
January, 1917.....	1,491	39
January, 1918.....	2,056	91
April, 1918.....	2,345	118

^a According to the index numbers shown this should be 19.

^b According to the index numbers shown this should be 34.

The table which follows gives the market prices of various necessary articles of household consumption in the Creusot region, April, 1914, 1917, and 1918, and was compiled from records kept by the Union of Metal Workers of Creusot:

¹ These indexes are obtained by multiplying the average prices by quantities of annual consumption. See Bulletin de la Statistique Generale de la France, July, 1918, p. 337.

MARKET PRICES OF 21 ARTICLES OF HOUSEHOLD CONSUMPTION IN THE CREUSOT REGION, FRANCE, APRIL 1914, 1917, AND 1918.

Article.	Unit.	Price, April, 1914.	Price, April, 1917.	Price, April, 1918.
		<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Bread.....	Lb.....	2.36	4.55	4.99
Wine.....	Qt.....	6.39	18.28	25.59
Potatoes.....	Lb.....	.61	1.66	2.19
Beans.....	Lb.....	3.15	10.51	14.45
Butter.....	Lb.....	26.27	78.81	96.32
Lard.....	Lb.....	15.76	30.64	48.16
Oil (fuel).....	Qt.....	22.84	45.69	91.38
Rapeseed oil.....	Qt.....	20.10	45.69	109.65
Candles.....	Lb.....	18.38	35.02	61.30
Eggs.....	Doz.....	21.23	48.25	57.90
Rice.....	Lb.....	3.06	15.76	24.51
Tapioca.....	Lb.....	11.38	21.89	39.41
Milk.....	Qt.....	4.57	5.48	8.22
Beef.....	Lb.....	10.95	26.27	35.02
Pork.....	Lb.....	15.76	42.03	50.79
Veal.....	Lb.....	15.76	33.27	45.54
Mutton.....	Lb.....	15.32	39.41	48.16
Sugar.....	Lb.....	6.13	14.45	15.76
Coffee.....	Lb.....	43.77	49.04	63.05
Chicory.....	Lb.....	6.57	17.51	36.77
Soap.....	Lb.....	5.25	13.13	28.02

The cost of most articles of wearing apparel increased to two and one-half times the prewar price, and practically no such article failed to double in price.¹ The table following, likewise quoted from the records of the Union of Metal Workers of Creusot, shows prices in 1914 and 1918:

COST OF 13 ARTICLES OF WEARING APPAREL IN THE CREUSOT REGION, 1914 AND 1918.

Article.	1914	1918
	<i>Francs.</i>	<i>Francs.</i>
Suits.....	70.00 (\$13.51)	150.00 (\$28.95)
Shoes.....	25.00 (4.83)	45.00 (8.69)
Wooden shoes.....	1.10 (.21)	2.00 (.39)
Hats.....	5.00 (.97)	10.00 (1.93)
Caps.....	3.50 (.68)	8.00 (1.54)
Shirts.....	4.00 (.77)	10.00 (1.93)
Drawers.....	2.50 (.48)	7.00 (1.35)
Working clothes.....	6.00 (1.16)	18.50 (3.57)
Handkerchiefs, dozen.....	3.50 (.68)	12.00 (2.32)
Flannel vests.....	4.00 (.77)	12.00 (2.32)
Resoled shoes.....	5.00 (1.08)	12.00 (2.32)
Slippers.....	3.00 (.58)	8.00 (1.54)
Socks.....	1.25 (.24)	3.50 (.68)

As some workers belong to cooperative stores or buy from company stores (*économats*), prices are given from the store of a railroad company, an enterprise which does not try to realize a profit, but adds to its cost price only general expenses and a percentage to maintain a normal capital reserve.

¹ In all computations of United States money in this article one franc is considered as 19.3 cents.

PRICES OF 15 ARTICLES OF WEARING APPAREL IN A RAILROAD COMPANY STORE IN FRANCE, JANUARY, 1914, AND JANUARY, 1918.

Article.	January, 1914.	January, 1918.
	<i>Francs.</i>	<i>Francs.</i>
Men's cotton socks.....	0.50 (\$0.10)	1.70 (\$0.33)
Men's wool socks.....	1.15 (.22)	2.40 (.46)
Women's cotton hose.....	1.50 (.29)	3.20 (.62)
Cotton petticoats.....	4.10 (.79)	6.75 (1.30)
Suits.....	38.00 (7.33)	67.00 (12.93)
Waists.....	3.30 (.64)	6.10 (1.18)
Children's capes.....	6.95 (1.34)	12.65 (2.44)
Children's shoes.....	12.70 (2.45)	39.00 (7.53)
Women's shoes.....	13.60 (2.62)	33.60 (6.48)
Men's shoes.....	18.00 (3.47)	31.40 (6.06)
Overshoes.....	3.35 (.65)	8.40 (1.62)
Unbleached cotton, yard.....	.85 (.15)	1.65 (.32)
Canton flannel, yard.....	.75 (.13)	2.00 (.39)
Caps.....	2.45 (.47)	4.20 (.81)
Umbrellas.....	2.15 (.41)	5.70 (1.10)

As examples of the minimum expenses of a worker's household, three family budgets from the Creusot region are reproduced. The first is of a family consisting of two persons.

Yearly expenses.

	Francs.
1 suit.....	120.00 (\$23.16)
Man's underwear, handkerchiefs, etc.....	85.00 (16.41)
Woman's clothing.....	150.00 (28.95)
Man's shoes (2 pairs).....	56.00 (10.81)
Man's shoes, resoling twice.....	20.00 (3.86)
Man's shoes, wooden (2 pairs).....	6.00 (1.16)
Woman's shoes (2 pairs).....	50.00 (9.65)
Woman's shoes, resoling 3 times.....	21.00 (4.05)
Woman's shoes, wooden (3 pairs).....	6.00 (1.16)
Rent.....	112.80 (21.77)
Heat.....	10.35 (2.00)
Barbering.....	18.00 (3.47)
Miscellaneous.....	25.00 (4.83)
Total.....	680.15 (131.28)

Daily expense.

	Francs.	Cents.
Bread (2 livres ¹).....	0.60	(11.58)
Breakfasts.....	1.00	(19.30)
Meat (1 livre ²).....	2.00	(38.60)
Vegetables.....	1.00	(19.30)
Desert.....	.75	(14.48)
Soup.....	.75	(14.48)
Wine (1 liter ³).....	1.30	(25.09)
Butter, lard, oil, salt, etc.....	1.00	(19.30)
Tobacco.....	.80	(15.44)
Lighting.....	.15	(2.90)
Total.....	9.35	(180.47)

¹ 2 pounds 2 ounces.

² 1 pound 1 ounce.

³ 1.06 quarts.

Dividing 680.15 francs (\$131.28) by 365 gives 1.87 francs (36 cents) for daily expense, excluding food; this added to 9.35 francs (\$1.80) gives an average daily outlay of 11.22 francs (\$2.16). The total annual expense amounts to 4,095.30 francs (\$790.92), with no provision for any unforeseen expense such as sickness, moving, etc.

The next budget shows the expenses of a family of four.

Yearly expense.

Food, fuel, etc.:	Francs.
Bread (700 kilograms, ¹ at 0.57 franc).....	399. 0 (\$77. 01)
Meat (200 kilograms, at 4.8 francs).....	960. 0 (185. 28)
Bacon (20 kilograms, at 6 francs).....	120. 0 (23. 16)
Butter (20 kilograms, at 12 francs) ²	220. 0 (42. 46)
Milk (300 liters, ³ at 0.45 franc).....	135. 0 (26. 06)
Eggs (20 dozen, at 3 francs).....	60. 0 (11. 58)
Wine (400 liters, at 1.3 francs).....	520. 0 (100. 36)
Cheese (20 kilograms, at 7 francs).....	140. 0 (27. 02)
Potatoes (250 kilograms, at 0.25 franc).....	62. 5 (12. 06)
Beans (30 kilograms, at 1.65 francs).....	49. 5 (9. 55)
Sugar (20 kilograms, at 1.8 francs).....	36. 0 (6. 95)
Gasoline (30 liters, at 0.75 franc).....	22. 5 (4. 34)
Oil (20 liters, at 6 francs).....	120. 0 (23. 16)
Soap (12 kilograms, at 3.6 francs).....	43. 2 (8. 34)
Coal and wood.....	20. 0 (3. 86)
Coffee (6 kilograms, at 7.2 francs).....	43. 2 (8. 34)
Total.....	2, 950. 9 (569. 53)
 General maintenance:	
Man's suit (1 every 2 years).....	75. 0 (\$14. 48)
Woman's suit (1 every 2 years).....	80. 0 (15. 44)
Shoes, man's (2 pairs).....	60. 0 (11. 58)
Shoes, woman's (2 pairs).....	50. 0 (9. 65)
Shoes, child's (3 pairs).....	45. 0 (8. 69)
Wooden shoes, man's.....	6. 0 (1. 16)
Wooden shoes, woman's.....	6. 0 (1. 16)
Wooden shoes, child's (4 pairs).....	8. 0 (1. 54)
Rent.....	200. 0 (38. 60)
Man's working clothes, underclothes, etc.....	90. 0 (17. 37)
Woman's working clothes, underclothes, etc.....	100. 0 (19. 30)
Clothing for 2 children.....	50. 0 (9. 65)
Taxes.....	20. 0 (3. 86)
Resoling shoes, man's (2 pairs).....	20. 0 (3. 86)
Resoling shoes, woman's (2 pairs).....	14. 0 (2. 70)
Resoling shoes, child's (4 pairs).....	24. 0 (4. 63)
Household utensils.....	80. 0 (15. 44)
Total.....	928. 0 (179. 11)

¹ 1 kilogram = 2.2 pounds.

² As it appears in the original; evidently a mistake in quantity or price.

³ 1 liter = 1.06 quarts.

The budget shows a total expense of 3,878.9 francs (\$748.62), which divided by 365 gives an average daily outlay of 10.63 francs (\$2.05). It will be noted that the expenditure of this family of four is practically the same as that of the preceding family of 2.

The third budget is for a family of 6, of whom 4 are children.

<i>Yearly expense.</i>		Francs.
1 man's suit (1 every 2 years).....	75	(\$14. 48)
1 woman's suit (1 every 2 years).....	80	(15. 44)
Working clothes, underclothes, handkerchiefs, etc.....	125	(24. 13)
Clothing for 4 children.....	100	(19. 30)
Shoes, man's (2 pairs).....	56	(10. 81)
Shoes, woman's (2 pairs).....	50	(9. 65)
Shoes, child's (6 pairs).....	96	(18. 53)
12 resolings.....	72	(13. 90)
Wooden shoes (12 pairs).....	24	(4. 63)
Rent.....	250	(48. 25)
Heat.....	25	(4. 83)
Barbering.....	25	(4. 83)
Household utensils, etc.....	50	(9. 65)
Expense 3 children in school.....	125	(24. 13)
Total.....	1, 153	(222. 56)

<i>Daily expense.</i>		Francs.	Cents.
Bread (3 livres).....	0. 90	(17. 4)	
Breakfasts.....	2. 00	(38. 6)	
Meat (1½ livres).....	3. 25	(62. 7)	
Wine (1 liter).....	1. 30	(25. 1)	
Soup.....	1. 50	(29. 0)	
Vegetables.....	1. 00	(19. 3)	
Dessert.....	1. 00	(19. 3)	
Tobacco.....	. 25	(4. 8)	
Lighting.....	. 25	(4. 8)	
Grease, salt, sugar, soap, etc.....	1. 00	(19. 3)	
Total.....	12. 45	(240. 3)	

The average daily expense of this family equals 15.6 francs (\$3.01); and the outlay for food, light, etc., for 1 year is 4,544.25 francs (\$877.04). The total outlay for the year equals 5,697.25 francs (\$1,099.57). "This budget," remarks the booklet, "contains only the strictest necessities. In reality, with such expense, the standard of living a worker's household can maintain is quite low; the least rise of prices throws the finances out of balance, and the least unforeseen event throws the household into debt."

Having shown something of the cost of living and the continual rise of prices, the article takes up wages.

Wages.

The author claims that although wages have been increased they have by no means kept pace with increasing prices; that while war bonuses and premiums exist, not all classes of workers receive them, nor are all individuals of the classes receiving them able to earn them.

The best wages were found in war industries. Except in the Paris region, wages of 1 franc (19.3 cents) per hour, 10 francs (\$1.93) per day, or more, are very rare. As such wages are paid only to the very best workers, only a small part of the working population receives them.

The following table shows the wages in certain occupations in 8 Departments:¹

HOURLY WAGES IN WAR INDUSTRIES, 1917.

Occupation.	Pas-de-Calais.	Meurthe-et-Moselle.	Finistère.	Maine-et-Loire.	Cher.	Saône-et-Loire (Creusot).	Isère (Grenoble).	Haute-Garonne.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Unskilled.....	8.7-12.5	6.8-12.5	9.7-10.6	9.7-10.6	6.8-12.0	10.6	12.5-13.5	7.7-13.1
Pattern makers.....	13.5-18.3	13.5-16.4	12.5-15.4	12.5-14.5	15.4	10.6-15.4	15.4	13.9-15.4
Fitters (machinists).....	13.5-18.3	13.5-16.4	12.5-15.4	12.5-15.4	13.5-15.4	10.6-15.4	14.1	17.0
Turners (lathe hands).....	13.5-18.3	13.5-16.4	12.5-15.4	12.5-15.4	13.5-15.4	10.6-15.4	14.5	13.9-15.4
Molders.....	12.5-18.3	12.5-15.4	12.5-15.4	12.5-14.5	.....	10.6-15.4	14.5	13.9-15.4
Core makers.....	12.5-15.4	12.5-15.4	12.5-15.4	.....	13.5-14.5	.....	13.5	13.9-15.4
Blacksmiths.....	12.5-17.4	13.5-16.4	12.5-16.4	12.5-15.4	13.5-16.4	10.6-15.4	15.1	13.9-15.4
Coppersmiths, boiler makers.....	12.5-17.4	12.5-15.4	12.5-15.4	.....	13.5-15.4	.....	14.1	13.9-15.4
Electricians.....	12.5-17.4	13.5	12.5-16.4	12.5-15.4	13.5-16.4	10.6-14.5	14.5	12.9-14.5
Melters, blast furnace.....	15.4-17.4	13.5	13.5-14.5	.....	.....	11.6-13.5	11.6-13.9	12.0-16.8
Melters, cupola.....	.....	14.5	.....	.....	12.5	13.9-16.4	11.6-12.9	13.9-15.4
Workmen on buildings.....	13.5-17.4	12.5-17.4	12.5-15.4	.....	13.5	10.6-13.5	12.9-15.4	14.1
Carpenters.....	13.5-15.4	12.5-14.5	11.6-12.5	11.6	13.5	10.6-13.5	13.9-14.9	14.1
Rollers, rolling mill.....	.....	.....	.....	14.5-17.4	.....	13.4-18.3	11.6-16.4	.....
Planers and riveters, etc.....	.....	11.6-14.5	.....	.....	.....	10.6-13.5	13.1	13.9-14.5

To the rates given in this table must be added premiums and bonuses for overtime and night work. Bonuses on account of high cost of living are also to be added. In some Provinces, as in Meurthe-et-Moselle, they varied from 7 to 15 centimes (1.4 cents to 2.9 cents) per hour, according to occupations; in others, Pas-de-Calais, for instance, every worker received 1 franc 25 centimes (\$2.41) per day, plus 25 centimes (5 cents) per day for each dependent child under 13, beginning with the third such child.

¹ Selected from the official tariffs published by the Ministry of Munitions, Division of Labor, fourth section.

In the war industries of Paris the wage rates were fixed as follows:

WAGE RATES IN THE WAR INDUSTRIES OF PARIS, 1917.

Occupation.	Rate per hour. ¹	Minimum hourly earnings at piece-work.
	<i>Cents.</i>	<i>Cents.</i>
Unskilled laborers.....	15.4-16.4	19.3
Unskilled women.....	12.5	14.5
Unskilled young persons.....	5.8-11.6	7.7-14.5
Unskilled young girls.....	4.8-9.7	6.8-11.6
General mechanics.....	14.5-22.2	18.3-28.0
Blacksmiths.....	18.3-22.2	25.1-30.9
Boilermakers, machinists.....	14.5-23.2	18.3-27.0
Sheet-iron workers.....	14.5-21.2	18.3-27.0
Smelters, refiners, etc.....	14.5-22.2	15.4-27.0
Carriage and aeronautic workers.....	14.5-24.1	18.3-29.0
Sawmill workers.....	17.4-23.2	.....

¹ "Salaires d'affutage," i. e., "The minimum wages necessary to existence."

The piecework scale permits the workman to make a bonus over the hourly rate. For the workers by the hour the Ministry of Munitions fixed the daily premiums and maximum earnings as follows:

RATES OF DAILY PREMIUMS, WITH MAXIMUM EARNINGS FOR TIME WORKERS, IN WAR INDUSTRIES, FIXED BY MINISTRY OF MUNITIONS, 1917.

Daily earnings.	Daily premiums.	Maximum daily earnings.
	<i>Cents.</i>	
<i>Men.</i>		
Under 10 francs (\$1.93).....	57.9	\$2.32
10 to 11 francs (\$1.93 to \$2.12).....	38.6	2.70
12 to 15 francs (\$2.32 to \$2.90).....	38.6	3.18
13 ¹ to 16 francs (\$2.51 to \$3.09).....	29.0	3.38
16 to 17 francs (\$3.09 to \$3.28).....	19.3	3.38
17 to 18 francs (\$3.28 to \$3.47).....	9.7	.....
<i>Women.</i>		
Under 9 francs (\$1.74).....	38.6	2.03
9 to 12 francs (\$1.74 to \$2.32).....	29.0	2.51
12 to 13 francs (\$2.32 to \$2.51).....	19.3	2.61
13 to 14 francs (\$2.51 to \$2.70).....	9.7	2.70

¹ So in report; probably should be 15 francs.

Wages are lower in trades not directly connected with the war.

Daily farm wages in various regions of France, in 1914 and 1916, are shown in the following table:

DAILY FARM WAGES IN VARIOUS REGIONS OF FRANCE, 1914 AND 1916, AND PER CENT OF INCREASE, 1916 OVER 1914.

Region.	1914	1916	Per cent of increase 1916 over 1914.
	<i>Cents.</i>	<i>Cents.</i>	
Northwest.....	62.7	90.0	43
North.....	66.4	95.1	43
Northeast.....	72.4	103.3	42
West.....	64.8	105.0	62
Center.....	74.7	114.3	53
East.....	66.2	99.4	50
Southwest.....	55.4	87.0	57
South.....	66.8	100.2	50
Southeast.....	66.0	99.4	50
General average.....	66.2	99.4	50

The wages of women, outside of war industries, have increased very slowly. According to the union of dressmakers, their daily wages at the time of the Paris strikes in 1918 were:

Apprentices.....	0.5 francs (9.7 cents) per day.
Shop girls (helpers).....	1.5 francs (29.0 cents) per day.
Seamstresses.....	2.5 francs to 3 francs (48.3 to 57.9 cents) per day.
Forewomen.....	3.5 francs to 5 francs (67.6 to 96.5 cents) per day.

In considering the table following, showing the average daily wages in 1916, compared with 1911 and 1913, it must be taken into account that labor conditions were upset by the employment of women, children, and unskilled labor generally, and that the frequent use of various bonuses and premiums had modified base wages.

AVERAGE DAILY WAGES IN 1916, COMPARED WITH 1911 AND 1913.

Workers.	1911	1916	Per cent increase, 1916 over 1913.
	<i>Cents.</i>	<i>Cents.</i>	
In small establishments:			
Men.....	87.8	107.3	22
Women.....	42.7	49.6	16
In large establishments:			
Men.....	105.8	131.8	25
Women.....	57.7	79.5	38

During the period covered in the preceding table, retail prices increased 45 per cent; and the cost of board per month in boarding houses rose from 70 to 99 francs (\$13.51 to \$19.11), an increase of 41 per cent.

The increase in wages in small industries—clothing, laundries, etc.,—was smaller than in large—textile, boots, and shoes, machine manufacturing, etc. In small industries, the average increase in daily wages from 1913 to 1916 was 22 per cent, and in hourly wages

24 per cent, the increase varying from 15 per cent in bookbinding and building trades to 35 per cent in excavating work and tanneries.

The movement of wages was quite variable, according to both trades and regions. While at Marseille, Bar-le-Duc, and Blois, for example, wage increases were very small, shoemakers at Romans, cutlers at Thiers, and glove makers at Millau, Grenoble, and Niort received 100 per cent increase.

The following table shows the relation between wages and prices in 1916 in 17 cities, taking the year 1911 as the base, or 100:

INDEX NUMBERS OF WAGES AND COST OF LIVING IN 17 CITIES IN FRANCE, 1917.

[1911=100.]

City.	Wages.	Cost of living.	City.	Wages.	Cost of living.
Marseille.....	102	148	Draguignan.....	108	175
Dijon.....	117	153	Auxerre.....	117	153
Nîmes.....	118	157	Agen.....	115	141
La Rochelle.....	116	157	Besançon.....	127	141
Orleans.....	109	150	Toulouse.....	124	136
Angers.....	106	143	Mende.....	127	138
Bar-le-Duc.....	103	142	Laval.....	144	150
Chambery.....	114	153	Poitiers.....	118	125
Nice.....	92	148	Rennes ¹	140	130

¹ Note that in this city wages increased more than cost of living.

In concluding the discussion of wages and prices in France, a quotation from a paper read in the Congress of Underground Workers is given:

In 1914 a family of two persons could live on 52.1 francs [\$10.06] per week, or 7.44 francs [\$1.44] per day; in 1918, to maintain the same standard of living, it required 146.55 francs [\$28.28] a week, or 20.93 francs [\$4.04] a day. This is an increase of 181 per cent. Daily wages, including cost of living bonus were: Workers under 16, 5.5 francs [\$1.06]; sorters, 8.5 francs [\$1.64]; surface workers, 12 francs [\$2.32]; underground workers, 11.25 to 12.1 francs [\$2.17 to \$2.34]; laborers, 11.25 francs [\$2.17].

Wages and Hours of Labor, and Strikes in Spain.

THE March and April, 1919, issues of the Boletin del Instituto de Reformas Sociales (Madrid) furnish considerable data relating to industrial conditions in Spain during the period of the war. This material was collected by the various officials of the Institute, and in general shows the conditions prevailing in the different Provinces.

The basis of conversion of Spanish currency into United States money is that given by the United States Treasury circular of July 1, 1919: One peseta = 19.3 cents.

Wages in Salamanca, 1917 and 1918.

THE following table shows the general increase in wages in Salamanca since January, 1917:¹

WAGES IN THE CITY OF SALAMANCA, SPAIN, BY OCCUPATIONS AND CLASSES OF WORKERS, 1917 AND 1918.

Occupation.	Range of daily wages on—		Prevailing range of daily wages during 1918.
	Jan. 1, 1917.	Dec. 31, 1917.	
Masons:			
Skilled.....	\$0.53-\$0.77	\$0.58-\$0.82	\$0.68-\$0.92
Apprentices.....	(²)	(²)	.19-.39
Stonecutters:			
Skilled.....	.77-.82	.82-.87	.92-.97
Laborers.....	.48-.53	.53-.58	.63
Apprentices.....	(²)	(²)	.19
Carpenters:			
Skilled.....	.43-.77	.48-.82	.58-.92
Apprentices.....	.24-.29	.29-.34	.34-.39
Painters:			
Skilled.....	.58-.87	.58-.87	.68-.97
Cabinetmakers:			
Skilled.....	.53-.82	.58-.87	.68-.97
Apprentices.....	(²)	(²)	.24-.39
Carriage makers:			
Body makers.....	1.61	1.61	1.61
Smiths.....			
Fitters (of parts).....	1.06	1.06	1.16
Painters.....			
Upholsterers.....			
Tanners:			
Fleishers.....			
Finishers.....	.29-.53	.39-.63	.48-.72
Dressers.....			
Metallurgists:			
Smiths.....			
Fitters.....			
Turners.....			
Locksmiths.....	.63-.92	.63-.92	.68-.97
Molders.....			
Tinsmiths.....			
Mechanics.....			
Fertilizers, mineral:			
Regular employees.....	.68-.72	.72-.77	.82-.87
Laborers.....	.48	.58	.68
Printers:			
Master printers.....			
Typographers.....	.19-.72	.24-.87	.29-1.06
Pressmen.....			
Binders.....			
Bakers:			
First-hand.....	.77-1.01	.77-1.01	.87-1.11
Table men.....	.58-.77	.58-.77	.68-.87
Millers:			
First-hand.....	1.16-2.41	1.25-2.51	1.35-2.70
Second-hand.....	.77-.97	.87-1.06	.97-1.16
Helpers.....	.53-.63	.58-.68	.68-.77
Laborers.....	.48-.53	.53-.58	.63
Unskilled labor (peons).....	.43	.48	.58

¹ Boletin del Instituto de Reformas Sociales, April, 1919, p. 460.

² Not reported.

Eight-Hour Day Established in Spain.

ON March 14, 1919, the Instituto de Reformas Sociales, after an examination of the divers propositions submitted by the Government, employers' associations, and employees' associations, approved the following resolutions relative to a legal day's work:

(1) The maximum number of hours of labor per day should be in general 8, or 48 per week, effective October 1, 1919;

(2) Occupational committees having an equal number of representatives of employees and employers shall be organized before July 1, and shall report before October 1 the industries or special branches of industry which should be excepted from the general law;

(3) The Institute, upon receipt of these recommendations, will definitely determine before January 1, 1920, what shall constitute a legal day's work in excepted industries;

(4) Any mixed committees not reporting by October 1, will be considered as having approved the eight-hour day.

Labor Disputes.

DURING the first quarter of 1919 there were 167 strikes reported to the Labor Office. For the year 1918 complete data have been reported for 73 strikes. The tables following show the causes, number of strikers, days lost, and results of these 73 strikes:

NUMBER OF PERSONS INVOLVED, DAYS LOST, LOSS IN WAGES, AND RESULTS OF STRIKES IN SPAIN, 1918, BY CAUSE.¹

Cause.	Number of strikes.	Number of persons employed.			Number of strikers.			Number of days lost.	Loss in wages.	Results.		
		Male.	Female.	Total.	Male.	Female.	Total.			Succeeded.	Compromised.	Failed.
Offensive:												
Increase of wages....	39	13,229	5,092	18,321	11,562	4,717	16,279	812	\$156,634	13	19	7
Reduction of hours...	2	205	.....	205	205	.....	205	40	649	2	.....	.....
An 8-hour day.....	5	2,012	.....	2,012	2,000	.....	2,000	87	62,728	2	.....	3
Increase of wages and reduction of hours.....	12	5,505	1,072	6,577	4,791	1,040	5,831	172	16,519	7	.....	5
Increase of wages and an 8-hour day.....	1	38	.....	38	30	.....	30	25	543	.....	.....	1
Increase of wages and recognition of union.....	4	435	44	479	431	44	475	55	1,660	2	.....	2
Discharge of non-union employees..	1	50	20	70	50	20	70	6	290	1	.....	.....
Defensive:												
Reduction of wages..	1	70	.....	70	70	.....	70	78	5,018	.....	.....	1
Increase of hours.....	1	100	.....	100	100	.....	100	3	251	.....	.....	1
Fulfillment of contract.....	1	2,000	.....	2,000	1,200	.....	1,200	15	14,475	1	.....	.....
Labor regulations and conditions.....	4	3,588	300	3,888	3,245	200	3,445	40	834	.....	3	1
Reinstatement of discharged employees.....	1	50	.....	50	5	.....	5	23	7	.....	.....	1
Unionism.....	1	5	.....	5	5	.....	5	8	23	1	.....	.....
Total.....	73	27,287	6,528	33,815	23,694	6,021	29,715	1,343½	259,630	29	33	11

¹ Boletín del Instituto de Reformas Sociales, April, 1919, p. 448.

NUMBER OF STRIKES, STRIKERS, AND OTHER PERSONS INVOLVED IN STRIKES
IN SPAIN, 1918, BY OCCUPATION.¹

Occupation.	Number of strikes.	Number of employees.			Number of strikers.			Number of other employees involved.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Agriculture and stock raising.....	8	11,405	1,005	12,410	10,135	550	10,685	390	75	465
Food preparations.....	11	4,128	57	4,185	2,923	26	2,949			
Printing, binding, etc.....	2	336	2	338	325	1	326	11	1	12
Cleaning (<i>aseo</i>).....	2	736		736	536		536	200		200
Pottery.....	2	511		511	437		437	69		69
Commerce.....	1	150		150	12		12			
Building trades, other than houses.....	1	65		65	52		52			
Wagon and car building.....	4	449		449	449		449			
Building, erection of houses.....	10	761		761	744		744			
Woodworking.....	6	667		667	550		550			
Metallurgy.....	6	1,382		1,382	909		909			
Mining.....	3	300		300	307		307			
Furniture.....	2	2,111	20	2,131	2,100		2,100			
Fishing.....	1	200	63	263	200	63	263			
Chemical.....	1	50		50	5		5	45		45
Luxury.....	1	102	28	130	102	28	130			
Textile.....	8	1,718	4,289	6,007	1,692	4,289	5,981			
Land transportation.....	1	110		110	110		110			
Clothing.....	3	2,106	1,064	3,170	2,106	1,064	3,170			
Total.....	73	27,287	6,528	33,815	23,694	6,021	29,715	715	76	791

¹ Boletín del Instituto de Reformas Sociales, April, 1919, p. 445.

MINIMUM WAGE.

New Minimum Wage Awards in Massachusetts, Minnesota, and Wisconsin.

Massachusetts.

THE Massachusetts Minimum Wage Commission has recently published two decrees concerning wage rates for women and girls employed in candy factories and in canning and preserving establishments. The decree in regard to the minimum rate for candy workers, based upon the unanimous recommendation of the wage board appointed to consider it, is as follows:

The Minimum Wage Commission of the Commonwealth of Massachusetts, having received and reviewed the report of the wage board established in the candy-making occupation, having provisionally approved the determinations, and having held a public hearing thereon, July 19, 1919, now finally approves said determinations, and in accordance with the Acts of 1912, chapter 706, section 6, as amended, enters the following decree of its findings as to minimum rates of wages for female employees of ordinary ability, whether time or piece rate workers, in the candy-making occupation:

1. For experienced employees, not less than \$12.50 a week.
2. For learners and apprentices, not less than \$8 a week.
3. An employee shall be deemed experienced who has worked in the industry at least 67 weeks within a period of not less than 78 weeks.
4. These rates are based on full-time work, by which is meant the full number of hours per week required by employers and permitted by the laws of the Commonwealth.
5. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage, provided that a special license is obtained from the commission in accordance with the law.
6. These recommendations shall take effect on January 1, 1920, and shall apply to all females then or thereafter employed.

This decree is of unusual interest because it marks the second attempt of the Minimum Wage Commission to regulate wages in the candy factories of the State. In 1914 it appointed a wage board for this industry, which in February, 1915, brought in a majority report recommending a minimum wage of \$8.75 a week. This never became effective because the manufacturers applied for an injunction against the establishment of such a wage, claiming, among other grounds of objection, that the law establishing the Minimum Wage Commission was unconstitutional. The matter went before the courts, and in September, 1918, the Supreme Court pronounced in

favor of the validity of the law. Not long thereafter the commission took up its interrupted work concerning the wages of women employed in candy factories, the present decree being its outcome.

Both in 1915 and in 1919 the board appointed to handle the question of wages in this industry decided upon a minimum budget for a self-supporting woman, the two being as follows:

	1915.	1919.
Board and lodging.....	\$5.25	\$7.00
Clothing.....	1.50	2.25
Laundry.....	.45	.50
Car fare.....	.60	.76
Doctor and dentist.....	.25	.30
Church.....	.11	.11
Newspapers and magazines.....	.11	.18
Vacation.....	.20	.40
Recreation.....	.20	.30
Savings and insurance.....		.30
Self-improvement.....		.15
Incidentals.....		.25
Total weekly budget.....	8.67	12.50

In 1915 the wage board, deciding to allow a leeway of 8 cents for miscellaneous expenditures, recommended a minimum wage of \$8.75 per week, so that the present minimum represents an increase of 42.9 per cent over that of 1915. It is conservatively estimated that the cost of living between July, 1914, and March, 1919, rose by from 60 to 70 per cent, so that the minimum of \$12.50 set for 1920 does not really represent as high a standard of living as the proposed minimum of 1915. It is true that it makes provision for savings, insurance, and self-improvement, of which no account was made in the earlier budget, but for the primary necessities of life—food, shelter, and clothing—it allows an increase of only 37 per cent, \$9.25 as against \$6.75. This is far from commensurate with the increases which have taken place in the cost of these necessities during the last five years.

Nevertheless, to large numbers of candy workers the establishment of this minimum will mean a great improvement in conditions. An investigation made during the summer of 1918, covering 1,071 women in candy factories in Massachusetts, showed that 91.3 per cent were earning less than \$12 a week, while more than three-fourths (76.7 per cent) earned less than \$10.¹ These were earnings, which are usually lower than wage rates, but in three factories for which it was possible to secure the wage rates, 66.7 per cent of the workers were employed at weekly rates of less than \$9, and 49.7 per cent at less than \$8. By comparison, a minimum wage of \$12.50 a week seems almost revolutionary.

¹ See MONTHLY LABOR REVIEW for May, 1919, pp. 201-204.

The decree concerning minimum wages for women and girls "of ordinary ability," whether time or piece rate workers, employed in canning and preserving establishments, which is to come into effect September 1, 1919, is as follows:

For experienced employees (that is, for women who are 18 years of age or older and who have been employed in the occupation for at least one year), not less than \$11 a week.

For all others, not less than \$8.50 a week.

For the purpose of computing experience, a year's work shall consist of not less than 40 weeks.

The rates fixed in this decree were decided upon as the result of a study of conditions in the industry carried on through the fall and summer of 1918, covering the year ending June 30, 1918.¹ Pay-roll records available for tabulation were secured from 11 fish-canning firms, and from 11 firms engaged in canning other products, principally pickles, preserves, and sauces. Among these, however, there were included a few establishments canning fruit and vegetables, meat, mince meat, codfish balls, and hash. Wage data were obtained for 587 women and girls in the fish-canning establishments, and for 389 in the other firms.

The work in these establishments is for the most part unskilled and requires no experience. There is little distinction between occupations, the women changing from one to another as the need for workers in a given occupation increases or diminishes. The work is seasonal, and fluctuations in employment are sharply marked, but are less pronounced in the fish and preserving establishments than in fruit and vegetable canning. The results of the investigation are thus summed up:

From the data secured it appears that at the time of the investigation nearly nine-tenths of the women and girls employed in canning and preserving establishments were receiving less than \$9 a week and over two-thirds were receiving less than \$8 a week. Results of the investigation show fairly long hours in the industry for the majority of establishments, running hours of 50 to 54 a week. The seasonal problem is a serious one, well marked in each branch of the industry. Only one-tenth of the women in all the establishments had employment throughout the year and only two-fifths had employment for half the year. In both types of factories rates for the majority of workers were below the standard of living; 59.3 per cent of the women employed in fish canning establishments and 71.4 per cent of those in the other establishments were scheduled to receive less than \$9 a week. Only 51 had total annual earnings of as much as \$450, or the equivalent of \$9 a week throughout the year. In connection with these rates and earnings it should be remembered that the period covered was one of exceptionally high wages. The prominence given to "war wages," however, has caused many to overlook the fact that in some of the nonwar industries, especially those employing unskilled labor, wage advances were very slight and entirely failed to keep pace with the increase in the cost of living.

¹ Massachusetts Minimum Wage Commission. Wages of women employed in canning and preserving establishments in Massachusetts. Boston, March, 1919. 51 pp. Bulletin No. 19.

A supplementary inquiry conducted in February, 1919, showed that all but two of the 21 establishments which at that time were employing women had made substantial advances in wages since the close of June, 1918. In the majority of instances the increase has been a flat advance in the weekly rate, generally \$1 or \$2, although in some cases the advance was as much as \$3 or \$4 a week. * * * The wage situation in the industry, as indicated by the returns, has improved materially since the main investigation was made.

Minnesota and Wisconsin.

IN both Minnesota and Wisconsin minimum wage laws were passed in 1913; in both States work was begun under their provisions, but was held up for several years until the constitutionality of the laws should be determined; both States on taking up their work again after this interruption have proceeded on a principle differing from that which the legislatures apparently had in mind when passing the minimum wage laws; and both States have recently issued minimum wage orders closely resembling each other in application and in the amount fixed.

In each State the wording of the laws establishing the minimum wage principle suggests that minimum rates would naturally be established by decisions dealing with different occupations separately. "The commission may at its discretion investigate the wages paid to women and minors in any occupation in the State," says the Minnesota law, and goes on to prescribe for the fixing of a minimum wage in an occupation after investigation, while the Wisconsin statute provides for the action of the commission within 20 days after the filing of a verified complaint that "the wages paid to any female or minor in any occupation" are not sufficient for healthful self-support.

Minnesota.

Under these laws the earlier work in both States seems to have been based on the idea that minima for women would naturally differ in different occupations. The Minnesota minimum wage commission issued six orders in 1914, establishing the minimum wage for women in any mercantile, office, waitress, or hairdressing occupation at \$9 a week in cities of the first class, \$8.50 in cities of the second, third, and fourth classes, and \$8 elsewhere, while for women employed in "any manufacturing, mechanical, telephone, telegraph, laundry, dry-cleaning, lunch-room, restaurant, or hotel occupation," the minimum wage should be \$8.75, \$8.25, and \$8 a week, according to the class of the city in which the occupation was carried on. While these orders are rather inclusive in their scope, they still recognize a differ-

ence in the necessary cost of living for women in different occupations, taking it for granted, for instance, that a saleswoman in a retail store may have to meet expenses which are not necessary for a laundry employee.

Before these orders could be carried into effect the constitutionality of the law was attacked, and the commission suspended its activities until the legal question should be settled. The decision of the supreme court, upholding the law, was not given until December 21, 1917, so that there was an interregnum of about three and a half years in the work of the commission, and the orders issued since that period have been based on the idea of a minimum varying according to the size of the community in which a worker lives, but not according to her occupation. Two orders were issued in June, 1918, dealing with the rates to be paid apprentices and learners, which applied to all occupations without distinction.¹ Recently the commission has issued two new orders, one superseding the order of 1918, concerning learners and apprentices, and one establishing a minimum wage for women and minors of ordinary ability, this term covering those who have had a specified degree of experience.

The order concerning apprentices and learners declares that in cities of 5,000 or more population those aged 18 or over shall receive for the first three months of employment \$8.64 per week of 48 hours or less, and for the second three months, \$10, with overtime pay at the rate of 18 cents and 21 cents per hour for the two periods, respectively; after six months they are to be regarded as experienced workers and are to receive the full minimum wage established for experienced adults. Learners under 18 are to receive for the first three months \$7.20 per week, for the second, \$8.64, and for the third, \$10, with overtime at 15, 18, and 21 cents per hour for the three periods, respectively; after nine months, they are to receive the full minimum wage. In places of less than 5,000 population, wages for learners of 18 or over are to be \$7.68 and \$9.12 for the first two periods of three months each, and thereafter the full minimum wage is to be paid; while for learners under 18, wages for the first three months are to be \$6.48, for the second \$7.68, for the third \$9.12, and thereafter the full minimum wage is to be paid. For those aged 18 or more, overtime is to be paid at the rate of 16 cents per hour for the first and 19 cents for the second preparatory period, while for the three preparatory periods of those under 18, overtime is to be 13½, 16, and 19 cents an hour. The order concerning minimum rates for women and minors of ordinary ability is as follows:

Whereas the Minimum Wage Commission of the State of Minnesota, under and by virtue of the authority vested in it by the provisions of Chapter 547, General Laws of Minnesota for 1913, and after due investigation, being of the opinion that

¹ These orders are published in the MONTHLY LABOR REVIEW for October, 1918, p. 185.

the wages paid to one-sixth or more of the women and minors employed in this State are less than living wages; and

Whereas the said Commission has further found and determined and does hereby find and determine that the number of hours per week which a person is customarily employed in performance of work for her or his employer has a direct and substantial bearing on the minimum amount which such person needs and requires as a living wage, in that a person whose time and energy is not substantially consumed in the doing of the work for which she or he is employed may and can do for herself or himself many things which would and do reduce the money cost of living of such person; and

Whereas the Commission has found and determined and does hereby find and determine that the cost of living in cities, villages, and boroughs having a population of 5,000 or more is greater than in municipalities of less than 5,000 population; and

Whereas the said Commission has found and determined and does hereby find and determine that a week of not to exceed forty-eight (48) hours of work constitutes a general and reasonable weekly standard of employment in this State, for women and minors of ordinary ability; and

Whereas the said Commission has found and determined and does hereby find and determine that the minimum wages sufficient for living wages for women and minors of ordinary ability, in any occupation, working not to exceed forty-eight (48) hours per week, in any city, village or borough in this State having a population of 5,000 or more inhabitants, is the sum of eleven (\$11) dollars per week and that where any such person in any such municipality is ordinarily employed for more than forty-eight (48) hours per week, then and in such case the minimum weekly wages sufficient for living wages for any such person is found and determined to be the sum of eleven (\$11) dollars plus twenty-three (23) cents per hour for each hour such person is customarily employed in excess of forty-eight (48) hours per week; and

Whereas the said Commission has found and determined and does hereby find and determine that the minimum wages sufficient for living wages for women and minors of ordinary ability, in any occupation, working not to exceed forty-eight (48) hours per week, at or in any place other than a city, village, or borough having 5,000 or more inhabitants, in the sum of ten and 25/100 (\$10.25) dollars per week and that where any such person, in any such place, is ordinarily employed for more than forty-eight (48) hours per week, then and in such case the minimum weekly wages sufficient for living wages for any such person is found and determined to be the sum of ten and 25/100 (\$10.25) dollars plus twenty-one and one-half (21½) cents per hour for each hour such person is customarily employed in excess of forty-eight (48) hours per week.

