U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
ETHELBERT STEWART, Commissioner

MONTHLY
LABOR REVIEW

VOLUME 26 NUMBER 2

FEBRUARY, 1928

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON
1928

CERTIFICATE

This publication is issued pursuant to the provisions of the sundry civil act (41 Stats 1430) approved March 4, 1921.

ADDITIONAL COPIES

OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
U. S. GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT

15 CENTS PER COPY

SUBSCRIPTION PRICE PER YEAR
UNITED STATES, CANADA, MEXICO, $1.50; OTHER COUNTRIES, $2.25

Contents

This Issue in Brief

The question of care for aged or disabled trade-unionists is receiving more and more attention from labor organizations. At present 10 national or international unions pay old-age pensions to members who fulfill certain requirements as to age, union membership, and physical and financial condition. In addition, several other unions, while not paying a regular pension, do provide some sort of old-age benefit. There are also five homes for the aged or disabled members and in two cases there is a tuberculosis sanatorium in connection with the home. A number of other labor organizations which do not operate their own sanatoriums, make financial contributions toward the support of certain private institutions with the idea that this will entitle members to treatment therein, and others either pay tuberculosis benefits to the afflicted member or pay his expenses in a sanatorium of his choosing (p. 1).

Accident rates among Government employees are in many instances in excess of those in steel mills. During 1926 five branches of the Federal service showed increases in rates over 1925 and four showed decreases. The rate for all Government service was 15.33 as compared with 15.37 in 1925 and an average of 14.64 for the six-year period ending with 1926 (p. 89).

The employees' retirement act of the United States Government, as now in operation, is analyzed on page 37. This is followed by an article describing the retirement systems in five European countries—Austria, Belgium, Czechoslovakia, Germany, and Switzerland. Similar accounts of the French and English systems were given in the January (1928) issue of the Review.

Discussing the benefits which wage earners have derived from scientific discoveries and inventions, the Secretary of Labor holds that the gains in greater productivity will be shared by all. "In the new industrial system hours will be shortened, wages will be maintained and more broadly distributed, and the leisure that will come, the 'time to think,' may be used by the vast majority of our workers to obtain better education, higher intellectual levels, and a still higher standard of living" (p. 29).

The average amount of sick leave among approximately 3,500 employees in the Department of Commerce in the District of Columbia during the year 1926 was 6.36 days. This is somewhat below the commonly accepted estimate of 8 days lost per person per year but is a higher rate than that of many industrial establishments which have stressed the preventive feature in their medical work (p. 96).

Studies of industrial health hazards, carried out by the division of industrial hygiene and sanitation of the United States Public Health Service during the fiscal year 1927, show a high rate of disability from respiratory diseases among workers in dusty trades. In the cement industry, diseases of the upper respiratory tract were most common

and the incidence of pneumonia and tuberculosis was relatively low, while in granite cutting the chief hazard is a rapidly fatal form of pulmonary tuberculosis. In anthracite coal mining, miners and miners' helpers are exposed to enormous quantities of dust, which, however, contain relatively little free silica except in the case of rock dust from new drilling operations, while in different kinds of metal polishing there may be exposure to large amounts of silica (p. 94).

The cost of living in the United States was 0.8 per cent lower in December, 1927, than in June preceding and 2.1 per cent less than in December, 1926, according to the semiannual survey of cost of living in various cities made by the Bureau of Labor Statistics (p. 218).

Compulsory investigation as a means of preventing major industrial disputes is of doubtful value, in the opinion of recent investigators of the operation of the Colorado Industrial Commission act. A review of the compulsory-investigation features of this act and of experience under it, with a discussion of the value of the plan and recommendations looking toward greater effectiveness in its administration, is published on page 113.

Average wages or earnings per hour in general industry, other than farming, were 129 per cent higher in 1926 than in 1913, according to a compilation showing the index numbers of hourly wages from 1840 to 1926, prepared by the Bureau of Labor Statistics. A separate compilation for farm labor covering the years 1866 to 1926, prepared by the Department of Agriculture, shows that average farm wages were 64 per cent higher in 1926 than in 1913 (p. 120).

Installment selling has a tendency to stabilize, increase, and speed up production, according to Prof. E. R. A. Seligman, who has recently directed an intensive survey of this credit system with special reference to the automobile. While acknowledging that this method of selling is "subject to the perils of novelty" he suggests that in its future refined development such credit may be recognized as a significant and valuable economic contribution (p. 233).

A Chilean law providing for compulsory insurance against sickness and invalidity grants the following benefits to an insured person: An invalidity pension; an old-age pension; a sick benefit; funeral expenses of 300 pesos; medical attention and hospital care; and financial aid, medical care, and a nursing benefit for expectant mothers (p. 99).

MONTHLY
LABOR REVIEW
OF U. S. BUREAU OF LABOR STATISTICS

VOL. 26, NO. 2 WASHINGTON FEBRUARY, 1928

Trade-union Old-age Pensions and Homes for the Aged and Tubercular

THE January, 1927, issue of the Labor Review contained the first of a series of articles dealing with trade-union activities. It covered the provision made by trade-union organizations for their sick, aged, and disabled members by means of various types of "benefits" and insurance. The present article is a continuation of the same subject.

A matter that is receiving more and more the attention of organized labor is the question of what shall be done to care for members who by reason of age or of mental or physical disability become unable to work at the trade. A number of unions have expressed themselves as being in favor of old-age pensions provided by the State or Federal Government. Several States have already adopted such measures, and the 1927 convention of the American Federation of Labor authorized the executive committee to have drafted a bill providing for old-age pensions, the passage of which local trade-union bodies are to work for in States where there is as yet no such legislation.

Pending the general acceptance of the principle, some labor organizations are providing such care as they are able for their infirm members, to prevent their becoming a public charge. To date 10 national or international unions—those of the bridge and structural-iron workers, bricklayers, electrical workers, granite cutters, printing pressmen and assistants, street-railway employees, printers, locomotive firemen and enginemen, locomotive engineers, and railroad trainmen—have adopted an old-age pension plan for those of their members who fulfill certain requirements as to age, union membership, and physical or financial condition.[1] Of these, six also operate a home for aged or disabled members, there being a choice between receipt of the pension and residence at the home. The Order of Railway Conductors has established a home but has discontinued its pension. In addition to these unions, several others provide some sort of old-age benefit. Thus the quarry workers pay, to their members who reach the age of 60 and have had 10 years' continuous membership in the union, $50, which is deducted from the funeral benefit. The oil field and gas well workers exempt aged members from the payment of union dues, while in the paving cutters' union the dues of a superannuated member are reduced to

[1] Some local unions also pay old-age benefits, but as the present study was confined to the organizations of national scope, no attempt was made to gather local data.

25 cents a month. Federal employees—postal clerks, letter carriers, railway mail clerks, and other Government employees—are covered by the Federal retirement law, thus relieving the respective unions of the task.

There are five homes for the aged and disabled which are owned and operated by labor organizations for the benefit of the membership. One of these—the Home for Aged and Disabled Railroad Employees of America—is owned and operated jointly by three train-service brotherhoods. Two institutions, those of the International Typographical Union and of the International Printing Pressmen and Assistants' Union, also have a tuberculosis sanatorium in connection with the home. The local unions of the International Stereotypers and Electrotypers' Union own a small bungalow where tubercular members live and receive treatment; and a tuberculosis colony has been started by the telephone workers of Los Angeles.

These undertakings range from a very modest and unpretentious plant to one which has become a model of its kind, entailing a very large annual expense; but they are all doing, in a large or small way, a most valuable work in caring for the sick and disabled members of their crafts.

The question of providing a home for aged and disabled members has frequently been before the conventions of the American Flint Glass Workers' Union, and the matter was referred by the 1924 meeting to the national officers for further study. They reported to the 1927 convention that, in their opinion, such a step was impracticable, because of the expense, for a union of the size of the flint glass workers' organization.[2]

The same question has been agitated in the Brotherhood of Maintenance of Way Employees but no action has been taken.

OLD-AGE AND DISABILITY PENSIONS

OF THE 10 unions which pay an old-age pension, the Granite Cutters' International Association of America was the pioneer, establishing its pension in 1905. The street-railway employees' organization had, prior to 1912, an old-age benefit of from $1 to $3 per week. In 1912 the system was changed, the benefit being commuted to a lump sum upon the member's reaching 65 years of age. This was done in order to enable a retired member to engage in some new business. Payment of benefits under the new scheme began in 1915. The International Typographical Union inaugurated its pension system in 1907 and began payment of such pensions in 1909, and the locomotive engineers followed suit in 1913 and the bricklayers in 1915. The year 1920 saw the establishment of old-age pensions by the bridge and structural-iron workers and the locomotive firemen and enginemen. Two pension schemes were adopted in 1925—those of the printing pressmen and of the railroad trainmen. The Brotherhood of Electrical Workers in its 1927 convention adopted an old-age pension plan.

[2] 6,564 members in 1927, of whom 5,264 are actually employed at the trade.

Requirements for Receipt of Pension

THE age and membership requirements of the unions which have established old-age pensions have undergone modification from time to time. At present, however, the age at which the member becomes eligible to the pension is set at 60 by the bricklayers, the bridge and structural-iron workers, the printing pressmen, and the printers;[3] at 62 by the granite cutters; and at 65 by the electrical workers, the locomotive engineers, the street-railway employees, and the locomotive firemen and enginemen. The last named also pays pensions for disability (1) to active members disabled for engine service, and (2) to retired members disabled for any occupation; in these cases there is no age requirement.

Requirements as to membership in the union vary considerably. One year's membership in the Brotherhood of Locomotive Engineers entitles to the receipt of the old-age pension;[4] membership of 2 years is required by the locomotive firemen and enginemen and the railroad trainmen, of 20 years by the bricklayers, the bridge and structural-iron workers, the electrical workers, the printing pressmen, and the street-railway employees, and of 25 years by the granite cutters and the printers. The bricklayers, the bridge and structural-iron workers, the printing pressmen, and the street-railway employees require also that the specified membership must have been continuous.

Applicants for the pension in the bricklayers' and the bridge and structural-iron workers' unions must show that they are unable to secure employment in any industry, because of bodily infirmity, and that they are without other means of support. Members of the Brotherhood of Locomotive Firemen and Enginemen who have been retired from active service by reason of age or who attain the age of 65 and retire voluntarily become eligible for the pension of the brotherhood without fulfilling any requirement as to their physical or financial condition. To receive the pension for disability, however, a member must show that he is permanently and totally disabled—for engine service, if he is still in active service at the time of becoming disabled;[5] if he is not in active service, for any kind of employment in which his earnings are sufficient to support him.

The Brotherhood of Locomotive Engineers makes practically the same provision, but adds two other classes of pensioners—members who resign or are dismissed or lose their positions and those who were not in active service at the time of joining the brotherhood. In the former case, the member becomes eligible for pension only after a membership of 12 years and upon reaching the age of 60 years, except in cases where it is shown that the member is "physically and mentally unable to perform remunerative employment," in which event he becomes entitled to benefits on the same terms as active members. In the latter case the member must reach 70 years before attaining a pensionable status and must show inability, from physical, mental, or other causes, to secure remunerative employment. Only members

[3] By action of 1927 convention; formerly 65 years. In cases of incapacitated members with continuous membership of 20 years whom the Union Printers' Home is unable to accommodate the age limit required for the pension may be waived.

[4] Except in the case of members who resign or lose their positions or are dismissed, in which case 12 years' membership is required.

[5] If he ever becomes able to resume engine service he ceases to receive the pension.

incapacitated for employment in the trade are entitled to the old-age pension paid by the printing pressmen's and the printers' unions, while the railroad trainmen require proof of permanent total disqualification for work from physical or mental causes or old age.

The bridge and structural-iron workers provide also that a disability pension is payable to any member in continuous good standing for 15 years who is disabled by an injury sustained in the course of his employment, provided (1) that the injury "was not contributed to or brought about by his own improper conduct," (2) that the member is unable to secure sustaining employment at any occupation, and (3) that he has no other means of support.

The locomotive firemen and enginemen and the railroad trainmen specifically provide that "no member will be entitled to a pension on account of disability caused while under the influence of intoxicants or narcotics or while participating in war, riots, disreputable or unlawful acts," and the Brotherhood of Locomotive Engineers bars pensions for disability caused by the use of intoxicants or by unlawful acts.