Now therefore it is hereby ordered that:

The respective wages above set forth and determined be, and they are hereby declared to be the minimum wages which shall be paid to women and minors of ordinary ability, in any occupation, at the places in said order respectively specified.

This order shall take effect and be in force on and after August 5, 1919.

Dated at St. Paul, Minn., this 5th day of July, A. D. 1919.

NOTE.—Under the provisions of Order No. 10 where the person in question is a telephone operator and is customarily on duty between 6 o'clock p. m. and 8 o'clock a. m., and is permitted to sleep while so on duty, 12 hours on duty shall be construed as the equivalent of 8 hours of work in computing the number of hours of employment per week.

NOTE.—Each employer affected by the above order shall post at least one copy of said order in a conspicuous place in each workroom in which affected workers are employed in his establishment or work place.

NOTE.—In determining a minimum wage of \$11 per week, \$7 is allowed for room and board, and 22½ cents per meal is allowed for 21 meals, per week.

NOTE.—In determining a minimum wage of \$10.25 per week, \$6.25 is allowed for room and board, and 21 cents per meal is allowed for 21 meals, per week.

Wisconsin.

In Wisconsin no minimum wage had been determined upon before the question of the constitutionality of minimum-wage legislation came to the front, and proceedings were suspended until a decision by the United States Supreme Court in the Oregon case should decide the general principle of whether or not such legislation was permissible. This decision was given in 1917, and in 1918 the Wisconsin Industrial Commission issued an order fixing minimum rates for women employed in pea canneries throughout the State, but not relating to other occupations. In May of that year the commission received a verified complaint that many female and minor employees in the State were receiving less than a living wage, accompanied by a request that the commission should proceed with the determination of a living wage. The commission thereupon appointed an advisory wage board to assist in its investigations and determinations, and carried on an energetic inquiry into the cost of living for female and minor employees and their wages, and into "general industrial conditions as they affect and are affected by female and minor employees." As a result of these activities the commission has issued the following findings of fact and order:

Findings of Fact.

1. Many items in the cost of living of female and minor employees vary directly with the number of hours they are required to work. Those who have short hours of labor are able to reduce their cost of living, having time to do much work for themselves which female and minor employees who work longer hours must hire others to do for them. Those who have the longer hours of labor, moreover, on the average lose more time from work because of sickness, with a resultant wage loss.
2. Female and minor employees who are above 17 years of age upon first entering an industry are unable to produce the same output as experienced employees and waste more products and require more supervision. It consequently is desirable that all such learners should be placed in a class by themselves and that during a learning period of not to exceed six months, such learners may be paid somewhat less than a living wage.
3. The cost of providing the necessities essential to the welfare of minor employees who are under 17 years of age is somewhat less than the cost of the essentials for adult female employees and older minor employees. Minor employees under 17 years of age usually also lack the sense of responsibility and are less efficient than older employees. Their work, moreover, is subject to interruptions resultant from the requirement of the law that they must attend a vocational school for eight hours per week during the day time in the months while these schools are in session; and for minors under 16 years of age the total hours of labor per week, including the time spent in attendance at school, are by law limited to 48. These factors operate to reduce the value of the services usually rendered by minor employees under 16 years of age and to a lesser extent the value of the services of minor employees who are between 16 and 17 years of age. It is consequently desirable that minor employees under 16 years of age should be placed in one distinct class and minor employees between 16 and 17 years of age in another distinct class. Taking into consideration all factors

entering into the problem, a fair minimum wage for minors under 16 years of age is 18 cents per hour. A fair minimum wage for minors between 16 and 17 years of age is 20 cents per hour, if they have been employed in the industry for at least three months, and 18 cents per hour, if they have not yet completed their first three months in the industry. Permit children who produce the same output as employees in a higher wage classification, however, are in equity entitled to the minimum wage rate of that class.

4. The purpose of recognizing as distinct classes learners over 17 years of age, minors between 16 and 17 years of age, and minors under 16 years of age, is to render it possible for beginners to secure steady employment and training in industries which offer them a prospect of steady and remunerative employment. These classifications must not be made an excuse for paying the bulk of female and minor employees a wage below the minimum living wage. Consequently, no establishment should be permitted to pay less than a living wage to more than 25 per cent of the total number of the female and minor employees normally employed. The seasonal industries operating for only a few months during the year offer no prospect of steady employment, and therefore such industries should not be permitted to employ any female or minor employees at less than the minimum living wage.

5. Throughout the State female and minor employees who are over 17 years of age require a wage of not less than 22 cents per hour to guarantee their reasonable comfort, reasonable physical well-being, decency, and moral well-being, and of this amount approximately 40 per cent is required for board, 20 per cent for room rent, 22 per cent for clothing, and 18 per cent for other necessary expenses.

6. Where board or lodging is furnished by the employer as part payment of wages, a fair allowance therefor is \$4.50 per week for board and \$2 per week for lodging.

7. There is not sufficient testimony before the commission to establish that any occupation, trade, or industry in which females and minor employees are engaged is a "trade" or "trade industry."

Now, therefore, upon the findings so found, the Industrial Commission makes the following

Order.

1. No employer shall employ any experienced female or experienced minor employee over 17 years of age in any occupation, trade, or industry throughout the State at a wage rate of less than 22 cents per hour.

2. During the first three months of the learning period the wage paid shall not be less than 18 cents per hour. During the second three months of the learning period the wage paid shall not be less than 20 cents per hour.

3. Permit children shall be paid a wage of not less than 18 cents per hour. Permit children between 16 and 17 years of age who have completed three months in the industry shall be paid not less than 20 cents per hour. Permit children producing the same output as employees in a higher wage classification shall be paid not less than the minimum wage rate for such class.

4. For the purposes of this order employees shall be deemed experienced after six months of employment in the trade or industry, whether for the same employer or for different employers. In seasonal industries operating only for a few months during the year, no learning period is recognized, and all female and minor employees in such industries shall be paid a wage of not less than 22 cents per hour.

5. The total number of employees in any establishment who receive wages below 22 cents per hour, but not including indentured apprentices, shall not exceed 25 per cent of the total number of women and minor employees normally employed.

6. Where board or lodging is furnished by the employer as part payment of wages, an allowance may be made therefor of not more than \$4.50 per week for board and \$2 per week for lodging.

7. Where payment of wages is made upon a piece basis or system other than time rate the actual wage shall not be less than that provided for in this order.

8. Every employer employing females or minors shall keep posted a copy of this order, on a form prescribed by the commission, in a conspicuous place in the general workroom and in the women's dressing rooms.

9. This order shall become effective August 1, 1919.

Dated at Madison, Wis., this 27th day of June, 1919.

Comparison of the Minnesota and Wisconsin Awards.

The awards in the two States are alike in that they fix the same minimum for all occupations and also in that the amount considered necessary for a self-supporting woman to live on is set at nearly the same figure for both. The Minnesota award is a little more liberal, as it contemplates a rate of practically 23 cents an hour in place of the 22 cents of the Wisconsin award. Also, in taking a week of 48 hours or less as the standard it is more in line with the present tendency concerning hours of work than is the Wisconsin award, which practically indorses the 50-hour week, making it the norm for which wages are to be calculated. In the award made in 1918 it is worth noticing the Wisconsin Industrial Commission fixed the hours of labor for women in pea canneries at 10 per day and 55 per week (see MONTHLY LABOR REVIEW, July, 1918, p. 114), so that the present award marks at least an advance. The awards are alike again in that while both provide for payment for any time worked above the standard day, neither penalizes such overtime by fixing a higher rate for it; this is especially noticeable in the Wisconsin award, since the worker must be content with less than the standard earnings if she works less than the standard week. A fourth point of resemblance is found in the conclusions of the two commissions as to the actual cost of living to a self-supporting woman, both fixing the amount at close to \$11 a week.

In a preliminary statement concerning its award, the Wisconsin Industrial Commission makes this statement:

In arriving at the minimum living wage the advisory-wage board and the commission had in mind that approximately 40 per cent of the cost of living of self-supporting female and minor employees is required for board, 20 per cent for room rent, 22 per cent for clothing, and 18 per cent for other necessary expenses. These percentages will be stated in our findings of fact in order to make possible a revision of the rates in our order when there are substantial changes in the different elements entering into the cost of living of self-supporting women. The commission will from time to time make investigations to determine the change in the cost of living and it will revise its order in accordance with any substantial changes that may appear.

The order issued by the Minnesota Minimum Wage Commission does not contain any definite statement of this nature, but the care with which the present cost of room and board is given suggests that this commission also plans to revise its minimum from time to time as need arises.

Minimum Wages and Hours for Female Employees in Manitoba.

ACCORDING to the Annual Report of the Public Works Department of the Province of Manitoba for the year 1918 and the Canadian Labor Gazette for March, April, and July, 1919, the Minimum Wage Board of Manitoba, which held its first meeting on April 26, 1918, has fixed minimum wages and hours of female employees in various industries, as shown in the table which follows:

MINIMUM WAGES AND HOURS OF FEMALES AS IMPOSED BY THE MINIMUM WAGE BOARD OF MANITOBA FROM APRIL, 1918, TO MARCH, 1919.

Industry.	Minimum weekly wage at time of investigation.		Minimum weekly wage imposed by board.			Estimated number receiving increase of wages.	Maximum working hours.	
	Adults.	Minors.	Adults.	Minors.	Learners.		At time of investigation.	Imposed by board.
Laundries (Winnipeg).....	\$7.00	\$6.00	\$9.50	¹ \$7.00 ² 7.50 ³ 8.00	⁴ \$8.00 ⁵ 8.50 ⁶ 9.00	334	54	52
Pickles.....	8.00	8.00	9.50	28.00 49.00	28.00 49.00	108	50	50
Groceries.....	8.00	7.00	10.00	18.00 38.50 69.00	28.00 48.50	26	50	50
Abattoirs.....	6.00	5.00	10.00	28.00 49.00	28.00 49.00	48	54	48
Creameries.....	8.00	8.00	10.00	28.50 49.00	28.50 49.00	(⁷)	48	48
Yeast.....	10.00	7.00	10.00	28.50 49.00	28.50 49.00	(⁷)	48	48
Macaroni.....	6.00	4.50	9.50	17.00 37.50 68.00	28.00 49.00	19	53	52
Confectionery and biscuits.....	6.00	5.00	10.00	17.00 37.50 68.00	28.00 49.00	265	54	49
Department stores.....	6.50	5.00	12.00	77.00 88.00 99.00	19.00 31.00	591	50	50
Bedding factories.....	8.00	9.00	12.00	29.00 410.00	29.00 410.00	9	50	50
Cigar factories:								
Skilled employees.....	8.50	7.00	(¹⁰)	(¹⁰)	(¹⁰)	-----	(⁶)	(⁶)
Unskilled employees.....	(⁸)	(⁶)	10.00	28.00	28.00	4	52	50
Drug factories.....	8.00	7.00	11.00	29.00 410.00	29.00 410.00	32	49	49
Jewelry factories.....	10.00	8.00	12.00	18.00 19.00 1210.00	18.00 19.00	3	53	49
Millinery.....	(⁶)	(⁶)	12.00	135.00 146.00 168.00 1610.00	185.00 146.00 168.00	(⁶)	(⁶)	(⁶)
Tailoring.....	8.50	(⁶)	12.00	176.00 190.00	176.00 187.00	16	50	50
Knitting.....	10.00	7.00	12.00	19.00 311.10 98.75	187.00 88.00 98.75	5	54	50
Printing, lithographing, book-binding, etc.....	(⁶)	(⁶)	12.00	18.00 39.00 610.00 1611.00	18.00 39.00 610.00 1611.00	(⁶)	(⁶)	48

¹ For first 6 months.
² For first 3 months.
³ For second 6 months.
⁴ For second 3 months.
⁵ For third 6 months.
⁶ Not reported.
⁷ Age 14-15.

⁸ Age 16.
⁹ Age 17.
¹⁰ No minimum.
¹¹ For seventh to ninth months.
¹² For ninth to twelfth months.
¹³ For first season.

¹⁴ For second season.
¹⁵ For third season.
¹⁶ For fourth season.
¹⁷ Increasing \$1 each 4 weeks.
¹⁸ Age 15.
¹⁹ For fourth 6 months.

MINIMUM WAGES AND HOURS OF FEMALES AS IMPOSED BY THE MINIMUM WAGE BOARD OF MANITOBA FROM APRIL, 1918, TO MARCH, 1919—Concluded.

Industry.	Minimum weekly wage at time of investigation.		Minimum weekly wage imposed by board.			Estimated number receiving increase of wages.	Maximum working hours.	
	Adults.	Minors.	Adults.	Minors.	Learners.		At time of investigation.	Imposed by board.
Ladies' hat factories.....	(1)	(1)	\$12.00	² \$8.00 ³ 9.00 ⁴ 10.00	² \$8.00 ³ 9.00 ⁴ 10.00	(1)	(1)	48
5, 10, and 15 cent stores.....	(1)	(1)	12.00	⁵ 7.00 ⁶ 8.00 ⁷ 9.00	² 9.00 ³ 11.00	32	53	48
Standard retail stores.....	(1)	(1)	(1)	⁵ 7.00 ⁶ 8.00 ⁷ 9.00	² 9.00 ³ 11.00	(1)	60	49
Stores open evenings and Sundays	(1)	(1)	(1)	⁵ 7.00 ⁶ 8.00 ⁷ 9.00	² 9.00 ³ 11.00	(1)	79½	50
Soap factories.....	\$8.00	\$8.00	\$10.00	² 8.00 ³ 8.50 ⁴ 9.00	⁸ 8.00 ⁹ 8.50	(1)	49	49
Paper-box factories.....	7.00	5.00	10.00	² 7.00 ³ 8.00 ⁴ 9.00	⁸ 8.00 ⁹ 8.50	89	49	49
Glove factories.....	9.00	7.00	12.00	¹⁰ 7.00 ⁶ 8.00 ⁷ 8.75	² 9.00 ³ 10.00 ⁴ 11.00	15	50	50
Industries with few female employees ¹¹	(1)	(1)	12.00	(1)	² 9.00 ³ 10.00 ⁴ 11.00	(1)	(1)	(1)
Bag factories:								
Skilled employees.....	9.33	5.35	12.00	¹⁰ 8.00 ⁶ 9.00 ⁷ 9.75	⁸ 11.00 ⁹ 11.50	90	50	49
Unskilled employees.....	(1)	(1)	11.00	(12)	⁸ 10.00 ⁹ 10.50	(1)	(1)	(1)
Ladies' wear factories:								
Skilled factories.....	(1)	(1)	12.00	² 8.00 ³ 10.00 ⁴ 11.00	² 8.00 ³ 10.00 ⁴ 11.00	(1)	(1)	48
Unskilled employees.....	(1)	(1)	11.00	² 10.00	² 10.00	(1)	(1)	48
Garment and regalia factories.....	(1)	(1)	12.00	⁸ 9.00 ⁹ 10.50	⁸ 9.00 ⁹ 10.50	(1)	(1)	48
Mail-order establishments:								
Class A.....	(1)	(1)	12.00	¹⁰ 7.00 ⁶ 8.00 ⁷ 9.00	¹³ 10.00 ¹⁴ 11.00	(1)	(1)	48
Class B.....	(1)	(1)	11.00	.....	¹³ 10.00	(1)	(1)	48
Dyeing and dry cleaning:								
Class A.....	(1)	(1)	12.00	.....	² 10.00	(1)	(1)	50
Class B.....	(1)	(1)	12.00	.....	² 10.00 ³ 11.00	(1)	(1)	50
Class C.....	(1)	(1)	11.00	² 9.00	² 9.00	(1)	(1)	50
Hairdressing.....	(1)	(1)	12.00	.....	² 8.00 ³ 9.50 ⁴ 11.00	(1)	(1)	48
Furriers' establishments.....	(1)	(1)	12.00	² 8.00 ³ 9.00 ³ 10.00	⁸ 9.00 ⁹ 10.50	(1)	(1)	48
Dressmaking.....	(1)	(1)	12.00	² 6.00 ³ 7.00 ⁴ 8.00 ¹⁷ 9.00	⁸ 8.00 ⁹ 9.00 ¹⁶ 10.00 ¹⁸ 11.00	(1)	(1)	15 49-50
Hotels.....	(1)	(1)	12.50	12.50	12.50	(1)	(1)	52
Restaurants.....	(1)	(1)	12.50	¹⁹ 12.50	12.50	(1)	(1)	48

¹ Not reported.² For first 6 months.³ For second 6 months.⁴ For third 6 months.⁵ Age 14-15.⁶ Age 16.⁷ Age 17.⁸ For first 3 months.⁹ For second 3 months.¹⁰ Age 15.¹¹ Including auto tops, caskets, leather goods, tents and awnings, paint, rags, brooms, and seed packing.¹² Increase of \$1 each 6 months.¹³ For first year.¹⁴ For second year.¹⁵ 8½ hours per day, but not to exceed 50 per week.

In establishments remaining open on Saturday evening, 11½ hours may be worked on Saturday, but not more than 49 hours per week.

¹⁶ For third 3 months.¹⁷ For fourth 3 months.¹⁸ For fourth 3 months.¹⁹ No minor under 16 years of age shall be employed in a restaurant.

WOMEN IN INDUSTRY.

Women in Railroad Work in the United States.

THE Women's Service Section of the United States Railroad Administration has recently issued a pamphlet¹ giving in detail the number of women employed in various capacities by the railroads of the Eastern, Southern, and Western Divisions at the beginning of each quarter of the year 1918. Attention is called to the fact that the railroads offer the best example we have of the actual substitution of women for men, since in this work "they literally stepped into the places previously occupied by men when the war-time scarcity of labor began to be felt." In 1917 they began to be taken on in large numbers for work formerly done exclusively by men. By October, 1918, just before the signing of the armistice, their employment reached its high-water mark, with a total of 101,785 women employed in the three divisions specified. Of these 54 per cent were employed by the roads of the eastern territory, 11.3 per cent in the southern, and 34.7 per cent in the western territory. Something over 72 per cent of them were in clerical or semi-clerical positions, including ticket sellers, draftswomen, and the like.

Since the signing of the armistice there has been a considerable reduction in the number of women employed. This is explained as being due in part to a general reduction of labor forces on the railroads throughout the country and in part to the return of men from military service, who are being reinstated by the railroads. The director of the women's service has furnished advance figures, given tentatively and subject to possible correction, for April 1, 1919, making it possible to show the variation in the employment of women in railroad work for the year ending on that date. The number of woman employees at the beginning of this year, on October 1, 1918, and on April 1, 1919, with the percentage of increase or decrease

¹ United States Railroad Administration. Women's service section. Number of women employed and character of their employment, for dates of Jan. 1, Apr. 1, July 1, Oct. 1, 1918. (Class I Roads) Eastern, Southern, and Western territories, by roads. Washington, D. C., 1919. 36 p.

occurring between October and April, are shown in the following table:

NUMBER OF WOMEN EMPLOYED IN RAILROAD WORK, BY OCCUPATION, AT SPECIFIED DATES IN 1918 AND 1919.

Occupation.	Apr. 1, 1918.	Oct. 1, 1918.	Apr. 1, 1919.	Percent increase (+) or decrease (-) Apr. 1, 1919, com- pared with Oct. 1, 1918.
Attendants.....	981	2,392	1,426	- 40.4
Bridge and lock tenders.....	6	12	3	- 75.0
Car department.....	461	698	502	- 28.1
Clerical or semiclerical.....	51,454	73,620	69,246	(²)
Cleaning.....	3,656	5,600	4,752	- 15.1
Elevator operators.....	15	97	100	+ 3.1
Messenger service.....	430	736	624	- 15.2
Personal service.....	2,359	2,830	2,427	- 14.2
Roundhouse work.....	408	1,365	466	(²)
Shop work.....	1,433	5,137	883	- 82.8
Signal service.....	41	220	171	- 22.3
Station agents, assistants, agent operators.....	239	377	1,201	+218.6
Supervisors of women employees.....	52	113	88	- 22.1
Switch tenders and other yard work.....	18	50	28	- 44.0
Telegraph operators.....	1,714	2,409	1,968	- 18.3
Telephone operators ¹	1,320	2,613	1,684	- 35.6
Track work.....	133	872	-----	-----
Train service guards.....	30	100	80	- 20.0
Warehouse and docks.....	437	1,461	22	(²)
Watchwomen.....	232	518	588	+ 13.5
Other service.....	397	565	260	- 54.0
Total.....	65,816	101,785	86,519	- 15.0

¹ Including only those engaged in train operation.

² Figures for Oct. 1, 1918, and Apr. 1, 1919, not comparable.

A portion of the variation shown above represents the considered policy of the Railroad Administration. Thus the figures for April 1, 1919, show that no women were engaged in track work, that the number of attendants had fallen off considerably, and that the largest percentage of reduction found had taken place in shop work. "At the request of the Railroad Administration," says the memorandum accompanying the statistics, "the employment of women was discontinued in trucking, in track work, and as parcel-room attendants, on account of risk of overstrain and injury." In shop-work, by far the largest proportion of the women were engaged as laborers, 91 per cent of the 5,137 listed under this head in October, 1918, being either inside or outside laborers. This work often involved heavy physical labor, for which women are less fitted, and naturally when men again became available they were engaged for it.

In three lines of work, it will be noticed, the number of women employed has actually increased since October, 1918. The number of elevator operators has increased by three, but the total number employed and the increase are alike too small to make the fact significant. The number employed as watchwomen, the great majority

of these being crossing tenders, rose from 518 to 588, an increase of $13\frac{1}{2}$ per cent; and the number employed as station agents, assistants, and agent operators rose during the six months from 377 to 1,201, an increase of 218.6 per cent.

The distribution of the women, before and after the diminution of their numbers, is a matter of some interest. Even at the high mark of their employment they were for the most part in the kind of work in which the public is accustomed to see them engaged, those in the more spectacular kinds of new employments, track work, trucking, warehouse and dock work, roundhouse and shop work, etc., forming something less than 10 per cent of the whole group. Taking the two dates, October 1, 1918, and April 1, 1919, the proportion which the women in several important groups formed of the total number of women employed was as follows, the group classed as "clerical and semiclerical" having been corrected to make the figures for the two periods strictly comparable:

PER CENT OF TOTAL FEMALE EMPLOYEES IN EACH CLASSIFIED GROUP ON DATE SPECIFIED.

Group.	Oct. 1, 1918.	Apr. 1, 1919.
Attendants.....	2.3	1.6
Cleaning.....	5.5	5.5
Clerical and semiclerical.....	73.0	80.0
Personal service.....	2.8	2.8
Station agents, assistants, etc.....	.4	1.4
Telegraph operators.....	2.4	2.3
Telephone operators (train service).....	2.6	1.9

Here it appears that the relative importance of the group of attendants and of the telephone operators engaged in train service has decreased noticeably under peace conditions, while the group of telegraph operators has decreased slightly. The women engaged in cleaning and in personal service have maintained precisely the same relative importance. The station agents show a material increase, both absolutely and relatively, and the clerical group has increased considerably in relative importance. The changes in position of these last two groups perhaps give some indication of the lines along which the employment of women in railroad service may be expected to develop in the future.

Relative Wages of Men and Women in Industry in England.¹

ON SEPTEMBER 1, 1918, as one result of a strike on the part of the woman tramway conductors of London, by which they won an increase of wages which had been granted to the men conductors but refused to them, the British War Cabinet announced its decision to appoint a committee to consider the whole question of the relation which should exist between the wages of men and women. The terms of reference were:

To investigate and report on the relation which should be maintained between the wages of women and men, having regard to the interest of both, as well as to the value of their work. The recommendations should have in view the necessity of output during the war and the progress and well-being of industry in the future.

The committee consisted of six members, five of whom—Sir James Atkins, chairman, Dr. Janet Campbell, Sir Lynden Macassey, Sir William Mackenzie, and Sir Mathew Nathan—were paid Government officials, while the sixth, Mrs. Sidney Webb, had no connection with the Government. This committee recently published the result of its deliberations in a majority report signed by the five Government members and a minority report signed by Mrs. Webb. The original reference was extended to cover an investigation of the charge that the Government had not kept its promise that woman munition workers should receive equal pay with men. On this point the majority report vindicates the Government, while the minority report brings in a verdict of guilty. The published report further includes a memorandum prepared by Dr. Janet Campbell dealing with the health of women in industry, especially during their employment under war conditions, and a brief statement by Sir William Mackenzie setting forth his reasons for disagreeing with some of the recommendations of the majority report.

The majority report contains a long historical review of the employment of women before and during the war and of the relation their wages have borne to men's. By 1906, it is stated, women's wages, on the whole, were rather under one-half of those paid men, the disparity being least in skilled trades and occupations in which "physical strength and specialized, as distinct from general, training affect less the services rendered." During the war women's wages rose to about two-thirds of men's. The custom of paying women less than men is of such long standing and is so widespread that the committee thinks it can not be due to artificial causes. "A state of affairs which has come down through the ages and is nearly

¹ Women in Industry. Report of the War Cabinet Committee on Women in Industry. London, 1919. 341 pp. Cmd. 135. Price, 1s. 6d.

universal must have some origin in nature, however much the effect may have been accentuated by the action of man." The lesser physical strength of women and their special racial function are the natural origins suggested. From this opinion that the low wages paid women have their origin in nature, the minority report dissents strongly. Industrial wages, Mrs. Webb considers, are mainly settled by the higgling of the market, and for a number of reasons women have in the past been less able than men to hold their own in this kind of bargaining. In regard to other causes assigned—the conventional opposition to women's work outside their homes and their lack of training and organization—the two reports are in substantial agreement.

Although believing that the lower wages of women were originally due to natural causes, the signers of the majority report do not think that the discrepancy should continue to anything like the extent to which it has prevailed in the past. Considering the various relations which may be established between men's and women's wages, they discard the principle of the rate for the job regardless of who the worker may be, on the ground that this would probably result in the exclusion of women from industry altogether. As a cause for this anticipated effect the conferees maintain that the woman's output in industry is not equal to that of the man, and for proof refer to the experience of women in men's work during the war. The many statements made in Government publications during the war as to the superior output of women in various kinds of work are passed over in silence, the committee contenting itself with referring to certain kinds of work for which women are evidently not so well fitted as men.

The trend of this evidence was, as might have been expected, in the direction of showing that in all the occupations involving heavy or fatiguing work or technical skill the woman's productive power was less than the man's, the difference diminishing in proportion to the extent that machinery embodying the science of the designer and the skill of the toolmaker, and actuated by the power supplied by the coal miner and the stoker, reduced the need for skill and force more directly applied.

Equal pay for equal output, it is argued, is the only fair and just principle to apply, and an attempt is made to surround this principle with safeguards which shall prevent the unscrupulous employer from using it as a means for cutting women's wages to any degree he thinks fit. The committee thinks, nevertheless, that the principle must be modified by the fixation of a minimum wage below which it must not be allowable to employ a woman at all; if she is not worth that to the employer he must not make use of her, but in the interests of the community as a whole must take the higher-priced male. In stipulating what this wage is to cover, the com-

mittee shows unusual liberality. Granting that women are to enter industry on a different footing from men, and that there is to be a national minimum wage for women as distinguished from the national minimum for workers asked by the National Industrial Conference, only one complaint is to be made of the committee's statement of what the minimum is to provide: Provision for any dependents is expressly excluded, and the minimum is based on the needs of a single woman caring only for herself. The conclusion that women do not, as a rule, support anyone but themselves seems to be reached mainly on general principles. An English writer on social subjects is quoted as having made investigations which tended "to show that the great majority of women, possibly five out of every six, are not to any material extent responsible for the maintenance of dependents," but the committee fails to mention that these investigations covered only 516 women¹—a number obviously too small to justify any general conclusions. The committee recognizes that there are cases in which a woman's earnings must cover, in whole or in part, the support of her children, and for these it recommends endowment of motherhood, or some form of mothers' pensions; but no provision is suggested for the cases in which women are supporting relatives other than children.

Taking the majority report as a whole, it marks a cheering advance in the official attitude toward woman workers. It manifests a real desire to end the discriminations against women which have in the past too often compelled them to work for less than a living wage; adopting the principle of equal pay for equal output, it tries to establish safeguards which shall prevent this formula being made the cover for mere exploitation of women; and it is encouraging to find an official summary of what a minimum wage should cover including "insurance and trade-union subscriptions and a reasonable sum for holidays, amusements, etc." Also, the air of unlimited leisure, not uncommon in Government reports, is happily lacking. Again and again it is urged that the reforms recommended should take place "at once," or "with the least possible delay." It advises that the minimum wage should be established to take effect "immediately on the expiry of the Wages (Temporary Regulation) Act, 1918, or any prolongation of it." In fact, throughout the report there is a recognition of the human needs involved in the questions under consideration and of the urgency of finding not only a solution but the right solution as quickly as possible.

¹The Human Needs of Labor, by Seeborn Rowntree. London, 1918. Pp. 111-114.

The Minority Report.

In the minority report Mrs. Webb dissents from the whole plan of the majority report. She says:

What the committee was charged to investigate and to report upon was not the wages and other conditions of employment of women, any more than the wages and other conditions of employment of men—still less the terms upon which either men or women should be permitted to remain in industry, but “the relation which should be maintained” between them, “having regard to the interests of both, as well as to the value of their work . . . and the progress and well-being of industry in the future.” The reference carefully avoids, in its terms, any implication of inequality. To concentrate the whole attention of the readers of the report upon the employment of women, past, present and future, and upon their physiological and social needs, without any corresponding survey of the employment of men, and of their physiological and social needs, is to assume, perhaps inadvertently, that industry is normally a function of the male, and that women, like nonadults, are only to be permitted to work for wages at special hours, for special rates of wages, under special supervision and subject to special restrictions by the legislature. I can not accept this assumption.

In regard to rates of pay, Mrs. Webb objects strongly to the formula of equal pay for equal output, pointing out that the employer is the judge of the output and that this rule gives him a dangerous power of control over wages. Moreover, it is always open to him to make some slight variation in the operation or process intrusted to the woman, and to contend that because of this she is not doing the same work as the man, and therefore has no basis for claiming the man's wage as the standard. Collective bargaining, in which the worker has found his chief protection, is done away with where this formula is adopted. It would probably result in the men retaining their present rates, with such improvements as they could gain from time to time, while the women would have no standard rates, different employers valuing their output differently, and making different deductions for what they considered the extra expense involved in the employment of women.

Mrs. Webb would have an occupational rate, determined by collective bargaining, which should be applied regardless of sex. Unquestionably, she thinks, this would result in the exclusion of women from certain occupations, but this would be desirable. It is not to the advantage of the Nation that women should be employed at work for which they are not fitted, simply because they can be obtained more cheaply than men. If the occupational rate were adopted women would probably, for instance, be excluded from heavy trucking in which experience shows that men can do better than women; but there would be no incentive to exclude them from the making of optical and scientific instruments, for which work they have shown a special aptitude. Mrs. Webb calls attention to the fact that in at least one highly organized industry in which both

men and women are employed—cotton weaving—the standing lists of piecework prices constitute what are in effect occupational rates paid without regard to the sex of the worker, and that there has been no tendency, as a result of this situation, to exclude women from the industry.¹ In brief, she believes that the fixation of a rate for the work, regardless of who the worker may be, would result in the employment of the person best fitted to do that particular job, and that the community as a whole would benefit by this arrangement.

Mrs. Webb deals at length with two other arguments often advanced to justify the lower wages paid women, i. e., that men have dependents to support while women have not, and that women have not the potential usefulness of men, since they are less able to repair machinery in case of need, or to meet other emergencies. As to dependents, women of course frequently have them. How frequently has not as yet been demonstrated, but the working woman who is supporting, in whole or in part, a family is by no means an exceptional figure. But this is rather beside the mark, for it has never been customary to base men's wages on the number or even the existence of dependents, and there is no reason why the attitude should be adopted in the case of women.

In some occupations the rates for men have been, for long periods, demonstrably insufficient for the full maintenance of a wife and even the smallest number of children at the lowest possible level of subsistence. In more fortunate trades, where the standard rate may be sufficient to keep a family, the unmarried man does not receive something less than the standard time wages because he has fewer responsibilities than the married man. . . . The employer has no knowledge of what may be the several responsibilities of his employees, whether men or women; and in the matter of wages he has no concern with them. He is not morally entitled to get his work done at a lower rate by one operative, because that operative happens to have fewer responsibilities, than by another, who happens to have more.

The potentially greater usefulness of a man is advocated as a reason for higher wages even where it is manifestly inapplicable. Mrs. Webb cites one case brought before an arbitration tribunal in which the Government sought to justify a lower wage for women than men employed as elevator attendants on the ground that the men could repair the machinery in case of a breakdown, but lost their case when a notice was produced "which had forbidden the men attendants, under dire penalties, ever to touch the machinery of the lift or to seek to repair defects."

It may be suggested that we have in this notice the clue to the answer. Either it is essential, or at least desirable, in view of the likelihood or the seriousness of possible emergencies, that all the operatives employed should possess the qualifications needed to deal with such emergencies; or it is not. If it is, then the workers concerned, whether men or women, should be chosen from among those so qualified

¹ Employed in cotton-weaving processes: Males, 82,341; females, 190,922. Census of England and Wales, 1911. Summary Tables, p. 139.

and paid accordingly. If it is not, the fact being proved by the engagement of workers without such qualifications, then the lack of them can not be pleaded as a ground for paying a lower rate because any particular workers, whether men or women, do not possess what is demonstrably not necessary for their work.

In regard to a minimum wage, Mrs. Webb advocates the national minimum endorsed by the National Industrial Council, which should be paid to men and women alike. This should not, she thinks, include provision for dependents, because it is quite impracticable to base wages on the number of dependents the worker has; yet unless this is done any effort to make the minimum wage cover dependents is likely to result in absolute harm. Some other provision for the support of children should be made by the State, and the care of the old, the infirm, and the crippled should be regarded as a national obligation.

Conclusions and Recommendations.

The recommendations of the majority report, and the conclusions of the minority report, are as follows:

Recommendations of the Majority Report.

Recommendations as to Principles that should Govern Future Relation Between Men's and Women's Wages.

1. That women doing similar or the same work as men should receive equal pay for equal work in the sense that pay should be in proportion to efficient output. This covers the principle that on systems of payment by results equal payment should be made to women as to men for an equal amount of work done.

2. That the relative value of the work done by women and men on time on the same or similar jobs should be agreed between employers and trade-unions acting through the recognized channels of negotiation, as, for instance, trade boards or joint industrial councils.

3. That where it is desired to introduce women to do the whole of a man's job, and it is recognized that either immediately or after a probationary period they are of efficiency equal to that of the men, they should be paid either immediately or after a probationary period, the length and conditions of which should be definitely laid down, the men's time rate.

4. That where there has been subdivision of a man's job or work without any bona fide simplification of processes or machine and a woman is put on to do a part only of the job or work, the wages should be regulated so that the labor cost to the employer of the whole job should not be lessened while the payment to the persons engaged on it should be proportioned to their respective labor contributions.

5. That where the introduction of women follows on bona fide simplification of process or machine, the time rates for the simplified process or simplified machine should be determined as if this was to be allocated to male labor less skilled than the male labor employed before simplification, and women, if their introduction is agreed to, should only receive less than the unskilled man's rate if, and to the extent that, their work is of less value.

6. That in every case in which the employer maintains that a woman's work produces less than a man's, the burden of proof should rest on the employer, who should

also have to produce evidence of the lower value of the woman's work to which the fixed sum to be deducted from the man's rate for the particular job throughout the whole of the industry should strictly correspond.

7. That every job on which women are employed doing the same work as men for less wages should be considered a man's job for the purpose of fixing women's wages, and the wages should be regulated in the manner above recommended.

8. That the employment of women in commercial and clerical occupations especially requires regulation in accordance with the principle of "equal pay for equal work."

9. That in order to maintain the principle of "equal pay for equal work" in cases where it is essential to employ men and women of the same grade, capacity, and training, but where equal pay will not attract the same grade of man as of woman, it may be necessary to counteract the difference of attractiveness by the payment to married men of children's allowances, and that this subject should receive careful consideration from His Majesty's Government in connection with payments to teachers to which the Government contributes.

10. That the principle of "equal pay for equal work" should be early and fully adopted for the manipulative branches of the civil service, and that in the case of post-office duties, the question of the men having late hours or night work should be provided for by an extra allowance to persons undertaking common duties under disagreeable conditions.

11. That this principle with regard to allowances to persons undertaking common duties under disagreeable conditions should be applied also to industry.

12. That if the treasury inquiry advocated by the Royal Commission on the Civil Service with the object of removing inequalities of salary not based on differences in the efficiency of the services has not yet been held, it should be put in hand with the least possible delay.

13. That the separate grades and separate examinations for women clerks in the civil service should be abolished, but that the Government departments should retain within their discretion the proportion of women to be employed in any branch or grade.

14. That the Government should support the application to industry of the principle of "equal pay for equal work" by applying it with the least possible delay to their own establishments, and that as soon as any relation between the wages of men and women in any occupation or job has been agreed between employers and trade-unions acting through the recognized channels of negotiation, the maintenance of that relation should be a condition of any Government contract involving the employment of workpeople in that occupation or job.

*Recommendations as to Principles that should Govern Future Employment and Wages of Women.*¹

15. That in those trade processes and occupations which the experience of the war has shown to be suitable for the employment of women, employers and trade-unions acting through the recognized channels of negotiation should make possible the introduction of women by agreements which would insure, in the manner above indicated, that this did not result in the displacement of men by reason of the women's cheapness to the employer.

16. That with a view to improving the health and so increasing the efficiency of women in industry—

(i) There should be a substantial reform and extension in scope of the Factory and Workshops Acts, with special reference to (a) the reduction in the hours of work

¹ Sir William Mackenzie dissents from recommendations 18 to 26.

(including arrangement of spells and pauses, overtime, night work); (b) the provision of seats, labor-saving devices, etc., to avoid unnecessary fatigue; (c) an improved standard of sanitation (sanitary conveniences, lavatories, cloakrooms, etc.), ventilation and general hygiene; (d) the provision of canteens, rest rooms, and surgeries; (e) the general supervision of the health of the workers, individually and collectively; and (f) the conditions under which adolescents should be employed;

(ii) The present factory medical department of the Home Office should at once be strengthened by the appointment of an adequate and suitable staff of women medical inspectors of factories and that a considerable increase should be made to the present staff of lay women factory inspectors;

(iii) A local factory medical service should be established with duties of supervision, investigation and research intimately coordinated with the school medical service under the local education authority, the public health service under the local sanitary authority, and the medical service under the National Insurance Act or Ministry of Health when established.

17. That the Ministry of Labor, with which should rest the duty of ascertaining both nationally and locally the demand for trained persons in any trade or occupation, should, through central and local trade advisory committees, assist local education authorities in determining the technical instruction which should be provided for women.

18. That in order to secure and maintain physical health and efficiency no normal woman should be employed for less than a reasonable subsistence wage.

19. That this wage should be sufficient to provide a single woman over 18 years of age in a typical district where the cost of living is low with an adequate dietary, with lodging to include fuel and light in a respectable house not more than half an hour's journey, including tram or train, from the place of work, with clothing sufficient for warmth, cleanliness, and decent appearance, with money for fares, insurance, and trade-union subscriptions, and with a reasonable sum for holidays, amusements, etc.

20. That there should be additions to this wage for women working in the larger towns and in London to cover the greater cost of living there.

21. That this wage should be adjusted periodically to meet variation in the cost of living.

22. That the determination of the basic subsistence wage should be by a specially constituted authority which should also determine variations from it to meet the conditions of different districts and of different times or in rare cases special conditions of trade.

23. That the subsistence wage so determined should be established by statute to take effect immediately on the expiry of the Wages (Temporary Regulation) Act, 1918, or any prolongation of it and to apply to the employment for gain in all occupations (other than domestic service) for which a minimum wage has not been determined by an industrial council or by a trade board or other statutory authority.

24. That the Government should give consideration to the question of adopting a scheme of mothers' pensions for widows and for deserted wives with children, and for the wives with children of men physically or mentally disabled, such pensions to be granted only after investigation where there is need and subject to supervision, and otherwise to be administered on the lines followed for pensions granted to the widows of men deceased in war.

25. That the department or departments of Government concerned should draw up for the consideration of the Government a scheme by which the entire direct costs involved by the lying-in of women under thoroughly satisfactory conditions should be provided for by the State.

26. That a scale of wages should be established for girls 2s. a week less than the woman's subsistence wage, for each year under 18, and that no girl should be employed

for gain at lower rates than those of this scale unless a duly constituted authority, such as a trade board or industrial council, fixes such lower rate where the employment is of the nature of an apprenticeship. Also that the question of girls and boys under 16 working on piece should be specially considered by the department or departments of Government concerned with a view to the definite abolition of such working if it is found to be detrimental to health.

27. That the Government should continue to give the strongest possible support to proposals for the international regulation of labor conditions, which would lessen the danger of the foreign trade of this country being injured as a result of the employment of underpaid labor abroad.

Conclusions of the Minority Report.

1. That the existing relation between the conditions of employment of men and women, whether in manual labor or in the brain-working occupations, is detrimental to the personal character and professional efficiency of both sexes, and inimical alike to the maximum productivity of the Nation and to the advancement of the several crafts and professions.

2. That the exclusion of women by law or by custom, from the better paid posts, professions, and crafts, has driven them to compete with each other, and with men, in the lower grades of each vocation, where they have habitually been paid at lower rates than men for equivalent work, on the pretense that women are a class apart, with no family obligations, smaller needs, less capacity and a lower level of intelligence—none of these statements being true of all the individuals thus penalized.