Return to active work causes a forfeiture of the pension paid by the railroad trainmen, while the bridge and structural-iron workers provide that a pensioner loses his pension for any month in which his income from other sources than the pension reaches $60, the pensioner being "deemed to have secured sustaining employment for that month." The locomotive engineers cease payment upon return to active engine duty, but the pensioner may perform remunerative labor other than that of his trade and still retain his pension; this provision is made also by the firemen and enginemen. The International Typographical Union formerly provided that any annuitant who received pay for two days' work in any week should forfeit his pension for that week. The 1927 convention made a change in this provision, taking the view that pensioners should be encouraged, as an aid to preserving self-respect, to do whatever work they are able to perform without being penalized by the loss of the pension. Hereafter pensioners may perform not more than two days' paid work per week and still receive the pension. The Printing Pressmen and Assistants' Union has the same provision.

Amounts of Annuity, and Expenditure for Pensions

TABLE 1, below, shows, for each of the unions which pay old-age pensions, the number of annuitants, the size of the pension, and the amounts paid in pensions during the union's latest fiscal year and during the whole period since the plan has been in operation. As the table indicates, several of the unions continue payment of the pension to the widow as long as she remains unmarried, or if she has reached a specified age and has no means of support.

TABLE 1.—NUMBER OF PENSIONERS, AMOUNT OF PENSION, AND AMOUNTS DISBURSED THEREFOR IN LAST FISCAL YEAR AND WHOLE PERIOD, BY UNIONS

Union	Number at present in receipt of pension	Amount of pension per member	Amount paid in pensions in—	
			Latest fiscal year	Whole period of operation
Bricklayers	[1] 2,954	$7 per week	$1,021,858	$7,160,205
Bridge and structural-iron workers	331	$25 per month	86,300	[2]
Electrical workers	[a]	$40 per month	[a]	[a]
Granite cutters	405	$60 per year [3]	16,335	241,044
Locomotive engineers	[4] 4,467	$25 to $65 per month [5]	988,519	4,832,567
Locomotive firemen and enginemen	230	$30 to $70 per month [6]	[2]	141,407
Printers	2,430	$8 per week	990,272	8,740,939
Printing pressmen	244	$7 per week	60,974	
Quarry workers	[7] 18	$50 [8]	900	6,350
Railroad trainmen	[9] 110	$35 to $70 per month	31,080	78,330
Street-railway employees	[7] 80	$800 in lump sum	64,000	384,000
Total	11,269		3,260,238	21,584,842

[1] Includes 76 persons receiving "disability relief" and 823 widows.
[2] No data.
[3] $10 per month for six months of each year.
[4] Includes 1,533 widows.
[5] From this, union dues of about $4 per month are deducted.
[6] Widows receive pensions of $35 per month.
[7] Received the lump sum in 1926.
[8] Flat sum, deducted from death benefit.
[9] Includes 13 widows.
[a] No payments being made as yet. System adopted in 1927.

Payments to Wife, Widow, or Other Beneficiaries

WIFE.—The laws of the International Typographical Union provide that if a member "is admitted to an eleemosynary institution, whether publicly or privately maintained, and such member has a wife dependent on him, the secretary-treasurer is authorized to make the pension payable to the wife."

Widow.—The widow of a pensioner of the bricklayers' union may receive his pension provided she is 60 years of age and has no other means of support. A railroad trainman's widow is entitled to receive his pension as long as she remains unmarried and keeps his union dues paid.

The Brotherhood of Locomotive Firemen and Enginemen and the Brotherhood of Locomotive Engineers both provide pensions for widows of members, through a special department operated independently of the members' pension department. The Brotherhood of Locomotive Engineers also operates a widows' and mothers' pension department. Men who are in good standing and have not reached a specified age (40 for firemen, 50 for engineers) may make provision for their widows through the widows' pension department. The medical examination taken for membership in the men's pension department suffices also for this. Upon the member's death the widow of a fireman is entitled to a pension of $35 per month during her life or until she remarries. The engineers provide pensions of $25 and $30 a month until remarriage for widows of engineers who took out membership in the widows' pension department, and of $30 per month for the mother if covered by the beneficiary certificate. An engineer is permitted to take out two beneficiary certificates, thus doubling the above benefits in the case of men who joined the widows' and mothers' pension department.

Assessments for the widows' pension offered by the firemen's organization vary from $1 to $3.50 per month, according to the husband's age when he entered the scheme. The engineers require monthly dues of $2 for each certificate in the widows' pension and dues ranging from $2 to $3 per month, according to the husband's age at entrance, for the "widows' and mothers' pension."

Other beneficiaries.—The bridge and structural-iron workers' rules governing old-age and disability pensions provide that any pensioner who becomes an inmate of an institution which makes a charge for residence there may direct that his pension be paid to the institution. In such cases the officers of the local union "must visit such member and see that he is properly cared for."

Discontinued or Rejected Plans

THE Order of Railway Conductors inaugurated a pension plan but later was forced to discontinue it. Membership in the pension department was optional with the members, and it developed that only the older men took advantage of it. The result was that the income of the fund was not sufficient to offset the heavy drain upon the fund due to the retirement of the older members.

Perkins and Woll in their study, "Trade-union benefits," state that the Order of Railroad Telegraphers has at different times tried two old-age pension schemes. As neither proved satisfactory, the idea was given up in 1924. The brewery workers had adopted the pension idea and were about to put it into force, but the advent of prohibition prevented the consummation of the plan, while the bakery workers also made a start and had accumulated some funds for pension purposes, but the membership was unwilling to wait until sufficient money was collected and therefore voted to divert the funds already in hand to the erection of a headquarters building for the union.

The flint-glass workers by referendum vote rejected the old-age pension plan submitted to them, and similar action was taken by the barbers in 1926.

Proposed Pensions

THE 1927 convention of the Sheet Metal Workers' International Association by unanimous vote authorized its general executive board to formulate a plan for caring for aged members. The board is to report its findings to the next general convention, which will be held in 1930.

The executive board of the Amalgamated Clothing Workers of America has been studying the subject of old-age pensions with a view to establishing such a plan for the members, and it is possible that action along this line will be taken at the next convention of the organization.

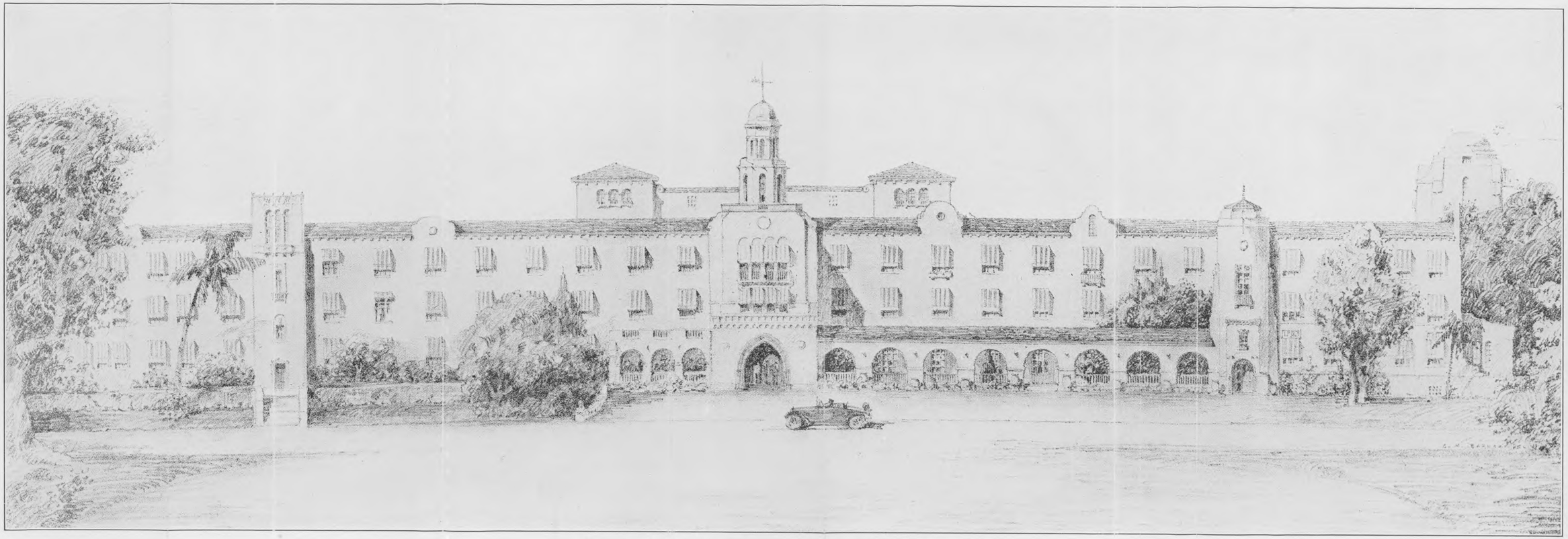


FIG. 1.—HOME FOR AGED OF UNITED BROTHERHOOD OF CARPENTERS AND JOINERS, LAKELAND, FLA.

HOMES FOR AGED, DISABLED, AND TUBERCULAR MEMBERS

Carpenters' Home

AFTER much debate, the United Brotherhood of Carpenters and Joiners of America decided to provide a home for its aged and infirm members and their wives. Some years ago it acquired a tract of 1,826 acres near Lakeland, Fla., at a cost of $750,000. Of this, 600 acres was in orange, tangerine, and grapefruit groves. It is expected that the income from the fruit will render the home self-supporting to a great extent.

The contract for the home was let early in 1927 and it is expected to be finished by January, 1928. It will then be furnished, a task which, the general secretary states, will cost at least a quarter of a million dollars and which it is hoped will be completed by the time of the brotherhood's convention in 1928.

The building will be three stories high. (See fig. 1.) It will cost $875,000 and accommodate 400 persons. It will be 331 feet in length and 265 feet deep, and be provided with its own laundry, power plant, and water system. The building stands on an incline facing the east and overlooking Lake Gibson.

It is planned to erect cottages for the use of superannuated members who have their wives with them.

Conditions of admission and residence.—The conditions of age, length of membership in the union, and other requirements that must be met by the applicant for admission have not yet been determined upon. The brotherhood has been gathering data from the local unions concerning all carpenters of more than 20 years' membership. The general secretary of the union states that, although "the sentiment at the present time seems to be that a man must be 65 years of age and must have held 30 years' membership," this will be definitely determined upon and the laws and regulations governing admission of applicants and the operation of the home will be drawn up at the 1928 convention of the brotherhood.

The general secretary states that it will be the practice to admit not only superannuated members but their wives also. In this respect the carpenters' home will be unusual among labor homes for the aged, as the usual practice is to restrict residence to members only.[6] Usually in those unions which have established old-age pensions as well as a home, the member who is eligible for retirement may choose whether he will enter the home or will remain with his relatives or friends and receive the pension; married men who elect to enter the home must leave their wives behind.

Medical care and material and recreational provision.—The institution will contain a large auditorium, library, parlors, and lounging rooms. Recreation will be provided in the form of lectures, motion pictures, radio, and fishing and boating.

Maintenance.—The construction of the building is being financed by a per capita tax of 10 cents per month upon each of the nearly 400,000 members of the brotherhood.

[6] There are several women in residence at the Union Printers' Home, but these are members of the International Typographical Union in their own right. The new home of the Order of Railway Conductors will, however, be open to wives and widows of members.

Costello Home—Tuberculosis Sanatorium of Stereotypers

THE first step toward the provision of treatment for stereotypers and electrotypers was taken in 1902 or 1903 when the Denver local of the International Stereotypers and Electrotypers' Union of North America purchased a tent for the use of its tubercular members. In October, 1924, a modern six-room bungalow on the outskirts of Denver was purchased, as well as eight building lots 25 by 150 feet each; the cost was $4,500. Since that time five 1-room cottages have been built facing the north side of the main cottage, and it is planned to add a sun porch running along the entire south side of the main building (See fig. 2.) The present value of home and grounds is about $6,500.

Each little cottage is equipped with an adjustable hospital bed, dresser, straight-backed chair, rocker, medicine table, rug, and flat-topped stove, also a reading lamp adjustable from the bed. The matron can be summoned by an electric push button communicating with the main cottage.

The main cottage contains the general living room, dining room (where all the patients who are able assemble for meals), and kitchen, as well as three bedrooms.

Conditions of Admission and Residence

The rules of the association provide that only cases which appear to be capable of improvement shall be admitted to the home.

Candidates for admission to Costello Home must be members in good standing of the International Stereotypers and Electrotypers Union. No specified length of membership is required. The rules require that the patient shall cease work at his trade upon entering the home. All residents who are able are required to care for their own rooms.

Medical Provision

There is no resident physician, but the home association has engaged the services of a Denver physician, who visits the home once a week, examines all the residents, and prescribes the necessary treatment. He is also on call at any time for emergency treatment. The general care of the patients is given by the resident matron, under the direction of the physician.

The food for each patient is prescribed by the physician, as well as any exercise that is to be permitted, and certain rest hours are enforced.

In order to insure the mental tranquillity of the patients the rules specifically prohibit "the discussion of religion, politics, or labor matters * * * and the committee will not tolerate having patients enter into these matters. Your health comes first and that is what the patient is being cared for."

FIG. 2—TUBERCULOSIS SANATORIUM AT DENVER, COLO., OWNED BY LOCALS OF INTERNATIONAL STEREOTYPERS AND ELECTROTYPERS' UNION

General Benefits Provided

The home was provided, by the general membership of the union, with a player piano and an initial 50 records, to which additions are being constantly made through donations. Entertainment is also obtained through a radio.

Books, newspapers, magazines, etc., are also provided.

All clothing needed by the patient is furnished by the home association and each resident receives, for pocket money, $2.50 each week. The rules provide that if he desires he may deposit this money with the secretary-treasurer of the association, receiving interest upon it.

After a patient has been in residence for a year and if the home physician and the patient's local union consent, the home committee may give him leave of absence to pay a visit to his home city. In such cases the association furnishes transportation (including berth) and money for his expenses during the trip.

Maintenance of Home

The home is operated through an organization known as the Costello Home Association. This home is unique in that instead of being operated and financed by the international union, it is still largely a local matter, the Denver local, which inaugurated the home, sponsoring it and being the main directing power.

It is financed entirely by voluntary donations from stereotypers and electrotypers' local unions and by individuals. Of the 150 locals, 33 make regular monthly contributions to the support of the home; others contribute at Christmas or on specific occasions only.

The Costello Home, while a modest undertaking, fills a real need and that at comparatively small cost. Perusal of labor periodicals reveals that several unions have considered the provision of a home or of tuberculosis treatment for their members, but have hesitated to do so because of the cost. The Costello Home is an example of what can be done even when the union membership is comparatively small [7] and general union funds not available.

During the year ending July 31, 1927, the cost of maintenance of the home was $5,854, divided as to the various items of cost, as follows:

	Expenditure
Administration and labor:	
Matron	$1,072.00
Secretary-treasurer	127.35
Other	148.49
Medical care:	
Physician	435.00
Drugs and medical supplies	145.35
Laboratory test	3.00
Nursing service	42.00
Ambulance	8.00
Patients' allowances	402.50
Telephone and telegraph	57.40
Laundry	170.45
Groceries, meats, etc	1,052.83
Heat, light, water, ice	242.86
Postage	24.00
Miscellaneous printing	95.68
Transportation of patient	25.00

[7] The membership of the International Stereotypers and Electrotypers' Union on Dec. 31, 1926, was 7,178.

	Expenditure
Improvements to home:	
Equipment	$702. 14
Furniture	78. 20
Permanent additions to building	456. 07
Amusements and recreation	[8] 405. 29
Legal services	21. 25
Miscellaneous	138. 70
Total	5, 853. 56

Printing Pressmen's Home

THE International Printing Pressmen and Assistants' Union of North America has acquired a large tract of land in northeastern Tennessee, where it has established a number of projects, including a home for aged pressmen, a tuberculosis sanatorium, a hotel, a technical trade school, etc. This group of projects forms what is known as Pressmen's Home. Situated in a valley in the mountains, and covering an area of some 1,800 acres, Pressmen's Home has become a self-contained community.

Tuberculosis Sanatorium

The tuberculosis sanatorium is situated about half a mile to the west of the main group of buildings. It is a white frame building constructed in the shape of a cross (fig. 3), so that each room receives the sunlight at some time in the day.

Each bedroom opens onto its individual screened porch, the wall of the room on that side being formed of windows, so that the patient can be in the open air and in his room at the same time. A door, cut into the partition between porches, allows communication.

The sanatorium is equipped with an up-to-date kitchen and has its own refrigeration plant. There are separate dining rooms for the patients, for the nurses, and for the white and colored employees.

The number of patients varies from 15 to 35. At the time of the agent's visit, 17 were in residence.

Maj. George Berry, president of the pressmen's union, addressing the convention of the International Typographical Union in August, 1927, stated that since the opening of the sanatorium 185 cases of tuberculosis have been arrested and discharged.

Medical care.—Patients at the sanatorium receive not only tuberculosis treatment but any other medical attention necessary. This includes minor operations, X-ray work, dental care, and treatment for affections of eyes, ears, nose, and throat. The people of the countryside around about come to the sanatorium for treatment for their various ailments, although the resident physician states that they must wait until all the resident patients have been given attention. Employees at Pressmen's Home receive free medical attention also, but pay for medicines.

In case of death of a patient or of a resident at the home it is provided that, if the body is unclaimed by friends or the local lodge, burial expenses will be borne by the home.

The equipment at the sanatorium includes X-ray apparatus, dental outfit, and a well-equipped laboratory.

[8] Includes $275 for player piano and $61.40 for Christmas celebration and presents for the patients.

FIG. 3.—TUBERCULOSIS SANATORIUM OF INTERNATIONAL PRINTING PRESSMEN AND ASSISTANTS' UNION, PRESSMEN'S HOME, TENN.

The sanatorium has a resident physician. The medical director resides at Rogersville, some 12 miles away, but visits at the sanatorium several times a week. There are three resident nurses.

Conditions of admission and residence.—Applicants for admission must have been members of the pressmen's union for years. While the rule is that only incipient cases shall be admitted, it was stated that in practice many advanced cases are sent to the sanatorium and "they can't be turned away."

Material and recreational provision.—Special attention is given to the menu of the patients, to insure a diet rich in protein. A large flock of chickens and herd of cattle owned by the home association provide the milk and eggs consumed at the sanatorium.

No monetary benefits are provided, but all necessaries are furnished, including clothing and transportation to and from the sanatorium and the patient's home.

Although tuberculosis patients must avoid strenuous exertion and are therefore debarred from many recreational activities, there are certain quiet amusements that the sanatorium affords for its inmates. A pleasant library, opening onto a glass-inclosed porch with flowering plants, contains several thousand volumes. A victrola, radio, and billiard room are also furnished.

Home for Aged

The union has built at the foot of the mountain a building of 240 rooms, which will be used as a home for "aged, invalid, or infirm" members. It is furnished and ready for occupancy and it is expected that it will be opened shortly after the convention of 1928. It is a white frame building with broad verandas across the front and sides. From the front of the home the lawn slopes down in broad terraces to the foot of the valley. (Fig. 4.)

Conditions of admission and residence.—To become a resident of the home the applicant must have reached the age of 60 years and have been a member in continuous good standing in the union for 20 years. He must also show that he is "incapacitated for employment under the jurisdiction of the international union."

As already stated, an aged member eligible for the benefit may choose between the old-age pension or residence at the home. If he chooses the latter he is entitled to receive the difference between the pension and the cost of his maintenance at the home. A member obtaining a furlough from the home begins to draw his pension upon leaving, relinquishing it again when he returns.

No services will be required of the residents at the home.

Material and recreational provision.—The home contains a large handsomely furnished library and living room extending across the eastern end of the building. A smoking room for the men and a general clubroom for the women are also provided. Both are equipped with couches, easy chairs, etc., and at one end of the room there is electrical equipment for making coffee, toast, and other dishes.

The home building itself contains no specific recreational features. At the foot of the terraces in front of the home is a building containing a swimming pool, dressing rooms, etc. This will be open to the use of the residents at the home, as also will be the gymnasium, billiard room, and motion pictures at the hotel maintained by the union just outside the grounds.

FIG. 4—HOME FOR SUPERANNUATED MEMBERS OF INTERNATIONAL PRINTING PRESSMEN AND ASSISTANTS' UNION, PRESSMEN'S HOME, TENN.

Administration

Home and sanatorium are administered by a board of five members selected by referendum vote of the members of the international union. The sanatorium is under the immediate charge of the resident physician, while the home is to be under the management of a matron and her daughter.

Funds are secured by a per capita tax of 25 cents per month, levied upon each of the more than 40,000 members of the international union.

Home for Aged and Disabled Railroad Employees

THE Home for Aged and Disabled Railroad Employees of America was established in Chicago in 1891, but was moved to Highland Park in 1903. Up to August 1, 1911, it was supported "by soliciting subscriptions from all possible sources," and was open to members of the four train-service brotherhoods—those of the locomotive engineers, the firemen and enginemen, the trainmen, and the conductors.

The 1909 convention of the trainmen appropriated from the brotherhood funds the sum of $15,000 to be used toward the construction of a fireproof building. The engineers and firemen each contributed a like amount, and the home was built. In 1924 the building was remodeled, and a wing containing 39 rooms was added, the whole costing some $172,000, the expense again being borne by the same three brotherhoods. The Order of Railroad Conductors ceased to have a voice in the management of the home in 1925. Its retired members, however, continued to reside at the home, but since the union had made no financial contribution to the building of the home the order has since 1925 been charged for its residents one and a half times the per capita cost of maintaining the home. The conductors, however, have recently completed the construction of a home for aged members near Savannah, Ga., and to this its residents at Highland Park were removed early in November, 1927.

The Brotherhood Home is situated at Highland Park, a suburb to the north of Chicago, and is only four blocks from Lake Michigan. The home building is a three-story brick structure. (See fig. 5.) Each floor has a sun porch 10 feet wide and 50 feet long. The building contains 64 single and 30 double rooms and can accommodate as many as 150 at a pinch, although the normal capacity is 135. At the time of the agent's visit, in October, 1927, there were 97 in residence; 13 of these, however, were conductors who were shortly to leave for their new home in Georgia.

The power plant and laundry are in a separate building.

The home is surrounded by lawns comprising altogether some 2½ acres, and buildings and grounds are valued at nearly $350,000.