3. That, for the production of commodities and services, women no more constitute a class than do persons of a particular creed or race; and that the time has come for the removal of all sex exclusions; for the opening of all posts and vocations to any individuals who are qualified for the work, irrespective of sex, creed, or race; and for the insistence, as minima, of the same qualifications, the same conditions of employment, and the same occupational rates, for all those accepted by the private or public employers as fit to be engaged in any particular pursuit.

4. That the popular formula of "equal pay for equal work," or, more elaborately, "equal pay for work of equal value in quantity and quality," whilst aiming at the expression of the right ideal, is so ambiguous and so easily evaded as not to constitute any principle by which the relation between men's and women's wages can be safely determined.

5. That the essential principle which should govern all systems of remuneration, whether in private industry or in public employment, in manual working as well as brain-working occupations, is that of clearly defined occupational or standard rates, to be prescribed for all the persons of like industrial grade; and, whether computed by time or by output, to be settled by collective agreement between representative organizations of the employers and the employed; and enforced, but as minima only, on the whole grade or vocation. There is no more reason for such occupational or standard rates being made to differ according to the workers' sex than according to their race, creed, height, or weight.

6. That in the interests alike of maximum productivity and race preservation, it is imperative that a national minimum should be prescribed by law and systematically enforced, in respect, at least, of rest time, education, sanitation, and subsistence, in which national minimum there should be no sex inequality; and that the present unsystematic, uneven, and patch-work provisions of the factory, education, public health, insurance and other acts, in which the policy of the national minimum has been so far empirically embodied, urgently need to be replaced by a comprehensive codification, equally applicable to all employments, and to the various requirements,

including a legal minimum of weekly wages for the whole Kingdom based on the price of full subsistence below which no adult worker free from specific disqualification, should be permitted to be employed. These legal minimum conditions of employment and unemployment should be identical for men and women.

7. That there seems no alternative—assuming that the Nation wants children—to some form of State provision, entirely apart from wages, of which the present maternity benefit, free schooling and income tax allowance constitute only the germ. The assumption that men, as such, must receive higher pay because they have families to support; and that women, as such, should receive less because they have no such family obligations, is demonstrably inaccurate to the extent of 25 or even 50 per cent; and if wages were made really proportionate to family obligations, it would involve a complete revolution in the present methods of payment; it would be incompatible alike with collective bargaining and with any control by the workers over their conditions of employment; and it would lead to a disastrous discrimination against the married man or woman, and still more against parentage. This question of public provision for maternity and childhood urgently requires investigation by a separate committee or commission.

8. That the chaos into which the war has thrown not merely the wages of men and women, but also the various occupational rates throughout industry and, indeed, the wages and salaries of all grades of producers of commodities and services—resulting in gross inequalities, and a serious lack of correspondence between incomes, efforts and needs—is not only a cause of hardship and discontent but also has a detrimental influence on national production; that what is required is a closer general approximation in all classes of society, of incomes to efforts and sacrifices, and this calls for a Royal Commission of Inquiry into the sharing of the national product among classes, industries, and individuals, in order that not only the maximum productivity of industry in the future, but also the maximum personal development of the citizens, and the improvement of the race, may be better secured than at present.

INDUSTRIAL ACCIDENTS.

The Foreman's Bonus for Accident Reduction.

By LUCIAN W. CHANEY.

THE production bonus has been used in the iron and steel industry for a long time. It is now the chief method of maintaining or of increasing production. Usually an addition is made to the rate of pay when a certain standard output is reached, with proportionately greater increases if the standard is surpassed. Thus, as the use of bonuses as a production stimulus was well established in the industry, it was entirely natural that with the coming of the safety movement the utilization of similar bonus methods should be suggested as a stimulus to safety work and in fact awards of various sorts, such as safety buttons and prizes for safety suggestions, became immediately features of the safety activities in various plants.

Many of the pioneer safety men, however, were rather opposed to the bonus idea. They stressed primarily the humane motive in urging the need of accident reduction, and were, for the most part, of the opinion that to offer a formal bonus, such as had been used for production, would lessen the force of the humane appeal and tend to place the movement on an undesirably commercial basis.

On the other hand, those who advocated the use of the bonus to assist in accident reduction contended that the accident problem was essentially a business problem and that any successful business device which could be used in reducing accidents was perfectly appropriate. They further urged that the humane appeal remained unimpaired by the giving of a substantial reward for successful safety efforts.

It was inevitable that somewhere those who held the opinion that the accident reduction bonus was a worthy instrument for the promotion of safety would be in a position to test out their theories. Such tests, indeed, were made in a number of plants. It is the purpose of the present paper to assemble the largest possible body of facts regarding the operation of safety bonus plans and endeavor to appraise the influence of the safety bonus. Data relating to the basic departments of the steel industry—blast furnaces, steel works, and the heavier types of rolling mills—are the most adequate data available for this purpose. It would be obviously of little significance to compare plants in which the work performed was not of closely similar

character. Moreover, a careful study was made of the data assembled in order to be sure that there were no disturbing elements which might cast doubt upon or invalidate the conclusions derivable from the combined plants.

As to the character of the safety bonus plans in use in the plants considered, the following statement may be taken as representative of all of the plans in use, although there are numerous variations in detail:¹

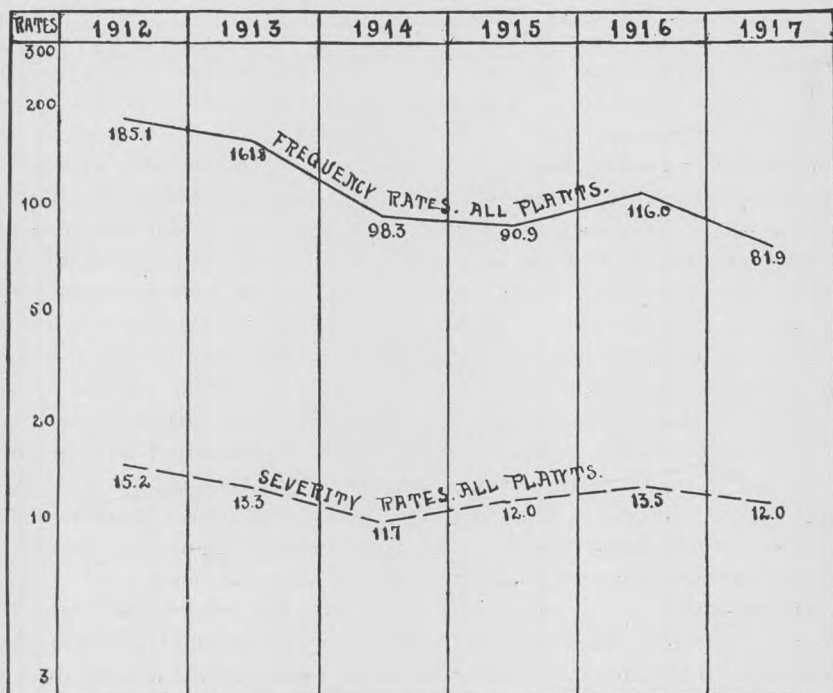


CHART A.—Trend of accident frequency and severity rates in bonus and nonbonus plants, combined, 1912 to 1917.

(1) A careful study is made of the past experience of the several departments of the plants. From these data accident rates are determined which represent that experience.

(2) A foreman who fails to hold down his accidents to this rate gets nothing. If he equals the basing rate he receives a certain sum per man under his supervision. This sum is increased in proportion to the degree to which he brings his rate down below the basing rate.

(3) The sum assigned to the bonus per man under supervision is sufficiently substantial to make it a real incentive. For example, a

¹ For further details see "The safety movement in the iron and steel industry, 1907 to 1917," Bul. 234, U. S. Bureau of Labor Statistics, p. 255.

foreman having 100 men under him might, under favorable circumstances, receive a bonus of \$200 per year.

The information regarding the working of the safety bonus plans, covered by this study, may be most clearly shown in chart form. The detailed tables on which the charts are based are given at the end of this article.

Chart A shows for the group of blast furnaces, steel works, and heavy rolling mills, including both bonus and nonbonus plants, the

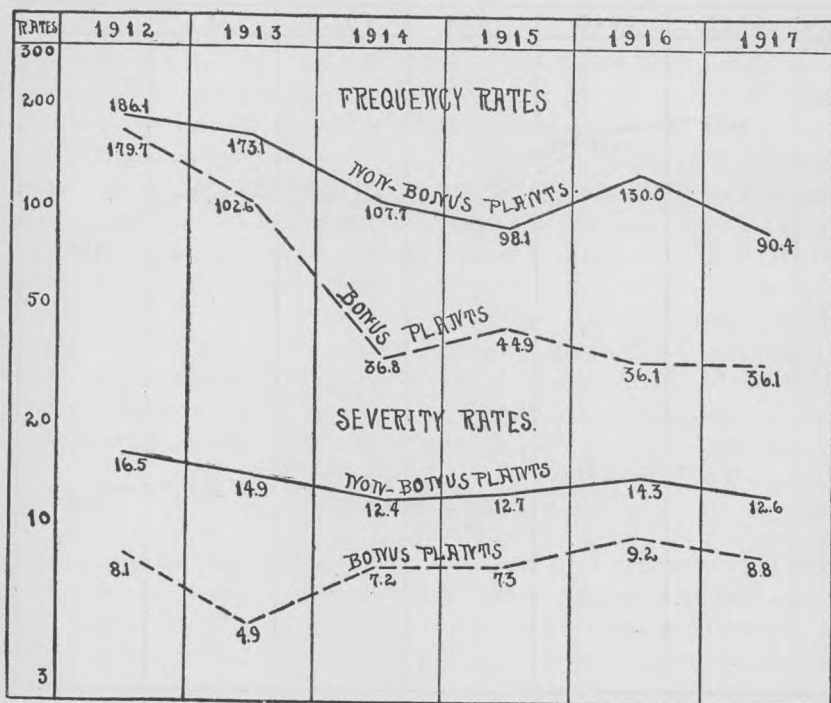


CHART B.—Trend of accident frequency and severity rates in bonus and nonbonus plants, separately, 1912 to 1917.

trend of accident frequency rates and accident severity rates over a period of six years. The showing is conformable with the results of other studies of accidents in the iron and steel industry. From a high point in 1912 there is a decline of both frequency and severity rates to 1914 or 1915, after which there is a rise into 1916, followed by a decline through 1917. The high point in 1916 is not so high as the high point in 1912.

Chart B shows separately for bonus and nonbonus plants the data combined in Chart A. An inspection of this chart shows that the bonus plants, starting at practically the same frequency rate as the

nonbonus, had for two years a much faster decline in frequency rates than did the nonbonus plants, and thereafter maintained a much lower rate than did the nonbonus plants. On the other hand, the severity rates in the bonus plants distinctly rise, while those for the nonbonus fall. In fact, the general decline in severity rates noted in Chart A is entirely due to the nonbonus group of plants, the influence of the bonus group being in the other direction.

Any attempt to explain these results must be made with great caution. There are many factors involved and over emphasis on some of them would be very easy. Familiarity with all the plants has disclosed only two points in which those of the bonus group differed definitely from the nonbonus. One of these is the existence since 1913 of the bonus system, the other a slightly more thorough average application of the principles of "engineering revision" in the bonus plants. If there be other significant differences the most careful scrutiny and inquiry has failed to reveal them. This being the case, it would seem fair to assume that these two factors must be the most influential in producing any differences which appear in the trend of accident rates.

Regarding the immediate decline in frequency rates on the adoption of the foreman's bonus, it may be said that the experience of all who have tried out the method is in harmony with this result. Such a bonus does tend strongly to the reduction of accident frequency rates.

Foremen's Activities.

The only source of information tending to shed light on the reasons for this decline is the testimony of the foremen themselves. Inquiry has accordingly been made at every opportunity regarding the methods adopted by foremen in the effort to secure the bonus. The following points appear with great constancy in the testimony of the foremen:

(1) The action of the company in offering the bonus made a very convincing appeal to the foremen. "When the company comes across with real money we know that they mean business." That is to say, up to the time of the inauguration of the accident reduction bonus the foremen had been somewhat skeptical regarding the genuineness of the company's interest in accident prevention. They had a feeling that the company was interested first of all in production and that the phrase "safety first" was nothing more than words.

(2) The foreman began immediately to consider more carefully the suitability to his job of the man sent to him. Formerly little attention was given to this matter. A slow and heavy man might be

sent to do work where his life depended on a certain amount of quickness and agility. After the inauguration of the bonus foremen were more particular and would not take on men who were obviously unsuited to the work in their charge.

(3) Not only was more care than before exercised in selecting men, but the foreman himself took greater pains in instructing new men, and especially did he see to it that a new man was put under the direction of a more experienced worker who would look after the newcomer during the period of the latter's training. This conversion of the mills into schools of safe operation may well be the most important factor in bringing about the results secured.

(4) Since the duration of disability had some influence on the penalty imposed on the foreman in respect to his bonus, he was directly concerned with the prompt return of the man to duty. Two abuses tended to grow up in this connection: (a) A man might be brought back and given some nominal job not having any real relation to the operations of the mill. One superintendent felt constrained to safeguard the situation by a ruling that in order to put a man back who was not yet able to resume his ordinary duties, the foreman must show that the job proposed for him was a real job needing to be done. It was felt that the presence of men who were there only to save a foreman's bonus could have no other effect than to lower the morale of the men. (b) It would sometimes happen that a foreman would urge a man to resume work when he was not yet sufficiently recovered to justify his return. As a rule, however, this was easily checked by the control exercised by the medical staff.

(5) A number of foremen commented on the fact that in seeking to secure the prompt return of their injured men they formed a friendly acquaintance with them which they might not otherwise have done, and that this helped them in getting active cooperation in accident prevention efforts.

The above are the kinds of effort which, according to the testimony of the foremen, they were led to undertake in response to the offer of the bonus by the company. These efforts were particularly successful in reducing short term disabilities.

The degree to which minor accident was reduced under the bonus system is the most striking. In the earlier studies of the iron and steel industry it has been shown that the percentages of the injured who returned to work in the successive weeks ran about as follows: First week, 50 per cent; second week, 25 per cent; third week, 10 per cent. With the progress of the safety movement, these percentages for the early weeks steadily declined, falling as low in some cases as 40 and 35 per cent in the first week. In some of the plants having the foreman's bonus system this tendency has reached the

point where the percentage for the first week is actually less than for the second week. As one manager stated, "we have almost abolished short term disabilities." This is an entirely logical result of intensive effort but not one which could have been anticipated in advance.

It has sometimes been suggested that this remarkable showing might be due to erroneous reporting. It is proper to say that, with every facility afforded for checking up the records, there is no indication of any imperfection in this particular.

The Rising Severity Rate.

Two questions at once arise in connection with the trend of severity rates as disclosed in Chart B. Just why did the bonus plants have a lower severity rate than the nonbonus? and, second, why did the severity rate in bonus plants rise when the frequency rate was so conspicuously falling?

To the first question it may be replied that the slight superiority of the bonus plants in the matter of "engineering revision" is sufficient to account for this lower severity rate.

A reasonable explanation of the second point—the rising severity rate—is less easy. The very striking fact about it is its entire constancy. Not only is it the general tendency in each of the three departments chosen for particular consideration, but in other departments of the plants the same tendency is observable. Since the only common influence which can be detected in the several departments is the presence of the bonus system, it is at least possible, if not probable, that the bonus system is the major contributing factor in the rising severity rate.

The following ways in which the bonus system may thus have contributed to a rising severity rate suggest themselves: (1) The safety departments of these plants, observing the remarkable decline in frequency rates produced by the bonus, and knowing that their death rate was low, took no note of the general rise in severity rates, and therefore took no special measures to counteract the tendency. (2) The penalty for serious injury counted against a foreman's record was so inadequate that it did not induce on his part special attention to the causes of serious injuries and the means of preventing them.

The results of this inquiry add emphasis to the contention that exclusive attention to frequency rates will often fail to disclose the most important conditions of hazard. The severity rate is an indispensable means of bringing out many phases of the accident situation.

“Engineering Revision.”

In the MONTHLY LABOR REVIEW for December, 1918, there was presented a study of “‘Engineering revision’ as seen by safety committees.”¹ Some further interesting light is thrown on this question by an analysis of the experience of a bonus and a nonbonus plant, in which is included only those cases that in the opinion of the safety committees could have been prevented by engineering revision. The results of this analysis are presented in the following table:

ACCIDENT FREQUENCY RATES PER 1,000 300-DAY WORKERS OF CASES THAT COULD HAVE BEEN PREVENTED BY ENGINEERING REVISION, IN A BONUS AND A NON-BONUS PLANT.

Kind of plant.	Rates per 1,000 300-day workers of cases that could have been prevented by engineering revision.			
	Disability of 6 weeks and under.	Disability over 6 weeks.	Death and major mutilation.	Total.
Bonus plant	7.9	2.8	1.5	12.2
Nonbonus plant	2.7	.8	1.8	5.3

This table shows that the bonus plant found engineering remedies possible to the number of 7.9 per 1,000 300-day workers in cases involving less than six weeks disability, while the nonbonus plant discovered similar remedies possible at the rate of 2.7. It is clear that the foremen of the bonus plant were active in finding and improving conditions tending to minor injury.

On the other hand, the detection of possible engineering remedies for cases involving death and major mutilation is indicated by a rate of 1.5 in the bonus plant and 1.8 in the nonbonus plant. It has been shown previously (p. 275) that the bonus plants have a somewhat rising severity rate while in the nonbonus it was falling. The difference indicated above in the detection of possible engineering provision against severe accident may be entirely sufficient to account for these opposite movements of the severity rates.

The larger application of “engineering revision” to minor hazards in the bonus plant is probably due in part to some differences in the work done, but the significance of attention to the smaller injuries in protecting the foreman’s bonus can not properly be excluded from consideration. Whenever the penalty for serious injury is proportionately too small it is inevitable that attention will be given to the minor cases whose elimination will easily exceed in importance, from the standpoint of the bonus, the correction of more serious dangers.

¹ Republished in “Safety Engineering” for April, 1919.

For example, if the penalty for a death case is 10 when disability for one day counts 1 it might, and probably would, be much easier for the foreman to get rid of the causes of 10 minor cases than to secure against the recurrence of fatality.

Conclusion.

This rather extensive experience in the application of a foreman's bonus for accident reduction justifies, unless there are factors in the situation which painstaking scrutiny has failed to disclose, the following conclusions:

(1) A foreman's bonus for accident reduction will tend very greatly to reduce minor injury. The importance of such reduction should not be minimized. As a contribution to mill efficiency and to good feeling among the men its value is very great.

(2) A foreman's bonus will not necessarily operate to the satisfactory reduction of the more severe accidents. It has not so operated in the cases under consideration. If the desired result is to be obtained, the bonus must be reinforced by vigorous application of other measures.

The tables following offer the basic data of the charts used in this article.

NUMBER OF 300-DAY WORKERS AND NUMBER OF ACCIDENTS IN BONUS AND NON-BONUS PLANT GROUPS, BY YEARS, 1912 TO 1917.

Number of 300-Day Workers.

Plant groups.	1912	1913	1914	1915	1916	1917	Total.
Bonus groups:							
A—Blast furnaces.....	923	965	609	608	863	864	4,832
A—Steel works.....	1,087	1,101	771	780	1,151	1,234	6,124
A—Rolling mills.....	1,775	2,194	1,477	1,499	2,156	2,306	11,407
Total.....	3,785	4,260	2,857	2,887	4,170	4,404	22,363
Nonbonus groups:							
B—Blast furnaces.....	2,386	2,381	2,097	1,955	2,757	3,182	14,758
B—Steel works.....	2,924	2,763	1,765	2,580	3,695	4,133	17,860
B—Rolling mills.....	3,845	4,693	3,715	2,695	3,835	3,842	22,625
Total.....	9,155	9,837	7,577	7,230	10,287	11,157	55,243
C—Blast furnaces.....							
C—Steel works.....	796	787	880	944	1,170	1,198	5,775
C—Rolling mills.....	1,002	1,010	734	890	1,079	1,194	5,909
Total.....	867	873	681	829	977	1,061	5,288
Total.....	2,665	2,670	2,295	2,663	3,226	3,453	16,972
D—Blast furnaces.....							
D—Steel works.....	4,641	3,975	4,218	3,470	3,368	3,569	23,241
D—Rolling mills.....	1,731	1,756	1,143	1,306	1,428	1,458	8,822
Total.....	3,613	4,075	3,330	4,128	3,174	4,087	22,407
Total.....	9,985	9,806	8,691	8,904	7,970	9,114	54,470
Total, nonbonus (B, C, and D).....	21,805	22,313	18,563	18,797	21,483	23,724	126,685
Grand total.....	25,590	26,573	21,420	21,684	25,653	28,128	149,048

NUMBER OF 300-DAY WORKERS AND NUMBER OF ACCIDENTS IN BONUS AND NON-BONUS PLANT GROUPS, BY YEARS, 1912 TO 1917—Continued.

Number of Accidents.

Plant groups.	1912	1913	1914	1915	1916	1917	Total.
Bonus groups:							
A—Blast furnaces.....	196	116	19	29	41	28	429
A—Steel works.....	216	131	35	37	55	54	558
A—Rolling mills.....	238	190	51	62	87	77	705
Total.....	680	437	105	128	183	159	1,692
Nonbonus groups:							
B—Blast furnaces.....	335	269	170	135	226	208	1,343
B—Steel works.....	633	622	255	248	378	309	2,445
B—Rolling mills.....	630	600	268	193	292	197	2,180
Total.....	1,598	1,491	693	576	896	714	5,968
C—Blast furnaces.....	269	189	187	167	218	162	1,192
C—Steel works.....	254	220	114	175	247	150	1,160
C—Rolling mills.....	166	140	84	138	156	126	810
Total.....	689	549	385	480	621	438	3,162
D—Blast furnaces.....	781	952	506	234	417	346	3,236
D—Steel works.....	421	369	151	231	476	401	2,049
D—Rolling mills.....	568	501	265	323	382	245	2,284
Total.....	1,770	1,822	922	788	1,275	992	7,569
Total, nonbonus (B, C, and D).....	4,057	3,862	2,000	1,844	2,792	2,144	16,699
Grand total.....	4,737	4,299	2,105	1,972	2,975	2,303	18,391

Blast Furnaces.

	Frequency rates (per 1,000 300-day workers).						
A (bonus).....	212.4	120.3	31.2	47.7	47.5	32.4	.....
B (nonbonus).....	140.5	113.0	81.1	69.1	82.0	65.4	.....
C (nonbonus).....	337.9	240.2	212.5	176.9	186.3	135.2	.....
D (nonbonus).....	168.3	234.5	120.0	67.4	123.8	96.9	.....
Total.....	180.8	188.2	113.0	81.0	110.6	84.4	.....
	Severity rates (days lost per 300-day worker).						
A (bonus).....	13.9	12.2	5.6	15.8	12.8	22.5	.....
B (nonbonus).....	11.5	18.5	14.5	38.8	8.2	23.4	.....
C (nonbonus).....	95.8	32.4	19.6	14.1	28.2	26.3	.....
D (nonbonus).....	8.1	18.1	14.6	2.9	9.7	8.7	.....
Total.....	17.6	20.1	14.3	15.6	12.2	17.8	.....

Steel Works.

	Frequency rates (per 1,000 300-day workers).						
A (bonus).....	226.3	119.0	45.4	47.4	47.8	43.8	.....
B (nonbonus).....	216.5	225.1	144.5	96.1	102.3	74.8	.....
C (nonbonus).....	253.5	217.8	155.3	196.6	228.9	125.6	.....
D (nonbonus).....	243.3	210.1	132.1	176.9	333.3	275.0	.....
Total.....	230.4	202.4	125.8	124.4	157.2	114.0	.....
	Severity rates (days lost per 300-day worker).						
A (bonus).....	11.2	3.1	9.4	3.8	10.3	12.3	.....
B (nonbonus).....	21.9	25.3	25.1	10.1	14.9	8.2	.....
C (nonbonus).....	25.7	8.5	21.6	31.2	22.0	25.3	.....
D (nonbonus).....	12.6	17.4	4.0	7.2	39.9	17.6	.....
Total.....	18.4	16.8	16.3	11.9	20.1	13.1	.....

NUMBER OF 300-DAY WORKERS AND NUMBER OF ACCIDENTS IN BONUS AND NON-BONUS PLANT GROUPS, BY YEARS, 1912 TO 1917—Concluded.

Heavy Rolling Mills.

Plants.	1912	1913	1914	1915	1916	1917	Total.
Frequency rates (per 1000 300-day workers).							
A (bonus).....	134.1	86.6	34.5	41.4	40.4	33.4	.....
B (nonbonus).....	163.8	127.8	72.1	71.6	76.1	51.3	.....
C (nonbonus).....	191.5	160.4	123.3	166.5	159.7	118.8	.....
D (nonbonus).....	157.2	122.9	79.6	78.2	120.4	59.9	.....
Total.....	158.6	120.9	72.6	78.2	90.4	57.1	.....
Severity rates (days lost per 300-day worker).							
A (bonus).....	3.6	2.6	6.7	5.7	7.2	1.8	.....
B (nonbonus).....	11.7	10.4	10.0	17.7	8.2	7.1	.....
C (nonbonus).....	18.2	8.5	3.1	22.8	16.4	32.4	.....
D (nonbonus).....	12.6	3.6	5.0	2.4	11.1	2.4	.....
Total.....	11.1	6.5	7.1	9.3	9.7	6.7	.....

ACCIDENT FREQUENCY AND SEVERITY RATES IN BONUS AND NONBONUS PLANT GROUPS, BY YEARS, 1912 TO 1917.

All Plants.

	Frequency rates (per 1,000 300-day workers).						
A (bonus).....	179.7	102.6	36.8	44.9	36.1	36.1	75.7
B (nonbonus).....	174.5	151.6	91.5	79.7	87.1	64.0	108.0
C (nonbonus).....	258.5	205.6	167.8	180.2	192.5	126.8	186.3
D (nonbonus).....	177.3	185.8	106.1	88.5	160.0	108.8	139.0
Total, nonbonus (B, C, and D).....	186.1	173.1	107.7	98.1	130.0	90.4	131.8
Total, Groups A, B, C, and D.....	185.1	161.8	98.3	90.9	116.0	81.9	123.4
Severity rates (days lost per 300-day worker).							
A (bonus).....	8.1	4.9	7.2	7.3	9.2	8.8	7.6
B (nonbonus).....	14.9	16.5	14.8	20.7	10.6	12.1	14.6
C (nonbonus).....	44.2	15.6	15.3	22.5	22.5	27.8	24.9
D (nonbonus).....	10.0	13.0	9.5	3.3	15.7	7.3	9.8
Total, nonbonus (B, C, and D).....	16.5	14.9	12.4	12.7	14.3	12.6	13.9
Total, Groups A, B, C, and D.....	15.2	13.3	11.7	12.0	13.5	12.0	13.0

Hernia in Industry.

THIS is the title of an article by Charles A. Lauffer, M. D., Medical Director, Relief Department, Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., appearing in the August issue of the *Journal of Industrial Hygiene*. Besides the importance of the position that Dr. Lauffer holds, he has become known as Secretary of the Hernia Committee of the National Safety Council, 1917, and the author of a paper entitled, "Hernia as an Anatomical Defect," prepared for the Pennsylvania Conference of Physicians in 1916. These activities have brought him into touch with many general surgeons of note and leading industrial surgeons, in special inquiries on the subject.

The article is of interest therefore not only because it gives the experience of a large employer who maintains a relief department, but also because it coordinates a wide field of observation and opinion. The statement that "data on the physical examination of prospective employees reveal the fact that approximately 3 per cent of the men offering their services to the industries have well-developed inguinal hernias; approximately 14 per cent have incipient hernias," suggests the industrial importance of the question under consideration. Its frequency is such that it may "be regarded as the greatest single frailty of the American worker."

The difficulty, or in fact the impossibility, of locating a hernial sac which may exist and be ready for development under favorable circumstances, but which is at the time empty, is emphasized. The individual may himself be entirely unaware of the existence of a hernial sac, and may honestly deny any affection of this sort; another man, less honest, knowing that there is a development at times, but being for some reason disinclined to relate the whole truth, may "rather gloat over the fact that he has 'put something over' on the doctor, in having 'gotten by' with his hernia." Numerous cases of error in diagnosis are on record, even to the extent of not being able to discover on which side to operate after the patient has been sent to a hospital, without full records of the examining physician's discoveries.

The medical consensus is summed up in the statement that the hernial sac is pathological, being preformed, either as a congenital malformation or an acquired defect. The congenital malformation may remain undiscovered for years by reason of the failure of any protrusion to take place. The acquired sac also

arises slowly, because the peritoneum—the lining membrane of the body cavity—being a tough resistant membrane, can not be pushed out to form a sac by any single impulse. “This is readily demonstrated on the cadaver; no finger is strong enough to push out the peritoneum suddenly at the internal ring. Yet nature permits the gradual stretching of the peritoneum without tearing it, as in the acquired type of hernial sacs.” The gradual development of the hernia as a recognizable fact very often is slighted by the patient even though there be occasional pain and discomfort; on the other hand it may take place without sufficient pain to attract notice until a physical examination makes the first discovery. Fear of operation or other personal reasons may also lead to a concealment of known facts so that the subject may not receive attention for weeks or perhaps months. “Less frequently, the mass causes sufficient pain to induce the patient to see a physician at once, and to necessitate his stopping work.”

The tendency to hernia may be accelerated by heavy work, requiring pulling, pushing, or lifting; especially may persons long unaccustomed to such work, upon returning to heavy work, develop latent hernia. It should not, however, be classed as an occupational disease, but one arising from an anatomical defect. The worker accustomed to heavy labor develops such muscular strength and tough fascia as really to render him less liable to the disease than a sedentary worker with flabby muscles and relaxed fascia, who may make an occasional sudden effort. At most, occupation is only one of the exciting factors in the causation of hernia, the determining cause being the preformed sac. The hernial sac may fill for the first time when a worker is lifting, pushing, or pulling; the tenseness of muscular strain may coincide with the psychological moment for the filling of a preformed sac. If, however, the findings at operation reveal that the preformed sac existed, it is a pathological hernia, not a traumatic one.

In the truly traumatic hernia, the peritoneum is torn; there is no sac; the viscera came out through a fresh tear in the peritoneum. Direct injury, such as might be caused by the horn of a mad bull or by the tongue of a wagon drawn by horses, inflicting sufficient violence to the physical structures of the body, may produce a traumatic hernia at the site of the focal trauma.

Falls from buildings, while they may cause ruptures of internal organs, seldom give rise to traumatic hernia. It is stated, however, that a crushing of the body as between a moving car and a stationary object “may so increase intra-abdominal pressure as to tear the peritoneum and cause a true traumatic hernia. So infrequent is traumatic hernia, however, that many industrial surgeons of wide experience have never encountered one.”

As in the Army, so in industry, the victim of hernia is classed as subnormal. Relief or attempt at remedy by means of a truss is unsatisfactory, every indication tending to make its use only “a temporary makeshift, applicable for a season, where operation is necessarily deferred, and a necessary evil where operation is contra-indicated, as for certain recurrent hernias.”

The dangers of neglect are pretty generally understood, but the victim is often willing to "take a chance." With the advent of compensation enactments the financial burden of the operation is in a measure transferred from the employee to the industry employing him. Without relief the worker is at a disadvantage both physically and mentally. He has difficulty in applying himself to hard work for fear of untoward results and is likely to develop a tendency to shirk; "hence he is a more efficient worker after his hernia has been repaired."

In considering the responsibility for hernia the author stands unqualifiedly on the ground that an acquired hernia is a disease. It "is popularly confounded with true traumatic hernia to so appalling an extent that more cases of alleged traumatic hernia have been awarded compensation in Pennsylvania (exceeding 4,000) than there have occurred cases of real traumatic hernia in the western hemisphere since Columbus discovered America. Other Commonwealths have been as notorious in awarding compensation for acquired hernias, pathological in type, which are in no sense true traumatic hernias."

Yet when a hernia arises during industrial service, regardless of the etiology, we contend it should be relieved by truss, or repaired surgically, and the affected individual restored to industry. The practical economic problem arises: At whose expense should trusses be fitted and herniotomies performed? The company's surgeon can do the herniotomy and radically cure the disease in less time than is wasted in legal quibbles over "Who is responsible?"

How can the patient be responsible? He was unaware of the preexistence of the hernial sac until the filling of that sac with hernial contents occurred. The general public, and some lawyer, then convince the patient that "he must have sustained some injury of the nature of a strain," and that "in consequence of said strain he developed a hernia."

How can the employing company be responsible for anatomical defects that lead to hernia? As surgeons, we are concerned in the cure of the victims of hernias, and would rather operate than argue; and because we know that the patients need relief, and the employing companies require their services, and their good will, we advise operation.

For the truly traumatic hernia, the employing industry is undoubtedly responsible under the workmen's compensation act, but less than one hernia in a thousand is of this type, hence, the 999 constitute a burden imposed by law on industry.

The laws of a number of States undertake to make special provisions for the determining of compensable hernias. Traumatic hernias would, of course, be within the law if incurred in the course of employment and arising out of it. Other cases are said to be classifiable as disease in the absence of certain proofs summarized in the act. Dr. Lauffer criticizes this proposition as to "conclusive proof" as "straddling the issue," and asks "why require employees to frame up such a symptom complex in order to have their hernias operated? Why hold out the bait of compensation benefits for only

one group of pathological hernias?" He holds that no proof can have the weight of the findings of the operating surgeon, which disclose the objective signs, as compared with the subjective symptoms made the basis of determination by the terms of the law.

"We suggest operation at the expense of the employer, yet omitting the payment of compensation for pathological hernias, as a measure of policy calculated to restore such workers to industry, without compromising their integrity." It is admitted that this proposal would be a compromise, but would remove the burden of paying compensation for lost time from the employer, and would also be "abundantly fair" to the employee who receives gratis an operation for which the employer is not actually responsible, but which he furnishes for the purpose of an early termination of the disability and the restoration of the victim to industry. "Our contention is that the employer is quite reasonable in assuming financial responsibility for operating acquired hernias, where occupation is assumed to be a contributing factor in their development, and should not, in addition, be expected to pay compensation benefits for disability arising therefrom." The work "should be regarded as a gratuity on the part of the industries, calculated to restore faithful employees to industry, and, at the same time, as a patriotic duty by which industrial workers are restored to their greatest efficiency."

These conclusions of Dr. Lauffer represent a measure of liberality in that he would raise no question as to the origin of the hernia, but would operate in all cases as an economic and patriotic measure, recognizing also the desirability of friendly relations between employers and employees. The statement that such an undertaking constitutes "a burden imposed by law on industry," may or may not have the significance that appears on the surface. The commonly accepted rule in compensation is that the employer takes his employee as he finds him and that if in the industry an accident occurs, aggravating preexisting conditions, the man who is disabled by reason of the event is entitled to compensation, even though a sound man would not have been injuriously, or at least to such an extent, affected by the hurt. The laws of a few States go further and omit the word "accident," assuming the responsibility of the industry for untoward consequences of gradual effect, classifiable as disease. Whether or not this is to be regarded as "a burden imposed by law on industry," the fact remains that the hernia, as well as other disqualifying physical defects, is a burden, and that the matter of its incidence is the only question that remains open. While the problem of hernia can not be said to be a new one, it has certainly achieved a new importance with the enactment of compensation legislation, with the elimination of the question of negligence, and the conse-

quent inclusion of a multiplied number of disabilities under the compensation laws as compared with the statutes under the old liability doctrine.

It would seem to be a question then of the rights of the employer, and his duty in the performance of a certain public service in supplying some article for general consumption, and the duty of the employee to know what is confessedly unknowable, before presenting himself for work in an establishment in which the employment may be of such a nature as to afford an incitement for the developing of a disabling hernia, and his rights in case of such development.

The criticism is doubtless well taken with regard to the attempted forms of proof under the laws which undertake to discriminate between some forms of hernia and others, all being in reality equally nontraumatic, while on the other hand all may be on practically the same footing as an aggravation of preexisting weakness by conditions arising out of and in the course of employment. The limitation of the employer's responsibility to the performance of the operation would leave the wages lost during the healing time to be a burden borne entirely and without the possibility of distribution, by the workman and his family. Under nearly every statute the compensation payable is a portion, from one-half to two-thirds, of the wage loss. The employee therefore contributes without the power of recoupment, from one-third to one-half of his earnings during the period of disability to the work of relief and recovery from the disability. In many cases, perhaps in most, this is the extent of his capacity in this direction; and to increase the burden, or to throw it upon the community at large in the form of public relief, is merely to revert to the precompensation doctrine and practice, under the guise of relieving industry of the burden which, being understood and of uniform incidence, can be provided for by the employer in accordance with the general spirit and methods of the workmen's compensation laws.

INDUSTRIAL HYGIENE AND MEDICINE.

Industrial Medicine, Its Present and Its Future.¹

INDUSTRIAL medicine has, during the past four years, developed into one of the leading branches of the medical profession. When the American Association of Industrial Physicians and Surgeons was organized at Detroit in 1916, very few concerns had an adequate system of health service for their employees. Now hundreds of industries are equipped with a part or all of the standards demanded by "the newer conception of the supervision of the health of employees, the medical examination of applicants and of the old force, the prevention of disease and accidents by industrial hygiene and safety first, better medical and surgical treatment for the sick and injured, compensation and benefits, and the relation of this human maintenance work to other employees' service departments."

Previous to America's entrance into the war the outstanding accomplishments of industrial medicine were:

1. The installation of qualified medical staffs in several of the largest representative industries in this country.
2. The establishing of visiting nurses services.
3. The introduction of medical examinations of employees, naturally followed by thorough examination of applicants for work.
4. The creation of employees' service departments, also known as sociological or welfare departments, of which industrial medicine is a closely correlated service.
5. The organization of the National Safety Council with its health betterment section and the recognition of the industrial surgeon's part in accident prevention.
6. The organization of mutual benefit associations and, later, the enactment of employees' compensation laws in 38 States of the Union, in both of which advances industrial medicine had a very definite influence.
7. The enactment of laws, still very inadequate, for the discovery of, and in some cases the prevention of, occupational diseases.
8. The creation of medical consultants for a few State departments of industry and labor. The most notable example is furnished by the States of Ohio, California, and Pennsylvania. The quarterly conferences of industrial surgeons in the latter State are famous, and have been responsible for great advances.
9. The symposiums on industrial medicine in the American Medical Association, first held in 1915, and in many State medical associations, and, finally, the creation of a section on industrial hygiene in the American Public Health Association.

¹ A summary of "New developments in industrial medicine and its future," by Lieut. Col. Harry E. Mock, M. C., United States Army. *Modern Medicine*, July, 1919, pp. 203-208. Modern Hospital Publishing Co., Chicago, Ill. (Address of the President of the American Association of Industrial Physicians and Surgeons at the Fourth Annual Convention, held at Atlantic City, N. J., June 6, 1919.)

10. The organization of the Conference Board of Physicians in Industrial Practice, and the contributions of this group to the general subject.

11. The organization of the American Association of Industrial Physicians and Surgeons and the influence of this association in elevating the standards of health service in industry.

12. The establishment of occupational disease clinics in a few medical schools, and in at least two schools comprehensive courses on industrial medicine and surgery.

13. Contributions of industrial surgeons to the study and prevention of tuberculosis, of cancer, of venereal diseases, of infections, and the study of health insurance and other great social and economic problems related to industry.

When a successful prosecution of the war emphasized the necessity of the highest industrial efficiency and maximum output, industrial medicine came into its own as a recognized force for preparedness. The American Association of Industrial Physicians and Surgeons at once set forth in a resolution to the President the importance of industrial health supervision and offered its services. Through letters and addresses the value of industrial medicine in securing maximum production was also pointed out to the various governmental agencies concerned with output, all of which agitation finally resulted, in the fall of 1917, in the formation of a committee known as the Surgeons' Committee of the Medical Section of the Council of National Defense.

There existed at this time in the Labor Section of the Council of National Defense several committees which had made extensive studies of various aspects of industrial hygiene. In July, 1918, the various public health measures, excepting those of the Army and of the Navy, were by Executive order placed under the control of the United States Public Health Service, which extended its industrial hygiene section to incorporate the program of the Industrial Surgeons' Committee. "The survey of the medical departments of hundreds of industries of the country by this section of the United States Public Health Service, the suggestions for improvement, the circulars of propaganda urging the installation of industrial medicine in essential industries, the efforts to have medical schools introduce courses on this subject, and the cooperation with the Department of Labor to better the relationship between employers and the employed represent one of the great advances in this specialty."

During the war the principles of industrial medicine were put into practical use by the United States Shipping Board, the Ordnance Department of the Army, the Government arsenals and munition plants, the navy yards, the United States Employees' Compensation Bureau, and the Railroad Administration. The War Department instituted medical and welfare supervision for the civilian war workers in Washington. Many of these activities were also taken over by the United States Public Health Service. As a result of

the work of the Committee of Hazardous Occupations for Women, organized in the woman's bureau of the Department of Labor, several industries adopted the standards for the prevention of disease and accidents to woman workers set up by that committee.

Industrial medicine played a most important role in the Army. The physical restoration and retraining of disabled soldiers followed along lines which had proven practical for the industrially disabled. Through the adoption of one of the basic principles of industrial medicine, namely, the placement of men in occupations suited to their physical qualifications, limited or selected service and development battalions were established and became one of the great manpower measures of the Army. Tens of thousands of men who up to June, 1918, were being discharged on account of some physical defects which unfitted them for full combat duty were reclaimed and substituted for able-bodied men filling clerical and other non-combatative positions, while numbers of others were fully restored to health and selected for full military duty. "In six weeks," continues the writer, "12 regiments of able-bodied soldiers were freed from non-combatative service, replaced by limited service men, and went overseas to fight. * * * The men were picked for duty according to physical qualifications plus occupational qualifications." Thus the value of industrial medicine in conserving and developing human resources was demonstrated upon a national scale.