Conditions of Admission and Residence

The object of the home is to provide a refuge for "worthy, aged and disabled, helpless and destitute railroad men who are no longer able to provide for themselves." To gain admission to the institution it is necessary that the applicant be a member in good standing in one of the three brotherhoods and that he be eligible for insurance therein. A certificate from a physician showing that he is "permanently incapacitated for railroad work" must accompany his

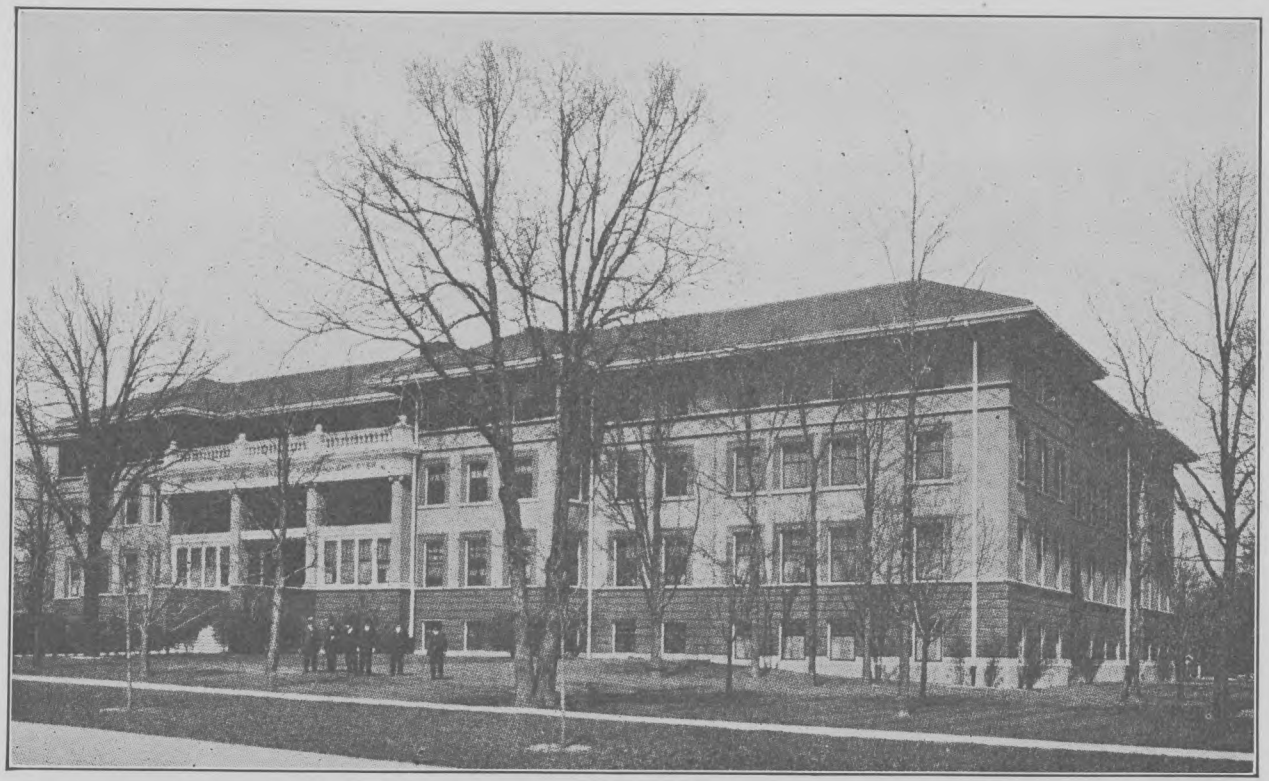


FIG. 5.—HOME FOR AGED AND DISABLED, MAINTAINED BY BROTHERHOODS OF LOCOMOTIVE ENGINEERS, FIREMEN, AND TRAINMEN, HIGHLAND PARK, ILL.

application. The home does not accept "insane or dangerous persons, or persons afflicted with any contagious or infectious disease or addicted to the use of liquor," nor any person otherwise eligible "if suffering from a disabling incurable affliction or a progressive disease which is liable to result in death within a reasonably short time after admission to the home, or which requires at time of admission or is liable to require shortly thereafter continuous hospital treatment or other constant medical attention."

The rules of the home require that "every inmate of this institution shall make himself useful in every way consistent with his physical condition and cheerfully cooperate with the management in the performance of such duties as may be assigned to him"; also that he care for his own room, keeping it "neat and tidy when his physical condition will permit, attending to it the first thing in the morning after a thorough airing." In practice, the manager has rather discouraged the residents from helping around the building. He stated, however, that when a section of the grounds was being beautified and he called for volunteers to give 15 minutes' time each day to clearing the newly sown grass of weeds, he was surprised at the ready and general response from the men.

It is pointed out that a member "can not come and go at will. He may be furloughed by the management to visit relatives and friends at reasonable times." In such cases, while the home does not undertake to provide transportation, the manager is usually able to secure railroad tickets through the courtesy of the railroads.

Material, Medical, and Recreational Benefits Provided

All the necessaries required by the men are provided. When ill they are cared for in the home hospital, which consists of two wards and a diet kitchen. The two wards usually contain eight beds, but on occasion can accommodate 16. In serious cases or for surgical operations the patient is removed to an outside hospital, where he is treated at the expense of the home.

A trained nurse is in attendance at the home hospital and a local physician visits the home and gives any necessary treatment. The services of dentist and oculist are also provided by the home as needed.

The building is kept in immaculate condition and, in the interests of sanitation, it is the present practice to furnish the new bedrooms with steel furniture. The new wing contains 39 bedrooms, each of which will be a "memorial" room; i. e., a member of one of the supporting organizations undertakes to furnish the room at a cost of $100, the room being named for the person memorialized and a bronze tablet to that effect being placed on the door of the room. The furniture includes armchair, straight-backed chair, bed, and a dresser one drawer of which pulls out and down to form a desk.

An automatic elevator enables those residents who are confined to wheel chairs to move about from floor to floor without help.

The meals are prepared under the supervision of the manager's wife, who acts as matron. Especial care is taken to provide as much variety in the menu as possible.

In addition to meals and lodging, each inmate is given clothing, laundry, and barber service; tobacco, stamps, and numerous small comforts are also provided.

The home contains, for the recreational use of its inmates, a fine library, smoking rooms, reading rooms, lounging rooms, billiard room, and sun room. The institution has its own motion-picture machine, donated by the ladies' auxiliary of the locomotive engineers, and pictures are shown in the chapel once a week during the year (except during very hot weather). Cards, checkers, and a radio also furnish amusement.

In 1923 the same ladies' auxiliary presented the home with a seven-passenger automobile, and since that time automobile rides have been a regular recreational feature for the old men at the home. This was an especially welcome addition to the recreational facilities, since there are usually in residence men confined to wheel chairs or on crutches who would otherwise be unable to leave the home grounds.

Administration and Maintenance

The home is under the general supervision of a society composed of the chief executive of each of the three supporting brotherhoods, each of whom appoints two additional members of his organization and three members from the ladies' auxiliary of his order. The society so composed then elects from its number a board of three trustees who oversee the management of the home. The secretary-treasurer of the society is the manager of the home, hiring all employees and paying all bills.

The funds are furnished by the three brotherhoods, which contribute on a pro rata basis according to the number of days' occupancy by their members. As already stated, a higher rate has been charged for members of the Order of Railroad Conductors. The table below shows the expenditure for each item in 1926:

TABLE 2.—OPERATING EXPENSES OF RAILROAD BROTHERHOOD HOME, 1926

Item	Expenditure	Item	Expenditure
Building expenses:		Table expenses—Continued.	
Maintenance of building	$6,184.60	Kitchen and dining-room wages	$4,552.55
Upkeep of grounds	206.80	Renewals of wares and linens	441.98
Maintenance of elevator and machinery	262.55	Total	25,946.35
Maintenance of furniture and fixtures	288.04	Home expense:	
Maintenance of heating plant	90.43	Care of rooms	674.15
Light and power	1,456.66	Supplies	112.15
Heating plant, fuel	3,947.00	Total	786.30
Heating plant, wages	2,416.30	Inmates' expenses:	
Depreciation, buildings, old	1,388.15	Clothing	1,658.07
Depreciation, furniture, fixtures, equipment, and machinery, old	817.47	Barber	1,079.50
Total	17,058.00	Laundry	2,596.76
General expenses:		Tobacco	602.28
Administrative	4,213.19	Amusements	134.67
Office, salary	1,164.00	Total	6,071.28
Office supplies	120.60	Hospital expenses:	
Telephone and telegrams	146.80	Salaries of nurses	1,161.00
Transportation	314.34	Attendants' wages	2,001.00
General	395.95	Medical attendance	2,310.60
Publication	937.78	Drugs and hospital supplies	906.17
Total	7,292.66	Automobile—	
Table expenses:		Maintenance	431.07
Groceries	13,548.98	Depreciation	232.50
Meats	5,629.88	Total	7,042.34
Water	600.89	Total expenses	64,196.93
Freight and express	214.95		
Range fuel	957.12		

Railway Conductors' Home

THE Order of Railway Conductors, until November, 1927, maintained its superannuated and disabled members at the Brotherhood Home owned by the other three train-service brotherhoods—those of the engineers, firemen and enginemen, and trainmen. The question of the provision of a home owned by the order itself arose some time ago, and when it became known that various localities were being considered for the site of the home the citizens of Savannah, Ga., donated to the order 100 acres of land on Oatland Island, near Savannah, and pledged $20,000 toward the construction of the building. The 1925 conductors' convention authorized the erection of a building to house not only the superannuated members but also their wives and the widows of members. The contract of construction was let early in 1927, and the building was formally opened November 10, 1927. The contract price of construction is reported to have been $242,000.

The home is a two-story building of reinforced concrete and brick. (See fig. 6.) It is built in the form of an H, with a frontage of 250 feet; wings on each end run back 108 feet. The floors are connected by automatic elevators. A glass-inclosed porch runs along the entire length of one wing.

There are 75 bedrooms, 21 of which are on the first floor. The living room is stated to be a large attractive room, with paneled walls and a large fireplace. The kitchen is completely equipped with electric appliances. The second floor contains bedrooms, linen rooms, and sewing rooms. One wing on this floor is given over to the medical department, with hospital wards, and sterilization, anesthetic, and operating rooms.

The building will be steam heated and will have its own water system supplied from a pneumatic pump on the grounds. Accommodations for 30 servants are provided at the rear of the building, and a garage housing five cars has also been constructed.

It is also planned to erect individual cottages, each with its own garden and orchard, for the use of family groups in residence at the home.

Conditions of admission and residence.—At the time of the inquiry, the rules and regulations governing admission to the home had not been determined.

Medical care and recreational provision.—Reference has already been made to the medical and hospital equipment for which provision has been made. No definite action had been taken relative to medical care, but officials stated that the services of some local physician would probably be engaged.

The home contains a card room, billiard room, and a game room, all situated in the right wing of the building, and recreational activities will be centered there.

Administration and maintenance.—As already noted, 100 acres of land and $20,000 were donated by citizens of Savannah. Additional funds were raised by special assessments levied upon the 60,000 members of the Order of Railway Conductors, and individual contributions were also received. Some members have pledged themselves to pay $1 a week to the home.

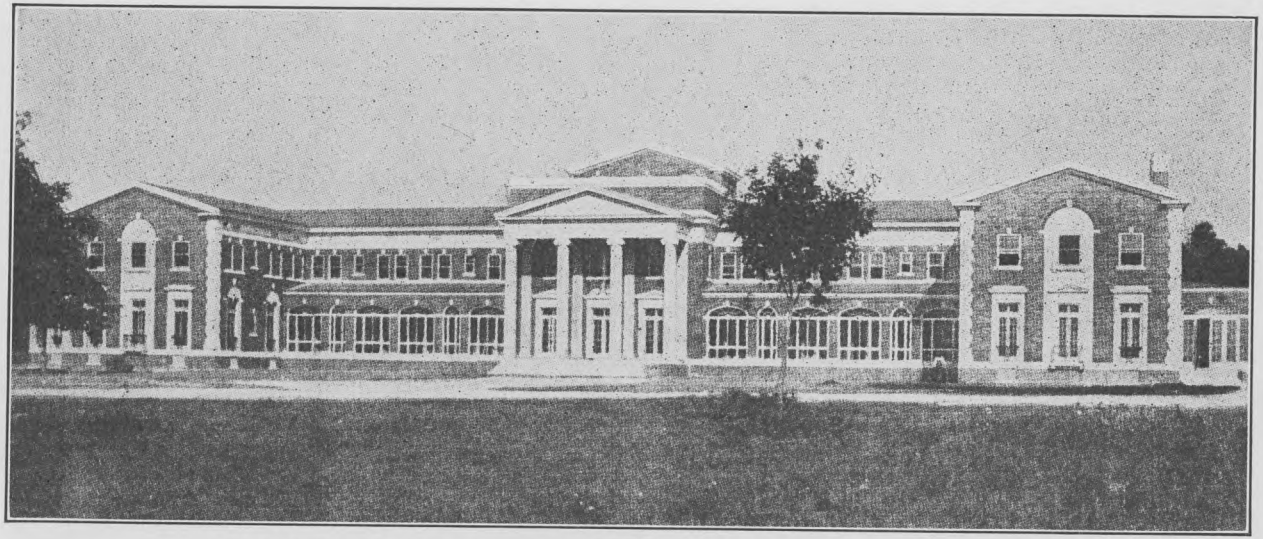


FIG. 6.—HOME FOR AGED AND DISABLED MEMBERS OF ORDER OF RAILWAY CONDUCTORS, SAVANNAH, GA.

A number of the rooms have been furnished by local divisions or by the ladies' auxiliary units.

No data are available as to what the source of funds for the current expenses of operation will be. It was stated at the headquarters of the order, however, that the organization owns some 3,500 acres of land on which pecan trees have been set out. It is expected that the income from the pecan groves will eventually cover the operating expense of the home. Potatoes and cotton are being raised pending the attainment of bearing age by the pecan groves.