The rehabilitation of the disabled men in the Army has pointed out anew the necessity of reclaiming the civilian disabled, and a nationwide publicity campaign has awakened the people at large to the uselessness of the great human wastage in industry. In two States, New Jersey and Rhode Island, laws have been enacted providing for the reclaiming of the industrially disabled, and for their proper placement in industry. Six other States are contemplating similar laws, and there is at present a rehabilitation bill before Congress.

During the last two years several of the State governments have adopted measures for the greater protection of the health of workers. Qualified surgeons have been appointed as "disinterested consultants" to State compensation boards, and this has resulted in a demand that better medical and surgical care be provided for employees by employers. The awakening of insurance companies to the fallacy of cheap surgical attendance for injured workers not only has helped to bring about a juster settlement of claims, but has caused a stricter examination of various State acts and has created a growing appreciation of the inadequacy of many of the compensation acts and of the need of a standardization of employees' compensation laws.

Industrial medicine as a public-health measure has been advanced in several States—Pennsylvania, Ohio, California, and Massachu-

setts—through the perfecting of a closer relationship between the State Department of Health and the Department of Industry and Labor. By this means cooperation is being developed between the medical work done in industrial plants and the municipal public health department.

Pay clinics and centers for group diagnosis and treatment which are springing up in industrial centers offer facilities to working people for proper medical care. These are especially valuable in cases of incipient diseases which if treated in their earlier stages often prove curable. Moreover, they afford a field for men skilled in industrial medicine and surgery and furnish expert diagnosis and treatment to the workman at a reasonable price.

That industrial medicine is becoming more and more a public demand is further shown by the fact that eight medical schools have included some branch of the subject in their courses. In two of these schools very complete courses are being prepared for the coming college year. The instruction will include the laboratory study of occupational diseases and accidents, special courses on industrial surgery, the presentation of the "medico-legal aspects of accident surgery," and a study of the relation of an industrial health department to other employees' service departments. Skilled physicians and surgeons will have charge of the work, and several large industries have agreed to cooperate by opening their medical departments for demonstrations to small groups of students. Students will therefore be sent out with a knowledge of the possibilities of prevention as applied to a large social group rather than merely to the individuals composing the group. The author feels that this newest development will become the most momentous advance yet made and recommended to the convention that a committee be appointed to stimulate the teaching of industrial medicine in colleges.

A great advance has likewise been noted in the publicity which has been given this subject. The reports of the conferences of industrial surgeons in Pennsylvania and the bulletins of the American Association of Industrial Physicians and Surgeons have furnished excellent accounts of what is being accomplished along this line, and recently two journals have appeared devoted to this field of medicine. These are the *Journal of Industrial Hygiene*, which deals exclusively with industrial hygiene, and *Modern Medicine*, which devotes a section of the magazine to the subject.

The fact is emphasized that if the United States, which is recognized as the most powerful economic force in the world to-day and as a model of true democracy for other countries, is to maintain this enviable position, it must conserve the health and energy of its 40,000,000 producers and providers. It must give every man his

physical as well as his mental and moral chance. This can be accomplished only by "a practical application of the scientific developments in medicine, education, industrial engineering, economics, and sociology, and all other branches able to contribute to the conserving of human life and to the development of human happiness."

Prevention of Disease Among Soft-Coal Miners of Ohio and Illinois.

A QUESTIONNAIRE sent to physicians in communities of soft-coal miners in Ohio and Illinois, according to an article by Dr. Emery R. Hayhurst in *Modern Medicine*,¹ disclosed certain general information which is of special interest in view of the fact that practically no statistics concerning sickness among soft-coal miners in these States are available. This article is the second of a series of two presenting the conclusions derived from a survey of the health hazards and afflictions of coal miners in the two States. The first article appeared in the June, 1919, issue of *Modern Medicine*.

The results of the questionnaire led to the following general conclusions: There is no reason for believing that the usual afflictions, aside from the respiratory system and the musculo-osseous system, are more frequent among miners than among other employees. In fact, as a class, they are probably healthier than the average type of factory worker. Top workers, exposed to the weather, are said to have more sickness than those in the mine. Sickness is much more rampant among the women and children in mining districts than among the men. Alcoholism is far and away the chief bane. It is said to be on the decrease, explained by one physician as due to education, the increasing cost of alcoholic drinks, their frequent bad quality, and the extension of prohibition. Of the respiratory afflictions, chronic bronchitis associated with asthmatic symptoms, and often complicated by a chronic form of tuberculosis, is undoubtedly more prevalent than among agriculturists.

There are no available mortality statistics for Ohio coal miners. For Illinois, however, according to the death claim insurance department of the State miners' organization, the death rate has been constantly on the increase since 1912, the rate for that year per 100,000 employees having been 1,003 and for 1917, 1,167. Violence, exclusive of suicide, constituted 36.8 per cent of the causes of death in 5,428 deaths among Illinois coal miners from 1912 to 1918, this rate being 2.3 points less than that for "miners and quarrymen" in the country at large (registration area, 1909). The investigation shows that "the tendencies in death rates for the chief causes of death, obtained by comparing the years 1916-1918 with the total period 1912-1918, were found to be as follows: Deaths are

¹ Protecting the health of soft-coal miners by prevention of disease, by Emery R. Hayhurst. *Modern Medicine*, July, 1919, pp. 216-220. Modern Hospital Publishing Co., Chicago.

increasing from tuberculosis, 106.5 *v.* 99.4; cancer, 45.4 *v.* 41.4; cerebrospinal diseases, 70 *v.* 57.5; circulatory diseases, 90.3 *v.* 80.3; pneumonia, 118.5 *v.* 98.1; cirrhosis of liver, 22.1 *v.* 17.6; genito-urinary (nonvenereal) diseases, 61 *v.* 50.5; and violence 404.6 *v.* 398.2. Deaths from the following show decreasing tendency: Respiratory diseases other than tuberculosis, 26.9 *v.* 42.6; and suicide, 29.3 *v.* 31.9. Malaria and typhoid fever were limited practically to southern counties in the State where sanitary conditions in regard to water supplies and sewage are notoriously bad. All the remaining causes of death were fairly evenly distributed in proportion to the number of employees in each district."

As compared with the death rate of the entire United States registration area, that of the Illinois miners is excessive for the following causes: Typhoid fever, 30.8 *v.* 13.3; cirrhosis of liver, 17.6 *v.* 12.3; and suicide, 31.9 *v.* 14.2. The increase in deaths among Illinois miners can not be attributed to any one cause since conditions as to alcoholism, undue fatigue, etc., have undoubtedly improved. The author reaches a conclusion that since the industry is not more than a generation old in either of the States under discussion, this increase may be due to the fact that a greater percentage of the miners are reaching later age periods, when deaths are more frequent. He adds also that a change in racial complexion, a greater congestion of population without a corresponding improvement in housing and living conditions, may also be potent and basic factors.

In the soft-coal mining industry any organized medical care is under the supervision of the workers themselves, the management taking no part in welfare provision of this nature. In fact, the existence of any such organization depends upon (1) the size of the working force; (2) the location of the mine in respect to towns and cities; (3) the racial complexion; (4) the interest manifested by the local union, which in turn depends largely upon the views of its officials.

Most of the foreigners belong to one or more of their foreign orders which, besides carrying sick benefits, are likely to be of a religious character. The usual forms of industrial insurance through which children, in particular, are covered for funeral benefits, exist throughout the mining district. Injured workmen are often helped out in case of injury by contributions from their fellow miners in the form of collections. "The great benefits derived from State compensation for injuries were everywhere apparent."

Although the sick benefit is conspicuously absent, most of the locals provide a death benefit, not alone for the miner, but often on the occasion of the death of the miner's wife or other dependent adult. The amount of these benefits varies from \$25 to \$500. A death

benefit is also granted for children, the amount depending upon the age of the child. Also at many of the larger mines the company contributes \$25, providing work is not interrupted on the day of the funeral. In Illinois the death claims insurance department of the State miners' organization pays the beneficiary \$250 in addition to the amount contributed by the locals.

First aid is generally well provided for at the mines. Physicians tend to remain permanently located in mining districts. They are very busy, and in normal times have a difficult subsistence, particularly during the months when the miners are not working. Contract practice is almost a thing of the past. The prevailing fee rates are about the same in mining districts as in similar districts in Illinois, but are rather less in Ohio. The ratio of physicians to population is about normal in Illinois, but in Ohio there is a dearth of physicians, the ratio being about 1 to 2,016 of the estimated population in 10 typical mining towns selected. The ratio throughout the United States is 1 to 739. The trained nurse is practically unknown in these mining districts. Diagnostic facilities are meager. Access to hospitals varies. Some larger communities are fairly well provided for, but most communities have no such provision.

About 90 per cent of the foreign type of miners and about 50 per cent of the native miners belong to one or more sick benefit societies. The usual fraternal societies are strong among the latter, hence sickness insurance already exists to the above extent in the mining districts. The weekly benefits paid run from \$2 to \$10 or \$12, the vast majority paying \$5 a week. The physician is almost entirely dependent upon these sick benefits for his fees. He fills out weekly a certificate of illness and in turn gets some or all of his fee. The general average of collections is about 75 per cent of the fees charged in normal times, although it is somewhat better at present. Workmen's compensation for accidents has resulted in better collections and more prompt demand for physicians' services. Most physicians stated that they would like to see some other system adopted in place of the present sickness insurance relationships; for instance, the submission of bills directly to the benefit society and the dealing with a limited number of societies per patient. Quackery flourishes without limitation, and the author says "one can not help gaining the impression that enough money is thrown away in mining communities on unscientific medical care to more than foot the bill if the whole thing were put on an organized sickness insurance basis, to say nothing of the saving in the amount of sickness and preventable deaths."

The following 12 suggestions are offered for improving health conditions in mining communities:

1. There should be a housing survey.
2. There should be a medical service survey.

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3. More aid should be extended to the respective State mining departments, particularly in the nature of hygienists' services.

4. There should be a standardization of the many existing forms of health insurance which now prevail.

5. All employees should be required to carry health insurance, and optional membership done away with.

6. More Americanization is necessary in foreign districts.

7. More hospital, dispensary, nursing, and diagnostic services are required.

8. Physical examinations, preferably by State employment agencies, should be compulsory for employees at the time of hiring and after returning from an absence due to sickness or injury.

9. In any standardization of sickness insurance a free choice of physician should be allowed and remuneration placed on the merit basis; i. e., so much for a given service rendered. A large part of medical service should be fee-scheduled in much the same way as certain county medical societies at present publish their service rates.

10. Arrangements should be made for the services of specialists and experts, both for business management and for the insurance features, as well as for treatment services.

11. A certain part of all sickness insurance premiums paid should be definitely set aside to provide for the application of sanitary science, the latter to be under general supervision of the State health department.

12. All persons or services having to do with sanitation or medical care should be licensed as a check against unscientific methods.

Industrial Physiology, a New Science.¹

THE term "industrial physiology" is applied by Frederic S. Lee, in an article in *Public Health Reports*, to the study of the physiological aspects of industrial activity, which during the past four years has attained the dignity of a science and is now receiving prominent attention both from scientific men and from the more advanced industrial leaders. Prof. Lee uses the term "to designate the sum of knowledge pertaining to the working of the human mechanism in industrial activity, and it thus includes psychological phenomena as well as those more technically recognized as physiological." He says:

Industrial physiology has two objects: First, the more purely scientific one of learning how the industrial worker actually performs his work and what the conditions are under which he can work most efficiently and can produce the largest output while at the same time maintaining his body in health and in the best working condition; and, secondly, the more practical object of establishing in the factories the conditions which conduce at the same time to the maximum output and the maintenance of the maximum power of the worker. The former of these two objects is now being achieved; the latter will be achieved when it becomes clear to both employers and workers that it is to the advantage of both that industrial work be organized on a really intelligent basis and not, as heretofore, on a basis of ignorance of how the worker can do his best.

¹ The new science of industrial physiology, by Frederic S. Lee, Ph. D., LL. D., professor of physiology in Columbia University. *Public Health Reports* for Apr. 11, 1919, pp. 723-728. United States Public Health Service, Washington.

The methods by which industrial physiology is being developed are the recognized methods of all scientific investigation, namely, observation and experiment. The investigations are carried on chiefly in the factories, the workers being used as the subjects and under their actual working conditions, these conditions being changed when it is desired to compare the efficiency of one set of conditions with that of another. Exact measurements of output are made, and, where it is possible, exact tests of the physiological effects of the work are employed.

The author states that some of the topics that have been or are being investigated and some of the results are the following:

Certain physiological and psychological tests have been employed with workers, and it appears practicable to employ some of these tests in selecting workers and assigning them to their jobs.

The output of the successive hours of the working day in different types of operations has been measured, and the daily curves of the output have been plotted. These vary with the kind of operation, but are alike in showing a reduced efficiency, indicating a growing fatigue as the day proceeds.

Reduction in the length of the working day is characterized by an increase in the output of the successive hours and usually by a total increase in that of the day. The optimum duration of work probably varies with the character of the work itself.

The introduction of resting periods in the working spell is accompanied, especially where the working day is long, by a total increase in the day's production. A five-hour working spell, unbroken by resting periods, is probably always too long.

Overtime following a day of labor is inadvisable, as is also Sunday work following a week's labor. These tend to impair the working power of the worker.

A hot day tends to impair strength and reduce output. Every effort should be made to keep the body of the worker cool.

Night work is, in general, less efficient than daywork. Its total output is less, and this, with a long working night, falls off enormously in the early morning hours. Alternation of periods of night work with periods of daywork is more profitable than continuous night work.

Women are capable of performing a much greater variety of industrial operations than has heretofore been recognized. They should not be employed for night work. Statistics show that they are absent from their work more frequently than men. The problem of women as compared with men in industry is not that of their greater or less efficiency, but rather a problem of what types of work each sex is best fitted for.

Accidents to workers are a grave source of inefficiency. They are caused by fatigue, inexperience, speed of working, insufficient lighting, high temperature, and other factors. Many industrial accidents are preventable, and adequate provisions for first-aid measures tend to diminish the seriousness of accidents.

Food and efficiency are directly connected with one another, and suitable and adequate food can probably be best provided through the establishment of industrial canteens.

A high labor turnover is incompatible with the highest degree of efficiency. It is expensive, in that it imposes upon the employer the necessity of training new workers, and it is a serious factor in causation of accidents.

Physiological analyses of certain operations have been made by means of the cinematograph and other methods, and it has been found possible to eliminate unnecessary motions and to train workers so as to secure a more regular rhythm, such measures increasing efficiency.

The self-limitation of work on the part of workers has been studied and found to be very common. Every legitimate effort should be employed by foremen and managers to eliminate this and to induce workers to work up to their physiological capacity. Driving workers beyond their physiological capacity defeats its own ends.

The results of the study of industrial physiology so far have been sufficiently encouraging to lead to the provision of support for their continuance in several countries both by Government and by private endowment. In Great Britain investigations begun by the Health of Munition Workers Committee are being carried on under the new Industrial Fatigue Research Board which was appointed jointly by the Department of Scientific and Industrial Research and the Medical Research Committee and which has formulated an ambitious and far-reaching plan for future investigations. The Municipal Technical College of Victoria University, Manchester, has established a department of industrial administration, of which Prof. Stanley Kent, who has been carrying on an independent investigation of some phases of industrial fatigue during the past three years, is director.

While France has not yet taken definite steps toward the establishment of such a center, the work will probably not be long delayed, as such a plan of research had been outlined by the Marey Institute of Paris, under the directorship of Prof. Richet and the subdirectorship of Dr. Bull, just before the war made its immediate realization impossible.

In the United States the Public Health Service, with the cooperation of the committee on fatigue in industrial pursuits of the National Research Council and the committee on industrial fatigue of the Council of National Defense, has been conducting investigations within the scope of industrial physiology during the past 18 months and a report on them is promised in the near future. Harvard University has recently established courses in industrial health, through the financial support of a group of manufacturers. These are under the direction of a committee on industrial hygiene and are affiliated with the public-health work of Harvard University and the Massachusetts Institute of Technology. Johns Hopkins University, through its recently founded School of Hygiene and Public Health, also is expected to initiate work along similar lines.

Epidemic of Furunculosis in a Steel Plant Due to Infection Through Grease.

AN INVESTIGATION made by the Working Conditions Service of the United States Department of Labor to determine the cause of an epidemic of furunculosis, or boils, among the employees of a steel plant,¹ disclosed the source of infection to be the grease to which the men's hands were constantly exposed in the course of their work. This grease is used at the mill for coating the

¹ Investigation into dermatic effect and infective character of a lubricating compound, by Forrest E. Deeds. United States Department of Labor. Working Conditions Service. Washington, 1919. 8 pp.

steel bars, shafting, and other shapes in order to protect the steel from rusting during transit, and the work of the men affected consists merely in loading and unloading the shapes. The grease, which consists of almost equal parts of pale paraffin oil and petrolatum, was subjected to bacteriological examination and an inquiry into its chemical composition and seemed not to be germicidal in a short period of time. Since, therefore, the operators' hands are almost constantly exposed to contact with it, pollution may result where an employee has any pus infection of the skin.

The following conclusions were reached and recommendations made:

1. The chemical composition of the grease may have an irritant action upon the skin of the workers exposed to it. Particularly the unsaturated hydrocarbons in the higher distillates exert a dehydrating action upon the skin and tend to dissolve out the natural fats and oils, leading to a dryness of the skin, with possible subsequent cracking, and possibility of instigation of incipient dermatitis.

2. The grease as it comes to the plant is apparently uncontaminated, but may become contaminated immediately upon being handled by an employee having a pus infection present upon his hands or arms.

3. From bacteriological examination it appears that the grease may well act as a carrier of bacteria, exerting no bactericidal action; hence any contaminating organisms may be carried from one operative to another.

4. From the bacteriological examination, since *Staphylococcus pyogenes aureus* was found in cultures taken from the employees' hands, it is evident that the grease may be contaminated with pus-producing organisms directly from normal hands, merely requiring a cut or an abrasion, or lowered personal resistance, for the bacteria to cause an industrial acne, eczema, or furunculosis.

5. Since the grease is not germicidal, the interchange of "waste" and wiping rags should be advised against, since an infection may be carried in this way.

6. The employees should be provided with gloves, preferably of some impervious or semipervious material, such as leather, thus lessening the amount of grease reaching the skin of the hands. These should be cleaned frequently.

7. The employees should wash their hands more often with warm water and a good soap.

8. In order to counteract the drying action of the oils, there should be provided for the men some sort of ointment, such as lanolin, to be used after the hands are washed.

9. Instruction in personal hygiene should be given the men by the plant physician, and they should be advised especially against anything but medical care for wounds and skin eruptions. Prompt care for the skin eruptions should be given. Overseers and foremen should be required to report to the plant physician all employees having skin eruptions of any kind whatsoever.

10. Clean working clothes should be provided for the men at least once a week.

11. Men who are subject to chapped skin and men who are susceptible to skin irritation, acne, furunculosis, etc., should be transferred, if possible, to some work involving less exposure to a possible infection hazard.

12. The chemical disinfectant used should be such that it can exert its action in the presence of organic matter and can be used in sufficiently low concentration so that the odor is not nauseous to the workers nor the compound deleterious to the skin.

13. Owing to the fact that the bacteriological work in this investigation was done several months after the epidemic of furunculosis had existed, the value of bacte-

riological results is somewhat vitiated. It is suggested that should a similar epidemic arise in the future there be bacteriological analyses run immediately, cultures being made from the grease, and also from the infected area upon the workmen.

14. A system of morbidity recording should be established.

15. Promiscuous spitting should be abolished, since there is a likelihood of the material handled becoming contaminated in this way.

16. Washing or cleansing of the hands in a common supply of paraffin oil or of petroleum is advised against, since such practice may lead to a contamination of these constituents of the mixture. Each worker may have his own individual supply, which might be kept in a small bottle for his own use. It is only necessary to pour a few drops on the palm of the hand for cleaning purposes.

Industrial Hygiene Work of the New York City Department of Health.¹

A PAPER by Dr. Louis I. Harris, chief of the division of industrial hygiene, New York City Department of Health, read at the annual meeting of the Medical Society of the State of New York, held at Albany in May, 1918, is devoted to an account of the purpose and methods of the work in industrial hygiene which was organized by the author for the City Department of Health in 1915. Since that date this work has "more clearly and definitely become the expression of a tendency to bring the intensive activities in the prevention and control of tuberculosis, venereal diseases, and other communicable diseases and degenerative diseases, into closer union." The reporting and investigation of cases of occupational diseases by private physicians and institutions is emphasized as one of the chief essentials in industrial hygiene. In New York City the following diseases are reportable: Arsenic poisoning, bisulphide of carbon, brass, caisson, carbon monoxide, dinitrobenzine, lead, mercury, methyl alcohol or wood naphtha, natural gas, and phosphorus poisoning. The author also lays stress upon the inclusion in the curriculum of medical colleges of adequate attention to occupational diseases, saying that "there are few medical institutions in the United States in which even a smattering of information with reference to occupational diseases is imparted to the student. Bellevue Medical College is the only one of the larger medical institutions in the City of New York which has included a course in industrial hygiene and occupational diseases in its curriculum. Moreover, our hospitals and dispensaries in the City of New York almost wholly neglect to give special attention to the subject of occupational diseases. Dr. David B. Edsall of the Massachusetts General Hospital has conclusively demonstrated that an intensive

¹ Industrial hygiene, by Louis I. Harris. Department of Health of the City of New York. New York, March, 1919. 12 pp. Reprint series No. 75.

effort to assay and appraise the occupational factors which may directly or indirectly be responsible for diseases met with in dispensary or hospital service results in the discovery of a very great many conditions which are at best diagnosed only on rare occasions even by the very best clinicians, if these factors are not diligently searched for. The New York Academy of Medicine performed a signal service in adopting resolutions on March 7, 1918, commending to colleges, private physicians, hospitals, and to other agencies, the special study of occupational diseases and industrial hygiene."

Among the miscellaneous activities which are contributing to the study of industrial hygiene in New York City the author mentions the examination of minors of both sexes who are receiving vocational training, with a view to recording definitely the physical conditions which may be found just before these individuals enter industry, and to follow up these cases by periodic medical examinations and by sanitary supervision of the factories which they enter; the establishment of clinics in night schools which are visited by large numbers of young working people; cooperation with employers in advising them as to methods for eliminating hazards to health; and home visits by special nurses of the Department of Health in connection with the examination of special industrial groups. The organization, with the cooperation of the leaders of labor, of an alliance between the division of industrial hygiene and organized labor, which is known as the Labor Sanitation Conference, has also been of importance. This conference is the clearing house through which the workers are informed of the special activities which are being carried on for their protection, and their representatives transmit complaints and suggestions to the division of industrial hygiene.

A second article by Dr. Harris throws an interesting light upon the study of occupational diseases by the division of industrial hygiene since its organization in 1915. The title of the article is "The opportunities which industrial hygiene offers to the general practitioner and to the public health officer."¹ It reports the work of the year 1916, during which hospitals and dispensaries reported 74 cases of occupational disease and private physicians reported 20 cases, distributed as follows: Lead poisoning, 57 cases; anilin poisoning, 5; anthrax, 8; mercury poisoning, 2; trinitrotoluene poisoning, 1; caisson disease, 3; sulphur dioxide poisoning, 1; arsenic poisoning, 1; picric acid poisoning, 1; potassium cyanide poisoning, 1; anthracosis, 1; chlorine gas poisoning, 1; occupational dermatoses, 9; manganese poisoning, 2; tetrachlorethane poisoning, 1. In addi-

¹ The opportunities which industrial hygiene offers to the general practitioner and to the public health officer, by Louis I. Harris. 12 pp. Reprint from *Medicine and Surgery*, September, 1917.

tion to these cases the division was notified by the coroner of one death from caisson disease, and two cases of illness from lead poisoning and one from benzol poisoning were reported by members of the painters' union.

In the same year the department, through its factory inspectors, examined 484 factories and shops which employed 36,978 men and 37,889 women, and discovered the following nuisances: Dust, in 173 establishments; fumes, in 84; excessive humidity, in 29; safety hazards, in 64; defective lighting, in 117; defective ventilation, in 89; dirty workrooms, in 171; common drinking cup, in 121; common towels, in 104; defective plumbing, in 60; washing facilities inadequate or dirty, in 77; toilets inadequate or dirty, in 165; lack of lockers, in 66; lack of first-aid equipment, in 29; improper or inadequate seats, in 188; spitting observed, in 188. Of these nuisances, 983 were corrected by the inspectors through persuasion and special personal effort; 433 subjects for complaint were submitted to the sanitary bureau for correction by legal action, if the recommendations were sustained by its lay inspectors.

Compulsory examination at the occupational disease clinic of the division of all bakers, waiters, cooks, and other restaurant employees, as well as those persons who handle the milk shipped to New York City or sold there, and several other groups, included 27,718 food handlers who were found to be free from communicable disease and given a certificate of health, and 843 persons who were examined for the diagnosis of occupational diseases. Of these, 88 were found to be suffering from tuberculosis and 40 of them whose sputum contained tubercle bacilli were excluded from work. Of 333 cases of syphilis, 18 were active primary or secondary cases and were excluded from handling foods and the remainder placed on probation with short-term certificates. Thirty-nine were excluded from work on account of acute gonorrhoea.

Meeting of American Public Health Association in New Orleans in October.¹

AN ANNOUNCEMENT sent out by the American Public Health Association states that the next annual meeting will be held at New Orleans, La., October 27-30, inclusive, and that the central themes of discussion will be Southern health problems, including malaria, typhoid fever, hookworm, soil pollution, etc. It appears that the general belief among those interested in

¹ Copies of the program may be had upon application to the secretary, 169 Massachusetts Avenue, Boston, after Oct. 5.

health questions is that influenza will return next winter, and a full session will therefore be devoted to this subject for the purpose of developing methods of control.

A special effort has been made to arrange the program to meet the practical needs of health officials. Accordingly, there will be discussion on such questions as the attitude of legislators toward public health, the obtaining of appropriations, cooperation from women's clubs, health organizations, etc., the organization of health centers, and so on.

The programs of the sections will, as usual, deal with public health administration, vital statistics, sanitary engineering, laboratory methods, industrial hygiene, sociology, and food and drugs. Two special programs will also be presented on various phases of child hygiene and personal hygiene.

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WORKMEN'S COMPENSATION.

Workmen's Compensation Legislation of 1919— Medical Benefits.

COMPILED BY CARL HOOKSTADT.

STATE legislatures at last seem to have awakened to the fact that adequate medical benefits are essential, if injured employees are to receive just and proper treatment under workmen's compensation laws. No less than 17 States¹ increased their medical benefits during the present year as of July 1. Some of these States increased the period of treatment, some increased the maximum amount, while others increased both period and amount. Seven² compensation acts now provide unlimited service, while in seven³ others the provisions are sufficiently liberal to cover practically every injury. New Mexico, oddly enough, reduced the period of medical treatment from three to two weeks, apparently to correspond with a similar reduction in the waiting period.

The following table summarizes the medical benefits provided under the various compensation laws as of July 1, 1919:

AMOUNT OF AND CONDITIONS FOR MEDICAL SERVICE UNDER COMPENSATION LAWS
IN THE UNITED STATES.

State or Territory.	Medical and surgical aid.	
	Period.	Maximum amount and other qualifications.
Alaska		Only in death cases involving no dependents; maximum \$150 for medical expenses between injury and death.
Arizona		Reasonable medical and burial expenses in death cases involving no dependents.
California	Unlimited.....	Such service as reasonably required.
Colorado	60 days.....	Maximum \$200 unless there is a hospital fund. Special operating fee of \$50 in case of hernia; also additional for dental service, maximum \$100.
Connecticut	Unlimited.....	Such service as deemed reasonable by attending physician. Special provision for seamen on United States vessels.
Delaware	2 weeks	Maximum \$75.
Hawaii		Maximum \$150.
Idaho	Unlimited.....	Reasonable service for reasonable period. Hospital benefit fund may be permitted in lieu of statutory provision.
Illinois	8 weeks	Maximum \$200; full hospital service while compensation is payable; additional medical and surgical aid as long as hospital treatment is required.
Indiana	30 days.....	Such service as deemed necessary by attending physician or board; longer at option of employer. Employee must accept unless otherwise ordered by board; 30 days' additional treatment if necessary in opinion of board.
Iowa	4 weeks	If requested by employee, court, or commissioner; maximum \$100; \$100 additional in exceptional cases.

¹ Colorado, Delaware, Illinois, Indiana, Iowa, Maine, Michigan, Minnesota, Nebraska, New Jersey, Oklahoma, Oregon, Pennsylvania, Utah, Washington, West Virginia, and Wyoming.

² California, Connecticut, Idaho, North Dakota, Porto Rico, Washington, and the Federal Government.

³ Illinois, Nevada, Ohio, Oregon, Utah, West Virginia, and Wisconsin.

AMOUNT OF AND CONDITIONS FOR MEDICAL SERVICE UNDER COMPENSATION LAWS
IN THE UNITED STATES—Concluded.

State or Territory.	Medical and surgical aid.	
	Period.	Maximum amount and other qualifications.
Kansas.....	50 days.....	If demanded by employee; maximum \$150.
Kentucky.....	90 days.....	Unless board fixes other period. Maximum \$100, or \$200 for hernia operations.
Louisiana.....	.....	Reasonable services unless employee refuses to accept; maximum \$150.
Maine.....	30 days.....	Maximum \$100; additional service if nature of injury requires.
Maryland.....	.....	Such service as may be required by commission; maximum \$150.
Massachusetts.....	2 weeks.....	Longer in unusual cases at discretion of board.
Michigan.....	90 days.....	.....
Minnesota.....	90 days.....	Maximum \$100; upon request of employee court may allow additional treatment, if need is shown.
Missouri.....	8 weeks.....	Maximum \$200.
Montana.....	2 weeks.....	Unless employee refuses; maximum \$50 unless there is a hospital fund; special operating fee of \$50 in case of hernia.
Nebraska.....	.....	Unless employee refuses; maximum \$200; employer not liable for aggravation of injury if employee refuses to accept.
Nevada.....	90 days.....	Time may be extended to 1 year by commission; transportation furnished.
New Hampshire.....	.....	Medical service and burial expenses only in death cases involving no dependents; maximum \$100.
New Jersey.....	27 days.....	Unless employee refuses such treatment; maximum \$50; in cases requiring unusual treatment bureau may extend period to 17 weeks, but not over \$200; special fee of \$150 in case of hernia.
New Mexico.....	14 days.....	Maximum \$50, unless there is a hospital fund; special operating fee of \$75 in case of hernia.
New York.....	60 days.....	Such service as may be required or requested by employee.
North Dakota.....	Unlimited.....	Such service as nature of injury may require.
Ohio.....	.....	Such service as commission deems proper; maximum \$200 except in unusual cases.
Oklahoma.....	60 days.....	Maximum \$100. Period and amount may be increased in discretion of the commission.
Oregon.....	.....	Includes transportation; maximum \$250; commission may allow additional service.
Pennsylvania.....	30 days.....	Unless employee refuses in which case employer not liable for aggravation of injury; maximum \$100, except in hospital cases.
Porto Rico.....	Unlimited.....	Necessary medical service and sustenance as prescribed by commission.
Rhode Island.....	4 weeks.....	.....
South Dakota.....	4 weeks.....	Maximum \$100.
Tennessee.....	30 days.....	Longer at option of employer; employee must accept; maximum \$100.
Texas.....	2 weeks.....	Two weeks additional in hospital cases.
Utah.....	.....	Maximum \$500; hospital benefit fund permitted in lieu of statutory provision.
Vermont.....	14 days.....	Maximum \$100.
Virginia.....	30 days.....	Such service as deemed necessary by attending physician or commission; longer at option of employer. Employee must accept unless otherwise ordered by commission.
Washington.....	Unlimited.....	Transportation included; employees must contribute one-half medical cost.
West Virginia.....	.....	Maximum \$150; \$300 in severe cases; \$600 in permanent disability cases where disability can be materially reduced.
Wisconsin.....	90 days.....	Longer if disability period can be reduced.
Wyoming.....	.....	Maximum \$100.
United States.....	Unlimited.....	Commission shall furnish necessary medical service for reasonable period unless employee refuses; transportation furnished if necessary.

It will be seen that three laws (Alaska, Arizona, and New Hampshire) furnish no medical service, except that in fatal cases involving no dependents, the expenses of last sickness shall be paid by the employer. Nine States place no limitation upon the period during which medical treatment shall be furnished, but do limit the amount, while nine laws limit the period, but do not limit the amount. Seventeen States place limitations upon both the period and the amount.

Seven laws, as already noted, provide unlimited service. This classification is shown in more detail in the following tabular statements:

COMPENSATION STATES, CLASSIFIED ACCORDING TO THE AMOUNT OF MONEY TO BE EXPENDED FOR MEDICAL SERVICE.

Maximum amount allowed.

\$50	\$75	\$100	\$150	\$200	\$250	\$500	\$600	Unlimited.	None. ¹
Mont. ² N. J. ⁶ N. Mex. ²	Del.	Iowa. ³ Ky. ² Me. ³ Minn. ³ Okla. ³ Pa. ³ S. Dak. Tenn. Vt. Wyo.	Hawaii. Kans. La. Md.	Colo. ⁴ Ill. ⁵ Mo. Nebr. Ohio. ³	Oreg. ³	Utah.	W. Va.	Calif. Conn. Idaho. Ind. Mass. Mich. Nev. N. Y. N. Dak. P. R. R. I. Tex. Va. Wash. Wis. U. S.	Alaska. Ariz. N. H.

¹ For last sickness in fatal cases: Alaska, \$150; Arizona, unlimited; New Hampshire, \$100.

² Special fee for hernia operation: Kentucky, \$200; Montana, \$50; New Mexico, \$75.

³ Commission may extend amount.

⁴ For dental services, \$100 additional; special fee for hernia operation, \$50.

⁵ Commission may extend amount; special fee for hernia operation, \$150.

COMPENSATION STATES CLASSIFIED ACCORDING TO THE PERIOD DURING WHICH MEDICAL SERVICE MUST BE RENDERED.

Maximum period allowed.

2 weeks.	27 days.	4 weeks.	30 days.	50 days.	8 weeks.	60 days.	90 days.	Unlimited.	None.
Del. Mass. ² Mont. N. Mex. Tex. ¹ Vt.	N. J. ¹	Iowa. R. I. S. Dak.	Ind. ¹ Me. ² Pa. Tenn. Va.	Kans.	Ill. ² Mo.	Colo. N. Y. Okla. ²	Ky. ² Mich. Minn. ² Nev. ¹ Wis. ²	Calif. Conn. Hawaii. Idaho. La. Md. Nebr. N. Dak. Ohio. Oreg. P. R. Utah. Wash. W. Va. Wyo. U. S.	Alaska. Ariz. N. H.

¹ Period may be extended: Indiana, 30 days; Nevada, 1 year; New Jersey, 17 weeks; Texas, 2 weeks.

² Period may be extended indefinitely.

The recent tendency toward liberality in medical treatment is strikingly brought out in the following table, in which the laws are classified by period of medical service for each of the three years 1916, 1917, and 1919:

COMPENSATION LAWS IN THE UNITED STATES CLASSIFIED BY PERIOD OF MEDICAL SERVICE, FOR THE YEARS 1916, 1917, AND 1919.

Period during which medical service is furnished.	States having such limitations.					
	Number.			Per cent.		
	1916 (Dec. 31).	1917 (Dec. 31).	1919 (July 1).	1916 (Dec. 31).	1917 (Dec. 31).	1919 (July 1).
No medical service.....	6	4	3	17	10	7
1 to 3 weeks.....	13	12	6	36	29	13
4 weeks to 30 days.....	2	5	9	6	12	20
8 weeks to 4 months.....	8	7	10	22	17	22
Unlimited as to time.....	7	13	17	19	32	38
Total.....	36	41	45	100	100	100

Investigation of the State Insurance Fund of New York.

THE act providing a workmen's compensation system for the State of New York is compulsory in its application to hazardous employments and requires the insurance of the employer's liability to make payments for injuries to his employees, unless he can give satisfactory proof of his ability to make such payments as a self-insurer.

Insurance may be carried by either private companies or a State fund, so that the State fund is in competition with stock and mutual companies in securing and retaining business. Keen interest therefore attaches to the management and achievements of the State agency, both because of this competitive status and because of the importance of its work as a public organization.

Acting under authority granted by section 8 of the Executive law (ch. 18, Consolidated Laws), providing for the investigation of State departments and activities, the governor appointed Mr. Jeremiah F. Connor, an attorney of New York City, to investigate the management and affairs of the State industrial commission. Mr. Connor's report on the subject of direct settlements was presented in a pamphlet reviewed in the *MONTHLY LABOR REVIEW* for June, 1919 (pp. 253-255). A second pamphlet¹ has for its subject matter the conduct and status of the workmen's compensation insurance fund above described. The investigation is said by Mr. Connor to lack completeness, his discoveries being "only a scratch on the surface," and a thorough investigation "by a competent actuarial accountant" is recommended. As this conclusion indicates, the investigator was unfavorably impressed with his findings, no single aspect of the work and methods of the management appearing to warrant unqualified commendation. The statement is indeed made that "the financial condition of the State fund at the present time is in an enviable position," but this is attributed to the large increase in wages in 1917 and 1918, without corresponding increase in compensation payments, and the failure of the management to declare proper dividends.

The manager of the fund, Mr. F. Spencer Baldwin, has furnished the Industrial Commission with a review of Mr. Connor's report, a summary of which will follow this summary of Mr. Connor's pamphlet. For purposes of convenient reference, corresponding items are identically numbered.

¹ Report to Gov. Alfred E. Smith by Jeremiah F. Connor, Moreland Act commissioner, on the State insurance fund of the State of New York. May 27, 1919. Albany, 1919. 18 pp.

Report of J. E. Connor.

1. Volume of Business.

The investigation showed approximately 8,750 employers of the State to be insurers in the fund. "It claims to have 16 per cent of the compensation insurance business of the State of New York." But since 50 per cent of the business is carried in special groups receiving special treatment (these groups are more fully discussed in a subsequent paragraph), the conclusion is reached "that the fund generally carries only about 8 per cent of the compensation insurance of the State." The number of employers now in the fund is about 1,000 less than in 1917.

2. Assets.

Assets amounting nearly to five and one-half million dollars were reported on January 1, 1918. This amount exceeded necessary reserves by \$870,394, without including available uncollected and additional premiums amounting to about \$500,000. "As a matter of fact, the State fund could declare additional dividends in favor of the employers in the general groups to the extent of a million dollars" without impairing its solvency in any degree.

3. Dividends.

No dividends had been declared to policyholders in the general groups since 1915, until early in 1919, when a 10 per cent dividend was declared, though dividends have been declared to the special groups, whenever earned, during the entire life of the fund. During 1916, losses exceeded the income, while in 1918 the ratio of incurred losses to earned premiums on the year's business was only about 50 per cent.

4. Collection of Premiums.

Collection of premiums is an essential factor in an insurance company's success, and in this respect "the State Insurance Fund is woefully weak." The pay rolls of approximately 1,500 policies which had been canceled between July 1, 1914, and the date of the investigation had not been audited nor had bills been rendered for the amounts due. The cases had been ready for an average period of four months, and "the man in charge admitted that one man could have sent out the entire number of bills in eight days, notwithstanding which nothing was being done." Laxity in referring unpaid premiums to the attorney general for collection, as required by the act, was also charged, with specific reference to amounts due from the Ansonia Clock Co. (\$959), and the American Locomotive Co. (\$9,000).

[1915]

Mention is made of the fund's plea of lack of help, which "may be true to some extent, but the State fund has never reported its exact condition justifying its appeal for additional help. * * * Moreover, I am satisfied that much better work could be performed by the present force." It is said that the employees are not as a rule doing the work indicated by their titles, and anyone could be called upon in an emergency to aid in collecting premiums. Service of summons was work that should be done by the attorney general, and a telephone communication to a responsible employer would answer as well as a personal call.

The failure to collect premiums due gives a false impression of the cost of compensation insurance, so that the State fund "has been a failure" in acting as a check on the rates charged by private companies. "Even with a loss ratio of 50 per cent for 1918 and an expense ratio of only $7\frac{1}{2}$ per cent, the employers in the State fund generally are only permitted a credit of 10 per cent in the shape of dividends, and the State Insurance Fund rates remain at the same high level." The report states elsewhere that the fund rates are $14\frac{1}{2}$ per cent lower than the rates of the stock companies.

5. Special Groups.

One of the most strongly asseverated charges against the fund has to do with the grouping of insured employers. These groups are primarily for dividend purposes, there being six general groups and 25 special groups, some of the latter consisting of a single large employer.

"The employer in the individual or special groups pays a premium to the State fund against which are charged the losses, a 5 per cent contribution to the catastrophe fund, a proportionate share of the expenses, which is now $7\frac{1}{2}$ per cent; and the balance, if any, is credited upon the next premium as a dividend. This credit is made without regard to the condition of the State fund generally, whether solvent or insolvent. * * * If the losses of a special group exceed the premium, and they have in several cases, these losses are paid from the State fund generally. * * * At times some of the six general groups showed a surplus and others showed losses. Instead of enjoying a dividend, the groups showing a surplus were charged with the deficiencies in other general groups, whereas the special groups were charged with no part of the deficiencies, but some of them still received dividends."

While the approval of the attorney general has been given to the creation of individual groups, it is claimed that he has not passed upon their treatment as to dividends.

"Under the present method of doing business, the State fund endeavors to pay all the dividends possible to employers in the special

groups, and to keep as much as possible away from the employers in the general groups."

A summarization is then made of items held as reserves which are classed as unnecessary, the aggregate amounting to \$870,394, practically all charged against the general groups.

Besides this discrimination, as between the general and special groups, it is charged that favored treatment is given a particular (window cleaners') association so that the fund "also proposes to discriminate as to dividends between the employers in this group who have joined" the association and those who have not.

"Favoritism in fixing the premiums" is also alleged, instancing the case of the Rhinefrank House Wrecking Co., which is one of a number of companies engaged in the same business that carry insurance in the State fund, and which "is permitted to pay a premium more than 50 per cent less than the others."

6. The Wynkoop Service.

A special group that is discussed at considerable length is group 17, "designated as a miscellaneous metal ware group, and known as the Wynkoop group." This name is taken from that of the manager of what is called the Wynkoop Service, which includes accident prevention and the handling of claims. Mr. Wynkoop is paid by the employers, his contracts being with them, his compensation being one-half the dividends declared to the group. Mr. Wynkoop also has contracts with "some employers in the general groups, who receive preferential treatment under an experience rating plan," being paid a salary by some while others divide dividends.

"In my opinion the Wynkoop transactions with the State Insurance Fund are wrong from every standpoint. In the first place, every service performed by the Wynkoop Service for the employer should be performed by the State Insurance Fund itself."

The dividends for this group the first year were 40 per cent of the premium, one-half of which, amounting to \$23,855, went to Mr. Wynkoop under his contract with the employers.

"By permitting the Wynkoop Service to exist the State officials are representing, passively at least, that the service is worth the amount paid by the employers, and are leading the employers to believe that the large dividends received by them are due to the Wynkoop Service. * * * I firmly believe that the high dividends and the income of the Wynkoop Service are due largely to the special group plan, and that the same employers would receive nearly as high dividends in the special group without the Wynkoop Service. * * *

"As already pointed out, part of the Wynkoop Service to the employer consists of the prevention of accidents. One would

naturally assume that the inspection work necessary to install safeguards for preventing accidents would be performed by the Wynkoop Service. It appears, however, that in most of the cases this part of the Wynkoop Service is performed by the State Insurance Fund itself through its safety engineer."

An analysis of Mr. Wynkoop's work showed that in some cases he had done well the work of preventing accidents, "which the State fund should have done for nothing"; but "his energies are devoted far more toward keeping down the payment of compensation after an accident has occurred," seeking to get the "claimant to pursue other remedies wherever possible," and also to get the employee back to work at the earliest possible moment.

"As the Wynkoop Service in most cases prepares the reports of the employer, the reports of the attending physician, and the papers for the claimant to sign, it is obvious that the information upon which the commission acts is not of the most impartial character. In spite of this, the commission makes awards in most of these State-fund cases under what is called a 'facts agreed' calendar. * * * The claimant gets no hearing, but is merely notified of the amount of compensation to which he is entitled. I believe that many of the Wynkoop cases are underpaid."

The State fund is a subscriber to a compensation inspection rating board, but "refuses to submit the experience of these employers to the rating board," and likewise grants no reduction of rates to employers in the Wynkoop group, notwithstanding their favorable experience since July 1, 1917. A direct request for data relative to one of these employers, the Habirshaw Electric Cable Co., was denied the board, the State fund giving as its reason "that this risk is subject to special experience rating" by the fund itself.

It is declared that neither this risk nor any other risk in the Wynkoop group receives an experience rating, the premiums being kept at the same high rate. "It is perfectly obvious that this practice by the State fund results in higher dividends, one-half of which goes to Wynkoop at the end of each six months."

However, the special experience rating plan is occasionally applied to other employers, as in the case of the Niagara Alkali Co., which by reason of heavy losses had a deficiency on its experience from July 1, 1918, to January 1, 1919, amounting to nearly \$16,000. Instead of billing an excess premium charge, as provided for under the special rule, no action was taken, "probably due to a desire to ascertain whether the experience [of this company] will not eventually become so favorable that the State fund may decide not to collect the excess premium. This special experience rating plan is unknown to employers in the State fund generally. If, however, a large

employer having a good experience is about to withdraw from the State fund, the plan is proposed to prevent such withdrawal. At the same time, the other employers having as favorable and even more favorable experience are required to pay the full premium. Such discrimination has no justification whatever."

In the case of the Cutler Desk Co. the excess premium was levied but payment was refused, and the matter was referred to the attorney general for collection.

The Wynkoop Service* usually bears the medical expense prescribed by the law, the allowance for this customarily being $17\frac{1}{2}$ per cent of the premium. To some employers the allowance is but $12\frac{1}{2}$ per cent, as in the case of the Brooklyn Eastern District terminal. "The State fund, however, allowed the Wynkoop Service the full reduction of $17\frac{1}{2}$ per cent, resulting in a loss to the State fund of about \$400 for a policy period of six months, and a corresponding gain to the Wynkoop Service."

As a matter of duty, mention is made of the gift by Mr. Wynkoop of a Peerless coupé automobile to a member of the family of one of the officials of the State insurance fund.

7. Treatment of Claimants.

Complaints as to delay and underpayment are noted under this head, with some citation of instances. "I have examined cases in which the State fund appeared unwilling to pay the amount recommended by the medical adviser of the commission or the medical adviser of its own department."

8. The Medical Question.

"The State insurance fund pays far more attention to getting work for favored doctors than it does to paying compensation to the claimants. For some time the State fund has endeavored to compel all its employers in the vicinity of New York City to send all injured workmen to 'State-fund dressing stations,' for medical treatment," these stations being merely offices established by a single favored physician.

"Besides the discrimination against physicians generally, this medical service is not always satisfactory, and because of it some employers have canceled their policies." The American Hard Rubber Co. transferred its business to another agency, the comparative results being reported by it to be "very much to the disadvantage of the State Insurance Fund."

This company's premium was lost "solely by reason" of the endeavor to compel it to patronize the physician selected by the fund. "The State fund also endeavors to compel all claimants to patronize

certain specialists." The case of William Corcoran is cited. Corcoran was asked to change from one specialist to another selected by the fund, and on his refusal to do so, it was recommended by the medical adviser of the fund that no bills be paid for treatment by other than the physician recommended.

Another abuse reported is the sending of a "favored physician" to make a preliminary examination as soon as an accident is reported, this physician then directing the claimant to come to the State fund for medical examination, and charging from \$5 to \$15 for work that "is wholly unnecessary and is duplicated a few days later by the regular medical adviser of the fund, who receives an annual salary."

9. Conclusion.

In conclusion, Mr. Connor states that "this report is made after a preliminary investigation which has met with little cooperation from the management of the State insurance fund. It has been suggested to me that no matter how bad the conditions are in the State fund, they should receive no public attention because it might result in the State fund losing some of its business. When it is generally known that the employers in the State fund, besides having ratings from 14 per cent to 15 per cent lower at the start, are now entitled to a dividend of at least $33\frac{1}{3}$ per cent, those now in the State fund will not seek other insurance. And with the present abuses corrected the business of the State fund should steadily increase. It is my opinion that if the State fund had been properly handled from the start it would now be writing from 25 per cent to 50 per cent of all the compensation insurance in the State."

Statement of F. Spencer Baldwin.

As already stated, Mr. Baldwin is manager of the State Insurance Fund, and Mr. Connor's report was referred to him by the Industrial Commission for comment. A typewritten copy of Mr. Baldwin's report has been furnished this Bureau and a summary is presented herewith under headings corresponding with those used above.

1. Volume of Business.

Mr. Baldwin first compares the business done by the fund with that done by other authorized insurance carriers in the State, as follows:

The State fund is the second largest carrier of compensation insurance in the State; its premium volume is larger than that of any of the 21 stock companies, with a single exception, and approaches the combined premium income of all the fifteen mutual companies.

The fund is competitive, but no solicitors can be employed either to secure new business or protect old, and a further handicap consists in its limitation to compensation coverage only, whereas many employers desire also to carry other forms of insurance, as public liability, which necessitates doing business with a stock company.

As to the loss of insured employers since 1917, two causes are found to have operated: First, the retirement from business of small employers in nonessential industries on account of war conditions; and, second, the cancellation of policies for nonpayment of premiums, in consequence of more systematic attention to overdue accounts. Notwithstanding this reduction in numbers the amount of premium collected semiannually increased more than \$130,000—"that is, measured by the volume of premiums, the new business during the year more than offset the loss of business through withdrawals and cancellations. In short, there took place a substitution of large for small risks."

In but 293 cases were policies canceled because the employer took other insurance, though there were 2,710 policies canceled during the year; 1,333 of these were due to discontinued business or the completion of operations.

2. Assets.

The statements as to the amounts of assets and reserves are not questioned. It is pointed out, however, that the critical period of 1916 and 1917 caused such losses that "the stock companies as a whole either lost money or barely broke even"; and in view of the experience of the past years and the uncertainty of the business outlook at the close of 1918, it was decided not to make the exceptionally favorable experience of that year a basis for determining the course for the future, but to use the surplus earnings "for the purpose of strengthening the reserves in various ways, buttressing the State fund at every angle against a possible recurrence of adverse experience with a view to making it absolutely secure and solvent beyond the remotest chance of financial embarrassment in the future." Special reserves were declared, one for experience fluctuation in anticipation of a possible falling off from the abnormal wage scale of 1918. This would be available for future dividends in case the experience of 1919 should develop unfavorably, and prevent a suspension of dividend payments which had been renewed after an interruption of two and one-half years.

Other reserves declared by Mr. Connor to be unnecessary were one for deferred claim expenditures and one for securities fluctuation. The first of these corresponds to a reserve required by the State Insurance Department for mutual companies, "and as the depart-

ment also has supervision of the reserves of the State fund, the necessity of the reserve in question is obvious." The second reserve is necessitated by the fact that the State fund must report its investments to the State Insurance Department on the basis of market valuations, and this reserve represents the difference between the book value of the investments and their market value at the date of the financial statement. "The record of the State fund is in itself a concrete answer to the general charge of mismanagement made in Mr. Connor's report. Such results do not ordinarily connote mismanagement. Indeed, the accomplishment of such results is not compatible with bad management. Nor can such results be explained away as occurring through sheer good luck, even in spite of bad management."

3. Dividends.

The assertion that the fund exercised partiality in favor of the special groups, paying dividends to them whenever possible, and keeping away as much as possible dividends to employers in the general groups, is characterized by Mr. Baldwin as being without "the slightest justification." No surplus was earned by any one of the general groups out of which a dividend could be declared for a period of two and one-half years. Experience for the last six months' policy period of 1918 led to a decision to declare a uniform, provisional dividend of 10 per cent for all the six general groups. This was done as a conservative measure without awaiting the results of a protracted investigation to determine different rates on the basis of the varied dividend earnings of the different groups; but, as a later analysis of the experience of the several groups discloses, a considerable surplus was found to exist available for further dividend credits. Supplementary dividends were therefore recommended and were duly approved by the commission. This was deemed wise not only because of the experience up to December 31, 1918, but because of industrial conditions as they developed in the earlier part of the current year. "These additional dividends amount to 20 per cent in the first group, known as the light manufacturing group; 10 per cent in the second group, known as the heavy manufacturing group; and 25 per cent in the fifth group, known as the excavation and tunneling group. It is probable that a further distribution of special dividends will be made in some of the general groups in the next dividend declaration, after the close of the current policy period."

4. Collection of Premiums.

"It must be frankly conceded that the State fund is unable to collect premiums with as much promptness and thoroughness as could be desired, by reason of an inadequate working force in the accounting and pay-roll auditing division." The statement that 1,500 canceled policies had not been audited or received attention is characterized by Mr. Baldwin as "considerably overdrawn," no such situation having existed at any time during the past 12 months. At the date of Mr. Connor's visit to the office to inquire into the matter there were approximately 800 canceled policies awaiting auditing and collection. "Of this total, about 200 accounts had been audited and prepared for final billing, and approximately 600 had not been audited. At that time the office force was engaged in sending out the six months' bills on the current active accounts, and this work had been given the right of way." Temporary clerks were assigned to this work later in the month, and at the time of the present statement there were approximately 250 canceled policies on which final bills had not been sent, but all had been examined and assigned to auditors or followed up with letters requesting the necessary data for closing the accounts.

As to the case of the Ansonia Clock Co. it was said that the delay in auditing this account was due to a shortage of pay-roll auditors, and that the account has now been paid in full. In the case of the American Locomotive Co., there was a balance due the fund of \$8,727. "This balance is small as compared with the amount of premium paid to the State fund, which was \$103,495." This company was carried as a special group, and has not been pushed to final settlement because of the fact that there are accident cases involved on which provisional reserves have been set up which may have the effect of wiping out this balance or even showing a small balance due the company.

As regards the failure of the fund to set forth its needs for additional help, a review of the recommendations of the manager is submitted. These requests were uniformly scaled down; while for the fiscal year 1919-20, although 23 additional employees were requested, not a single one was allowed by the legislature. The recommendations of the manager for each year are reproduced and would indicate a sufficiently explicit and urgent statement of the situation, that for 1919-20 stating that "the present force of the pay-roll auditing division is not sufficient to enable the State fund to make the number of audits required to bring in the full premium income. Experience has shown the vital importance of systematic auditing in order to collect the premiums due from employers. Each

additional auditor of pay rolls brings in approximately 10 times the amount of his salary and expenses. Indeed, there seems to be almost no limit to the possibility of increasing the premium income through more frequent and intensive auditing of policyholders' accounts." Notwithstanding this plea, no additional help of any kind was allowed for the current fiscal year.

As to the expression of belief "that much better work could be performed by the present force," Mr. Baldwin replies "this is merely a matter of opinion." It is the opinion of the management that the efficiency of the State fund force will compare favorably with that of any insurance office. The diversion of employees to work not indicated by their titles is also criticized. "It is necessary and proper to distribute the available working force among the different divisions according to the immediate and urgent needs of each." As to the failure to refer accounts for collection to the attorney general, it was said that when a final billing was ready and payments were not made thereon within 30 days the accounts were referred to the attorney general as required by law. However, cooperation was maintained, and after a conference with the deputy attorney general in charge of State fund matters, it was decided to make use of the office force of the State fund rather than of the attorney general, as they were able to locate policyholders more quickly. The claim that a telephone communication would answer as well as a personal call "indicates a lack of familiarity with the habits and tactics of some employers who refuse to pay insurance premiums upon demand in writing." In a case used by Mr. Connor as illustration the employer had failed to make payment or even to reply to letters addressed to him, so that it became necessary to send a collector and payments were procurable in no other way.

As to whether or not the State fund had been "a failure as a check on the rates of the insurance companies," Mr. Baldwin states that "this is a matter of opinion," and points out that the rate in force is approximately 15 per cent lower than that charged by the private companies. The present rates have been effective on all the business of the State fund only since January 1, 1918, the experience of 1916 having demonstrated the inadequacy of the old rates. An immediate reduction seemed unwise, but a readjustment is due under the terms of the act, to go into effect January 1, 1920; and "in the light of the present industrial conditions and prospects, it seems safe to forecast a downward revision of State fund rates in the readjustment that must be made in accordance with this requirement of the law."

5. Special Groups.

There are at present 20 special groups which fall into three classes: (1) Individual groups made up of single large employing corporations; (2) trade groups including all employers in the same branch of industry, as furniture manufacturers, or cement manufacturers; (3) trade groups including a number of employers in the same branch of industry but taking special measures for accident prevention and for a safety organization approved by the State fund, such as the miscellaneous metal ware group and the foundry and machine-shop group. Each member of such group is charged an initial premium based on the manual rates applicable to the risk. At the end of each policy period the group premium is charged with loss payments and reserves, a proportionate share of expenses, and a contribution to the legal catastrophe surplus. Premiums are also readjusted on the basis of actual pay-roll expenditures, and balances, if any, are credited on the next installment of the premium due, as provided by law. Each account is held open subject to further readjustment until all cases shall be closed and final reserves set up.

"The general groups are miscellaneous in their composition, and employers placed in these groups are forced to share the benefit of improved safety equipment and organization in their own plants with other employers whose risks are inherently more hazardous and who may give little or no attention to safety matters." It is declared to be only equitable to give to large employers the privilege of securing to themselves the benefits of outlay for accident prevention, etc., by placing them in special groups which furnish a constant incentive to further efforts to prevent accidents and reduce costs. The method has proved successful as a competitive proposition, and highly advantageous for the employers so grouped, for the fund as a whole, and for employers in the general groups.

The statement that credits to the special funds are "made without regard to the condition of the State fund generally, whether solvent or insolvent," is said to be "wholly erroneous." In the first place the State fund has never been insolvent, so that it has been possible to credit dividends whenever earned. Even in 1916 when the losses and expenses of the fund were slightly in excess of the earned premiums, the fund was still solvent because of the earnings of the special groups, and it was possible to credit to them dividends out of their own surplus earnings. The statement that losses in special groups have occurred in several cases, and that they have been paid from the State fund generally without even a contribution from other special groups to make up the deficiencies "is not true." In no case has any deficit of any group been charged against the State fund as a whole or against the general groups.

The charge of failure to declare dividends in favor of some of the general groups when they showed a surplus is met by the statement that the fund "keeps a continuous cumulative account with each of the groups, general and special, and in the long run the entire surplus earned by each group will be returned to its members as dividends, in the case of the general groups, precisely as in the case of the special groups."

As to the legality of the method of distribution of the dividends, it is stated that the method was fully explained to the attorney general, and has been repeatedly considered and discussed by the commission so that it is entirely open and understood.

The statement that the reserves were charged against the general groups and not the special groups, thereby increasing the dividends of the latter and diminishing those of the former, is said to be without foundation. Of the special reserves noted under the head of assets some are specifically for the benefit of the general groups and of course were not charged against the special groups; while, on the other hand, no payment of dividends could be made therefrom for the special groups since it was solely for the benefit and protection of the general groups.

With reference to favoritism in the treatment of window cleaners who are members of an association as contrasted with other outside employers, it was said that no discrimination is practiced or contemplated, and that the dividends in the group will be distributed equitably among the members on the basis of their premiums. A premium rate was established for the group, on which an advance installment of \$5 was accepted, which is about one-third of the premium fixed. This installment was accepted in recognition of the deposit of a bond for \$12,500 by the association to secure the fund in case of losses in excess of the installment premiums paid. This bond could also be made use of in case of the failure of members to pay additional installments when called for, so that there was no plan either to waive collections or to discriminate between any employers in the group.

The fact that the Rhinefrank House Wrecking Co. is permitted to pay a premium more than 50 per cent less than other companies engaged in the same business is based merely on the experience of that company, which has been insured in the fund from the beginning, and that of other companies. Carrying it at the old rates showed a loss ratio to December 31, 1918, of about 13 per cent, which is contrasted with other experience in the same line where the loss shown exceeded 100 per cent.

6. The Wynkoop Service.

"The Wynkoop Service is a compensation service and insurance brokers' organization which has placed a considerable volume of business in the State fund. The services include medical and hospital care for employees, safety engineering and accident prevention work, supervision of claims matters, and in some instances, general efficiency service for the employer."

Since Mr. Wynkoop was the authorized representative of the employer, it was felt to be "obvious that the State fund could not fairly or reasonably refuse to deal with an agency thus duly authorized to represent the employer, provided that the methods of such agency are legal and proper." Indeed, the service is recognized as a valuable factor in the upbuilding of the State fund, both with respect to the quantity and the quality of its business. Some of the risks are found in special group 17, while others are subject to the State fund plan of experience rating, and still others are placed in the general groups. "There has been no favoritism or discrimination in the rating and grouping of these risks. No arrangement has been offered in the case of the Wynkoop Service that is not open on equal terms to any other broker or service organization. * * * There is nothing unique or peculiar in the treatment of the risks having the Wynkoop Service. * * * The statement of Mr. Connor that group 17 is 'exclusively for employers having the Wynkoop Service,' and that 'no other employer in the State fund or in any other industry in the State carrying on a similar business is allowed in this group,' is not in accordance with the facts."

The charge that the service performed by the Wynkoop Service should be performed by the State Insurance Fund itself is questioned by Mr. Baldwin on the ground that the number of policyholders is too large and the available number of safety engineers and other experts is too small. "Under the limitations and handicaps imposed upon the State fund by conditions inherent in the public service, it would be impossible to build up an expert service organization that would meet fully the needs of all policyholders in this respect. It would obviously be inequitable to provide special medical and safety service for some policyholders and some groups without extending it to all."

The amounts accruing to Mr. Wynkoop for his services "whether excessive or not," are said to be "based upon contracts with the employers using this service." It is pointed out also that this is not clear profit, but covers the salaries of inspectors, physicians, investigators, statisticians, and the general expenses of the organization. Whether the service is or is not of benefit to its subscribers is a ques-

tion to be determined by actual experience rather than by opinion, and while the fund holds no brief for the service, since the fund is reflected upon by the criticisms made, a few facts are presented, showing the results of the work of the service. The comparison is made between general groups containing metal ware risks, and the special group using the Wynkoop Service. These comparable risks outside the service show for 18 months a loss ratio of 65.2 per cent as against a loss ratio of risks in the Wynkoop Service of 43.6 per cent. A comparison is also possible for the same risks in the fund before and after taking the Wynkoop Service, one large concern showing a reduction of its loss ratio from 87.6 per cent during a three-year period (outside the service) as against 35.1 per cent for the year-and-a-half period that it has had the benefit of the service; this in spite of operations attendant upon a rapid expansion of the industry during the second period.

The claim that the inspection work for the service is really largely performed by the fund is met by a quotation from the report of the chief safety engineer, stating that the service maintains a safety inspection department which cooperates in inspection of the risks making use of the service, and for this reason "we have not inspected these risks as frequently as risks not having the benefit of such a service," which is a relief to the department on account of its force of inspectors not being sufficiently large to do all the work required of it.

As to the charge that Mr. Wynkoop devoted his energies to reducing compensation payments rather than to preventing accidents, it was said that "no evidence of such tactics has ever come to the attention of the management of the State fund, and it is needless to state that a policy toward claimants of the character indicated by Mr. Connor would not for a moment be tolerated by the State fund or the commission." As to encouraging the claimant to pursue other remedies wherever possible, it was pointed out that where a third person is liable for the injury it is ordinarily to the claimant's interest to bring suit since in any case he is guaranteed compensation under the terms of the act, and may recover in the form of damages an even larger amount. It is also to the advantage of the State fund, since such recoveries reduce the amount payable by the fund on account of the injury. So far as urging premature return to work is concerned, but a single instance was named by Mr. Connor, and the records show that the man was not put to work, although Mr. Wynkoop did make the suggestion that if the employee was willing and his physician approved, he should be given watchman's duty. However, a medical examination disclosed a constitutional disease which required special treatment, so that this plan was not carried out.

The statement that "the Wynkoop Service in most cases prepares the reports of the employer, the reports of the attending physician, and the papers for the claimant to sign," is characterized as "incorrect." Employers and attending physicians prepare their own reports, though the claimant is assisted in making out his papers. The "facts agreed" calendar has no such general use as Mr. Connor's statement would indicate, but was devised for the purpose of expediting undisputed claims where no occasion for hearings appears. However, this calendar is used only for continued cases and in no instances are cases closed on it.

As to underpayments, it is pointed out that no evidence whatever is submitted in support of the statement, and wherever any reason appears to question or contest a proposed award claims are placed on special calendars for hearings.

Criticism is made that the State fund was a subscriber to the Compensation Inspection Rating Board at an expense of \$30,000 per year, but that the fund refused to submit the experience of the special groups. Incidentally, the amount paid for this rating service was \$22,871 in 1917 and \$7,558 in 1918. Mr. Baldwin further replies, "The State fund does not submit any risks in special groups to the Compensation Inspection Rating Board for experience rating, for the reason that the special group plan in itself is in effect a method of experience rating, and it would not be consistent or proper to superimpose the experience rating plan of the rating board on the special group plan of the State fund. * * * Furthermore, the larger the group premium the greater the contribution to the expenses and the surplus of the State fund, which are prorated on the premiums of the group members. This practice is of no advantage whatever to the Wynkoop Service. Mr. Connor's statement that the refusal to apply experience rates on the risks in group 17 increases the profit of the Wynkoop Service is based on a misconception. It makes no difference whatever in respect to the profits of the Wynkoop Service whether a risk is subject to experience rating or not. Under the contract with the Wynkoop Service, any saving below a certain maximum cost, the basis of which is usually the amount of the premium according to the manual or schedule rates of the State fund in force at the time of the contract, is divided between the employer and the Wynkoop Service. It is immaterial whether the saving takes the form of a rate reduction for favorable experience or a dividend. If no experience rating is applied, the saving is all in the form of a dividend. If it is applied, the saving is partly in the form of a rate reduction and partly in the form of a dividend, smaller in proportion to the amount of the rate reduction. * * * In general, the insinuation that the State fund keeps up the manual rates in the interest of the Wynkoop Service is absolutely without foundation."

The statement that the Niagara Alkali Co. had not been billed for an excess premium charge to meet the deficiency due to heavy losses during the second half of 1918 is said to rest on misconception. "In this case, as in the case of the Cutler Desk Co., an additional charge of 50 per cent of the premium was imposed on account of a deficit. The Niagara Alkali Co. is still insured in the State fund, and the additional premium charge, which was incurred for the policy period ended December 31, 1918, will be deducted from the surplus earned in the succeeding policy periods, in accordance with the rule of the experience rating plan."

The failure of the Wynkoop Service to prevent unfavorable experience in the case of the Cutler Desk Co. was explained by the fact that this company undertook to manufacture airplane parts on a rush order and took on large numbers of inexperienced employees. These employees neglected the safety provisions. "Machine guards installed by the Wynkoop Service were removed overnight. In short, labor conditions made it impossible to carry on effective accident prevention work." As regards the allowance to the Wynkoop Service of 17½ per cent of the premium for medical expenses, while the actual reduction to which the Brooklyn Eastern District Terminal is entitled is 12½ per cent, it is said that "Mr. Connor is wrong in his contention," since the risk is one having a permanent and central location, enabling it to make effective provision for the medical care of its employees and is entitled properly to the reduction of 17½ per cent.

With regard to the gift of the automobile that Mr. Connor felt it his duty to mention, Mr. Baldwin declares that it was "purely a private affair, connected in no way with the business of the State fund. The gift was offered under circumstances and in a way that made acceptance natural and proper. Nor was there any secrecy about the transaction. It was reported by this official to the chairman of the commission at the time."

"In conclusion it would be well to state that Mr. Wynkoop gets no commissions or business or revenues from the State fund. On the contrary he has brought a large volume of desirable business into the State fund through his service organization. No special favors or concessions have been accorded him in connection with this business." It is not true that he is "tipped off" as to the dates of expiring policies, though he is of course free to solicit at all times, and it is well known that most policies expire in July, the date of the taking effect of the compensation law. "It should be stated here that 80 per cent of the business now in the State fund under the Wynkoop Service is new business, brought to the State fund by this organization."

7. Treatment of Claimants.

Charges of delay and underpayment, especially by employers in the special groups, are answered by the remark that such employers do not have a particular interest in keeping down compensation payments to the same extent as self-insured employers, or, to a less degree, employers in mutual associations. The question is not peculiar to the State fund but affects the entire administration of a compensation law.

In exceptional cases, what may be regarded as an unreasonable delay may occur. The number of employees in the claims division is not sufficient to meet the requirements of the work. "The claim service is constantly growing. More investigators are needed, not for the purpose of fighting claims, but to explain the law and to see to it that proper medical treatment is provided, that the claims are filed promptly after the accident, and that claimants are not misled into delay in filing claims in the hope of obtaining larger compensation."

Regarding the unwillingness of the State fund to pay the amounts recommended by the medical adviser, it is stated that "it is not the function of the medical adviser of the commission or the medical adviser of the State fund to fix the amount of compensation. * * * In general, the policy of the State fund in its claim service is to give absolutely fair treatment to every claimant. The management of the State fund would not tolerate any practices not in harmony with the spirit of fair play, justice, and humanity. * * * In no single case has the State fund intentionally and deliberately become a party to an unfair settlement."

8. The Medical Question.

The charge of favoritism in connection with the medical service of the fund is first replied to by Mr. Baldwin, who says that "it is without justification." A carefully directed and organized system of medical treatment is said to be a necessity. "It must be recognized that the treatment of industrial injuries has become a special branch of medical practice. The average family physician has neither the experience nor equipment to give expert treatment in compensation cases."

Dressing stations are therefore necessary, and a Dr. Meyer Wolf has organized a medical service for compensation cases exclusively, maintaining over 30 dressing stations in the Greater New York territory. Not only does the State fund avail itself of this organization, but various other insurance carriers do the same, experience proving it satisfactory both as to character and cost. Neither the State fund nor any other single insurance carrier could maintain so complete and satisfactory a system, the service being available day

and night. Helpful cooperation characterizes Dr. Wolff's organization, and the costs are about one-third, on the average, of the charges by other physicians in the same territory.

"There have of course been some complaints. It is impossible to satisfy everybody." However, of the two cases cited as canceled policies on account of dissatisfaction with the medical service it is said that one has given notice of intention to withdraw from the State fund, but that the real reason is not dissatisfaction with the medical service. As to the other, the State fund did refuse to pay in full some bills rendered by local physicians who treated the employees of the company, charging them about 50 per cent more than the usual scale of fees in such cases. "Unfortunately, there are some physicians who appear to look on the State fund as a wealthy client, and levy charges accordingly." The American Hard Rubber Co. had withdrawn from the State fund and gone elsewhere, but the satisfaction, noted by Mr. Connor, seems to be short lived, as the company announces that it is dissatisfied with its present insurance carrier and intends to change companies upon the expiration of its policy. The cancellation of its policy is the only case known to the management of the State fund that is due to a complaint concerning the medical service.

Referring to the question of the employment of specialists, the fund is accustomed to avail itself of the services of specialists who are "experts of high standing in the medical profession and can challenge any criticism of their work." In the case of William Corcoran, cited by Mr. Connor, no explanation of the procedure followed is obtainable because of the death of the medical adviser of the fund in charge at the time, but it is noteworthy that the final outcome of this case was the complete loss of vision in the right eye. "It is the belief of the claim auditor of the State fund, who was familiar with this case, that if the treatment recommended by the medical adviser had been continued, a part of the sight of the eye might have been saved."

The purpose of a preliminary examination, which is criticised by Mr. Connor, is "to obtain exact information regarding the nature of the injury and the probable duration of disability, and to enable the medical adviser to see to it that proper medical treatment is provided for the employee." The medical adviser of the fund is so occupied by office work and executive duties that it is impossible for him to make these visits; it is also impracticable to bring the claimants to the office for examination, as many of them disregard letters requesting a call at the office, while others are physically unable to come. The practice of these visits "is fully justified by the results, and should be extended rather than discontinued or curtailed." In many instances the visit of the examining physician results in shortening the period of temporary disability, or reducing the extent of per-

manent disability by enabling the State fund to prescribe proper care or by directing the injured person to a dressing station. The usual fee for examination is \$5, many of the visits being in outlying sections which require considerable time to reach.

9. Conclusion.

The complaint that Mr. Connor's investigation was made with little cooperation from the management of the fund is characterized by Mr. Baldwin as "most unfair." Full cooperation was assured at the beginning of the inquiry and was for a time availed of by Mr. Connor, "but later he resorted to other methods for obtaining information. It is to be regretted that Mr. Connor did not continue to make use of the cooperation of the State fund management throughout the course of his investigation."

The intimation that only lack of proper handling has limited the scope of the fund's business, which should now be from 25 to 50 per cent, is replied to by Mr. Baldwin that the adoption of the policies suggested in Mr. Connor's report would probably make the fund insolvent, referring especially to the excessive dividend recommended and the strictures on the treatment of the special groups. "It has been a hard task to build up the present volume of business. It would be an easy matter to drive the bulk of this business out of the State fund by injudicious interference with the policies which have enabled the State fund to secure and retain it in the past."

The suggestion as to a complete investigation by a competent actuarial accountant is met by the statement that it would be welcomed by the management of the fund, that three investigations have been made in addition to the examination by the State Insurance Department and the investigation by Mr. Connor, and that the report of each of these investigations prior to the last was generally favorable and commendatory.

Two fundamental changes are recommended by Mr. Baldwin himself: (1) An authorization that will permit the fund to issue "a policy covering any collateral liability at common law, under the Federal statutes, or under the laws of other States, which may arise in connection with a workmen's compensation risk"; (2) legislation to relieve the fund from the rigid restrictions of the budgetary system of the State. This requires a budget of the fund to be prepared months in advance of the beginning of the fiscal year, and prevents adjustments to meet changing conditions. "The State fund, it should be recognized, differs from the ordinary State department in two important respects: It is subject to a competitive check on expenditures, which must be kept within proper limitations if the business is to survive and develop; and it is wholly self-sustaining, all expenses being paid by the policyholders and not by the taxpayers at large."

Compensation Insurance Experience in the Coal Mines in Pennsylvania.

THE Insurance Department of the State of Pennsylvania is charged with the duty, among other things, of fixing the premium rate for different classes of industry carrying insurance under the compensation law of the State. In pursuance of this work it is essential to make use of accident and insurance experience, and to analyze the data obtained so as to make the necessary adjustments for the future. An example of this work is furnished in a series of tables, covering the years 1916-1918, showing costs, losses, the distribution of expenses, pay rolls, dependency, and the various other factors entering into the determination of the premium rate.¹

While a number of the 19 tables presented are too technical to be of general interest and others are of subordinate importance on account of their being but steps in the processes involved, certain significant facts are developed that may be noted here.

As pointed out in a review of the insurance commissioner's report on workmen's compensation insurance in the MONTHLY LABOR REVIEW for May, 1919 (pp. 260-263), the coal mine insurance of the State is carried by four agencies or groups, the Associated Companies, so-called, representing most of the private companies doing business in this line. All carriers report annually their premium and loss experience, together with the expenses of acquisition, adjustment, inspection, etc. Full returns on all policies for the year 1918 were not available at the time of the report, but so far as available, the returns showed \$12,301,890 in earned premiums for all coal mine insurance carriers for the three years, January 1, 1916, to December 31, 1918, with incurred losses of \$6,587,012, and incurred expenses amounting to \$3,507,300; the loss ratio for all carriers was therefore 53.5 per cent and the expense ratio 28.5 per cent, while in 1918 the percentages were 48.9 and 27.8, respectively. Taking the carriers by classes the following is given as loss and expense ratios for the three years 1916-1918, and for the year 1918:

RATIO OF LOSSES AND EXPENSES, COAL MINE COMPENSATION INSURANCE, PENNSYLVANIA, 1916-1918.

Insurance carriers.	Loss ratio.		Expense ratio.	
	1916-1918	1918	1916-1918	1918
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Associated Companies.....	56.4	50.6	31.2	30.7
Eureka Casualty.....	38.7	43.3	30.7	38.4
Pennsylvania Bituminous Mutual.....	42.0	41.0	33.2	33.2
Stat Fund.....	51.8	47.5	15.8	13.9

¹ Pennsylvania Coal Mine Compensation Insurance Experience, 1916-1918. Insurance Department of Pennsylvania E. H. Downey special deputy. Harrisburg, July, 1919. 29 typewritten pages.

The State Fund wrote insurance at a cost of but 90 per cent of the stock company rates. On a full-rate basis the loss ratio for the fund would be 90 per cent of the loss ratio shown in the table. Another point to be kept in mind is that the expense ratio for all but the Associated Companies includes premiums for catastrophe reinsurance.

Following the experience of the three years shown, the commissioner calculated the expense ratio for 1920 at 34 per cent of the gross premium rates, 10 per cent being acquisition costs and 1.5 per cent profits. Other items are 6.5 per cent for adjustment of claims, 4 per cent each for inspection and taxes, and 8 per cent for home office expenses. Assuming probable savings in acquisition costs and in claim adjustment, the actual expense loading was fixed at $33\frac{1}{2}$ per cent of the gross premium, or 50 per cent of the pure premium, i. e., the rate actually necessary to meet losses. The lower rate of the State Fund (90 per cent of the rate for the companies) is feasible by reason of the fact that the fund has to meet neither acquisition nor adjustment expenses.

The foregoing is derived from the first four tables of the report. The next four tables show pay rolls, premiums, and losses, and the loss analysis by severity of injury for bituminous and anthracite mines separately. It has been commonly understood that the considerable increase in wages in 1918, furnishing a larger base on which to collect the premiums, was increasing the revenues of the insurance companies without entailing a corresponding burden in the way of payments. This view is not borne out by the bituminous experience, which showed for 1918 an actual cost, or pure premium rate, of \$1.59 per \$100 pay roll, as against \$1.45 per \$100 in 1917. The reason assigned for this increase appears from another table, which shows the average cost of fatal accidents in 1918 to be \$3,672, as against \$2,663 in 1917, and \$2,021 in 1916. This in turn is explained by two factors, one, the increase in wages, securing to a larger number of beneficiaries the maximum amount as awards, and the other, the increased proportion of married men engaged in the industry, on account of the withdrawal of single men because of conditions due to the war.

A corresponding change took place, and for similar reasons, among employees engaged in anthracite mining, the average cost in death cases being \$2,149 in 1916, \$3,008 in 1917, and \$3,246 in 1918. The average weekly wage in bituminous mining advanced from \$16.22 in 1916 to \$20.51 in 1917, and \$28.26 in 1918. In anthracite mining the rates were \$14.87 in 1916, \$16.99 in 1917, and \$21.87 in 1918. The increase in wage was sufficient to offset the normally anticipated effect of the age of the act in increasing costs by reason of a more general understanding and fuller application of the act.

Another factor estimated as entering into the computation of the premium is death dependency. An average age of approximately eight years for surviving dependent children has been regarded as normal. This report finds the average age for the groups under consideration to be but six years, which tends to increase somewhat the cost of compensation. The remarriage of widows, on the other hand, is found to correspond very closely to the commonly accepted Dutch Royal Institute table, showing for the three years a rate of 5.50 per cent, as compared with the Institute Table's rate of 5.56 per cent. Alien widows, whose status was not ascertained, are not included in this calculation. The average age of widows was 33 years, and the total "years exposed," or the aggregate years since the deaths of the husbands, was 943.

Other tables show the effect of various amendments that have been made to the act, including increase of benefits, reduction of waiting time, and catastrophe experience. Some of the factors that have come into use, and which have been retained in the present computation, are said to be "theoretical, not to say conjectural." Under this head are classed "age of act," "wage," and "death dependency," the elimination of which is recommended, rates henceforth to be based "upon the two definitely ascertained facts of pure premiums and expense ratio. * * * It has not been possible to make rates accurately in the past, because of the short period and the limited volume of experience available. This condition is now rapidly passing away."

The final computation, including all factors, shows that the average adjusted rate for anthracite mining in 1920 should be approximately \$4.20 per \$100 pay roll, and for bituminous mining approximately \$3.

Report of Industrial Accident Board of Montana.

THE Industrial Accident Board of Montana has furnished the State Assembly convening in extra session with a summary statement as of July 29, 1919, covering practically four and one-half years' operations of the compensation law of the State. A record that is probably unique is presented in "the fact that, out of 22,825 cases passed upon by the board, there have been no appeals taken from the rulings made, with the possible exception of a case now pending, which the attorneys advise will be appealed, and also excepting the three questions submitted to the Supreme Court on an agreed statement of fact to secure an interpretation of the law."

The statistical summary is as follows:

About 2,000 employers are now under the law, with approximately 74,000 employees, of which number, during the four-year period, 26,421, or an average of one out of nine, suffered accidental injury in some degree, and received in compensation, including pending claims, \$2,285,000.

Of the 26,421 accidents, 688 were fatal; 17 permanently totally disabled (broken back or loss of eyes); 609 permanently partially disabled (loss of arm, leg or eye); and 25,108 temporarily disabled, of which 7,110 received disability compensation, and 18,588 returned to work before the expiration of the two weeks' waiting period and received only the medical benefits provided by the act.

Of the 688 fatal accidents, 448 were in quartz mining, 69 in coal mining, 54 in smelting, 21 in construction work, 40 in electrical power work, 30 in lumbering and 46 in all the other operations.

The employer has the choice of three plans. Plan 1 is self insurance; Plan 2 is casualty company insurance; Plan 3 is State Fund insurance. The detail of employers and employees operating under each plan; also accidents occurring and amount of compensation paid; also accident cost and cost to employer under each of the three plans; also comparison of accident occurrence and cost for each year is best illustrated by the following tables, compiled from the record up to July 1, 1919:

STATEMENT OF OPERATIONS OF MONTANA WORKMEN'S COMPENSATION ACT TO JULY 1, 1919.

Plan.	Em- ployers.	Em- ployees.	Number of accidents.		Total compen- sation paid.	Per cent of pay roll.	
			Total.	Fatal.		Accident cost.	Em- ployer's cost.
One.....	64	40,305	17,635	535	\$1,682,630	0.75	0.75
Two.....	874	15,196	6,769	93	399,559	.67	2.25
Three.....	1,032	18,798	2,017	60	202,811	.80	1.00
Total.....	1,970	74,299	26,421	688	2,285,000		

COMPARATIVE ACCIDENT RECORD FOR FOUR YEARS.

Item.	First year.	Second year.	Third year.	Fourth year.	Total.
Accidents reported.....	6,801	8,326	5,820	5,475	26,421
Fatal accidents.....	136	307	123	122	688
Totally disabled.....	2	11	3	1	17
Partially disabled.....	89	184	185	151	609
Paid disability compensation.....	1,431	1,461	1,881	1,720	6,493
Return work 14 days.....	5,143	6,336	3,628	3,481	18,588
Cases settled.....	1,418	1,428	1,830	1,261	5,937
Cases pending.....	2	18	9	7	36
Cases under pension.....	11	12	14	28	65
Cases current payments.....		3	28	124	155

EMPLOYERS, EMPLOYEES, AND COMPARATIVE ACCIDENT RATE FOR FOUR YEARS.

Item.	First year.	Second year.	Third year.	Fourth year.	Average.
Number employers under act.....	830	1,518	1,944	1,970	1,565
Number employees under act.....	61,000	68,000	72,000	74,000	68,750
Per cent injured.....	11	12	8	7	9½
Per cent compensable.....	2½	2½	2½	2	2½

HEALTH INSURANCE.