The home will be managed by one of the deputy presidents of the order and his wife.

Union Printers' Home

THE Epochal History of the International Typographical Union, issued by the union, states that even in the earliest conventions of that body the matter of the establishment of a home for aged and infirm members was brought up. Even though discouraged by committees time and again, the proposal kept recurring.

Finally, in 1886, two wealthy men of Philadelphia made the union an unconditional gift of $10,000. Several offers of land for a site were received, but that of the city of Colorado Springs, Colo., was finally accepted. The site included 80 acres of land on a hill situated about a mile east of the city.

Private subscription had increased the original $10,000 to more than $20,000. Additional contributions were secured from the members, and union printers throughout the country donated an hour's pay or the price of 1,000 ems of type composition. Later a per capita tax was levied to increase the funds.

The home was formally dedicated May 12, 1892. This first building cost approximately $60,000. Successive additions have been built, and the present edifice has a frontage of some 300 feet. Building and grounds are now valued at approximately $3,000,000.

The grounds of the home now cover some 300 acres situated on an eminence overlooking the city of Colorado Springs. From the front of the home can be obtained a panoramic view of the Rocky Mountains for about 120 miles, with Pike's Peak straight ahead. The land slopes down to the city on the west and to Prospect Lake on the southwest.

Home for Aged

On each side of the driveway, extending from the front gate to the main building—a distance of 650 feet—there is a broad cement walk; bordering it and surrounding the home are lawns comprising an area of 12 acres. These lawns abound in flowers, shrubs and trees, maple and elm alternating in front and along the driveway.

The main building is of white lava stone, with red sandstone trimmings. (Fig. 7.) The main edifice is about 300 feet long by 50 feet wide, with a wing extending to the rear from each end.

The south wing is used exclusively for hospital purposes. Across the east (rear) side of the building are screened sun porches, those at the south end being devoted to the use of the tuberculosis patients for sleeping purposes. Each story of the building contains a main hallway, extending the entire length of the building, into which all the rooms open. An automatic electric elevator has been installed

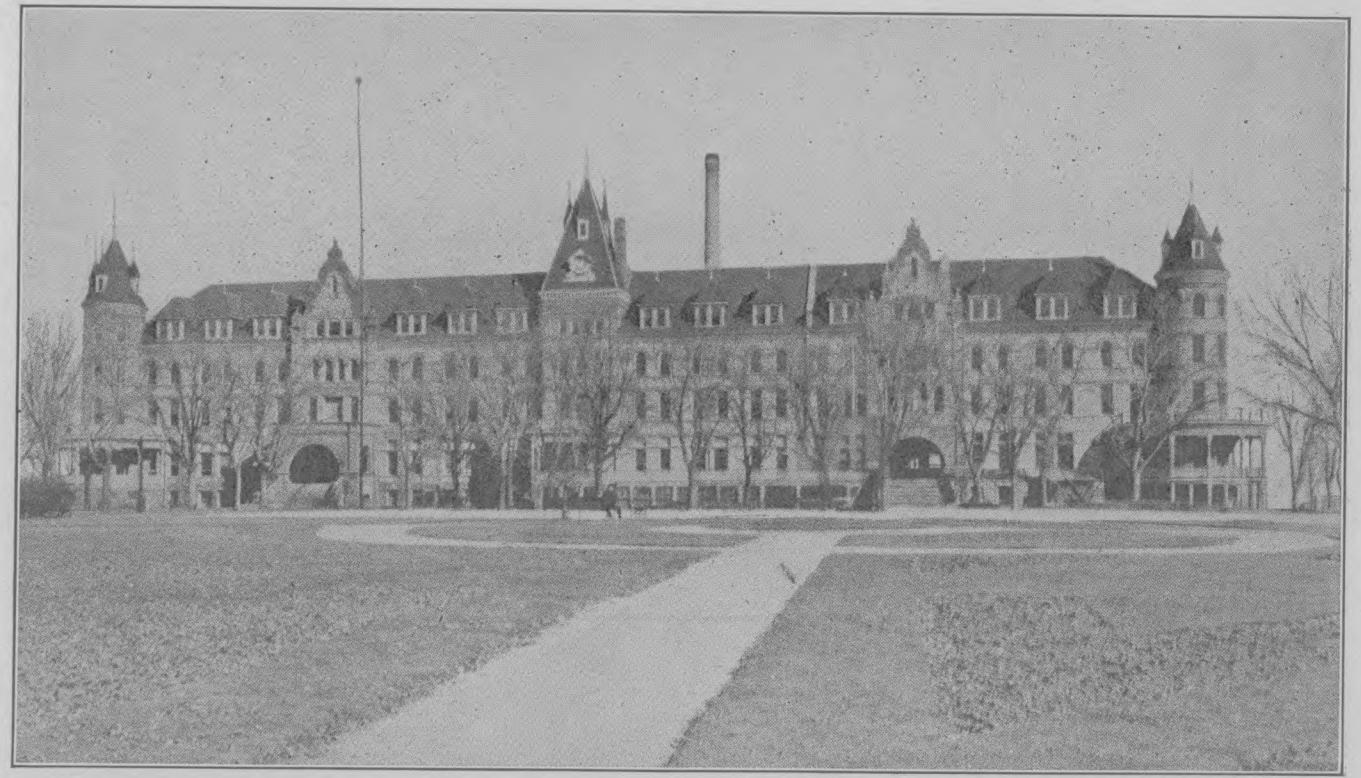


FIG. 7.—UNION PRINTERS' HOME, MAINTAINED BY INTERNATIONAL TYPOGRAPHICAL UNION FOR AGED AND TUBERCULAR MEMBERS, COLORADO SPRINGS, COLO.

for the convenience of the residents. The most elderly residents, however, are given rooms on the first floor.

There are three dining rooms, all located on the ground floor. In the main dining room are served the meals of the able-bodied residents, the nurses, and the office force; in an adjoining room are served the meals of those sanatorium patients who are able to dress and come to the table, while in still another are served those who, while able to be out of bed, are yet too weak to bear the exertion of dressing for meals. To this room they may come in their bathrobes and slippers.

The kitchens are equipped with the most modern appliances. The meals of the sanatorium patients are prepared under the supervision of an expert dietitian in a special kitchen equipped for this purpose. In addition there are diet kitchens located in convenient places on the upper floors where special nourishment is prepared for bed patients. An automatic dumb-waiter is also provided for carrying trays from the ground-floor kitchen to the upper floors, to those patients who are confined to their beds.

In August, 1927, there were 140 aged members in residence in the home, of whom 6 were women. A dormer wing on the third floor has been set aside for the use of these women.

Hospital and Tuberculosis Sanatorium

As already indicated, the hospital occupies the south wing of the main building; it provides accommodations for 54 patients. The tower room on each floor (except that on which the offices of the medical department are located) is used as a recreation and lounging room for the patients.

In addition, there are 20 octagonal tents grouped at the south end of the main building. These tents are mounted on cement bases and are securely anchored to withstand the most severe winds. The walls are of the best army canvas, impervious to snow or rain. A system of ventilators is provided in the floor on four sides of the tent, as well as in the peak of the roof; these can be opened or closed at will. Each tent is electric lighted and steam heated and is provided with an electric call bell. If a patient needs attention he presses the bell, which rings in the nurses' room in the hospital and at the same time causes a light over the tent door to glow. This remains lighted until his call is answered.

To supply a central place for the use of the tuberculosis patients a solarium was built in 1907. Still more space was found necessary, and an open-air pavilion was then constructed, supplying accommodations for 30 additional patients.

In August, 1927, there were 140 patients in the hospital and sanatorium.

The superintendent of the home occupies a six-room, modern, white lava-stone cottage, located just north of the main building. It has telephone connection with every department of the institution. The medical director occupies a cottage just outside the main grounds of the institution but on land belonging to it. The other two resident physicians have quarters in the main building.[9]

[9] Other buildings in connection with the institution include a building housing the laundry, carpenter shop, and power plant; one containing a laboratory, sewing room, sleeping rooms, and barber shop; a greenhouse; a dairy building, barns, garage, etc.

Conditions of Admission and Residence

Applicants for admission to the home must have been members of the International Typographical Union for not less than 10 years, at least 3 of which must immediately antedate the date of application for admission. Persons suffering from tuberculosis, however, may be admitted after 18 months' continuous membership except n cases where it appears that the applicant joined the union for the sole purpose of securing admission to the sanatorium.

No persons afflicted with any mental disease are admitted.

In case of there being more applications for admission than there are vacancies the rules provide that preference shall be given "(1) to the afflicted as against the infirm; (2) to those of the afflicted to whom the greatest probable good can be done by admission as against those to whom a less degree of good is probable; and (3) to those of the infirm whose infirmity is greatest." If the prospective resident is unable to defray his traveling expenses to the home, these are borne by his local union. When he is discharged an amount equal to that expended in his transportation to the home is appropriated by the home to buy him a railroad ticket in whatever direction he may select.

Residents who are able to do so are expected to care for their own rooms, and may also be asked to perform light tasks relative to the upkeep of grounds or buildings, subject to the judgment of the medical director. "It is recommended without being made a duty * * * that landscape gardening, or some similar vocation, be undertaken on said grounds as a source of exercise and recreation to the persons domiciled at said home. But no task or duty shall ever be imposed under the guise of exercise or recreation on any inmate of said home."

Medical Care

Within 48 hours after admission to the home or sanatorium the resident is given a thorough physical examination, and during his period of residence he receives all possible medical care, including operations. In case of death, the home bears the burial expenses if the body is unclaimed by friends or the local union.

The institution's medical staff consists of a medical director, two resident physicians, a consulting neurologist, a consulting ear, nose, and throat specialist, a consulting eye specialist, a consulting surgeon, and a dentist. In addition, when occasion demands, a specialist in genito-urinary diseases is also called in. At the September, 1926, meeting of the board of trustees of the home, the superintendent was instructed to "look into the feasibility and advisability of employing an all-time dentist" on the same basis as the resident physicians. Major operations are provided for by arrangement with a local hospital.

The medical director is of the opinion that some system should also be worked out by which discharged patients could be kept under medical observation "for a long period after leaving."

The equipment of the medical department cost more than $10,000 and includes an up-to-date X-ray machine, ultra-violet lamp, dental outfit, etc. The home has an arrangement with a local laboratory clinical company whereby laboratory-test work is done by the company, which also has supervision of the X-ray department of

the home. The home employs a technician, who is also a nurse, to do the X-ray work.

In order that the medical department may be in touch with the latest developments in the medical field, the trustees last year inaugurated the practice of sending the medical director or one of the resident physicians to attend two medical meetings each year, all expenses in connection therewith to be met by the home.

Material and Recreational Provision

The rules governing the home are very restrained in their promises of care for the residents, providing merely that "persons admitted into this home shall be fed with plain but wholesome food, clothed with plain but decent apparel (no distinctive dress ever to be worn), and lodged in a plain but safe manner; due regard shall be paid to their health, comfort, and happiness, and to this end their persons, clothes, and apartments shall be kept clean."[10]

The actual spirit prevailing in the treatment of these aged and tubercular printers in residence at the home, however, is much better expressed in another article of the same document which declares that "its bounty shall be unpurchasable; its charity shall be given without price."

Each resident receives not only food, lodging, clothing, and laundry, but also 50 cents a week. This sum is granted to those whose local unions are unable to make any allowance to their members who are at the home; if the local union supplies pocket money, the home does not. As the funds of the home warrant, the amount will be increased to $1 a week. Additional payment is made to those residents who perform tasks on the grounds or in the buildings.

A room in the main building is equipped with tables for cards, chess, or checkers for the use of the residents. From this room an arched doorway leads into a library which contains between nine and ten thousand volumes. More than 100 newspapers are received, as well as magazines and several religious publications. A number of the magazines are donated by the publishers, and the home subscribes for two copies of each of the other leading monthlies.

The archway between card room and library is so arranged that it can be converted into a stage. Here motion pictures are shown once a week from October 1 to April 1 each year. A six-piece orchestra furnishes the music accompanying the pictures. On this stage the local lodge of Elks gives a performance of its minstrel show every winter, and various other entertainments are given. The library will seat 300 persons.

A billiard room with two tables furnishes recreation for those who care for this type of amusement, while piano and victrola provide for those musically inclined. Usually several dances are given during the winter, those on St. Valentine's day and St. Patrick's day being costume affairs. As the inmates consist only of elderly or sick people, outside amusements are few. There are, however, two croquet grounds which seem to be well patronized. Tournaments are held and prizes are given to the most successful players.

During the year ending May 31, 1927, $1,792 was expended to provide amusement of various sorts for the residents.

[10] The rules of the printing pressmen's union also contain this identical provision, presumably adopted from the printers' regulations.

Administration and Maintenance

The institution is managed by a superintendent acting under the direction of a board of seven trustees, one of whom resides in Colorado Springs. The superintendent's wife acts as matron. The physicians are appointed by the board of trustees, but all other employees are hired by the superintendent.

The institution is supported entirely by the membership of the International Typographical Union.[11] Each union printer pays to the international union, as dues, 65 cents a month plus 1 per cent of his earnings. Of this amount 40 cents goes to the home fund.

As would be expected, the cost of maintenance of this extensive institution is heavy, amounting to $348,955 during the year ending May 31, 1927. During that year the number of persons in residence averaged 263. The cost of maintenance per member was therefore $1,326.83 for the year, or $110.57 per month. Excluding such items as permanent improvements to the building, insurance, care of cemetery, upkeep of grounds, etc., the average cost per resident was $69.79 per month.

The table below shows the expenditure for each item:

TABLE 3.—COST OF OPERATION OF UNION PRINTERS' HOME, YEAR ENDING MAY 31, 1927

Item	Expenditure	Item	Expenditure
Administrative expense:		Expense of farm	$5,005.23
Clerical work	$1,300.00	Freight and express	568.72
Employees' salaries	79,754.26	Hay and grain	10,841.70
Trustees' meetings	5,199.46	Heat and light	16,148.88
Medical care, drugs, etc.:		Water	2,204.20
Dentist	3,044.25	Laundry	2,683.62
Drugs	7,965.68	Taxes and insurance	5,733.97
Special service	4,611.30	Telephone and telegraph	492.08
Spectacles and repairs	583.95	Buildings:	
Groceries and meats	81,580.68	General repairs	12,773.43
Sundry supplies	3,790.09	Permanent improvements	38,636.40
Clothing	15,308.63	Expense of trip to medical meeting	285.49
Furniture and fixtures	25,614.92	Legal services	50.00
Funeral and burial, etc., expenses:		Library	167.02
For deceased residents	758.23	Miscellaneous printing	372.07
Care of cemetery plots	305.00	Residents' allowances	6,898.65
Amusements	1,791.91	Postage	220.80
Automobile	3,997.55	Miscellaneous	2,377.67
Books, stationery, and office supplies	1,949.66		
Street-car tickets	213.00	Total	348,954.59
Transportation of residents	5,726.09		

Conclusion

The Epochal History of the International Typographical Union points out that of the benefits derived from the home not the least has been "the tightening of bonds of sympathy within the fraternity and the growth of pride" in the International Union. The value of the institution has been recognized by the Women's International Auxiliary to the International Typographical Union, which has had the matter of the establishment of a similar home under consideration for several years. At the 1927 convention of the auxiliary, by unanimous vote, it was decided to erect a home for auxiliary members who have become aged or incapacitated, the building also to be situated at Colorado Springs.

[11] Since the original gift of land and money individual donations have amounted to only $9,898.

OTHER TRADE-UNION PROVISION FOR TUBERCULOSIS TREATMENT

TUBERCULOSIS treatment is often one of the benefit features of those trade-unions whose trade involves factors or conditions predisposing to that disease. In addition to the unions already mentioned which have established their own sanatoriums a number of organizations either pay a tuberculosis benefit directly to the member or pay his expenses in some private sanatorium.[12] These organizations include those of the headgear workers, the locomotive firemen and enginemen, the photo-engravers, the potters, and the railroad trainmen.

A member of the Brotherhood of Firemen and Enginemen afflicted with tuberculosis may have his choice between benefits of $75 per month if he remains at home or treatment at the nearest sanatorium, with treatment paid for and cash benefits of $15 per month paid to him to cover his personal expenses while there.

The Brotherhood of Railroad Trainmen pays no pecuniary benefits to members who contract tuberculosis. It does, however, provide for treatment, unlimited as to time, in any sanatorium to which the patient wishes to go. During his residence there the brotherhood supplies him with everything he needs—or, as it was stated at the headquarters of the brotherhood, "everything from cigarettes to shoe laces." The report of the tuberculosis fund for 1926 showed a total of 709 members given sanatorium treatment since this benefit was inaugurated in 1923. At the end of 1926, persons receiving hospital treatment for the disease numbered 266, the average cost per person per month being $167.58.

The Union of Cloth Hat, Cap, and Millinery Workers pays a tuberculosis benefit of a flat sum of $75, the payment of which relieves the union from any further payments for this purpose to the afflicted member. The International Photo-engravers' Union allows $10 for the physical examination of any member suspected of being tuberculous. If found to have the disease he becomes eligible to benefits of $15 per week, continuing as long as he is affected with the disease. The secretary-treasurer of the union reports that "The treatment of these cases is not limited to any specific form or care, it being optional with a member whether treatment is received at home, at a sanatorium, or any other place selected by the member himself."

The National Brotherhood of Operative Potters provides for treatment in a sanatorium selected by the patient, at a cost not to exceed $12 per week, except in "extreme cases," when the executive board may authorize a higher rate. No more than 50 patients may receive such treatment at any one time. If the patient fails to show improvement in six months the brotherhood reserves the right to discontinue the treatment.

The Brotherhood of Railway and Steamship Clerks, from a study of the causes of mortality and sickness among its members, learned that tuberculosis constitutes a real hazard among them. It therefore appointed a committee to study the relative merits of Tennessee and Colorado, with a view to establishing a sanatorium, and this committee will report its findings to the next convention of the brotherhood.

[12] Data as to amount paid by various labor organizations for tuberculous benefits or treatment were given in the January, 1928, issue of the Labor Review (p. 11).

In the majority of cases receipt of tuberculosis treatment is not limited to a specified period but is left to the discretion of the general executive board or continues for whatever time is necessary.

A number of other unions give financial support to certain private tuberculosis sanatoriums. This is true of a tuberculosis sanatorium located at Duarte, Calif. The Bakers' Journal [13] is authority for the statement that "Every single structure on the grounds was put there by some organization, labor group, or community organization. The Amalgamated Clothing Workers put up the dining hall; the medical building was put by the International Fur Workers' Union; one of the men's cottages was put up by the Workmen's Circle; another building was put up by the International Ladies' Garment Workers' Union." With the idea of establishing a "bakers' building" on the grounds, the Los Angeles bakers started a fund, raising the sum of $4,000. Ground was broken and plans were drawn for a building to cost $30,000. Funds to complete the building are now being collected within the ranks of the Bakery and Confectionery Workers' International Union.

The sanatorium and its services are described as follows:

> The sanatorium, founded in 1913, is located just 20 miles from Los Angeles, in the heart of the orange-grove country. It admits patients from all parts of the United States, without charge or expense of any kind; one need only be sick with consumption and unable to pay for care to have his request for admission considered. Since its establishment it has cared for 2,263 patients.
>
> To-day the sanatorium has a capacity of 136 beds and a staff of 16 consulting specialists, 3 resident physicians, 15 nurses, and 45 other attendants. The sanatorium occupies 20 acres of land and presents the appearance of a beautiful little village, with spacious, shaded avenues, attractive cottages, and impressive hospital and administration buildings. There are two hospital buildings for men and one for women; these shelter the patients so sick that they must remain in bed at all times. In addition there are nine cottages for patients able to go to meals and stroll about the gardens for short periods. A fine recreation hall, dining hall, and other administrative structures complete the facilities.

Another tuberculosis sanatorium which has received considerable support from organized labor is the Ex-Patients' Tubercular Home of Denver, Colo. This is described as being "the only hospital that keeps incurable cases for an unlimited period of time and teaches its improved patients a suitable profession" in order that they may not have to return to an occupation that is harmful to them. This past summer the Amalgamated Clothing Workers not only appropriated $500 from the general office for this institution but issued a general appeal to its locals, which responded generously.

The Locomotive Engineers' Journal reports the formation of a tuberculosis colony at Victorville, Calif., by Los Angeles telephone workers. Ten acres were purchased, simple shelters erected, and a physician near by was employed to give such treatment as was necessary. The report does not state whether this Lone Wolf Colony was the result of union activities, and the Bureau of Labor Statistics has been unable to obtain direct information.

Through the efforts of the Central Labor Union of Brooklyn and Queens, the Medford Sanatorium, for working men, women, and their families, was incorporated early in 1912 and the sanatorium was opened to the public in 1913.

---

[13] The Bakers' Journal, Chicago, Nov. 19, 1927, p. 2.

The sanatorium is located on 70 acres of rolling woodland on Long Island. It is free to the public, treatment being given without cost. Thus far the institution is equipped only for handling incipient cases.

It is supported by voluntary contributions from individuals, from labor organizations, etc. In an endeavor to raise sufficient funds to extend the facilities of the institution an attempt is being made to induce labor and other organizations to make formal affiliation, paying a fee of $1 per member per year.

Science and the Worker

By James J. Davis, Secretary of Labor

IT HAS been said of ancient civilizations that only because the millions were forced to do the work could the few find time to think. To-day nearly every laboring man in the United States has "time to think." And he owes this mostly to science.

The other nations of the world to-day are justly proud of what they have done and where they stand. Their past and present are sprinkled thick with the names of great artists, musicians, poets, scientists, and inventors. And beyond all doubt these great thinkers have vastly enriched human life. Yet I can't help thinking their great achievements have been mainly for the benefit of the people of leisure and cultivation.

It seems to me that only here in America has the life of the workingman been really enriched. It may be that America has yet to take her place in the realm of art, but if that is so it is because America has been engaged in another and greater art. It seems to me that the great work America has done is to take science and invention wherever she finds them and put them to practical benefit for the man who works.

The great art America has developed is the art of wiping the sweat from the laborer's brow, the art of lifting from his back the burdens that have weighed him down through countless ages. Even in our own short history he used to toil from sun to sun—in the fields, in factory or shop, or under the ground in mines. He faced dangers in the mine. In the factory he had back-breaking weights to lift. His tools were poor, his pay was little, his hours were long. When they were done, in the language of the street, he had nothing to do but rest—if he could.

From that we have freed him. We have shortened his hours, lightened his labors. He used to need muscle, and we have given him endless steam and electric power instead. He used to need a handicraft that it cost him years to acquire, and we have given him machinery of wonderful cunning. With power and machinery one man produces with ease more wealth than hundreds produced with heart-breaking and back-breaking toil. And he shares in the wealth he produces in the form of higher wages than workers were ever paid before.

Benefits of Science to the Worker

FOR the first time in history we have not only given the worker "time to think"; we have also given him things to think of and an education to help him in his thinking. We have given him enjoyments in life unknown even to the kings of old. And we have given him ample means to buy and possess these enjoyments. All this is the work of science. This is what is meant by "the application of science to industry."

Science is as old as history itself, and has grown to be a great and many-sided thing. Other peoples have played their part in its development. But I believe it has fallen to America to develop the highest science of all. I mean the science that takes all the other sciences and puts them to practical use for the benefit of men—the benefit of every man. I mean the science of management.

You learn what it is by what it does. It is the science that has made us the richest of peoples. It is the science that has put within reach nearly every good thing of life, for all to enjoy alike—the automobile, and the broader life it brings; the well-warmed, well-furnished home—the list is endless, but the worker begins to have them all.

It is not the mechanical and chemical wonders that science performs to-day that interest me most. It is this effect that science has had in a social way, in opening life in all its fullness to those who throughout the ages never knew life at all. To appreciate what we have to-day as the gift of science—to see this blessing to men in all its tremendous scope and significance, you have to measure it against the struggles that men, and especially the workingmen, have had in the past.

If you do look back you will be struck with pity. Your pity will be not only for the hard lot of the ancient slave or menial but for his struggle to better that lot. You will also wonder at his ingenuity. It seems that from the very beginning of things men have groped for this or that invention that will save them work, cure their ills, and make life better.