Health Insurance.¹

By JOHN A. LAPP, MANAGING EDITOR OF MODERN MEDICINE.

WHENEVER a number of people are subjected to a common risk which may entail loss upon them, the insurance principle may be applied if the risk is measurable. Since most of the risks which people run have been found by experience to be measurable, insurance has come to be applied in many different fields. Insurance is merely a distributor of loss. It is based upon fairly exact calculations. Fire insurance measures the loss from fires and fixes the premium which each dollar's worth of property should be taxed as a premium to cover possible loss. Marine insurance measures the loss from shipping disasters and fixes the premiums that are necessary. Life insurance measures the number of deaths that are going to occur in each age group and fixes the premiums to cover the loss. Numerous other forms of insurance have been devised, including insurance against hail, tornadoes, accidents, burglary, plate glass breakage, fidelity, and others. Insurance is well established as a business proposition. Very few business men fail to protect themselves against serious loss of property. When insurance is conceived of as a universal matter applying to all people and all losses of a certain kind, it is even simpler of application and more businesslike than the voluntary forms of property insurance with which we are more familiar.

We are coming to recognize the fact that when the people of an entire State are subjected to certain risks which are measurable, it is good business to organize insurance through the instrumentality of the State, measure the risk, and pay the losses which happen at random to this individual or that. We have used this principle for many years without recognizing it as social insurance. Nearly every State provides a fund by the taxation of dogs from which the losses to sheep owners are paid. We have established the principle in insurance of bank deposits now in force in a number of States whereby a fund is collected from the banks in order to pay the losses to depositors through bank failures. Still later, we have applied in some States the same principle by the collection of funds from a tax on

¹ Address before the industrial section of the National Conference of Social Work, held at Atlantic City in June, 1919.

agricultural lands to pay the losses from hail. North Dakota and South Dakota have done this on a State-wide basis, as have also some of the Canadian Northwest Provinces.

Lastly, we have recognized that State-wide insurance of laborers against accident is a simple, practicable, and certain way of distributing the economic shock of accident. In a few States this principle is applied through the creation of a single State fund from which the unfortunate victims of accidents draw a part of their compensation and are provided with medical and surgical care.

Two Problems of Health Insurance Stated.

These simple statements of the application of the insurance principle voluntarily and also on a social basis are made here for the purpose of clarifying our thinking at the outset on the subject of health insurance. They are too often overlooked. Some folks would make us believe that the proposal for social health insurance is some new, absurd proposition which has been evolved in fantastic minds, when, as a matter of fact, its coming is nothing but the evolution of sound social and business sense. Health insurance proposes to collect a fund from which the losses of sickness can be partly paid and medical treatment provided on a universal scale. The only problems involved are the measurability of sickness and the organization of the scheme.

We have plenty of evidence from every quarter to show that sickness is measurable. We know with fair certainty how much severe sickness will occur in a large group of people every year. We know what that loss entails in the way of lost wages, and we can readily measure what the necessary medical care will cost. In fact, we know far more in these respects about sickness insurance than we knew about accident insurance when workmen's compensation laws were put in force, and we know infinitely more than the people who started fire, life, marine, casualty, fidelity, and burglary insurance ever knew about the losses from these causes before they successfully established insurance.

In fact, we have a very good measure of the amount of sickness which occurs in any normal group of working people. All the evidence, which appears to be overwhelming, shows that each worker suffers about nine days' sickness every year, and that $2\frac{1}{2}$ to 3 per cent of the people are sick at all times. The findings of the health insurance commissions of Illinois, Ohio, Pennsylvania, and Connecticut, from a study of 131,000 cases of disability, showed that 20 per cent of the workers suffer a disabling sickness every year, lasting for more than seven days. These figures show that the cases of sickness lasting more than seven days averaged about 35 to 37

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days each. These figures are borne out by innumerable investigations, and particularly by an unpublished study of the Workmen's Sick and Death Benefit Fund of America, New York City, made by the United States Bureau of Labor Statistics, and by studies of the Federal Industrial Relations Commission and of the United States Public Health Service.

Not only do we know how much sickness occurs in the group but we know with fair exactness how this sickness falls on the different people in the group. It appears that 20 per cent of a normal group will suffer a disabling sickness lasting more than a week; that about 65 per cent of those that are sick will be disabled for less than 30 days; that nearly 20 per cent will be sick for four to eight weeks; that 6 per cent will be sick from eight to twelve weeks; that 3 per cent will be sick for more than 6 months; and 1.3 per cent for more than a year.

We know further that sickness varies with age and that it falls more heavily as men grow older. The exact figures as shown by the Workmen's Sick and Death Benefit Fund of America are as follows:

CASES OF SICKNESS LASTING MORE THAN SEVEN DAYS.

Age.	Average compensated days.	Length of time (days) each case lasts.	Age.	Average compensated days.	Length of time (days) each case lasts.
20 years.....	3.0	22.9	55 years.....	7.1	44.0
25 years.....	3.1	29.4	60 years.....	8.6	49.5
30 years.....	3.7	32.6	65 years.....	9.1	49.4
35 years.....	4.8	39.6	70 years.....	15.1	65.9
40 years.....	4.3	35.0	Total.....	5.1	38.0
45 years.....	4.5	35.1			
50 years.....	5.6	39.1			

We know, too, that sickness varies according to occupation, in some occupations rising to two and three times the rate of other occupations. We know also that there are some variations according to sex. These facts we know with fair exactness. They are not disputed by any intelligent and honest person.

We have, then, here the proper basis for the establishment of an insurance system. We know pretty nearly how much sickness there is going to be among a million people. We know very nearly what the sickness will cost. All we need to do is to apply the same principles which we have already applied in other respects and provide for the distribution of the burden of sickness on a communal basis. It is not a leap in the dark. It is not a blind attempt to do the impossible. It is simply the application of well-known and well-established business principles to the solution of the problem which hangs as a cloud over the lives of the people. We know how much sickness there will be in a group, but we do not know upon which individuals the cost of sickness will fall.

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Economic and Social Results of Sickness.

What are the plain results of sickness? It hardly seems necessary to repeat them, and yet there are those who would deny even the simplest truths when those truths are inconvenient to them.

Sickness drives people from a higher to a lower standard of life. It drives people from independence to dependence. It keeps thousands on the brink of poverty and it keeps millions in the fear thereof. When the wage earner is taken sick, his wages stop. Rarely are wages paid beyond the hour when the man quits work. But his expenses do not stop—they go on and increase. To them are added the cost of medical care, if the man does not immediately seek charitable aid. Slender resources are soon used up. Everyone who appears to have the slightest presumption of knowledge is very well aware that the rank and file of working men are only a brief space away from economic distress. Perhaps the man has some personal credit or some helpful friends, but even the benefits of these are soon used up if the man happens to be one of the million and a half who are sick for four to eight weeks, or of the 230,000 who are sick for more than six months.

The next resort is the chattel loan. Here we find that 35 to 50 per cent of loans are due to sickness. The next resort is the associated charities. Here again we find that 35 to 50 per cent of applications are due to sickness. The last resort is outdoor public relief, of which we have very little satisfactory statistical evidence. We found in Ohio, however, that 30 per cent of the people in county infirmaries had been reduced from independence to dependence by sickness, resulting in their going to the poorhouse and that 40 per cent of the old people in private "homes" were there because of the calamity of sickness at some time in their lives.

Health insurance merely attempts to stop this steady decline from a higher to a lower status. It is intended to insure people who are now independent and to keep them from going the downward path toward the brink of poverty. It is intended to stabilize society above the poverty line so that from this one cause fewer people shall descend in the scale of life. No one can study the figures on this subject and reflect upon the facts disclosed without being convinced of the necessity of something to prevent the decline in human values and no one can understand insurance principles without being convinced that the solution of the problem rests in social insurance.

Compulsory *v.* Voluntary Health Insurance.

The question is raised at this point: "Why make it compulsory; why organize it on a universal scale?" "Why not leave it to voluntary action?" The answer is simple. If it is left to voluntary efforts it will cost far more than it would as a social enterprise. The cost would in fact be more than doubled. We have the example before us of the burial insurance companies which have been insuring people against a pauper burial on a voluntary scale. They probably manage their business well—no one has lately charged them with a lack of efficiency. During the last three years they have collected \$448,000,000, and have paid in death claims, \$148,000,000, or about 33 per cent of the amount collected. The people have paid for the privilege of voluntary burial insurance in the last three years the sum of \$300,000,000 over and above what they were paid for burials. The casualty insurance companies on a voluntary basis have collected in the last twenty years \$402,000,000 and have paid in losses \$175,000,000. Nearly 56 per cent of this enormous sum goes for the privilege of regaling ourselves with voluntary insurance.

Workmen's compensation insurance companies in the last five years have received \$125,000,000 and have paid \$55,000,000. Mutual workmen's compensation funds have received \$17,000,000 and have paid \$7,000,000. Commercial health insurance companies in fifteen years have received \$74,000,000 and have paid \$33,000,000.

These huge sums of money have been sacrificed to the principle of voluntary insurance. Set over against them is the record of the Ohio Workmen's Compensation Insurance Fund, operated on a State-wide compulsory basis, which shows a charge of 3½ to 5 per cent for the conduct of the business. A pencil and a piece of paper will very quickly tell you what we have paid for the privilege of having voluntary insurance. Universal social insurance removes the cost of solicitation, removes the profits of insurance carriers, removes the absurdly high salaries of insurance officials, and in many ways makes the money of the insured go further in providing him the benefits which he needs in a time of calamity.

The extent to which voluntary health insurance is now purchased is the best evidence of its probable failure to meet the need for universal insurance. Only about 33 per cent of the workers carry any health insurance. Such insurance as is carried amounts to \$5 to \$7 a week for about thirteen weeks and practically no medical service. In the United States only about 3 per cent to 5 per cent of losses is distributed by health insurance. There is no evidence that outside of the larger establishment funds, medical and cash benefits can ever be so combined and organized as to be effective.

The Cost of Health Insurance.

The facts of the case from beginning to end, with scarcely a single exception, point to the desirability of establishing a State-wide human depreciation fund by the collection of premiums from those who are responsible for sickness and for its care. We know now who those parties are. It is perfectly clear that industry is responsible for some diseases, the individual is responsible for some, and the community is responsible for some. It is equally clear that two or more of these factors combine in certain other cases to cause sickness. It is perfectly clear that the line can not be drawn where industrial responsibility stops and individual responsibility begins, or where the community responsibility begins or ends. Tuberculosis, for example, is caused by a combination of two or more of these factors. A study in Cincinnati by the United States Public Health Service indicated that in 442 cases, 18 per cent were due to industry; 32 per cent to heredity; 10.8 per cent to intemperance and vice; 9.7 per cent to housing; and the rest from undefined causes. This is merely illustrative of the interrelation of causes of sickness. No one can honestly say or believe that industry and the community should not share with the individual the cost of sickness. We have heretofore put the principal burden—in fact, practically all of it—on the individual. It is time that our social conscience be awakened from its slumber and having taken cognizance of the awful consequence of diseases, that we shall join in a large cooperative undertaking for the creation of a fund through the payment collected from causative factors, so that the burden of sickness shall not fall as it now falls—upon the individuals who happen to be sick and at a time when they are least able to bear the extra burden.

It seems almost incredible that anyone would here raise the question of cost. It seems absurd to mention it in this paper. There are thousands, however, who make the absurd claim that health insurance will be so costly as to overwhelm us. Figures are cited to make this loss appear even more excessive than it is. How childlike the simplicity of such people. If sickness is costing \$2,000,000,000 to-day, somebody is bearing it, and who is that somebody? If the burden is too great for the whole society to bear, it is a pretty fair evidence that it is altogether crushing for the few who must now bear it. If it be true that health insurance would cost too much, then the social order is bankrupt. It is even worse than bankrupt because it compels the weakest portion of society at the time they are weakest to bear the impossible burden which it is claimed can not be borne without serious disaster by society as a

whole. Such arguments reduce to absurdity. Health insurance means the redistribution of a burden which now falls unevenly. It does not cost money, it distributes cost already in existence, and it does it without doing harm, as has been shown in all countries, even our own, wherein we distribute certain burdens by means of social insurance. The load of sickness is comparatively easy to carry when it is distributed over the whole body. The soldier who would attempt to carry his burden attached to his feet would not get very far; even if he carried his burden in his two hands he would soon tire out. Distributed scientifically over his entire body, he carries it with comparative ease. We are carrying our sickness burdens around our feet. It is time that we distribute them scientifically over the entire body.

Opposition to Health Insurance.

The opposition to health insurance has made strange bedfellows. The lions and the lambs are lying down together, but if I mistake not, the lambs will have to be renewed occasionally. The principal opposition comes from burial insurance companies and from casualty insurance companies. It needs no particular acumen to understand why. The fat sum of \$100,000,000 in expenses and profits annually on the part of burial insurance companies alone well accounts for their opposition. The sum of \$40,000,000 of profits and cost of administration in the case of casualty companies might well be taken as an indication of the reason for their opposition. These organizations with money to spend, mostly the money of the policyholders, have attempted to poison the minds of other organizations. They have organized associations with fictitious but high-sounding names and have subsidized others. They have flooded the country with literature, more than 75 per cent of which is false in its statement of simple facts. They have attempted to make the doctors believe that health insurance would ruin the profession, at the same time handing out honey phrases about sickness prevention, which, when analyzed, indicate that the same companies are attempting to lead the doctors to State medicine, wherein the doctor will become the employee of the State in preference to the organized scheme of medical practice which would prevail under health insurance. These same forces have tried to lead the great fraternal movement in opposition to social health insurance by making them believe that fraternalism was doomed. As a matter of fact, not over 2 per cent of present losses from sickness are being carried by fraternal insurance orders. Surely, the great body of men whose

inspiration is fraternalism would sacrifice, if sacrifices were necessary, the 2 per cent of sickness insurance which they now carry in favor of a social scheme which would take care of a large part of the rest.

Opposition to health insurance will fail. It is battling against social forces that are everywhere triumphant. In due time health insurance will be enacted in this country as it has been in most of the civilized countries of the world. We will organize it as we have organized other forms of social insurance. We will provide for its organization in an American way. We shall doubtless make some mistakes, but as in every other line of action we shall in due course correct those mistakes. We shall overcome the petty opposition to details in favor of the great principle of bearing one another's burdens through the means of insurance.

Medical Aspects of Health Insurance Administration.

BY E. H. LEWINSKI-CORWIN.

THE subject of health insurance has passed the period of academic discussion; it has become one of practical politics, and before long a health insurance measure will become law in our more progressive States. It therefore behooves all those concerned in the matter to transfer attention from the discussion for or against social health insurance to the administrative details of the proposed measures.

Of all the problems of administration those pertaining to the "medical benefit" are most baffling, not only because of the intimate human relationships involved, but also because with the introduction of universal health insurance the foundations of the present-day practice of medicine will be rearranged.

If, in the beginnings of social insurance on the Continent and in England, the importance of a clear understanding of the intricacy of administrative details had been appreciated, unfortunate developments associated with health insurance could have been obviated. With the knowledge of the shortcomings of the older schemes, we are in a position to draft legislation which will avoid the unsatisfactory features of the European legislation and constitute a distinctive American contribution to administrative policy in social welfare.

Fortunately for the proposed measure, the leaders of the American medical profession have exhibited from the beginning a wholesome concern in the subject of health insurance. Appreciating the social importance of the proposal and realizing that a purely negative or indifferent attitude toward it might lead to ill-advised legislative enactments by laymen not cognizant of the basic conditions of medical practice, the medical men, both individually and collectively, have taken an active, frequently hostile, but invariably helpful, interest in the proposals submitted. As the consecutive bills for universal health insurance are being introduced in the legislatures from year to year, they exhibit a truer understanding of the administrative difficulties involved and bear the earmarks of the constructive thought and criticism of the medical profession.

After a trenchant analysis of the laws in foreign countries, the Committee on Social Insurance of the American Medical Association offered at the annual meeting of the association in 1917 the following fundamental demands which the medical profession should insist upon in health insurance legislation:

[1946]

- (1) Freedom of choice of physician by the insured;
- (2) Payment of the physician in proportion to the amount of work done;
- (3) Separation of the functions of medical official supervision from the function of daily care of the sick; and
- (4) Adequate representation of the medical profession on the appropriate administrative bodies.

A brief explanation may make clearer the reasons for the above demands. Freedom of choice of physician by patient, subject to the physician's willingness to serve, is not only fair to the patient with whom the personality of his physician counts for a great deal, and to the physician whom it protects against certain types of patients for whom he does not care, but it leaves the practice of medicine undisturbed and provides room for the free play of the spirit of emulation. In order that emulation should not degenerate into cut-throat competition, two additional proposals were subsequently made by medical critics. One was to the effect that no physician should be permitted to have under his care more than a stipulated maximum number of families, this to be determined on the basis of experience under urban and rural conditions. This theoretically sound provision would probably prove difficult to enforce and for this reason it was omitted from the last draft of the 1919 New York bill. The second very practical suggestion was that a minimum scale of fees should be initiated by the doctors through their county societies. Their scale then goes to the chief of the Health Insurance Bureau, who is himself a physician, for his approval.

Of all the possible results of health insurance none is more feared by the medical profession than the ineffective and deadening "contract practice." They are apprehensive lest the efforts of the last two generations to raise the standards and morale of medical practice in America be obliterated by the injudicious introduction of a wholesale, cheap capitation basis of payment. It is stated that wherever it has been tried it has resulted in the overwhelming of the practitioners with unnecessary and trivial work, in depriving them of the stimulus and opportunity for scientific treatment, in divesting them of the dignity of their calling and in jeopardizing the whole future of medical progress. The demand of the Social Insurance Committee of the American Medical Association that payment be made in accordance with services rendered is but one of the safeguards which the medical men feel must be thrown around the system. Under the New York bill the physicians initiate the method of payment as well as the minimum fee schedule. By thus removing the fear of capitation payment and of lodge practice, the profession is safeguarded in this important respect.

In order to obviate another of the inadequacies of the European systems, notably that of affording opportunities for malingering, the demand has been made that the responsibility for certifying to the illness of the insured be removed from the physician giving treatment and placed upon a medical officer especially engaged for the purpose. In this wise the patronizing of "easy" physicians observed in Germany and elsewhere is done away with and the physicians are freed from all responsibilities except purely professional duties toward their patients. Here again the present day relations between physicians and their patients remain undisturbed.

The administration of health insurance, dealing as it does largely with questions of medical care and relief in their many and varied forms, obviously calls for expert guidance and advice. It is imperative that the vital interests of the medical profession be amply and adequately protected by proper representation on all pivotal administrative boards.

All of these basic medical demands have been recognized and incorporated in one form or another in the bills introduced in the several States. There were several additional safeguards considered and added to the last draft of the New York bill. One was the substitution of a single State-wide panel for the many local panels of physicians, it being pointed out that a multiplicity of local panels creates boundaries for and artificial limits to medical practice, and that patients in certain localities might be seriously inconvenienced by such limits, particularly with reference to the selection of specialists.

This brief account indicates to what extent the medical arrangement of American legislative proposals on health insurance have been molded by the criticisms of the medical profession and as a result of it we shall doubtless eventually have laws infinitely superior to their European forerunners.

There are, however, at least two considerations which make the medical profession chary about health insurance, both of which can only to certain extent be safeguarded by statute.

The medical profession consider it of prime importance that before health insurance is adopted, those who are included under it should clearly understand the costs involved in securing adequate medical service. Intelligent public opinion and a proper enlightenment of those who will benefit under the law as to the paramount importance of a high-grade, conscientious, and scientifically conducted medical practice, constitute the only safe reliance that the standards of medicine will not suffer should the cost of the medical service under the insurance law prove to be higher than the beneficiaries may anticipate. The whole purpose of the law would be defeated if the medical service under it should suffer because of a parsimonious policy on

the part of the insurance funds. And yet the cost, large as it will be in the aggregate, does not seem to constitute an unbearably heavy burden when properly distributed. According to a recent computation made by a distinguished authority on matters of public health administration and hospital management, based it is true on rather low units of cost, the average annual expense of health insurance to the workman, including cash benefit, hospital care, maternity benefit for his wife, burial benefits and other medical care for the family, amounts to \$28. Other estimates place the cost much higher. The last draft of the New York bill excludes the dependent members of the family of the insured person from the benefits of medical care, and this, of course, reduces the cost very considerably. The costs should be estimated as closely as possible and the public fully and clearly informed in advance.

There is a second consideration which must not be lost sight of: The relation of health insurance to "group medicine." Medicine has made great strides during the past generation. Specialization has come to stay and "group medicine" is the form of practice which insures scientific satisfaction to the physician and the greatest amount of effective service to the patient. No one physician can master all the details of the science of medicine and the intricate diagnostic and therapeutic technique connected with the treatment of disease. The practice in our best hospitals is based on this recognition of the advantages of group medicine. The services of various specialists are constantly asked for and freely given in a hospital medical team. The same begins to be applied in out-patient work. It is the modern trend; and legislation of no kind should interfere with it lest medical progress and medical teaching be jeopardized. Under a health insurance law the tendency may develop for patients to resort to private physicians rather than to medical institutions. If this occurs it will be prejudicial to group medicine. In order to forestall this tendency as far as feasible, the last bill introduced in the New York Legislature contained a provision for the payment of physicians for services rendered to insured persons in hospitals or dispensaries. In spite, however, of such a provision and in spite of the educational work that may be attempted, at first there will be a shifting from the hospitals and particularly from the dispensaries to the private offices of physicians. This tendency will probably be stronger among the general medical patients than among those seeking the advice of surgeons or other specialists. It may be somewhat offset by the increased use, as a result of health insurance, of institutional treatment by those who to-day can not afford specialists' fees but who will not accept medical charity. It is probable, however, if proper guidance is provided, that the public will come to realize the advantages of group medicine, and medical institutions and schools will not suffer because of health insurance.

LABOR LEGISLATION.

Recent Labor Legislation in Canada.

THE Canadian Official Record for July 17, 1919, presents a summary of the principal acts passed at the session of the Dominion Legislature which adjourned on July 7. A number of these acts are of interest from the point of view of labor and the readjustment of industrial conditions following the war. Thus the soldier settlement act extends to soldiers financial benefits up to \$7,500 each. Loans on live stock and implements are repayable in four years beginning the third year, no interest being charged for the first two years; loans on real estate are repayable in 25 equal annual installments. The interest rate on all loans is 5 per cent, except in special cases where the settler is required to advance 10 per cent of the cash price of the land.

The administration of this act rests with the Department of Soldiers' Civil Reestablishment, which is also intrusted with the work of caring for the returned soldier from the time of his discharge until he is reestablished in civilian life. Three principal branches of their work are medical service, the retraining of disabled men, and the problem of procuring employment. It is noted that under the first head over 85 per cent of the members of the forces who required artificial limbs have been satisfactorily fitted with appliances manufactured in the department's own factory. The vocational branch has enabled 95 per cent of its graduates to become self-supporting in a new trade or occupation, its work being limited to men who were so injured as to be unable to follow their former occupations. Placement is in the hands of representatives connected with every employment office in Canada, these representatives being themselves men who have seen overseas service. The sum appropriated for the department for the current fiscal year amounts to \$32,368,000.

Immigration is regulated restrictively, the restrictions being directed to persons politically undesirable, illiterates, and defectives.

The high cost of living receives attention by the creation of a Board of Commerce, the commissioners holding office for terms of 10 years, being required to give their whole time to the duties of their office. The board is charged with the general administration of the Combines and Fair-prices Act of 1919, the purpose of which is to

provide for the investigation and restraint of combines, monopolies, trusts, and mergers, and to prevent the raising of prices of commodities. Any citizen may ask for an order directing the investigation of any combine which he believes to exist, and if a commissioner is satisfied that the request is made on reasonable grounds he may order an inquiry. The orders of the board must be observed under penalty of heavy fine or imprisonment. Unreasonable accumulations and the withholding of any necessary of life are forbidden. In December, 1918, a housing scheme was authorized by an order in council, and the Dominion Committee of Supply appropriated \$25,000,000 to further this scheme. Loans are to be made to the different Provinces in proportion to their population, the loans to be repaid within 20 years, with interest at 5 per cent.

The Canadian Labor Gazette for June gives an account of provincial laws of Alberta, British Columbia, and Ontario. The legislatures of British Columbia and Ontario took the necessary steps to render available in these Provinces the housing plan of the Federal Government. In all three of the Provinces the local workmen's compensation act was amended so as to increase the powers of administrative boards, to liberalize allowances, or to enlarge the scope of the law. The matter of employment offices was also dealt with by each legislature, the objective being the elimination of private agencies, or at least the prohibition of the charging of fees, which will necessarily produce the same result, and the establishment of public service throughout.

In Alberta provision was made for local minimum wage boards or councils in cities or towns having above 5,000 inhabitants. In British Columbia the principle of the minimum wage is applied to coal miners, a board to be composed of the chief mine inspector and a representative appointed by the mine owners and one by the miners. This board may divide the Province into districts and fix the minimum wage for the coal miners employed therein. A department of labor is provided for in Ontario to take over the duties of the trades and labor branch of the Government. Other acts of the Ontario Legislature regulate the employment of women and children, one fixing the minimum age for children employed at the mines at 16 years and for boys employed below ground at 18 years. Women and girls may not be employed under ground. The abolition of the sweat shop is aimed at by an act that requires clothing manufacturers to let out no clothing to a worker until it has been ascertained that such worker has a permit from the factory inspector. Women and girls may not be employed where they are required to lodge in a camp unless a permit has been obtained from the deputy minister

of labor. School attendance of children for part or full time is required up to 16 years of age, and unless excused for special reasons part-time attendance is required up to 18 years.

Taking this summary in connection with that appearing in the MONTHLY LABOR REVIEW for July (pp. 229, 230) it is evident that the situation of labor is receiving serious consideration in Canada, and liberal provision is being made for the new adjustments that are necessary under conditions following the war.

Labor Legislation in Canada in 1918.¹

The foregoing is the title of an annual publication reproducing the labor laws of the Dominion and its various component parts. The text of the laws is preceded by a summary analysis of their provisions. Legislation of this type was enacted in all the Provinces but one last year, the exception being Prince Edward Island, though the legislature of Saskatchewan convened at such a late date that its laws were not available for publication in the current volume.

Important laws were Dominion acts coordinating the public employment service of the Provinces and providing for the compensation of injured employees of the Government. This last was accomplished by placing them under the laws of the Province within which they were at the time of the receipt of the injury. Alberta and New Brunswick enacted new laws on workmen's compensation, while other Provinces amended their laws in this field.

Minimum wage laws also received attention, and other laws were enacted relating to the welfare of employed women and children. The safety and comfort of employees in mines and factories were also further provided for, as was also the subject of vocational education. Mention is made of a number of measures looking toward the repatriation of soldiers and sailors, though the text of these enactments is not reproduced. Altogether, the similarity of both the problems and the mode of solution on the two sides of our international boundary can not escape the notice of one interested in this subject.

A cumulative index covers the basic volume, which bears date of 1915, and the succeeding annual volumes.

¹ Labor legislation in Canada for the calendar year 1918. Department of Labor, Ottawa, 1919. 152 pp.

Law Regulating Employment of Women and Children in Belgium.¹

THE following is a summary of a Belgian decree promulgated March 7, 1919, coordinating Article 3 of the law of May 26, 1914, with the provisions of the laws of December 13, 1889, and August 10, 1911, relative to the employment of women and children.

The classes of industry subject to the law are as follows: Mines, pits, quarries, and shipyards; factories, mills, and shops; restaurants, places where drinks are sold, and offices of industrial and commercial enterprises; ports, docks, stations, and transportation by land and water. Public establishments also are subject to its provisions, even those that have the character of occupational training or of charitable institutions. Other classes of establishments may be added by the Government.

Establishments are exempt in which only members of the family are employed, under the authority of father, mother, or guardian, provided such establishments are not designated as dangerous, unhealthy, or objectionable, or are not operated by steam engines or mechanical motors.

The employment of children under 14 years of age is prohibited, but children over 13 years of age may be employed if in possession of a certificate stating that they have completed the required course of study. The employment of children between 12 and 14 years of age who have attained a certain grade of schooling may be authorized, but not after January 1, 1920; such employment shall be limited to a certain number of hours per day, and a definite number of days, taking into consideration the requirements of primary schooling, occupational training, nature of work to be done, and the necessities of the industries, occupations, and trades. The provisions relative to children between 12 and 14 years of age are applicable to home work performed on the account of the head of an establishment.

The Government may prohibit the employment of persons under 16, and of female persons under 21, years of age in work exceeding their strength or of a nature dangerous to them. In like manner the employment of such persons may be prohibited, or authorized for a certain number of hours per day only, for a definite number of days and under certain conditions, in work recognized as not healthful. Women may not be employed during the four weeks subsequent to childbirth.

¹ Revue du Travail, Brussels, Mar. 15, 1919.

The Government may regulate the hours of work per day of persons under 16 and women under 21 years of age, taking into consideration the nature of the work in which they are engaged and the necessities of the industries, occupations, and trades. Such persons shall not be permitted to work more than 12 hours in any one day divided into periods by intervals of rest which must total at least one and one-half hours. Supplemental home work to be done outside of regular hours of work is forbidden.

The employment of persons under 16 years of age between the hours of 9 p. m. and 5 a. m. is prohibited. The King may unconditionally or with certain restrictions authorize the employment of persons over 14 years of age after 9 p. m. or before 5 a. m. in establishments where work is continuous, or where it can be carried on within those hours only. The governors may grant such authority when recommended by competent inspectors for all industries and trades in case of stoppage of work due to force majeure or other exceptional circumstances. Such authorization shall be valid for a period not exceeding 10 days unless approved by the competent minister, and no such permit shall be valid for a period exceeding two months. Permits may be renewed.

Night work for women is prohibited. A period of at least 11 consecutive hours in each 24 for rest at night is required and this period shall include the time between 9 p. m. and 5 a. m. The King may permit either unconditionally or under definite conditions the employment of women after 9 p. m. in restaurants and places where drinks are sold, provided an interval of 11 consecutive hours of rest be observed. These regulations of night work for women may be set aside in industries in which either the raw materials or the materials under manipulation are susceptible to rapid deterioration, and loss can not otherwise be avoided.

In case of force majeure causing an interruption for which provisions in advance were impossible, the King may annul the provisions prohibiting the employment of children over 14 years of age at night work. In seasonal industries the night rest period may be reduced to 10 hours for 60 days in each year. Such industries are to be determined by royal decree.

Women under 21 and persons under 16 years of age are required to be in possession of work cards on which the following data are entered: Place of residence, family and given name, date and place of birth; and residence, and name of the father, mother, or guardian. Work cards are furnished without cost. Employers are required to keep a register on which the data shown on the work cards are entered. Working rules must be posted. Officials for carrying this law into

execution are appointed by the Government, without prejudice to the duties of the officers of the police court.

Employers are required to permit inspectors appointed under this law to enter their establishments, and must exhibit the list of women and children employed by them and furnish any other information demanded to assure the observance of this law.

This law becomes effective October 1, 1919, with the exception that the provisions affecting night work of mature women in woolen mills shall not apply to such women until January 1, 1920.

Woman and Child Labor Law of Peru.¹

THIS law, dated November 25, 1918, embraces all occupations in which women or children work for others, except work done exclusively by the members of a family under the authority and supervision of parents or guardians, domestic service, and agricultural work where no mechanical motors are used.

The following provisions apply to women and to minors under 18: Work must not exceed 8 hours per day nor 45 per week, with 2 hours continuous rest at noon, with the exception that the chief executive, when justified by the necessities of an industry, may permit work 10 hours a day for 60 days a year; on Saturdays 5 hours only may be worked, the work to be finished before 3 p. m. and paid for as a whole day; no work may be done on Sundays or holidays, but the chief executive may authorize such work on condition that it does not exceed 8 hours a day and that there is always one day of rest each week; underground work, and work in mines and quarries, and in all occupations which the chief executive may consider dangerous to health and morals, is prohibited. Industrial accident compensation is increased 25 per cent when the injured worker is a woman or a minor under 18.

Night work, defined as that between 8 p. m. and 7 a. m., is prohibited to all women and to males under 21. There are, however, two exceptions to this rule: Women over 18 may work in public entertainments at night; males over 18 may do night work providing their physical fitness is shown by a detailed medical certificate.

Minors under 20 must not be employed in driving or operating vehicles of any kind.

In general, children under 14 may not be employed in occupations covered by the law. Those between 12 and 14, however, who can read, write, and figure, and have been certified by the public medical authority as physically qualified to perform the work they desire to

¹ Boletín del Ministerio de Fomento, December, 1918. Lima, Peru

do, may be employed not to exceed 6 hours a day nor 33 hours a week. In orphanages and other charitable institutions in which, together with primary instruction, manual training is taught, children between 12 and 14 who have not finished the required primary instruction must not work more than 3 hours a day. Children under 14 are not allowed to appear in public performances as actors in companies, but the mayor of a city may give permission for their employment in pageants, etc., on special occasions, providing they do not work after 11 p. m.

It is forbidden for anyone to employ minors under 16 in any "work of agility, equilibrium, strength or dislocation, in public performances," except that persons engaged in such work—acrobats, gymnasts, trainers or exhibitors of wild animals, bullfighters, circus directors, or similar occupations—may employ their own children and other relatives as young as 14. Employers, parents, or guardians who violate this provision, and they or any other persons charged with the custody of a minor under 16 who give his services with or without charge to persons engaged in such work or to persons who are habitual beggars or vagrants, are punishable by imprisonment for from 3 to 6 months and fines of from 10 to 50 libras (\$50.37 to \$251.85), the fines to be used for the benefit of poor children in the primary schools of the vicinity. In addition conviction includes: For guardians, loss of their wards; for relatives, either temporary or permanent loss of jurisdiction over the minors; the fine and imprisonment penalties are also imposed on intermediaries or agents who act in the placing of minors illegally.

The law requires every employer to furnish to the parents or guardians of each worker under 18 in his employ a booklet showing the full name, age, and address of the worker, and full name and address of the parents or guardian, and acknowledging receipt of the required medical certificate of physical aptitude; and to record in the booklet each week the exact hour of the arrival and departure of the minor every day the said minor works. The employer is also required to keep a register recording the same information.

A woman is not permitted to work during the 20 days preceding nor the 40 days following confinement, during which time she receives 60 per cent of her wages. Employers may substitute for this obligation either individual or collective insurance. Women employed by the State, municipalities, departments and public charity societies, are allowed full pay during such periods. If, however, a woman works at anything other than domestic work in her own home during this time, she loses her right to the 60 per cent of her salary or the insurance that may have been substituted therefor.

A woman discharged within 3 months before or after confinement has a right to 90 days' wages, in addition to any compensation provided for in the labor contract.

Every employer within the scope of this law who employs women over 18 must provide, or combine with other employers to provide, a nursery in the immediate locality, where working mothers may attend to and leave their babies in working hours during the first year of the baby's life. Without deduction of pay the mothers must be allowed periods for nursing their babies, such periods aggregating not more than 1 hour a day, not counting time necessary to pass to and from the nursery.

In Government enterprises and local institutions in which shop work or home work is paid for by the piece or by the job, the amount paid for each piece or job shall be calculated so that each worker will earn as a minimum, for a legal wage, the normal salary current in each place. Seamstresses who work at home shall receive a wage at least equal to that earned as a legal day's wage by factory or shop workers. If the work is paid by the piece the pay for each day must be equal to the legal wage.

Employers are required to furnish seats, distinct from those furnished for the use of the public, for the comfort of women and children while working, whenever their work does not oblige them to remain standing.

Work that is proved by medical examination of workers to be prejudicial to the health of women and minors may be ordered stopped by State, provincial, or municipal authorities, and by institutions and authorities charged to oversee the execution of the labor laws.

Old-Age Pensions Law of Uruguay.¹

AN OLD-AGE pensions law for Uruguay, which became effective May 15, 1919, provides for the pensioning of all persons reaching the age of 60 years, or other persons becoming absolutely incapacitated and who are indigent, whatever their age. The annual pension is to be not less than 96 pesos (\$99.28), and may be paid in cash or in assistance. Foreigners or naturalized citizens having resided 15 years continuously in the country are entitled to pensions. Persons not entitled to a pension are provided for from the public poor fund.

In case a pensioner is in receipt of any annuities or allowances in excess of 10 pesos (\$10.34) the pension granted under this law shall be reduced 50 per cent of that sum in excess of 10 pesos.

¹ Diario Oficial de la Republica Oriental del Uruguay. Montevideo, February 15, 1919.

The fund for the payment of these pensions is to be derived from new and increased imposts as follows:

(1) A monthly tax of 20 centesimos (20.68 cents), payable by each employer for each person employed by him.

(2) A surtax on real estate having a value of not less than 200,000 pesos (\$206,840), as per the following schedule:

	Surtax per 1,000 pesos.
200,000 pesos (\$206,840) but less than 300,000 pesos (\$310,260)....	1. 05 pesos (\$1.09)
300,000 pesos (\$310,260) but less than 400,000 pesos (\$413,680)....	1. 10 pesos (\$1.14)
400,000 pesos (\$413,680) but less than 500,000 pesos (\$517,100)....	1. 15 pesos (\$1.19)
500,000 pesos (\$517,100) but less than 600,000 pesos (\$620,520)....	1. 20 pesos (\$1.24)
600,000 pesos (\$620,520) but less than 700,000 pesos (\$723,940)....	1. 25 pesos (\$1.29)
700,000 pesos (\$723,940) and over	1. 30 pesos (\$1.34)

(3) A tax on playing cards of 20 centesimos (20.68 cents) per pack if imported and 10 centesimos (10.34 cents) if of domestic manufacture.

(4) An increase of 12 centesimos per liter (11.7 cents per quart) of the present tax on imported liquors, absinthe, bitters, cognac, grappa, fernet, ginebra, Kirsch, and whiskey. Fine wines are subject to an internal tax of 12 centesimos on bottles of 1 liter each, and a proportional tax for larger bottles.

(5) An internal tax of 60 centesimos per liter (58.7 cents per quart) is placed on imported alcohol and domestic alcohol not destined for denaturalization.

(6) The present tax on imported brandies is increased by 13 centesimos (13.44 cents).

In the distribution of this fund provision must be made for establishing a reserve fund for meeting deficiencies in subsequent years and for founding almshouses for the aged or indigent persons who may desire to reside therein and who are willing to compensate such institutions by the payment of a part of their pensions.

Should the fund thus created the first year be insufficient for the purposes set forth, the next subsequent budget shall provide the necessary funds.

All taxes collected in pursuance of this law are deposited monthly in the Banco de Seguros del Estado (State Insurance Bank). The bank shall receive no compensation, other than actual expenses incurred, for administering the fund.

Nothing in this law shall prejudice any law relative to industrial invalidity insurance, or any annuities or pensions resulting from such insurance.

The fund may accept legacies and donations.

HOUSING.

Municipal and Cooperative Housing Law in Wisconsin.

In July the Wisconsin Legislature added a section to its general corporation law which made it possible for municipalities to engage in housing or for interested individuals to organize themselves to form cooperative housing companies.

Under the law in question such a corporation is given power to acquire land and to prepare it for residential use upon approval of any public land commission or city planning commission of any locality where the property of such corporation is located. It is also provided that if the land is located within any city or within a radius of three miles from the boundary of the city approval must be had from the health department for the development of the land. No single dwelling may be erected by such company the cost of which exceeds \$5,000. Sufficient ground space must be provided to furnish sufficient air and light.

The test clause of the act which makes cooperative housing possible is that clause which directs that no land shall be sold by the corporation except in case of winding up the affairs of the corporation or in closing mortgages or liens, or for disposing of land not needed by the corporation. Two other provisions indicate further the truly cooperative character of the corporation; namely, that no lease may be made for land or property of the corporation except to a stockholder of it and for the use of such stockholder. In this instance exception is made in the case of American soldiers, sailors, or marines in the war with Germany and the Entente, who need not be stockholders of the corporation. No tenant may hold stock of the corporation beyond the value of the premises occupied by him. All stock must be issued in consideration of money, labor, or property estimated at its true money value. No dividends may be declared until a fund equal to 2 per cent of the authorized capital of the corporation has been created, and no dividend exceeding 5 per cent of the par value of the stock may be paid to any holder. The preferred stock of the corporation must be retired as soon as possible. For this purpose 10 per cent of the annual profits is set aside each year.

By providing that the common council of any city and the board of supervisors of any county may subscribe for preferred stock of the corporation in question, opportunity is offered for those governmental units to engage in the housing of wage earners.

The directors of the cooperative housing corporation are not to receive any compensation until the surplus fund of 2 per cent of the capital has been set aside and until dividends on preferred stock have been paid. At no time is the compensation of the board of directors to exceed \$500 per annum. No fee for filing articles of incorporation by a housing corporation formed under the provisions of this law are required. This puts any housing corporation organized under the act on the same standing in that respect as educational, benevolent, and charitable corporations.

The cooperative housing law outlined above is probably the first specific cooperative housing law passed by any State in the Union. It is not unlikely, however, that cooperative housing companies may be formed under some of the general cooperative acts which are in force in some States.

The Wisconsin act has been secured by the urgency of the Milwaukee Housing Commission, whose report was filed in April, 1918. The original draft of the law was drawn by members of that commission. In its report to the mayor of Milwaukee that commission said among other things:

The solution of the housing problem involves—

- (a) The elimination of speculative land values in some residential districts.
- (b) Zoning of the city to safeguard all residential districts.
- (c) Economical and adequate planning of streets, transportation, sewage disposal, water supply, lighting, planting of trees, etc.
- (d) Elimination of waste in construction of homes.
- (e) Acquiring for wage earners the benefits of ownership without interfering with labor mobility.
- (f) Legislation aiming to stimulate the erection of wage earners' homes.
- (g) Public instruction as to the possibilities of housing betterment.

The Elimination of Speculative Land Value.

The unearned increment of land value is held to be one of the chief causes of city slums and its control by the Government seems to be, among others, a logical and necessary expedient to check physical and social deterioration incident to improper housing. Increasing values of land gradually restrict the size and quality of homes to a level inconsistent with the higher ideals of democracy and, therefore, private housing enterprises have not more than set an example which speculative builders can not afford to follow. To-day speculative building methods are almost exclusively resorted to for providing wage earners' homes and the chief evidence of the failure of such procedure lies in the fact that either housing evils exist in almost every community or are imminent. Uncontrolled speculation in this field is so closely akin to exploitation that to favor its continuation is to propose that workingmen may, with propriety, be exploited.

Experiments in Europe seem to indicate that the most effective method employed to eliminate the burden of speculative land values is that of encouraging municipal ownership of large tracts of land which may be leased to and eventually purchased by properly constituted copartnership home building societies. In the main, the various schemes adopted aim to extend to home seekers the credit of the Government without imposing additional burdens on taxpayers, for to be of value to the community housing projects must be self-supporting. It is reasonable to assume that similar methods would assure to industrial workers in this State the benefits accruing to European workers, and your commission recommends that such legislation be enacted as may be necessary to accomplish the desired results. The Commonwealth of Massachusetts has taken an initial step in this direction and it seems proper that Wisconsin should do likewise.

Americans have long harbored the idea that ownership of his home makes a man a better citizen. This is a misconception unless the benefits of such ownership outweigh its burdens. It must be borne in mind that ownership with most wage earners means the carrying of a mortgage, with the constant fear of foreclosure. It also means a very restricted area in which employment may be sought.

Copartnership tenants societies, as organized in Europe, grant to the tenants practically all of the benefits of individual ownership without the usually accompanying burdens. Sixty cooperative societies in England, and more in Belgium and Germany, have placed the method beyond the experimental stage and its adoption in this country seems advisable. In a copartnership society the occupant of a home neither buys nor rents in the usual meaning of those terms. He acquires the value of a home without curtailing his mobility, as his investment in the society's stocks, if not always transferable without loss, will at least net him as much income as any safe security. His savings are not lost should he find it expedient to remove to another locality. The interests of tenant and investor are identical. No member lays claim to ownership in one house; he lays claim to part ownership in the whole estate.

LABOR ORGANIZATIONS.

Labor Organization in Canada.

THE annual report for 1918 on labor organization in Canada,¹ which was recently issued by the Canadian Department of Labor, indicates that there has been much activity in every line of operation and that trade-union membership in the Dominion has reached the highest point recorded since the department commenced the publication of these annual reports in 1911. Concerning the growth and work of the trade-unions, the report says:

At the close of 1918 the membership for all classes of trade-unions in Canada was 248,887, comprised in 2,274 branch unions, a total increase for the year of 44,257 in membership and 300 in local branches. * * * The variation in the standing of the different groups is a point of interest. The building trades group, which in 1914 comprised 18.9 per cent of the total trade-union membership, declined to 9.4 per cent in 1916, but since that time has been gradually recovering its position, the percentage now being 13.4. The railroad employees' group, which comprises the largest percentage, increased from 24.9 per cent in 1914 to 30.5 per cent in 1916, and in 1917 stood at 28.5 per cent, now represents 28.3 per cent. The metal trades group representing, in 1914, 8.6 per cent of the total, has steadily increased its percentage and now stands at 13.1. The mining and quarrying group, which in 1914 stood at 8.7 per cent, has fluctuated slightly in the later years, the percentage in 1918 being 9.5.
* * *

There are on the North American Continent 96 international organizations having one or more local branches in Canada, and between them comprising 1,897 of the branch unions in the Dominion, a gain of 195 over the number recorded in 1917. The membership reported from the respective headquarters for the year 1918 was 201,432, an increase of 36,536. The following table gives the names, in alphabetical order, of 15 international unions * * * representing a total membership in the Dominion of 128,677, contained in 979 local branch unions:

¹ Eighth annual report on Labor Organization in Canada (for the calendar year 1918). Published by the Department of Labor. Ottawa, 1919. 237 pp.

MEMBERSHIP IN CANADA OF FIFTEEN INTERNATIONAL UNIONS.

Name of organization.	Number of Canadian local units.	Reported membership of all units in Canada.
American Federation of Labor.....	23	4,766
Boilermakers and Iron Shipbuilders, International Brotherhood of.....	39	5,999
Carpenters and Joiners of America, United Brotherhood of.....	117	12,394
Clothing Workers, Amalgamated.....	12	5,500
Electrical Workers, International Brotherhood of.....	35	12,500
Locomotive Engineers, Brotherhood of.....	92	5,289
Locomotive Firemen and Enginemen, Brotherhood of.....	96	7,558
Machinists, International Association of.....	86	15,421
Maintenance-of-way Employees, United Brotherhood of.....	164	8,000
Mine Workers of America, United.....	44	8,000
Railroad Telegraphers, Order of.....	11	5,750
Railroad Trainmen, Brotherhood of.....	88	12,237
Railway Carmen of America, Brotherhood of.....	95	11,087
Street and Electric Railway Employees, Amalgamated Association of.....	29	9,312
Typographical Union, International.....	48	4,864

There are in all, operating on the North American Continent, 143 national and international organizations, and of these 112 are in affiliation with the American Federation of Labor. Of the bodies connected with the American Federation of Labor, 87 have one or more local branches in Canada, while of the 31 unions not affiliated with the American Federation 9 have Canadian branches.

Noninternational and Independent Organizations.

In addition to the international organizations having branches in the Dominion there are 13 bodies classed as noninternational, having between them 332 local branches, with a combined membership of 37,928, an increase for 1918 of 88 branches and 5,585 members. Besides unions having either international or noninternational affiliation there are 45 independent units in the Dominion, 27 of which report a membership of 9,527, a gain of 2,136 as compared with the reported membership from 28 independent units in 1917. * * *

Beneficiary Disbursements of Trade-Unions.

Of the 96 international organizations operating in the Dominion 74 have beneficiary features of a varying nature. Death benefits were paid by 58, unemployment benefits by 13, strike benefits by 53, sick and accident benefits by 24, and old-age pensions by 2.

The total expenditure by the various central organizations on account of benefits during the year 1918 amounted to \$16,802,092, an increase of \$3,626,713 as compared with the expenditure for benefits for the year 1917. In addition to the benefits paid, many international organizations made contributions to other unions, the sum aggregating \$94,283. The disbursements for each class of benefit were as follows:

Death benefits.....	\$12,679,934
Unemployed and traveling benefits.....	91,372
Strike benefits.....	1,973,418
Sick and accident benefits.....	1,294,268
Old-age pensions.....	763,100

Seven of the noninternational organizations made payments on account of benefits, the total reported being \$16,895, an increase of \$499 over the expenditure for 1917.

A statement is also published showing the amount paid in benefits for the year 1918 by local branch unions in Canada to their own members, the disbursements aggregating \$431,504, an increase of \$118,388 over 1917. The payments made on account of each class of benefit were: Death benefits, \$170,576; unemployed benefits, \$6,573; strike benefits, \$71,071; sick benefits, \$129,093; other benefits, \$54,191.

Growth of the German Free Trade-Unions.

THE Correspondenzblatt,¹ the official organ of the executive committee of the Federation of German Free (Social-Democratic) Trade-Unions, expects that by the end of June, when the German Trade-Union Congress will be in session at Nurnberg, the membership of the trade-unions will have reached 5,000,000. It has grown from 1,415,452 in October, 1918, to its present figure of 4,000,000. The following figures show the distribution of these among the largest of the 58 unions affiliated with the federation:

Metal workers.....	1,006,993	Miners.....	200,000
Factory workers.....	400,000	Municipal workers.....	166,155
Transport workers.....	272,000	Agricultural laborers.....	150,000
Building trades.....	270,000	Shop clerks.....	135,000
Railway men.....	250,000	Tailors.....	62,941
Woodworkers.....	222,043	Printers.....	50,342
Textile workers.....	210,669		

The membership has increased by 1½ millions since prewar days, the affiliation of the railway men being accountable for 250,000. Such figures make extraordinary demands on the trade-union officials, who in many cases are not sufficiently numerous to cope with them. "It is all the more to be regretted," says the Correspondenzblatt, "that some members with independent and communistic leaning are endeavoring to get rid of some of these experienced officials because their political views do not coincide."

¹Correspondenzblatt der Generalkommission der Gewerkschaften. Berlin, May 10, 1919.

CONCILIATION AND ARBITRATION.

Conciliation Work of the Department of Labor in July, 1919.

UNDER the organic act of the department, which gives the Secretary of Labor the authority to mediate in labor disputes through the appointment, in his discretion, of commissioners of conciliation, the Secretary exercised his good offices in July, 1919, in 94 labor disputes. The companies involved, the number of employees affected, and the results secured, so far as information is available, are shown in the following table:

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION IN JULY, 1919.

Nature, name, and result of dispute.	Craft.	Cause.	Workmen affected.	
			Directly.	Indirectly.
Controversy—Boot and Shoe Workers' Union, Levy Shoe Co., Chicago, Ill.—Adjusted.	Boot and shoe workers.	Wages and conditions.	300	.....
Strike—Evansville Packing Co., Evansville, Ind.—Unable to adjust.	Members of butchers' union.	Union agreement.	142	162
Threatened strike—Semet-Solvay Co., Cleveland, Ohio—Adjusted.	Coal handlers and laborers.	Discrimination.	86	75
Threatened strike—City employees, Washington, D. C.—Adjusted.	Employees....	Bonus question.	2,500	3,500
Threatened strike—Master Plumbers' and Steamfitters' Association, Portland, Me.—Adjusted.	Plumbers and steamfitters.	Wages; conditions.	130	1,000
Controversy—Draper Co., Milford, Mass.—Pending.....	Machinists....	48-hour week; loss of pay; overtime; collective bargaining.	.....	.....
Strike—Electrical contractors, Evansville, Ind.—Adjusted.	Electrical workers.	Wages.....	67	400
Controversy—Wm. F. Mosser Co., Cherry River Extract Co., Richwood, W. Va.—Pending.	.....	Back pay.....	.....	.....
Strike—Squire-Dingee Co., Chicago, Ill.—Adjusted.....	Employees....	Wages; hours.	170	50
Strike—Berman & Co., Los Angeles, Calif.—Adjusted..	Garment workers.	Nonpayment award.	8	5
Strike—Savage Arms Co., Sharon, Pa.—Pending.....	All crafts.....	Installation of piecework.	750	.....
Strike—Contractors, Wilmington, Del.—Adjusted.....	Carpenters....	Wages.....	125	200
Strike—Lathers and carpenters, Hammond, Ind.—Pending.	Lathers and carpenters.	Jurisdictional matter.	30	5,000
Strike—Union Drop Forge Co., Chicago, Ill.—Company refused conciliation.	Machinists and blacksmiths.	Wages; hours; collective bargaining.	370	50
Controversy—Mineral Refining & Chemical Corp., St. Louis, Mo.—Pending.	.....	Company violating agreement.	.....	.....
Controversy—Dubuque Boat & Boiler Co., Dubuque, Iowa.—Pending.	.....	Case was to have been submitted to War Board.	.....	.....

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION IN JULY, 1919—Continued.

Nature, name, and result of dispute.	Craft.	Cause.	Workmen affected.	
			Directly.	Indirectly.
Controversy—Beveridge Plant, Omaha, Nebr.—Adjusted.	Stationary engineers and firemen.	Wages.....	25	200
Strike—M. Klein & Sons, Chicago, Ill.—Pending.....	Machinists and specialists.	Collective bargaining.	80	60
Strike—Citizens' Telephone Co., Lansing, Mich.—Adjusted.	Telephone employees.	Wages; hours; overtime.	140	.....
Strike—Southwestern Mechanical Co., Fort Worth, Tex.—Pending.	Metal workers.	Wages.....	75	225
Strike—Cleveland Hardware Co., Cleveland, Ohio.—Adjusted.	Metal workers.	Wage increase rates in writing.	400	200
Lockout—Standard Slag Co., Jackson, Ohio.—Pending.	Slag workers..	Signed agreement.	10	.....
Controversy—Cosden & Co., Tulsa, Okla.—Adjusted...	Boilermakers and helpers.	Wages.....	65	1,250
Threatened strike—All employers, Portland, Me.—Adjusted.	Sheet metal workers.	Wages; closed shop rules.	32	1,000
Strike—Donner Steel Plant, Buffalo, N. Y.—All men returned to work except machinists, whom the company refuses to take back or deal with.	Linemen, pipefitters, firemen, millmen, blacksmiths, machinists, engineers.	Extra pay for Sunday.	100	2,700
Strike—Central Union Telephone Co., St. Louis, Mo.—Pending.	Employees....	8-hour day; overtime.	30	.....
Strike—Cleveland Ry. Co., Cleveland, Ohio.—Adjusted.	Carmen.....	Wages.....	2,800	2,000
Controversy—Machinists, Hudson, Mass.—Pending....	Machinists....	Discrimination	2	65
Controversy—Sumpster Valley Ry. Co., Baker, Oreg.—Both men are employed elsewhere.	2 employees...	Discrimination	2	65
Controversy—Machinists, Marlborough, Mass.—Pending.	Machinists....	Discrimination	2	65
Threatened strike—Bewley Mills, Fort Worth, Tex.—Adjusted.	Employees....	Wage increase; renewal of contract.	60	40
Strike—Graton & Knight Co., Worcester, Mass.—Pending.	Leather workers.	Hours; wages.	1,500	1,800
Threatened strike—James Clark, jr., Electric Co., Louisville, Ky.—Pending.	Machinists' union.	8-hour day....	41	74
Strike—Union Iron Works, Decatur, Ill.—Adjusted....	Employees....	Discrimination	115	.....
Controversy—Street railways, Norfolk and Portsmouth, Va.—Adjusted.	Motor men, conductors.	Recognition of union; wages agreement.	458	250
Controversy—Davy Pochontas Coal Co., Roderfield, W. Va.—Pending.	Employees....	Discrimination	.....	.....
Strike—Shamokin & Mount Carmel Trolley Co., Centralia, Pa.—Pending.	Street car men and general public.	Wages.....	54	.....
Controversy—Chicago Rubber Clothing Co., Racine, Wis.—Pending.	Employees....	Closed shop....	.....	.....
Lockout—Globe Iron Co., Star Furnace, Jackson, Ohio, Jackson Iron & Steel Co.—Pending.	Furnace workers.	New agreement.	300	200
Strike—56 shops, Jamestown, N. Y.—Strike called off on commissioner's representation of what he was convinced would be done, although he had no authority from employers.	Metal polishers, buffers, machinists, sheet metal workers, woodworkers, upholsterers.	Wages; hours; discrimination; collective bargaining.	7,000	.....
Threatened strike—Harrison Shipbuilding Co., Athens, N. Y.—On investigation it developed there was nothing to call strike for, and commissioner was assured no such action would occur.	Carpenters....	Wages; hours.	200	200
Strike—Oklahoma Union Railway Co., Tulsa and Sapulpa, Okla.—Adjusted.	Motormen and conductors.	Union recognition.	49	20
Controversy—Packing-house workers, St. Louis, Mo.—Pending.	Employees....	Agreement expired.	.....	.....
Controversy—Metal Trades, Wilkes-Barre, Pa.—Pending.	Metal trades..	Working agreement.	3,800	.....

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION IN JULY, 1919—Continued.

Nature, name, and result of dispute.	Craft.	Cause.	Workmen affected.	
			Directly.	Indirectly.
Threatened strike—Employers, Ridgway, Pa.—Adjusted.	Molders.....	Wages.....	65	500
Controversy—Yale & Towne Manufacturing Co., Stamford, Conn.—Pending.	Machine hands	Discrimination	200	4,500
Strike—The Hot Bread Baking Co., St. Louis, Mo.—Pending.	Bakers and confectioners	Closed-shop agreement.	4	9
Strike—Keystone Wire Mill Co., Peoria, Ill.—Adjusted.	Employees....	Agreement....	700	50
Lockout—Irrington Manufacturing Co. or Red Devil Tool Co., Irvington, N. J.—Pending.	Metal polishers	Discrimination	46	115
Lockout—Indian & Central Refinery, Lawrenceville, Ill. Company will not meet any representative of the union or give employment to union members.	Car repairers..	Discrimination	37	1,300
Controversy—Ohio Cities Gas & Oil Co., Cabin Creek, W. Va.—Adjusted.	Employees....	Discrimination	30	120
Controversy—Staley Starch Co., Decatur, Ill.—Pending.	Employees....	Discrimination	.....	.....
Strike—Crane Co., Chicago, Ill.—Pending.....	Machinists, blacksmiths, molders, etc.	Wages; hours; recognition of union.	7,500	500
Strike—Corn Products Co., Argo, Ill.—Pending.....	.....	Discrimination	2,600	200
Controversy—Adrian Furnace Co., DuBois and Punxsutawney, Pa.—Pending.	.....	Wages; violating contract.	.....	.....
Strike—City laborers, Jamestown, N. Y.—Adjusted....	Laborers.....	Wages.....	100	200
Strike—Street car men, Macon, Ga.—Adjusted.....	Street car men.	.....	.....	.....
Threatened strike—Shoe industry, Lowell, Mass.—Pending.	.....	.....	.....	.....
Threatened strike—Boston Elevated Railway, Boston, Mass.—Adjusted.	Employees.....	.....	.....	.....
Strike—Kendrick & Davis Co., Lebanon, N. H.—Employer granted wages and hours but refused to allow strikers to return to work.	Machinists and helpers.	Wages; hours; shop committee.	58	.....
Threatened strike—Virginia Bridge & Iron Co., Memphis, Tenn.—Pending.	Employees....	Wages; working conditions.	220	20
Controversy—Abendroth Stove Co., Port Chester, N. Y.—Pending.	Foundrymen..	.....	.....	.....
Walkout—Empire Worsted Mills, Jamestown, N. Y.—Adjusted.	Textile worker	Discrimination	2	.....
Strike—Red Wing Motor Co., Red Wing, Minn.—Inasmuch as employees were returning to work, was to be left for the present.	Patternmakers and machinists.	Eight-hour day; wages.	37	10
Strike—Western Steel Car & Foundry Co., Hegewich, Ill.—Pending.	All crafts....	Wages.....	1,500	.....
Controversy—Champion Machine & Forging Co., Cleveland, Ohio—Pending.	Blacksmiths, hammermen, heaters, helpers.	Wages.....	60	240
Controversy—Candy Manufacturing Industries, Chicago, Ill.—Adjusted.	.....	.....	7,000	.....
Strike—Wellman-Seaver-Morgan Co., Akron, Ohio—Adjusted.	Boilermakers, helpers.	Enforcement of National War Labor Board award.	125	1,300
Controversy—Cincinnati Traction Co., Cincinnati, Ohio.—Pending.	Laborers.....	Wages.....	.....	.....
Controversy—Metal polishers, Boston, Mass.—Pending.	Metal polishers.	Wages.....	.....	.....
Strike—Standard Steel Car Co., Hammond, Ind.—Pending.	Employees....	Wages.....	1,600	.....
Strike—Underwood Typewriter Co., Hartford, Conn.—Pending.	Mechanics.....	Wages, hours	800	3,700
Strike—D. James Co., Chicago, Ill.—Pending.....	Machinists and specialists.	.....	.....	.....
Strike—William Ganeschow Co., Chicago, Ill.—Pending.	Machinists	.....	.....	.....
Strike—Foote Bros., Gear & Machine Co., Chicago, Ill.—Pending.	Machinists and specialists.	.....	.....	.....
Strike—Chicago Gear Co., Chicago, Ill.—Pending.	do.	.....	.....	.....
Strike—Union Stockyards, Omaha, Nebr.—Pending....	Employees.....	Wages.....	.....	30
Strike—F. H. Hill Casket Co., Chicago, Ill.—Adjusted.	do.	do.	400	.....
Threatened strike—Atlas Tack Co., Fairhaven, Mass.—Adjusted.	Machinists.....	Wages; discrimination; conditions.	100	500

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION IN JULY, 1919—Concluded.

Nature, name, and result of dispute.	Craft.	Cause.	Workmen affected.	
			Directly.	Indirectly.
Strike—Hoyt Metal Co., Granite City, Ill.—Pending.....		Failure to comply with National War Labor Board award.		
Controversy—R. R. Donnelley & Sons Co., Chicago.—Pending.	Typographical Union.	Discrimination		
Controversy—Labor trouble, Waterloo, Iowa.—Pending.				
Controversy—Street railway employees, Auburn, N. Y.—Pending.	Street car men.	Wages; hours..		
Controversy—O. & M. Railway, Miami, Okla.—Pending.	Street car men.	Agreement....		
Lockout—United Cigar Stores Co., Chicago, Ill.—Pending.	Cigar clerks...	Right to organize.		
Lockout—Haskell & Barker Co., Michigan City, Ind.—Adjusted.			2,500	3,000
Strike—Coopers, Cleveland, Ohio—Pending.....	Coopers.....			
Strike—Perfection Spring Co., Cleveland, Ohio—Pending.		Wages; conditions.		
Threatened strike—Blackwell, Rutledge & Winton Lumber Co., Couer d'Alene, Idaho—Pending.	Timber workers.	Wages.....		
Strike—Smith Wheel, Inc., Syracuse, N. Y.—Adjusted..	Molders, core-makers.	Wages; hours..	100	1,000
Controversy—Blakeslee Drop Forge Co., Southington, Conn.—Pending.				
Controversy—Michigan Railway Co., Grand Rapids, Mich.—Pending.	Freight handlers.	Discrimination		
Strike—Olean-Bradford-Salamanca railways, Olean, N. Y.—Pending.	Street car men			
Controversy—League Island Navy Yard, Philadelphia, Pa.—Pending.		Noncontractors doing work.		

COMPARATIVE STATEMENT FOR JUNE AND JULY, 1919.

Month.	Strikes.	Disputes.	Walk-outs.	Lock-outs.	New cases adjusted.	Total adjusted.	Cases pending.	Unclassified.	Unable to adjust.
June.....	36	38	.....	2	35	50	29	9	3
July.....	43	44	1	6	31	47	54	8	1

Fifteen of the strikes noted in July have been settled.

IMMIGRATION.

Immigration in June, 1919.

THE following tables, prepared by the Bureau of Immigration of the Department of Labor, show the total number of immigrant aliens admitted into the United States in each month from January, 1913, to June, 1919, and the numbers admitted in each fiscal year, 1915 to 1918, and in June, 1919, by nationality. The total departures of emigrant aliens in June, 1919, numbered 25,375.

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS
JANUARY, 1913, TO JUNE, 1919.

Month.	1913	1914	1915	1916	1917	1918	1919	
							Number.	Per cent increase over preceding month.
January.....	46,441	44,708	15,481	17,293	24,745	6,356	9,852	18.3
February.....	59,156	46,873	13,873	24,710	19,238	7,388	10,586	7.5
March.....	96,958	92,621	19,263	27,586	15,512	6,510	14,105	33.2
April.....	136,371	119,885	24,532	30,560	20,523	9,541	16,860	19.5
May.....	137,262	107,796	26,069	31,021	10,487	15,217	15,093	10.5
June.....	176,261	71,728	22,598	30,764	11,095	14,247	17,987	19.2
July.....	138,244	60,377	21,504	25,035	9,367	7,780	.....	.....
August.....	126,180	37,706	21,949	29,975	10,047	7,862	.....	.....
September.....	136,247	29,143	24,513	36,398	9,228	9,997	.....	.....
October.....	134,440	30,416	25,450	37,056	9,284	11,771	.....	.....
November.....	104,671	26,298	24,545	34,437	6,446	8,499
December.....	95,387	20,944	18,901	30,902	6,987	10,748

¹ Decrease.

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Classified by nationality, the number of immigrant aliens admitted into the United States during specified periods and in June, 1919, was as follows:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN JUNE, 1919, BY NATIONALITY.

Nationality.	Year ending June 30—				June, 1919.
	1915	1916	1917	1918	
African (black).....	5,660	4,576	7,971	5,706	640
Armenian.....	932	904	1,221	221	55
Bohemian and Moravian.....	1,651	642	327	74	12
Bulgarian, Serbian, Montenegrin.....	3,506	3,156	1,134	150	39
Chinese.....	2,469	2,239	1,843	1,576	92
Croatian and Slovenian.....	1,912	791	305	33	11
Cuban.....	3,402	3,442	3,428	1,179	197
Dalmatian, Bosnian, Herzegovinian.....	305	114	94	15	.....
Dutch and Flemish.....	6,675	6,433	5,393	2,200	285
East Indian.....	82	80	69	61	9
English.....	38,662	36,168	32,246	12,980	3,832
Finnish.....	3,472	5,649	5,900	1,867	104
French.....	12,636	19,518	24,405	6,340	1,597
German.....	20,729	11,555	9,682	1,992	225
Greek.....	15,187	26,792	25,919	2,002	73
Hebrew.....	26,497	15,108	17,342	3,672	336
Irish.....	23,503	20,636	17,462	4,657	1,027
Italian (north).....	10,660	4,905	3,796	1,074	219
Italian (south).....	46,557	33,900	35,154	5,234	488
Japanese.....	8,609	8,711	8,925	10,168	1,176
Korean.....	146	154	194	149	10
Lithuanian.....	2,638	599	479	135	21
Magyar.....	3,604	981	434	32	2
Mexican.....	10,993	17,198	16,438	17,602	3,308
Pacific Islander.....	6	5	10	17	3
Polish.....	9,065	4,502	3,109	668	134
Portuguese.....	4,376	12,208	10,194	2,319	149
Roumanian.....	1,200	953	522	155	29
Russian.....	4,459	4,858	3,711	1,513	188
Ruthenian (Russniak).....	2,933	1,365	1,211	49	2
Scandinavian.....	24,263	19,172	19,596	8,741	834
Scotch.....	14,310	13,515	13,350	5,204	1,581
Slovak.....	2,069	577	244	35	22
Spanish.....	5,705	9,259	15,019	7,909	467
Spanish-American.....	1,667	1,881	2,587	2,231	361
Syrian.....	1,767	676	976	210	47
Turkish.....	273	216	454	24	4
Welsh.....	1,390	983	793	278	81
West Indian (except Cuban).....	823	948	1,369	732	238
Other peoples.....	1,877	3,388	2,097	314	39
Total.....	326,700	298,826	295,403	110,618	17,987

PUBLICATIONS RELATING TO LABOR.

Official—United States.

CALIFORNIA.—*Commission of Immigration and Housing. A community survey made in Los Angeles City. San Francisco, Underwood Building, 1919. 74 pp.*

Reports the results of a study of neighborhoods in which the foreigner lives, undertaken by a committee composed of representatives of the public library, public schools, and the State Committee on Immigration and Housing, with the cooperation of all of the social agencies of the city. It is considered by its authors as valuable not as a piece of original research, but as a beginning toward united effort in the solution of community problems.

— — — *A report on large landholdings in Southern California, with recommendations. San Francisco, 1919. 43 pp.*

The findings of fact, or of reasonable approximation, resulting from the study upon which the report is based are summarized as follows:

1. That in the eight counties of Southern California there are 279 holdings (reducible by allowing for duplications to about 255 holdings), each of more than 2,000 acres, comprising an aggregate of 4,893,915 acres.

2. That the Southern Pacific grant lands and "lien lands" in five of these counties (there is none in the other three counties) aggregate 2,598,775 acres.

3. That of the total of nonrailroad and nonpublic rural lands in these counties, roughly approximated by the Federal census figures of "lands in farms" (4,587,581 acres), 2,295,140 acres, or 50 per cent, are owned in about 250 holdings.

4. That apart from the railroad lands there are at least 32 holdings, each of more than 15,000 acres; that 7 of these holdings exceed 50,000 acres each; that one of them is of 101,000 acres and another of 183,399 acres.

5. That of the 2,295,140 acres mentioned above, at least 666,886 acres, or 29 per cent, are now or potentially tillable.

6. That a considerable part of this tillable land lies idle, and that another considerable part of it is not devoted to its most beneficial use; that though there are many thousands of persons eager to get access to this land, much of it is not for sale under any circumstances, and that such portions as are for sale are held under prices usually beyond the productive value and on terms of payment which mean great hazard or ruin to the purchaser.

Remedial suggestions follow, including the extension on a large scale of the plan of the Land Settlement Board, but laying the greatest emphasis on the need of making large landholdings unprofitable; and to this end the levying of a graduated land-value tax is recommended.

CONNECTICUT.—*Bureau of Labor. Twenty-eighth report for the two years ended November 30, 1918. Hartford, 1918. 89 pp. Public document No. 23.*

The years 1917 and 1918 show a large decrease in the number of strikes and in the number of employees striking compared with the two years 1915 and 1916, which were the high-water mark for strikes in the State. For 1915 and 1916 there were 422 strikes affecting approximately 68,000 people, while for 1917 and 1918 there were 183 affecting approximately 33,400 employees. In 31 strikes the demands of the strikers were granted, in 43 there was a compromise, and 109 were unsuccessful. Notwithstanding the establishment of the Federal employment system, the State free employment offices filled during the two years more positions than in any two years since their establishment, the number being 65,943, as compared with 37,404 in the preceding two years.

The average cost to the State for each position filled was 30 cents. There were 255 cases of occupational diseases reported, as compared with 139 in the previous report, most of them being, as in previous years, confined to one locality—Bridgeport—and to one disease—fulminate rash. A recommendation is made for the passing of a statute fixing definitely the time when the employee who severs his connection with his employer shall receive his pay, about 500 complaints having been filed with the bureau during the two years covered by the report that employees were unable to secure their wages upon leaving their employment. The report also covers new factory construction, tenement houses, labor conditions, private employment offices, wages in building trades, and labor organizations.

MASSACHUSETTS.—*Bureau of Statistics. Eighteenth annual directory of labor organizations in Massachusetts, 1919. Boston, May 1, 1919. 65 pp. Labor Bulletin No. 127 (being Part I of the annual report on the statistics of labor for 1919).*

MINNESOTA.—*Department of Labor and Industries. Labor laws of Minnesota, revised to 1919. St. Paul, 1919. 184 pp.*

NEW YORK (CITY).—*Department of Health. Industrial hygiene, by Louis I. Harris, New York, March, 1919. 12 pp. Reprint series No. 75.*

A digest of this pamphlet is given on pages 298 and 299 of this issue of the MONTHLY LABOR REVIEW.

— — — *The venereal disease problem from the public health standpoint, by Louis I. Harris. New York, February, 1919. 16 pp. Reprint Series No. 76.*

This paper, reprinted from the New York Medical Journal of March 29, 1919, was originally presented at the meeting of the New York Academy of Medicine on February 6, 1919.

PENNSYLVANIA.—*Insurance Department. Pennsylvania coal mine compensation insurance experience, 1916–1918. Harrisburg, 1919. 29 typewritten pages.*

A digest of this report appears on pages 326 to 328 of this issue of the MONTHLY LABOR REVIEW.

WEST VIRGINIA.—*Bureau of Labor. Fourteenth biennial report, 1917–18. Charleston, 1918. 99 pp.*

Statistics of factory inspection occupy the larger portion of the report. In 1918, 766 factories were inspected, employing 74,001 male and 8,718 female workers, or a total of 82,719 persons, and there were 383 plants in which 637 orders were issued. In 1917 there were 849 factories inspected, employing 59,101 male and 8,199 female workers, or a total of 67,300 persons; and 408 plants in which 1,088 orders were issued. The report also includes statistics of manufacturers and of the State Federation of Labor. According to the latter the total membership in local unions affiliated with the West Virginia State Federation of Labor for 1918–19 was 27,395 and the total number of local unions was 283.

UNITED STATES.—*Council of National Defense. Reconstruction Research Division. Readjustment and reconstruction information. 1: Readjustment and reconstruction activities in foreign countries. Washington, May 1, 1919. 188 pp.*

Extracts from and digests of articles concerning readjustment and reconstruction activities in foreign countries which have appeared in recent publications, arranged by countries.

— — — *Woman's committee. Agencies for the sale of cooked foods without profit. A survey of their development with particular reference to their social and economic effect. Prepared by Iva L. Peters. Washington, 1919. 77 pp.*

This study, which was planned in the spring of 1918 when the food shortage was acute, was undertaken because of the lack of reliable information on this subject. No attempt was made to make a complete survey, the study being limited to "non-commercial agencies which strive to remove or lessen the routine preparation of three meals a day in the individual home without weakening the privacy and unity of the

family group." Prewar experiments in communal feeding in different countries are summarized and detailed information of the development of communal kitchens in Great Britain and in America during the war is given. Appended is a description of a central kitchen, and several lists of equipment.

UNITED STATES.—*Department of Labor. Proceedings of the conference with the President of the United States and the Secretary of Labor of the Governors of the States and Mayors of cities in the East Room of the White House, Washington, D. C. March 3, 4, and 5, 1919. Washington, 1919. 352 pp. Photograph.*

A report of this conference appeared in the MONTHLY LABOR REVIEW for April, 1919, pp. 71-78.

— *Children's Bureau. What is malnutrition? Hundreds of thousands of American children are undernourished. By Lydia Roberts. Washington, 1919. 20 pp. Children's year follow-up series No. 1. Bureau publication No. 59.*

Discusses the symptoms, extent, causes, effects, and treatment of malnutrition in American children.

— *Disposition of the public lands of the United States with particular reference to wage-earning labor, by Leifur Magnusson. Washington, 1919. 30 pp.*

This pamphlet points out that the homestead movement in the United States in one of its most important aspects was essentially a labor movement; that it became the center of labor propaganda during the middle decades of the nineteenth century. Until the homestead movement American land policy had little reference to wage labor as such, but once the movement was inaugurated it had its immediate effect in abating the evil effects of industrialism and unemployment. To-day, after a period of heedless and wasteful disposal of virgin lands, the situation is entirely changed. Opportunities for free land in the United States have practically disappeared. "Agriculture has ceased to be an undertaking open to the man without capital. The problem which the United States now faces is to provide for its population opportunities equivalent to, or better than, those at one time afforded by an expanding public domain. So far as agriculture is concerned, the task of the Government is to secure for the workers of the country the use of the proper kind of farm land, to prepare and equip such land for use, to aid in the organization of cooperative facilities and community life, and to eliminate the causes of speculation."

— *Federal Board for Vocational Education. Drafting; Mechanical drawing—mechanism and mechanical design, tinsmithing, sheet-metal drafting, pattern drafting; Architectural drafting; Hydrographic and topographic drafting; Ship drafting; Patent drafting; Commercial and other drafting; Lettering. Washington, March, 1919. 62 pp. Opportunity Monograph, Vocational Rehabilitation Series No. 29.*

— *Electric welding. Washington, May, 1919. 19 pp. Opportunity Monograph, Vocational Rehabilitation Series No. 40.*

— *Treasury Department. Public Health Service. Public health reports. Vol. 34, No. 30. Washington, July 25, 1919. pp. 1621-1671.*

Contains summaries of papers on Rhythm in industry by A. H. Ryan and P. S. Florence, and on Muscular tonus in relation to fatigue, by A. H. Ryan, Sara Jordan, and A. B. Yates, presented at the meeting of the Federation of American Biological Societies at the Johns Hopkins Medical School, April 25, 1919. There is also a notice of the decision by the Nebraska Supreme Court upholding the right of local health authorities to quarantine a person infected with a venereal disease.

— *War Department. Committee on education and special training. A review of its work during 1918, by the Advisory Board. Washington, 1919. 144 pp. Illustrated. Appendices.*

In September, 1917, information received by the General Staff of the War Department developed the fact that there was a demand for 200,000 more technicians than were available. An occupational index which was compiled listed 565 different forms of technical skill required in the Army, while organization charts showed that

the percentage of skilled technicians necessary varied from 40 per cent in the infantry divisions to 88 per cent for the technical staff corps.

This report sets forth the measures taken to furnish technical training for several hundred thousand men in the shortest possible time. The plan followed is briefly as follows:

A committee on education and special training was appointed, and with it was associated an advisory civilian board composed of representatives of educational institutions. Later a representative of labor and one of agricultural education were added to the board. Technical schools with the necessary facilities were selected as training centers. Military training and routine were to be conducted by Army officers, while the Federal Board for Vocational Education cooperated in the administration and supervision of technical training. After a brief trial of this dual control the Federal Board withdrew from the undertaking and the committee carried on the work through a vocational training organization of its own creation.

The duties each man was expected to perform were indicated by the Army Occupational Index, but the schools were thrown upon their own initiative as to the methods of securing these results. Later material for manuals was collected and these manuals were published and distributed as bases of instruction.

The average course lasted eight weeks. Six or seven hours of vocational work and three hours of military drill and exercise made up the daily schedule. The teachers were skilled mechanics from machine shops and garages, who developed into competent instructors through a careful supervision of the work.

On April 6, 1918, 6,000 men began work in 15 schools. By July 1, 50,000 men—both white and colored—were in training in 147 schools of varied character. Up to November 11, 1918, 130,000 physically fit men had received training which added to their general efficiency in any event. Of this number 100,000 had been delivered to the Army and 30,000 were ready for assignment.

The committee later directed its efforts to the organization of the Students' Army Training Corps, and the report closes with an account of the development of this phase of the work.

Official—Foreign Countries.

AUSTRALIA.—*Court of Conciliation and Arbitration. Commonwealth arbitration reports. Vol. 11. A report of cases decided and awards made in the Commonwealth Court of Conciliation and Arbitration, including conferences convened by the President or deputy presidents during the year 1917. Melbourne, [1919]. 1414 pp.*

BELGIUM.—*Ministère de l'Industrie, du Travail et du Ravitaillement. Office du Travail. Rapports Annuels de l'Inspection du Travail. 19 Année (1915). Brussels, 1919. 559 pp. and illustrations of safety devices.*

This volume contains the detailed reports of the various district labor inspectors. The subjects discussed are: Employment of women and children; Sunday rest; shop regulations; wages; health and safety of employees; accidents, etc., 1913.

—(PROVINCE OF HAINAUT).—*Commission administrative de la caisse de prévoyance établie en faveur des ouvriers mineurs du Couchant de Mons. Rapport sur les opérations de l'année 1918. Mons, May, 1919. 19 pp.*

Contains a brief review of the working of the miner's pension fund during the period 1914–1918, its operations apparently not having been interrupted by the German occupation. The most striking fact is that for the year 1918 the receipts show an excess over expenditures of 124,175.29 francs (\$23,965.83). "This result is due to two principal factors, first, the recent important advance in wages secured by the workers, and, second, the considerably increased mortality among the old pensioners." The total number of pensioners at the end of 1917 was 5,356, while at the

end of 1918 it had sunk to 5,192 in spite of the fact that the number of new pensions granted during the year, 640, was considerably over the average for the period 1914-1918.

The report also gives the recent changes in the laws governing the operation of this fund, by which miners may become eligible to the old-age pension at 55 instead of at 60, provided they have worked underground in a Belgian coal mine for 30 years.

CANADA.—*Department of Labor. Eighth annual report on labor organization in Canada (for the calendar year 1918). Ottawa, 1919. 237 pp.*

A digest of this report is published on pages 354 to 356 of this issue of the MONTHLY LABOR REVIEW.

— — — *Labor legislation in Canada for the calendar year 1918. Ottawa, 1919. 152 pp.*

This report is noted on page 344 of this issue of the REVIEW.

— *Royal commission on industrial relations. Report of commission appointed under Order in Council (P. C. 670) to inquire into industrial relations in Canada, together with a minority report and a supplementary report. Ottawa, Canada. Printed as a supplement to the Labor Gazette, July, 1919. 28 pp.*

A review of this pamphlet appears on pages 36 to 43 of this issue of the MONTHLY LABOR REVIEW.

— (MANITOBA).—*Public Works Department. Annual report for 1918. Winnipeg, 1919. 72 pp.*

Contains the third annual report of the Bureau of Labor of the Public Works Department, which includes the report of the Minimum Wage Board. A statement of the minimum wages established by this board during the period of its activity in 1918 appears on pages 257 and 258 of this issue of the MONTHLY LABOR REVIEW.

CHILE.—*Ministerio de Ferrocarriles. Ley y Reglamento de la Caja de Retiros y Prevision Social de los Ferrocarriles del Estado. Folleto No. 20. Santiago, 1918. xviii, 56, pp.*

A digest of this law was published in the MONTHLY LABOR REVIEW for August, 1919, p. 236.

— *Oficina Central de Estadística. Anuario Estadístico de la Republica de Chile. Vols. I, VIII, IX. Ano, 1917. Santiago, 1918. X, 77; VI, 56; and 96 pp.*

These three volumes bear the titles: Demography, Mines and Metallurgy, and Manufacturing Industry, respectively. The data are for the year 1917. The number of employees engaged in industrial establishments has increased since 1915 by 22.8 per cent and the wages paid by 28.3 per cent.

FRANCE.—*Ministère de l'Agriculture et du Ravitaillement. Recueil des Lois, Décrets, Arrêtés, Circulaires, Rapports, Documents, intéressant le Ravitaillement de la France. Volume 4. (Sept. 1, 1918, to Jan. 1, 1919). Paris, 1919. 339 pp.*

This volume is a collection in chronological order of the principal documents relative to the organization, powers, and operation of the service responsible for obtaining and distributing necessary supplies (Minister of Agriculture and Supplies) from September 1, 1918, to January 1, 1919.

— (DEPARTMENT OF THE SEINE).—*L'Office Départemental du Placement et de la Statistique du Travail de la Seine. La Constitution. Son Action et ses Travaux, du 1^{er} Novembre 1915 au Octobre 1918. Paris, 1918. 432 pp.*

This is a report made to the general council of the Department of the Seine relative to the work of the departmental labor exchanges during the war, and the operation of the labor exchanges and the office of labor statistics. The report consists of a history of the systems of exchanges in operation before the war, of the establishment of municipal exchanges; and of the creation of the central labor exchange in Paris and the district offices. Statistical tables show the general results of operations by occupations, trades, and localities. Appendixes give the legislation enacted from March 25, 1852, to October, 1918, relative to the organization of the service of placement.