For example, an enormous ant exists in parts of the South American jungle. One type of this ant has powerful pinchers or claws. When he sinks them into anything these pinchers lock. They stay locked even after the death of the insect itself. Nothing, in fact, will unlock them but some mechanism within the insect. This fact the primitive Indians of Guiana discovered and put to use. When one of them suffered from a serious wound a few of these ants were allowed to grip their claws through the sides of the cut and bring them together until they had healed. In a way that was science.

But from that primitive surgery see the distance we have come. Doctor Albee, of New York, will take a piece of your shin bone and weld it into your arm or any other bone of the body that is broken and refuses to heal. Between that feat of Doctor Albee and the ants of the Guiana Indian lies the whole gamut of science in surgery. And all this is now at the service of the man who works. For Doctor Albee has applied surgery to industry as it has never been done before, and the science of management has helped him—for legal science in our compensation laws has made it pay to get the injured worker back on the job as soon as possible. The science of the law

has done that because the science of economics has taught us how necessary it is for us all to be producers every minute of the time.

To-day it has become almost silly to say that a man is hopelessly crippled or can not recover. We have almost stricken the word despair from the dictionary. In surgery it has been discovered that the shin bone is the one bone in the body that if removed will replace itself. The fact that a bone from the same individual grafted or welded onto another bone elsewhere in the same individual is more likely to heal than a bone from another source has developed the further fact that each human being has within himself a factory for the manufacture of the material to heal his own broken, crushed, or diseased bones. So Albeeism has come to mean, in a measure, the end of hopeless cripples.

I cite this only to show what is going on everywhere in science. The same progress in surgery, from the ant of the jungle to the art of Doctor Albee, runs through industry in general. You see it in sanitation, in devices to protect the worker from dangerous machines, from health-destroying chemicals. In my estimation, that is one of the finest sciences of all. It is not enough to help a man to produce as men have never produced before. The great job of science is to make life itself better than ever and to see that every man has his full share of it. And the achievements of Doctor Albee are only a single proof that science is doing just that.

Lengthening the Working Life

AS THE scientists find new ways of meeting disease and lengthening life I foresee the worker living a longer life of usefulness. Too many employers have still the notion that a worker, no matter what his record or what his present skill, is through at 50. When I was a youngster at work in the iron and steel mills the man who reached that age was given a gold-headed cane—and his discharge. His years of willing work, the contribution of his skill to the enterprise that employed him earned him a little thanks. After they were spoken the enterprise had no further use for him.

Science, I believe, will drive this foolish notion out of our heads. It will stretch out the worker's period of worth and ability to work. And that work itself will be ever lightened by new and more wonderful automatic machinery. Instead of turning the still valuable worker away at 50, an age we now regard as hardly more than middle life, I believe we shall be proud of keeping the man of 70 still usefully employed. The fact will be noted that he is still strong, healthy, and able. His hand will control the new automatic machinery as well as a man of 30. And a more enlightened employer will not see a liability in that man's years, but rather an asset, in the added skill and experience his longer life of work will have given him. That, I believe, will be the order of things in the near future.

We who live in this age too little realize what has been done for us and the long labors that science has put in in order to bring us these boons we enjoy. As it is, we little appreciate the debt we owe to the pioneers of science long, long ago. Only yesterday invention gave us the airplane, yet hundreds and possibly thousands of years ago a savage race who knew nothing of the laws of air resistance and

pressure developed a weapon that remains a marvel of skill to this day—the boomerang, a wooden blade so shaped, curved, and sharpened as to return to the hand of the thrower after being flung at an object a hundred yards away. For its day and age the boomerang was a more remarkable instrument than the flying machine of to-day. It was by no means as useful, but it represents that inherent ingenuity in man that has brought us to the exact knowledge we have to-day.

It seems you will find man that busy inventor at all ages. When Cæsar conquered the Germanic peoples he found them using a machine for harvesting their wheat. A pair of oxen pushed it through the grain. Less than a generation ago the same type of machine was used here in America and known as the header. A revolving wheel bent the heads of wheat over a row of fingers or slots that tore off the grain as the machine was pushed along. Thus a harvester better than the one known to our grandfathers had been developed by a people the Romans regarded as "barbarous."

I cite the above for a reason. When Cæsar conquered those inventive people slavery was introduced among them. The result was that the machine passed out of use. It was cheaper and easier to force the slaves to do the work. A good slave could be bought for $5, and that harvesting machine disappeared for centuries. What better proof could we want for the fact that the real conqueror of human slavery is science with its machinery? If you want to see at a glance what happens when science is not applied to industry, you see it in Cæsar's blow to that promising invention.

Slavery No Longer Profitable

THE truth is that the ancient peoples knew more than we give them credit for about the mechanical laws we have forced to serve us in such stupendous fashion. More than a century before the birth of Christ a man named Hero had invented a primitive steam engine. And, again, a mechanical device that might have led to the more rapid advancement of man was blighted by a less fortunate human device. Once more the abundance and cheapness of human slaves entered in, and Hero's engine remained a curiosity in a museum. Once again you have to pity those ancient peoples. You marvel at their beginnings in science. You pity them because they could not see what science could have done for them if they had let it free their slaves and do their work.

This same thing occurred in Rome itself. Water power was used in many Roman pottery plants. But it was used simply to help the slaves in turning the wheels that furnished the power. Those Roman pottery manufacturers were right on the verge of discovering automatic water power, and they never knew it. Once more the cheapness and abundance of slave labor blinded their eyes.

In the history of chemistry you find the same sad story. The spade of the explorer has turned up Babylonian tablets bearing five different recipes for the making of glass. Not only the formula is given but the process of manufacture is described. The wonderful part of it is that the glass mixed in Babylonia 3,000 years before Christ is the same as the glass of to-day, except that the Babylonian glass was rough, whereas the laboratory has given us the vastly

refined glass. But to-day marvelous machines turn out our glass, so that thousands of workers whose lives used to be shortened by the heavy work of blowing it are released to other pursuits. In Babylon, of course, nobody cared if a $5 slave died early. His place was quickly taken by another $5 purchase.

I can think of only one activity in which science has not placed us far, far ahead of the ancients. That is in road building. To-day we build roads overnight. We wear them out nearly as fast. But that is because in this modern day we subject them to loads and usage unknown in the long ago, unknown even 20 years ago. The roads built by the Romans when Christ was a boy are still in use. Those Romans were willing to employ hundreds of thousands of men for many years in building a few miles of roadway. It is little wonder that the highways they constructed have lasted for thousands of years. Whether even their great roads would have lasted, however, if subjected to wear and tear from the thundering thousands of trucks and busses that rush at high speed over our concrete ways, is doubtful. But the chief point about the Roman road is, once more, that it was built by slave labor, and the labor broke the slaves.

What an enduring road for human progress we have built instead! In Roman days slave labor was too cheap for time to be wasted on machinery. To-day human life is too valuable to waste when machinery is so cheap and efficient. That is the road we have traveled, with science to lead us. And what an immense distance we have come!

In the fifteenth and sixteenth centuries the people of England were building houses of stone. Even the partition walls were built of stone, some of them 3 feet thick. Some of these structures are standing to-day, and people still live in them. But not one of these houses had window glass. They had no stoves, no ventilation, not one of the things the humblest workman to-day regards as necessary to a home.

One of the reasons why those old houses still stand is because it would cost more to tear them down or blow them up than it would to build a modern house on the same foundation. To-day we build a house made in sections in a factory, so that they can be fitted together in 30 hours. Or we frame houses of steel and pour concrete about them in almost as short a time. In almost as short a time we can tear them down if an elder daughter gets the notion that the place is old and stuffy and we ought to have a new one. But while we let our houses stand the steel and concrete in them make them stronger than the 3-foot walls of old England.

Our houses may stand, but we ourselves do not. You will see improvements in building every day. In the first years of steel construction the pneumatic riveter did its work to perfection, but it let out a terrific noise while it was at it. Now science has turned to the welding of structural steel by means of the acetylene and electric torch, and one arc welder now does the work of eight or ten riveters.

Creation of New Commodities and New Demands

THE great stimulus science has received in the invention of new machinery has been high wages. Yet hand in hand with the science of mechanical invention has gone a science of another kind. Each new labor-saving machine has thrown some numbers of men out

of work. For a while these have had a temporary setback until they could fit themselves into new occupations. But the very machinery brought about by the high cost of human labor has made more new jobs for more workers at higher wages than ever. There, again, is human ingenuity at work. As fast as we improve the manufacture of the older commodities science and invention step in to create new commodities and new demands for them.

You can see this at work in the linotype machine, which does the work of four to six of the old-fashioned hand typesetters. For a short time there was disturbance in the printing trade as a result of the introduction and spread of this machine. Yet in a very brief period the actual result of this machine was to cheapen the production of printing so that great numbers of people were able to buy printed things and to enjoy reading—a pleasure they had never had before. A new profit and enjoyment was let into their lives. And so many more people rose to this new opportunity to improve themselves that the printing trade expanded, and thousands more printers are now employed than during the old days of hand-set type. Not only that, these thousands of printers who operate the linotypes receive more than double the wages of the men who stood at the fonts.

In this remarkable example of what science does for humanity, but especially for the worker, chemistry plays an important part. As long as paper was made from rags the cost of paper production would never have permitted the development of these mechanical improvements in printing. Not only would paper have been too scarce, its cost would have been too high. But a Frenchman happened to watch a swarm of hornets chewing the decayed fiber of a log and mixing it with some fluid they secreted in their bodies. With this they built their nest, and the Frenchman discovered that the material used was practically paper. He said to himself, "If hornets can make paper from wood, why can't human beings?" Now, thanks to his experiments, we make from wood pulp unlimited quantities of paper that enable any newspaper to issue 32 pages each day of the week and many more on Sundays. As for the other uses of paper made possible by this cheap process, the list is inexhaustible. The whole field of industrial chemistry is covered in what the laboratory has done for the improvement of paper alone. As for what this added to life, the results are beyond calculation. You can not touch our present existence at any point without hitting upon some point where science has revolutionized it. But I think that in giving us cheap books and papers science has performed her greatest miracle of all. From the primer before the schoolboy's eyes to the work of science or history or biography that continues his father's schooling to his dying day, printing and paper seem to me the magic touch of science that has lifted men's eyes from the ground and pointed them to heaven and to God.

Recently the industrial chemist has given us a quick process for the making of silk in the form of rayon, which will soon supplant the slow and limited supply of that important product. The utterly amazing development of the automobile will either give us a substitute for rubber, or it will give us an auto tire which is not from rubber at all.

This seething activity in the field of practical science is not concerned alone with merely bettering our ways of doing the old things, either. It is reaching out to develop new wants and then to supply them. It seems idle to speak of the radio as one of these. The airplane is another just as familiar. At present, alarm has been created for aviation because of recent deaths and accidents. It must be remembered, however, that this high fatality record is to a large extent the outgrowth of "stunt" flying or the undertaking of hazardous flights poorly prepared for. On the other hand, commercial flying has become so safe that 2,000,000 flying miles are now achieved to each fatal accident. This is almost as safe as railroad travel and far better than our scandalous accident record from the automobile.

General Employment Is True Measure of Prosperity

BECAUSE of all these things our whole method of measuring things is being changed. Prosperity used to be measured by the number of things sold. I firmly believe that within 10 years we shall accept what is to my mind the only true measure of prosperity—that is, the general distribution of employment. We are trailing along the old lines of economic theory in the matter of production, when the object sought was the production of more and more, and ever more. I believe that within 10 years this theory of the old-time economists will be obsolete. I believe the real object to be sought in the future is the manufacture of just enough to satisfy the national demand and the orders that come to us from other lands, and no more.

Then we shall see at last some real conservation. Economics will then live up to its name. We shall have real economy in the conservation of our national resources, our raw materials, our national energies, and, above all, a saving in our man power. We shall not wear out our workers, but rather lengthen their lives and usefulness at the same time that we lighten their labors.

Most important of all will be economy of time. With our work done more easily and quickly, we shall have a larger remainder of time for use in other and better purposes than the feverish production of goods that we can not sell.