GREAT BRITAIN.—*Board of Agriculture and Fisheries. Annual report of proceedings under the Small Holding Colonies Act, 1916, for the year 1918.* London, 1919. 8 pp. 11s. Price, 1d. net.

— *Home Office. Substitution of women for men during the war. Reports by H. M. inspectors of factories showing the position in certain industries at the end of 1918.* London, 1919. 142 pp. Price, 8s.

These reports give in condensed form for each of 43 nonmunition industries data as to the extent to which women were substituted for men during the war, the processes in which they were employed, their suitability for the new work, the qualifications needed for such work, and the changes or special arrangements which would have to be introduced if it were desired to continue women in these occupations permanently. No attempt is made to give the replacement value of women as compared with men, the inspectors stating that such a comparison is practically impossible "owing to the sectionalizing of much of the work, the installation of new machinery or the alteration of old to facilitate the employment of women, minor modifications of working conditions, reorganization as to hours of work, length of spells, etc., and changes in the nature of material handled and, in some cases, the articles made." These reports were used as the basis for the general report issued by the Home Office on the substitution of women for men in nonmunition factories during the war which was discussed at some length in the MONTHLY LABOR REVIEW for May, 1919, pp. 239-242.

— *Ministry of Reconstruction. Reconstruction problems 29. British fishermen and the Nation. I.—Sea fisheries.* London, 1919. 20 pp. Price, 2d. net.

— *Reconstruction problems 30. Modern languages in British education.* London, 1919. 20 pp. Price, 2d. net.

— *Reconstruction problems 31. Trusts, combines, and trade associations.* London, 1919. 16 pp. Price, 2d. net.

— *National Provisional Joint Committee on the Application of the Whitley Report. Report to the administrative departments of the Civil Service.* London, 1919. 8 pp. Cmd. 198. Price, 1d. net.

This report was noted briefly on p. 132 of the August issue of the MONTHLY LABOR REVIEW.

— (IRELAND).—*Local Government Board. Circular, dated 31st March, 1919, respecting financial assistance to local authorities in connection with the provision of houses for the working classes.* Dublin, 1919. 3 pp. Cmd. 184. Price, 1d. net.

— (IRELAND).—*Local Government Board. Housing of the working classes (Ireland) bill. Estimate of probable expenditure.* Dublin, 1919. 5 pp. Cmd. 181. Price, 1d. net.

— (SCOTLAND).—*Board of Agriculture. Seventh report, being for the year ended 31st December, 1918.* Edinburgh, 1919. lxxiv, 15 pp. Cmd. 185. Price, 6d. net.

Contain sections on Loans to existing landholders under section 9 of the act of 1911, Agricultural education and research, Agricultural development, Proceedings in connection with the effects of the European war upon agricultural interest, Forestry, Public works in congested districts, and Home industries.

— (SCOTLAND).—*Education Department. Education (Scotland) (Superannuation) Act, 1919.* London, 1919. 8 pp. Cmd. 197. Price, 1d. net.

— (SCOTLAND).—*Local Government Board. Housing, town planning, etc. (Scotland) bill. Financial assistance to local authorities. I. Draft regulations; II. Copy of circular issued by the Local Government Board for Scotland.* London, 1919. 15 pp. Cmd. 186. Price, 1d. net.

NETHERLANDS.—*Rijksverzekeringsbank. Wetenschappelijke balans op 31 December, 1917. Deel I.* Amsterdam, 1919. 114 pp.; fold. tables and charts.

Financial report of the State Insurance Institute of the Netherlands.

NEW ZEALAND.—*Registrar general's office. Results of a census of the Dominion of New Zealand taken for the night of the 15th October, 1916. Part IX: Occupations and unemployment; (Part XI: Dwellings.)* Wellington, 1918. 174, 52 pp.

NORWAY.—*Departementet for handel, sjøfart og industri. Chefinspektøren for Fabriktilsynet. Aarsberetninger fra Arbeidsraadet og Fabriktilsynet for 1917. Christiania, 1919. 207 pp. Illustrated.*

The operations of the factory inspection act of September 18, 1915, show for the year 1917 the existence of 7,091 establishments employing 162,833 workmen as against 7,066 establishments and 162,402 employees in 1916.

— *Statistiske Centralbyrå. Lønninger og levevilkår i Norge under verdenskrigen. Christiania, 1918. 4*, 158 pp. (Norges Offisielle Statistik, VI, 141.)*

Study of wages and living conditions in Norway during the war. The principal chapter of this report was reprinted by the Bureau in the March, 1919, issue of the MONTHLY LABOR REVIEW, pp. 197–208, having been secured in advance form through the American Consulate.

ROUMANIA.—*Ministère de l'Industrie et du Commerce. Correspondence Économique. Organe Officiel du Ministère de l'Industrie et du Commerce: Direction Générale du Commerce. 1-ère Année, No. 2. Bucharest, June, 1919. 56 pp.*

This is the official organ of the Ministry of Industry and Commerce. The current number discusses the forests, mines, industry and commerce, prices and imports.

UNION OF SOUTH AFRICA.—*Cost of living commission. General report and report on rents and housing. Cape Town, 1919. 45 pp. Price, 2s. 6d.*

Contains retail prices and rents ruling at various centers in the Union of South Africa before the war, in November, 1917, and in August, 1918, and shows the increase in the cost of living, based on these prices. Similar prices were shown in the MONTHLY LABOR REVIEW of October, 1918, for four cities.

— — *Reports (1) of the special commissioner appointed to inquire into the boycotting of Rand storekeepers by natives. (2) Of the cost of living commission on the investigation of accounts of mine storekeepers on the Witwatersrand and as to the fixing of prices of the chief articles of native trade in the Witwatersrand area. Cape Town, 1919. 9 pp. Price, 9d.*

Unofficial.

ALFORD, L. P. *The status of industrial relations. New York American Society of Mechanical Engineers, 1919. 39 pp.*

This report was presented at the meeting of the society held at Detroit, Mich., in June, 1919. It consists of a historical summary of the progress made in adjusting industrial relations since the Civil War and a discussion of the conditions and problems incidental to the principal lines of development, which are: Profit sharing plans; methods of wage payment; methods and laws for reduction of accidents and occupational diseases; employment management; enforcement during the war of the principles of collective bargaining, restricted hours of labor, and the living wage; and systems for joint control by employers and employees. There are appended lists of firms having profit sharing and shop committee plans, and a bibliography.

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. *The Annals. Vol. 84, No. 173. International reconstruction. Philadelphia, July, 1919. 223 pp.*

Includes an article on The economic organization of peace, by Samuel J. Graham, who concludes his article with the statement that "representative government is on trial the world over to-day, and the problem it must solve is how to provide contentment and freedom for the average man. Unless these are provided there can be no permanent organization of peace." There is also an article on The need of social reorganization in America, by Oswald Garrison Villard, who advocates a "national commission in inquiry," which should represent in its membership the spirit of youth and progress, for the purpose of inquiring rigidly "what is wrong with us and what we can do to better the situation."

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. *Vol. 85, whole No. 174. Modern manufacturing—a partnership of idealism and common sense. Philadelphia, September, 1919.*

The discussion of various problems connected with employment management and related matters in modern manufacture, by men whose experience as employers, managers, employees, technical instructors, or experts lends significance to their statements, renders this number of the Annals of particular interest to labor. Among the articles in this issue are the following: The key to successful industrial management, by A. Lincoln Filene, treasurer and general manager, Wm. Filene Sons Co., Boston; The drift in industry, by Joseph E. Cohen, compositor, Weber Printing Co., Philadelphia; On the motives of industrial enterprise, by B. Preston Clark, vice-president, Plymouth Cordage Works, Boston; Executive and administrative organization, by J. E. Otterson, president, Winchester Repeating Arms Co.; The foreman, by Hollis Godfrey, president, Drexel Institute; The Philadelphia plan, by John S. Kerr Caskie, executive assistant to the chairman, Philadelphia Rapid Transit Co.; The organization of an open shop under the Midvale plan, by Edward Wilson, pattern-maker, Midvale Steel and Ordnance Co.; Influence of executives, by H. L. Gantt, consulting engineer, New York City, and Corporation finance and the wage worker, by Frank Julian Warne, Economist.

AMERICAN ASSOCIATION FOR INTERNATIONAL CONCILIATION. *International conciliation. The problem of reconstruction, international and national. Edited by Lindsay Rogers. New York, February, 1919. 167 pp. No. 135.*

A collection of classified material on reconstruction, the aim of which is to indicate some of the more accessible literature on the subject and to suggest certain subjects which at this time it may be worth while for polity clubs or study circles to investigate. Among the subjects of special interest to labor those of industry, women in industry, housing, and education are briefly discussed. Appendixes contain the text of several important reports relating thereto, including the Whitley report (Interim report of the Reconstruction Committee on Joint Standing Industrial Councils).

——— I.—*Report of the Commission on International Legislation of the Peace Conference; II.—The British National Industrial Conference: Report of the Provisional Joint Committee. New York, July, 1919. 53 pp. No. 140. [Reprints.]*

AMERICAN ASSOCIATION FOR LABOR LEGISLATION. *American Labor Legislation Review. Vol. IX, No. 2. New York, June, 1919. Pp. 195-289. Publication 45.*

The first article is on National-State employment service and gives the outline of a bill unanimously adopted by delegates representing the Governors of States and the United States Employment Service at the national conference on unemployment called by the Secretary of Labor and held at Washington, April 23-25, 1919. The second article concerns vocational rehabilitation for industrial cripples and sets forth the urgent need of the passage by Congress of legislation to extend the scope of existing Federal-State institutions for vocational education so as to include the crippled victims of industrial accidents—"a much larger army than the maimed soldiers and sailors who are now finding 'salvation through work'." The remaining articles are devoted to the subject of compulsory health insurance. The story of the legislative campaign culminating in the passage by the New York Senate of a bill for compulsory health insurance is presented with supporting data and the text of the bill; the comments of two women labor leaders in Great Britain, Mary Macarthur and Margaret Bondfield, on the superiority of American health insurance proposals over the still unperfected British act are given; the statement of the position on compulsory health insurance of the National Women's Trade-Union League at the Philadelphia convention, June 7, 1919, is quoted and the recommendations of the New York State Reconstruction Commission to the Governor in a report of April 29, 1919, are summarized. Recent editorials demanding social insurance against workers' sickness are reprinted.

AMERICAN CHILD HYGIENE ASSOCIATION (FORMERLY AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY). *Transactions of the ninth annual meeting, Chicago, December 5-7, 1918. Parts 1 and 2. Baltimore, 1919. 177 pp.*

AMERICAN FEDERATION OF LABOR. *Building trades department. Report of proceedings of the thirteenth annual convention held at Atlantic City, N. J., June 4-7, 1919. Washington, 1919. 108 pp.*

A table showing minimum scales of wages in the building trades on the 8-hour basis, taken from the report, appears on pages 218 to 221 of this issue of the LABOR REVIEW.

AMERICAN ROLLING MILL CO. *Facts for foremen. [Middletown, Ohio, 1919.] 55 pp.*

Account of the welfare and related activities concerning employees carried on by the American Rolling Mill Co. through its employment, safety, medical, mutual interest, education, police and fire, and time departments, and through its clubs, restaurants, bank, and store.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS. *Discussion on industrial relations, at the Spring meeting at Detroit, June 16-19, 1919. In Mechanical Engineering, New York, June, 1919. p. 572-586.*

Includes an address, slightly condensed, by Arthur H. Young, Chicago, Ill., entitled: Industrial personnel relations.

ASHBY, ARTHUR W., AND ASHBY, MABEL K. *The development of English agriculture and rural life: An introduction to study. London, 1919. 31 pp. National Home-reading Union Pamphlets, Science Series, No. I. Price, 1s.*

A brief history of English agricultural life and a discussion of the present problems confronting it. The authors believe that "The development of agriculture and rural life will be dependent to a large extent upon social and legislative measures and upon administrative machinery. But measures and machinery will be useless unless accompanied by a growth of capacity and interest in the population of the villages. * * * From associational life in its many forms—the schools and churches, the friendly society and trade-unions (including those for farmers as well as those for laborers), the cooperative societies, women's institutes, and village clubs—will develop habits of thought, judgment, and action which will place the civilization of rural areas on the plane which is desired, and which is so eminently necessary if the villagers of England are to wield their due weight of influence on the affairs of the Nation as a whole."

BING, ALEXANDER M. *The work of the wage-adjustment boards. In Journal of Political Economy, June, 1919, pp. 421 to 456. Chicago, University of Chicago Press, 1919.*

This is an account of the 17 wage adjustment boards or commissions which were created during the war. The organization of these boards, and of the branches to which many of them delegated a portion of their responsibility, is described; the principles which they sought to apply are examined and compared; the nature and scope of their work are considered; and a short account is given of the effect of their efforts on industrial conditions during the war.

BUREAU OF INDUSTRIAL RESEARCH. *American company shop committee plans. A digest of 20 plans for employees' representation through joint committees introduced by American companies. New York, 465 West Twenty-third Street, May, 1919. 37 pp.*

Shop committees as defined in this report are "numerically equal bodies of employee and management representatives meeting jointly within a single business house or manufacturing concern." By the terms of this definition those associations of employees which do not meet jointly with representatives of the management, such as welfare associations and those organizations modeled on our Federal government, are excluded. The 20 plans covered in this digest are analyzed according to the provisions found in the various plans, a list of the companies included being given under each specific item.

CÁMARA REGIONAL DE SOCIEDADES COOPERATIVAS DE CATALUÑA Y BALEARES. *Cooperativismo. Nos. 1 to 93, March 1, 1915 to January 1, 1919. Barcelona, 1915-1919.*

No. 1 of this semimonthly periodical says: "Cooperativismo" is no new publication, being new in form only, having been published under the titles of "Revista Cooperativa Catalana," "El Cooperador Cooperatista," and "El Cooperatista" at different periods since 1899. Its purpose is to popularize cooperative associations.

The annual financial statements of various societies are found scattered through the different numbers, but no general statistics have been presented. In fact, No. 82, July 15, 1918, contains the statement that "it is regrettable that after continuous requests by the commission on statistics such data have not been furnished."

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. *Division of economics and history. Preliminary economic studies of the war, No. 10. War thrift, by Thomas Nixon Carver. New York, 1919. 68 pp.*

Both theoretical and practical in treatment, this study is intended to be of use in helping to order both public and private affairs so as to secure greater economy, even in time of peace.

COLE, G. D. H. *An introduction to trade-unionism. Being a short study of the present position of trade-unionism in Great Britain prepared for the Trade-Union Survey of the Fabian Research Department. London, George Allen and Unwin (Ltd.), 1918. 128 pp. Chart. Trade-Union Series No. 4.*

This book is intended in some measure as a restatement for the present generation of the conclusions reached by Mr. and Mrs. Sidney Webb in their works on the History of trade-unionism and industrial democracy. It was written at the suggestion of the Trade-Union Survey of the Fabian Research Department, on which many of the principal national trade-union bodies are represented. The author, however, states that he is solely responsible for the opinions expressed. The book is in four parts: The structure of trade-unionism; The government of trade-unionism; The problems of trade-unionism; and Theories and conclusions. Appendixes are included giving statistics of membership in trade-unions, strikes and lockouts, principal trade-unions arranged in occupational groups, and related matters. In discussing the future of trade-unionism the author says:

The trade-union movement is tending strongly in the direction of claiming control, and this tendency is certain to be maintained and greatly strengthened. From the negative stage and the restrictive stage in which the union merely imposes from outside conditions upon the employer, who retains in his hands the actual management of industry, the trade-unions are beginning to pass to the stage in which they, too, have their share of direct power in management. I believe that this development will continue to the end, and that it will result in a system under which the trade-unions are changed into bodies including the whole effective personnel of industry and completely controlling industry in conjunction with the State. While this process is going on on the side of the trade-unions, I believe that the State ought, during the period of transition, more and more to supplant the merchant, and to take out of his hands the function of passing the raw material of industry from the hands of the first producer to the factories in which it is further manufactured. Thus there would develop a situation in which the pressure of the State from one side and the pressure of the trade-unions from the other would ultimately extrude or absorb altogether the employer and the trader, or rather—including both in a single phrase—the capitalist. The suggested system in which the results of this process are envisaged is called * * * guild socialism, or national guilds.

CONFÉDÉRATION GÉNÉRALE DU TRAVAIL. *19^e Congrès National Corporatif. (13^e de la C. G. T.) Tenu à Paris, du 15 au 18 Juillet 1918. Compte Rendu des Travaux. Paris, 1919. v, 308 pp.*

This volume contains the by-laws of the general confederation of labor; the report of the actions of the confederation since August, 1914, and of the international body preceding the declaration of the war, and subsequently; a stenographic report of the national congress of 1918; and a list of federations, unions, and chambers.

CONSUMERS' LEAGUE OF CINCINNATI. *Report for 1917 and 1918. Cincinnati, Ohio, June, 1919. 15 pp. Bulletin No. 8.*

Contains brief summaries of work done during the two years covered. An investigation was made into the employment of women in clerical positions and in the elevator service, in neither of which were they protected by the 50-hour law. A total of 86 offices was visited, 78 of which employed women. In only 17 of these were women actually replacing men, and of the 1,482 women employed only 329 were doing work formerly done by men. Women were found employed in elevator service in 18 out of 60 buildings in the business district which were visited, their employment in this capacity being most common in stores. In office buildings and stores they came under the protection of the 50-hour law for women, but in apartment buildings they worked seven days a week, "while several had night work in addition to the nine-hour day." Wages were lowest in the apartment buildings, ranging from \$5 to \$7 a week, while in stores they were from \$6 to \$10, and in office buildings from \$10 to \$13.50. The League is much interested in securing a minimum wage law for Ohio.

COWING, HERBERT L. *One thousand technical books. Washington, American Library Association, Library War Service, June, 1919. 123 pp.*

The list includes books classified under the following subjects: Engineering: Basic subjects; Civil engineering; Mechanical engineering; Electric engineering; Building; Mining and metallurgy; Chemical technology; and Miscellaneous.

DUNTON, WILLIAM RUSH, JR. *Reconstruction therapy. Philadelphia, W. B. Saunders 1919. 236 pp. Illustrated.*

A general discussion of the subject of occupational therapy, the aim of which is to indicate briefly the duties of the occupational director, and thus to prove helpful to those concerned with occupational therapy and especially those who have charge of such work in institutions. Special attention is given to the subjects of Occupational therapy and the war and to Prosthetic appliances, and chapters are devoted to occupational therapy for the feeble-minded, the blind, and to occupational therapy and social service.

EDWARDS, WILLIAM J. *Twenty-five years in the black belt. Boston, The Cornhill Co., 1918. 143 pp.*

An autobiography concerned largely with the founding and work of the Snow Hill Normal and Industrial Institute, Wilcox County, Ala., and with a discussion of different phases of the Negro problem under the headings: The solution of the Negro problem; The greatest menace of the South; The Negro exodus; The Negro and the public schools of the South; Where lies the Negro's opportunity?; School problems of a Tuskegee graduate; Benefits wrought by hardships; and The Negro and the World War.

GOULD, GEORGE M. *The practitioner's medical dictionary: Containing all the words and phrases generally used in medicine and the allied sciences, with their proper pronunciation, derivation, and definition. Third edition, revised and enlarged, by R. J. E. Scott. Based on recent medical literature, with many tables. Philadelphia, P. Blakiston's Son & Co., 1918. 962 pp.*

The chief feature of this revision is the inclusion of about 20,000 new words.

HARRIS, LOUIS I. *The opportunities which industrial hygiene offers to the general practitioner and to the public health officer. [New York, 1917. 12 pp.] Reprint from Medicine and Surgery, September, 1917.*

A digest of this pamphlet is given on pages 299 and 300 of this issue of the MONTHLY LABOR REVIEW.

HARVARD MEDICAL SCHOOL. *Committee on industrial hygiene. Courses in industrial hygiene in the School of Public Health of Harvard University and the Massachusetts Institute of Technology, 1919-20. Boston, 1919. 19 pp.*

In the spring of 1918 a sum of money was given by New England manufacturers to Harvard University for the purpose of creating courses in industrial health, with the

view of securing better medical and surgical service in industrial establishments. The responsibility of the organization and administration of the project was placed in the hands of a committee on industrial hygiene and work was begun during the session of 1918-19, 12 students being admitted to the school during this period. The enterprise has been affiliated with the work in public health already established by Harvard University and the Massachusetts Institute of Technology, and the pamphlet gives an outline of the plan of instruction formulated for the session of 1919-20 as a result of the experience already gained and of suggestions from men and women actively engaged in industrial hygiene.

JOURNAL OF INDUSTRIAL HYGIENE. Vol. I, No. 4. New York, The Macmillan Co., August, 1919. 165-214, 47-62 pp.

In an article on Factory inspection and factory inspectors, George M. Price, director of the joint board of sanitary control in the cloak, suit, and skirt and the dress and waist industries, New York City, advocates specific training for factory inspectors, saying "there is a distinct need of undertaking definite measures to supply the necessary knowledge and technical training to candidates for service in factory inspection departments before their selection for these positions. There may also be need to continue the technical training of inspectors during at least a year or more of their first period of service in such departments." An article on The occurrence, course, and prevention of chronic manganese poisoning, by David L. Edsall, F. P. Wilbur, and Cecil K. Drinker, states that notwithstanding the "very varied applications of the metal, chronic poisoning is known to have occurred in only three types of employment: 1. In French workers handling manganese dioxide in the manufacture of chlorine for bleaching powder. 2. In Germans engaged in grinding manganese dioxide as a stage in commercial utilization for various purposes. 3. In mill employees in the United States who work in a dust containing manganese as oxides and silicates." The article continues with a historical summary, causation, pathology, treatment, and prevention of the disease. Public health nursing and industrial hygiene is treated by Mary Beard, and there are articles on Industrial poisoning by compounds of the aromatic series, by Alice Hamilton, and Hernia in industry, by Charles A. Lauffer, the last of which is summarized on pages — to — of this issue of the MONTHLY LABOR REVIEW.

LATHROP, JULIA C. *Income and infant mortality. Reprinted from the American Journal of Public Health, April, 1919. Pp. 270-274.*

Paper read before the sociological section of the American Public Health Association at Chicago, December 9, 1918, which "attempts no more than to indicate from facts gathered in the United States the immediate practical bearing of the subject upon the great interest of this association." It is based on data collected in field studies in infant mortality made during the past six years by the Children's Bureau of the United States Department of Labor.

LIPPINCOTT, ISAAC. *Problems of reconstruction. New York, The Macmillan Co., 1919. 340 pp.*

Analyzes the subject of war control in its relation to food products, the fuel administration, labor, other elements of control, and war control in foreign countries; economic results of the war; reconstruction in foreign countries; and concludes with a reconstruction plan for the United States.

LOVETT, ROBERT S. *The railroad problem. Comments on certain methods suggested for solving it. New York, July, 1919. 76 pp.*

McMURTRIE, DOUGLAS C. *The influence of pension or compensation administration on the rehabilitation of disabled soldiers. Reprinted from American Medicine, June, 1919, pp. 355-365.*

— *Returning the disabled to economic independence. Some suggestions as to future policy. Reprinted from the Pennsylvania Medical Journal, May, 1919, p. 495. 12 pp.*

MODERN MEDICINE. *Vol. 1, No. 3. Chicago, Modern Hospital Publishing Co., July, 1919. 185-276 pp.*

This number contains articles of special interest on Housing and health, by Dr. James H. McBride, member California State Commission of Immigration and Housing; Industrial medicine and its future, by Dr. Harry E. Mock, being the address of the president of the American Association of Industrial Physicians and Surgeons before the convention of the association at Atlantic City, June, 1919; What is the American standard of living? by Royal Meeker, U. S. Commissioner, Labor Statistics, an address before the annual meeting of the National Conference of Social Work, Atlantic City, June, 1919 (published in full in the MONTHLY LABOR REVIEW for July, pp. 1-13); Sickness costs and the family budget, by Lee K. Frankel; Employment management and industrial medicine, by Dr. Otto P. Geier, Cincinnati; and Protecting the health of coal miners, by Dr. Emery R. Hayhurst, Ohio State Department of Health. The papers by Dr. Mock and Dr. Hayhurst are summarized on pages 287 to 291 and 291 to 294, respectively, of this issue of the MONTHLY LABOR REVIEW.

MORMAN, JAMES B. *The place of agriculture in reconstruction. A study of National programs of land settlement. New York, E. P. Dutton & Co., 1919. 374 pp.*

A valuable contribution to the subject of agriculture in relation to present and future economic life. One of the primary purposes of the book is to formulate a practical program of land settlement in the United States for discharged soldiers, sailors, and marines. The study, however, has not been confined to service men from the military and naval forces, but has been broadened to show the present and future needs of agriculture and the factors which make for success therein. The first chapter considers labor problems on the return of peace, after which proposed programs of land settlement for soldiers in France, Great Britain, Canada, and in this country have been studied with the view of arriving at the best plan of settlement for the United States.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Changes in the cost of living, July, 1914-July, 1919. Advance summary. Boston, 15 Beacon Street. August, 1919. 6 pp.*

This is a preliminary statement containing conclusions based on evidence which will form the data of a full report on war-time changes in the cost of living to be issued by the National Industrial Conference Board in a few weeks and to form the fourth of a series of reports on this subject. The three previous reports of the series were Research Reports Nos. 9, 14, and 17, and were noted, respectively, in the MONTHLY LABOR REVIEW for November, 1918 (pp. 328, 329), May, 1919 (pp. 318, 319), and July, 1919 (p. 300). A summary of changes in the cost of living as determined in the four surveys made by the board is given in the following table:

PER CENT OF INCREASE IN THE COST OF LIVING FOR WAGE EARNERS IN AVERAGE AMERICAN COMMUNITIES, BETWEEN JULY, 1914, AND JULY, 1919, BY SEPARATE BUDGET ITEMS.

Budget items.	July, 1914, to June, 1918.	July, 1914, to November, 1918.	July, 1914, to March, 1919.	July, 1914, to July, 1919.
All items.....	Per cent. 52.3	Per cent. 65.9	Per cent. 61.3	Per cent. 70.3
Food.....	62	83	75	185
Shelter.....	15	20	22	28
Clothing.....	77	93	81	100
Fuel, heat, and light.....	45	55	57	57
Sundries.....	50	55	55	63

¹ Based on an increase of 84 per cent up to June 15, 1919, as reported by the United States Bureau of Labor Statistics.

- NATIONAL SAFETY COUNCIL. *Safe practices, No. 24. Protection of life against fire. Part 2: Fire extinguishment.* Chicago, 168 North Michigan Avenue, 1919. 15 pp. Illustrated. Price, 10 cents.
- *Safe practices, No. 25. Acids and caustics.* Chicago, 1919. 16 pp. Illustrated. Price, 25 cents.
- NATIONAL SOCIETY FOR VOCATIONAL EDUCATION. *Agricultural education: Supervision; Two current problems; Relations to agricultural extension.* New York, 140 West Forty-second Street, June, 1919. 29 pp. Bulletin No. 31. Addresses delivered at the twelfth annual convention, St. Louis, Mo., February 20-22, 1919.
- *Commercial education: Federal aid; Recent developments; Retail selling education.* New York, April, 1919. Bulletin 29. Addresses delivered at the twelfth annual convention, St. Louis, Mo., February 20-22, 1919.
- *Industrial education: Trade tests; Unit trade schools; General industrial schools; Shopwork on productive basis; Teacher training; State supervision; Training and upgrading of women workers.* New York, June, 1919. 72 pp. Bulletin No. 30. Addresses delivered at the twelfth annual convention, St. Louis, Mo., February 20-22, 1919.
- *Lessons of the War: The States and the Smith-Hughes act.* New York, June, 1919. 96 pp. Bulletin No. 28. Addresses delivered at the twelfth annual convention, St. Louis, Mo., February 20-22, 1919.

Section 1, "Lessons of the war," contains articles on Rehabilitation of wounded soldiers, Reeducation of wounded soldiers, Lessons from the experience of training shipyard workers, Use of vocational and technical schools for training Army mechanics, and The war work of the industrial and trade schools. There is also a third section devoted to the subject of Women in industry.

NEW INTERNATIONAL YEAR BOOK. *A compendium of the world's progress for the year 1918.* Editor, Frank Moore Colby. New York, Dodd, Mead & Co., 1919. 791 pp.

Concise but full information of a general character is given under the subjects of Labor—Federal Department, Shipping Board, The Monthly Labor Review, Hours of Government employees, Negro labor, Canada, Germany, Great Britain; The American Federation of Labor; Labor legislation; American Association for Labor Legislation; Women in industry; Child labor; Social insurance; Workmen's compensation; Housing; and other important matters relating to labor.

NORSK CENTRALFORENING FOR BOKTRYKKERE. *Aarsberetning 1917.* Christiania, 1918. 100 pp.

The annual report for 1917 of the book printers' federation in Norway. The organization, which has a membership of 3,050, has been long established and maintains various forms of benefits, including sickness, invalidity, travel, and burial.

NORSK FORENING FÖR SOCIALT AREBEIDE. *Aarsberetning 1918.* Christiania, 1919. 7 pp.

Annual administrative report of the Norwegian Association for Labor Legislation, which is a branch of the International Association for Labor Legislation.

RAYMOND, WILLIAM G. *What is fair? A study of some problems of public utility regulation.* New York, John Wiley & Sons (Inc.), 1918. 172 pp.

The result of an effort, extending over some years, to determine for the author's own satisfaction just what is fair in the relationships of the public and the owners of its utilities. "The attempt has been to start with what is considered honorable dealing in purely private business and to work from this to the semipublic business of the public utility." Public ownership is not discussed. The following general conclusions are reached:

1. That so long as public service is turned over to private owners and operators the provisions of the charter and franchise of every public utility should be as complete and definite as it is possible to make them, and should be scrupulously observed by both parties to the contract.

2. That in so far as the charter and franchise are silent, public-utility business should stand on the same basis as other business of equal risk and magnitude, being subject to governmental repression when it is unfair or oppressive in its dealings with the public and free from interference so long as its dealings are fair and just.

3. That fairness and even justice should characterize all the acts of utility owners and public growing out of their mutual relationships.

RED CROSS INSTITUTE FOR CRIPPLED AND DISABLED MEN. *Publications, Series II, No. 8. Opportunities for the employment of handicapped men in the shoe industry, by Frederick J. Allen. Prepared by the bureau of vocational guidance, division of education, Harvard University, in cooperation with the Red Cross Institute for Crippled and Disabled Men. New York, 311 Fourth Avenue, May 15, 1919. 112 pp.*

— — — *Series II, No. 9. Opportunities for handicapped men in the rubber industry, by Bert J. Morris and Charles H. Paull. Prepared by the bureau of vocational guidance, division of education, Harvard University, in cooperation with the Red Cross Institute for Crippled and Disabled Men. New York, 311 Fourth Avenue, June 14, 1919. 125 pp.*

ROBISON, EMILY. *Vocational education. New York, The H. W. Wilson Co., 1917. 303 pp. The Handbook Series.*

A collection of articles and extracts from articles by different authors on various phases of vocational education. Both vocational education in general and the teaching in the public schools of industrial, commercial, and household art subjects, have been covered, the aim being to represent in one volume the leading points of view regarding the subject. The articles are grouped under headings of: Phases of vocational education for youth; Industrial education; Commercial education; Agricultural education; Household arts; and Vocational guidance.

RUSSELL, BERTRAND. *Proposed roads to freedom: Socialism, anarchism and syndicalism. New York, Henry Holt and Co., 1919. 218 pp.*

The first part is historical and contains chapters on Marx and socialist doctrine, Bakunin and anarchism, and The syndicalist revolt. The second part considers problems of the future in chapters on Work and pay, Government and law, International relations, Science and art under socialism, and The world as it could be made. The author advocates "a form of guild socialism, leaning more, perhaps, toward anarchism than the official guildsman would wholly approve." He believes that "the communal ownership of land and capital, which constitutes the characteristic doctrine of socialism and anarchist communism, is a necessary step toward the removal of the evils from which the world suffers at present and the creation of such a society as any humane man must wish to see realized. But, though a necessary step, socialism alone is by no means sufficient. There are various forms of socialism: The form in which the State is the employer, and all who work receive wages from it, involves danger of tyranny and interference with progress which would make it, if possible, even worse than the present régime. On the other hand, anarchism, which avoids the dangers of State socialism, has dangers and difficulties of its own, which make it probable that, within any reasonable period of time, it could not last long, even if it were established. Nevertheless, it remains an ideal to which we should wish to approach as nearly as possible, and which, in some distant age, we hope may be reached completely. Syndicalism shares many of the defects of anarchism, and, like it, would prove unstable, since the need of a central government would make itself felt almost at once."

RUSSELL, CHARLES EDWARD. *Bolshevism and the United States. Indianapolis, The Bobbs-Merrill Co., 1919. 341 pp.*

SANDIFORD, PETER, ED. *Comparative education. Studies of the educational systems of six modern nations. New York, E. P. Dutton & Co., 1919. 500 pp.*

In these studies of the educational systems of the United States, England, France, Germany, Canada, and Denmark, an analysis is made of the social, economic, and political differences which are reflected in the various systems. Without unduly

emphasizing any system, the authors have endeavored to throw certain important principles into such perspective that the reader may obtain a broader, clearer notion of the present-day educational problems upon which the educational reconstruction of the future must be based. The text also furnishes an adequate history of education in the six countries studied.

SECRETARIAT DES PAYSANS SUISSES. *Vingt-et-unième rapport annuel du comité directeur de l'Union Suisse des Paysans et du Secrétariat des Paysans Suisses, 1918. Brougg, 1919. 150 pp. Publication No. 58.*

The twenty-first annual report of the executive committee of the Swiss Peasants' Union and of the Swiss Peasants' Secretariat, giving a detailed account of the activities of the union and of the secretariat.

SHIPPING FEDERATION (LTD.). *The National Maritime Board. Standard rates of pay, hours of labor, and other determinations. London, Spottiswoode, Ballantyne & Co. (Ltd.), 1919. 34 pp.*

This report is noted more fully on pages 231 to 234 of this issue of the MONTHLY LABOR REVIEW.

SIMPLEX, SENECA [pseud.]. *The "minimum wage" stunt. A pronouncement by Mr. B. Seebohm Rountree, critically examined. Keighley England, The Yorkshire and Northern Land Values League, 1918. 32 pp. Price, 3d.*

SOCIEDAD COOPERATIVA LA BARCELONESA. *Estatutos. Barcelona, [1918]. 28 pp.*

By-laws of the Cooperative Association of Barcelona, Spain, adopted August 19, 1918.

SOCIÉTÉ POUR L'ÉTUDE PRACTIQUE DE LA PARTICIPATION DU PERSONNEL DANS LES BÉNÉFICES. *Bulletin, Forty-first year, Part 1. Paris, 1919. 48 pp.*

Contains, in addition to the records of the meetings held by the society, a résumé of the results of the profit-sharing plan adopted by the Blanzly Mining Co. in 1906. This record shows that after paying a dividend of 50 francs (\$9.65) per share of stock, there remained 300,000 francs (\$57,900) for distribution among the stockholders and employees as the results of the first year's operations. Each subsequent year has produced an increased sum: In 1908, 600,000 francs (\$115,800); in 1909 and 1910, 900,000 francs (\$173,700); in 1911, 1,200,000 francs (\$231,600); in 1912, 1,500,000 francs (\$289,500); in 1913, 1,900,000 francs (\$366,700); in 1914, 2,100,000 francs (\$405,300), the increase continuing until the sum for distribution reached 3,900,000 francs (\$752,700) in 1919.

In comparing April, 1917, with the corresponding month of 1914, the increase in earnings, taking into consideration the longer hours worked and various premiums awarded, is nearly 50 per cent. In 1913 about 4 per cent of the employees earned over 2,500 francs (\$482.50); in 1916 this percentage was raised to 31, notwithstanding the large turnover.

In addition the company expended more than 1,500,000 francs (\$289,500) in 1916 in furnishing fuel, medical service, and other benefits to its employees.

SOCIETY OF INDUSTRIAL ENGINEERS. *Industrial reconstruction problems. Complete report of the proceedings of the national conference, held at New York City, March 18, 19, 20, and 21, 1919. Chicago, 1919. 197 pp.*

The subjects dealt with by the conference were such as relate particularly to present industrial conditions and included: Industrial democracy; employment management; training and education of workers and executives; intensive training of mechanics by the War Department; fatigue elimination; and several of the different phases of industrial engineering.

TRADES-UNION CONGRESS. *Report of proceedings at the fiftieth annual Trades-Union Congress. Derby (England) on September 2-7, 1918. London, 1918. 324 pp.*

VANDERVELDE, ÉMILE. *Socialism versus the State*. Chicago, Charles H. Kerr and Co., 1919. 229 pp.

This is a translation of the French book on the same subject, which was briefly noted in the MONTHLY LABOR REVIEW for July, 1918 (p. 219).

WEBB, MRS. SYDNEY (BEATRICE). *The wages of men and women: Should they be equal?* London. Fabian Society at the Fabian Bookshop, 25 Tothill Street, Westminster, SW 1, also George Allen and Unwin (Ltd.), 40 Museum Street, WC 1. 1919. 79 pp.

This is a republication of Mrs. Webb's minority report as a member of the (British) War Cabinet Committee on Women in Industry. The report of this committee is noted in some detail in this issue of the MONTHLY LABOR REVIEW, pp. 262 to 271.

WEST VIRGINIA MANUFACTURERS' ASSOCIATION. *Proceedings, third annual meeting, 1919*. Huntington, January 16-17, 1919. Parkersburg, W. Va., Ohio Valley Publishing Co., 1919. 140 pp.

Papers on Failure of German compulsory health insurance—a war revelation, by Frederick L. Hoffman, and on Labor legislation, by Hon. Samuel B. Montgomery, are included in the proceedings.

WHIPP, FRANK DUMMER. *The practical operation of the eight-hour day in State institutions. The quarterly conference of the Minnesota State board of control and institution superintendents held at the State prison, Stillwater, Minnesota, August 5, 1919. Presented by Frank Dummer Whipp, fiscal supervisor, the Department of Public Welfare, Springfield, Ill. Springfield, 1919. 21 pp.*

An account of the Illinois experience in the operation of the eight-hour day in State hospitals for the insane and penal institutions.

WILDMAN, EDWIN, EDITOR. *Reconstructing America: Our next big job. The latest word on the vital subjects of the hour. The views on reconstruction and readjustment of the country's greatest thinkers and constructive and industrial geniuses, including President Woodrow Wilson, Hon. Wm. H. Taft, Hon. Wm. G. McAdoo, Charles M. Schwab, Elbert H. Gary, Samuel Gompers, Frank A. Vanderlip, John D. Rockefeller, jr., Paul M. Warburg, and others.* Boston, The Page Co., 1919. 422 pp. Illustrated.

A collection of articles by eminent authorities arranged under 21 headings of which those of special interest to labor are Bridging the gulf between capital and labor, including an article by John D. Rockefeller, jr., on The four partners in industry; Capital and labor after the war, including articles on After-war labor questions—wages and prices, by Elbert H. Gary; Labor to rule the world, by Charles M. Schwab; An autocracy of anarchy impending, by Hon. William B. Wilson; New labor ideas taught by war, by Felix Frankfurter; A movement of "constructive character," by Samuel Gompers; Immigration and the problem of women in industry; The agricultural outlook; Demobilization and unemployment; Where American education has failed, and Problems of Americanization.

WRIGHT, FLORENCE SWIFT. *Industrial nursing. For industrial, public health, and pupil nurses, and for employers of labor.* New York, The Macmillan Co., 1919. 179 pp.

An effort to present to pupil nurses and to others who wish to take up industrial nursing an idea of the conditions under which they may have to work and to emphasize the need of as thorough a training as possible; also to give to the employer who still doubts the value of the trained nurse in industry an idea of what the nurse can do for his organization, employees, and community.

SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

[The publication of the annual and special reports and of the bimonthly bulletin was discontinued in July, 1912, and since that time 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 beginning with No. 101, and up to No. 236 they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the Bureau issued prior to July 1, 1912, will be furnished on application.]

Wholesale Prices.

- Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- Bul. 181. Wholesale prices, 1890 to 1914.
- Bul. 200. Wholesale prices, 1890 to 1915.
- Bul. 226. Wholesale prices, 1890 to 1916.

Retail Prices and Cost of Living.

- Bul. 105. Retail prices, 1890 to 1911: Part I.
Retail prices, 1890 to 1911: Part II—General tables.
- Bul. 106. Retail prices, 1890 to June, 1912: Part I.
Retail prices, 1890 to June, 1912: Part II—General tables.
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- Bul. 121. Sugar prices, from refiner to consumer.
- Bul. 125. Retail prices, 1890 to April, 1913.
- Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- Bul. 138. Retail prices, 1890 to October, 1913.
- Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the war.
- Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.

Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 118. Ten-hour maximum working day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
- Bul. 129. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912.
- Bul. 131. Union scale of wages and hours of labor, 1907 to 1912.
- Bul. 134. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912.
- Bul. 135. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912.
- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.
- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.

Wages and Hours of Labor—Concluded.

- Bul. 151. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912.
- Bul. 153. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913.
- Bul. 154. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- Bul. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- Bul. 168. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1913.
- Bul. 171. Union scale of wages and hours of labor, May 1, 1914.
- Bul. 177. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914.
- Bul. 178. Wages and hours of labor in the boot and shoe industry, 1907 to 1914.
- Bul. 187. Wages and hours of labor in the men's clothing industry, 1911 to 1914.
- Bul. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
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