Every ounce of production over our capacity to consume is not only a waste; it does more harm than good because it disturbs the price and distribution of that which can not be consumed at a reasonable figure.

So, while science has accomplished wonders for industry that were undreamed of a century ago, I believe the field of its usefulness is barely opened. One opportunity for a new application of science we see all around us. I believe the science of economics and organization must sooner or later reorganize the whole industrial system. Nothing less than that will serve to control and stop overdevelopment of producing capacity, overproduction of commodities—that is, the production of commodities that can not be consumed at a reasonable price. This must be done in a way to avoid the unemployment of labor or the cheapening of labor. On the contrary, we must recognize our working population as in itself a great market. But in the new industrial system hours will be shortened, wages will be maintained and more broadly distributed, and the leisure that will come, the

"time to think," may be used by the vast majority of our workers to obtain better education, higher intellectual levels, and a still higher standard of living.

Neither will this new industrial system be a cost to any one of its groups. On the contrary, it will be not only self-sustaining but self-enlarging. The more highly educated our workers the more they will demand of life. That is, they will demand more commodities to satisfy their needs. The money to meet their wage demands will come of this larger market for goods which they themselves will create. And while this is coming about I believe we shall arrive at a new conception of life itself. Its great goal will then be happiness rather than the possession of many things.

It seems to me I see this coming about even now. More and more our industries are paying for brains rather than muscle. Manual skill alone is no longer enough. Brains are more and more demanded, and we are training the brainier worker to supply the demand. It is to be questioned whether automobiles, radio, the motion picture, lectures, and night schools would have appealed to the workman of a hundred and fifty years ago. At the end of his long day's work he was too tired to feel any interest in such opportunities and forms of amusement. Science has come to his aid, with lighter work, shorter hours, higher pay, and more "time to think." But the job is not finished, and science will carry us still farther.

If a Greek of 2,000 years ago were to return to earth he would be amazed by these developments of modern practical science. He would marvel at the steam engine and the radio, the telegraph and the telephone, the automobile, the electric light, and the enormous wealth our machinery is turning out. But after he had made the round of shop and mine and field he might inquire whether we had brought our minds and bodies along in pace with our machines. For the people of Greece cared more for a sound mind in a sound body than they did for amassing great wealth. The one thing that might reconcile a returned Greek to much of our modern life would be his discovery that human slavery as he once knew it has come to an end and that the machine has become the slave.

This is the crowning glory of our modern world, and science has been the giver. Having now freed man from much or most of his ancient labors, the next great work for science is to make this new freeman with "time to think" happier not by what amazing things he owns but by what amazing things he can think and do.

PUBLIC RETIREMENT SYSTEMS

Federal Employees' Retirement Act

THE first law creating a retirement system of general application to Federal employees was approved on May 22, 1920 (41 U. S. Stat. L., p. 614; see Labor Review, June, 1920, p. 184.) This law was amended by four separate enactments of the sixty-seventh Congress (42 U. S. Stat. L., pp. 364, 470, 651, 1047; see Labor Review, November, 1922, p. 198.) After six years' experience Congress reenacted the law with several material changes (44 U. S. Stat. L., p. 904), the most important of which provided for more liberal coverage; an increase in the percentage of contributions by the Federal employees from 2½ to 3½ per cent of their basic annual salaries; credit for every year's and every month's service up to 30 years instead of dividing the credit for services into three-year periods; an increase in the maximum annuity from $720 to $1,000; and the compilation of more complete and more valuable records.

System of Contribution

BEFORE analyzing the provisions of the law it might be advisable to have in mind the general nature of the law. The retirement act of 1920 provided for the creation of an old-age insurance system for its employees in the service after the passage of the act, and for an old-age pension system as regards service rendered prior to the act.

Under the old-age insurance system an employees' retirement and disability fund was set up. In 1920 proper statistics were not available to show the cost of the system, and until sufficient time had elapsed to enable actuaries to give a fair estimate of the cost an arbitrary rate of 2.5 per cent was fixed by Congress as the amount which would be deducted as premiums from the salaries of all persons covered by the act. At the time Congress passed the act of 1920 it was believed that the law would cost the Government at least as much as it would the employees and that the cost to the Government would be immediate. The Government impliedly assumed responsibility for the difference between the 2.5 per cent and the actual cost of the system, but no appropriation was passed or percentage of contribution fixed. In 1926 Congress reduced the basis of liability of the Government to the fund from, roughly, three-eighths to one-eighth of the cost by increasing the amount of contributions or premiums deducted from salaries from 2.5 per cent to 3.5 per cent. Again there was an implied assumed responsibility on the part of the Government for the difference between this 3.5 per cent and the actual cost. Whether the Government will follow this tendency to increase the share of the employees and eventually relieve itself of all liability by placing the fund on a self-supporting basis or whether it will contribute something as its share for the benefit it receives under the act is for the future action of Congress to decide.

In 1920 there were many old employees immediately eligible for retirement. Under the terms of the act many were retired and were entitled to benefits for which the Government assumed full responsibility. As they had contributed nothing to the fund, everything due them was in the nature of a pension. They are solely pensioners of the Government, and for their pensions the Government alone must pay the entire cost. Present employees or their fund assume no responsibility and can not be held to be liable in any way for any payments of any nature made to these pensioners.

In 1920 many employees who had been for years in the service of the Government were covered by the act, and thereafter a premium of 2.5 per cent was deducted from their salary as their contribution to the fund. As they did not enter the service after the act of 1920 they are not solely under the insurance fund. As they did not immediately retire they are not solely pensioners. To the extent that they rendered service and contributed to the fund after the act of 1920 the fund is liable for their annuity, but to the extent that they rendered service prior to the act of 1920 the Government alone is liable.

When the act of 1920 became effective it was assumed that Congress would appropriate its contribution to meet the pension payments. Congress, however, failed to do this, and, in the absence of an appropriation, those administering the act, in order to make payments to annuitants who had immediately retired, took part of the money which had been deducted from the salaries of employees and deposited in the fund, and paid it to persons who had retired under the act. This was done under the authority of the provision directing payments under the law to be made out of the fund. It must be assumed that Congress will in the future repay to the fund the amounts taken and recognize its liability for these payments. The amounts taken from the fund are in the nature of forced loans, "forced" because the employees who contributed premiums to create the fund had nothing whatever to say concerning the taking of their deposits, and "loans" because it must be assumed that Congress will repay them.

Under the present law the Government is liable (1) to the fund for the difference between 3.5 per cent and the actual cost, (2) to annuitants or pensioners to the extent of benefits allowed for service rendered prior to the act of 1920, and (3) to the fund for the forced loans.

The fact that the Government made no appropriations to meet its liabilities complicated the situation. On June 30, 1927, the persons administering the act had taken $40,035,989.95 from the fund, which was the total amount paid to all retired employees as of that day. On these forced loans the Government owed the fund $4,796,549.97 interest. But as these superannuated employees had contributed $2,178,123.36 in assessments to the fund, the Government owed the fund $42,654,416.59 as of June 30, 1927, for annuities already paid.

The actuaries and those administering the act realized the danger involved in the Government's policy of postponing indefinitely the payment of these obligations and making further forced loans. In creating a plan of Government contribution to the fund, the actuaries have provided for the continuance of the system of loans, but it is planned that the Government will annually make appropriations

liquidating its debt to the fund by a system of amortization or part payments which will completely pay off the debt and at the end of a 30-year period have a sufficient sum deposited to balance the accrued obligation for all service credited prior to the act of 1920.

The actuaries estimate the value of all future payments to present annuitants and to persons now in active service who will in the future go on the retired roll as $851,668,166, made up as follows:

Funds on hand	$68, 336, 761
Future contributions of employees	342, 772, 972
Appropriations required of Government	440, 558, 433
Total	851, 668, 166

The $440,558,433 required from the Government may be divided into two parts—$47,535,058, which represents the present value of the future contributions, and $393,023,375, which represents the amount which must be placed in the fund to offset the lack of contributions in the past as of June 30, 1927. This last amount is known as the "accrued liability."

The actuaries believed that this accrued liability was too large to be covered by a single payment. They calculated that 1.97 per cent of the pay roll annually would liquidate this liability in 30 years if the pay roll increased by approximately 3 per cent per year. An annual contribution by the Government equal to 0.48 per cent of the pay roll, plus the 3.5 per cent contributed by the employees would equal 3.98 per cent, the normal cost of the plan. The actuaries recommended a contribution by the Government of 2.5 per cent instead of 2.45 per cent (1.97 per cent plus 0.48 per cent), as the time of liquidation depended upon the level of the pay roll. Explaining this the actuaries say:

> As the employees are paying an arbitrary contribution of 3½ per cent of their salaries, the Government might very properly contribute a round sum equivalent to 2½ per cent of salaries instead of 2.45 per cent, and in this manner it would actually begin the liquidation of the accrued liability even if the pay roll did not increase. If the pay roll does not increase, contributions at this percentage may be expected to liquidate the accrued liability in 71 years; if the pay roll increases by 1 per cent each year, the percentage will liquidate the accrued liability in approximately 42 years; if it increases by 2 per cent each year, 33 years will be required for the liquidation of the accrued liability; while if the pay roll increases by 3 per cent each year, the period required to liquidate the accrued liability would be only about 28 years.[1]

On the basis of 2.5 per cent the Budget Bureau recommended an appropriation for the fiscal year ending June 30, 1929, of $19,950,000,[2] and this item was approved by the Committee on Appropriations (H. R. 9136) in its report to the House of Representatives, January 11, 1928.[3] On January 12, 1928, Mr. Cramton explained the item in the House of Representatives in part as follows:

> We may fairly assume that the number of persons that will retire from year to year in the future will increase at about the same rate that the active force has increased from year to year in the past. This means that pension payments will probably increase within the next 10 years to a point where they will finally exceed the employees' net annual contributions; that is, after making deductions

[1] United States Department of the Interior, Bureau of Pensions. Seventh Annual Report of the Board of Actuaries as of June 30, 1927. Washington, 1927. (H. Doc. No. 131, 70th Cong., 1st sess., p. 7.)
[2] Budget for the fiscal year ending June 30, 1929, p. 645.
[3] United States. Congress. House of Representatives. Committee on Appropriations. Report. Washington, 1927, p. 22. (H. Rept. No. 225, 70th Cong., 1st sess.) See also Hearing before Subcommittee of House Committee on Appropriations, Interior Department Appropriation Bill, 1929, p. 732, H. R. 9136.

for refunds to those dying or withdrawing from the service. Such net annual contributions of employees now amount to approximately $20,500,000 ($24,358,-882−$3,862,288=$20,493,594). When that time is reached the amount in the fund will begin to diminish rapidly and in the course of 10 years more the fund will be exhausted and thereafter the Government will have to provide each year the difference between the amount of the employees' net contributions and the total pension payments. It is fair to assume that within the next 30 or 40 years the total pension payments and refunds will have increased to about $40,000,000 a year.

The Board of Actuaries tell us that, according to the valuation which they made as of July 1, 1927, the obligation which the Government assumed when the retirement act became law in 1920, plus that which it has incurred between that date and July 1, 1927, amounts to $393,000,000. This is generally referred to as the "accrued liability." This debt might be held indefinitely at its present amount by simply appropriating interest on it at 4 per cent, which would amount to $15,720,000 a year. The pay roll of the employees covered under the act amounted on July 1, 1927, to $798,000,000. This appropriation of $15,720,000 amounts to 1.97 per cent of the pay roll. Therefore if the Government were to appropriate 1.97 per cent of the pay roll, the accrued liability could be held at its present amount of $393,000,000. Such an appropriation would not, however, fully meet the obligation of the Government, for the contributions made by the employees at the rate of 3.5 per cent of their salaries have been found by actuarial determination to fall short of the amount required to pay the benefits by forty-eight hundredths of 1 per cent of the annual pay roll. Forty-eight hundredths of 1 per cent of the pay roll amounts to $3,851,794. Therefore if the Government were to appropriate 2.45 (1.97+0.48) per cent of the pay roll, or $19,572,729, it would hold the accrued liability at its present level and would provide its share of the accruing liability during the coming year.

When I say that to appropriate 2.45 per cent of the pay roll it will hold the accrued liability at its present amount and pay the Government's accruing liability, I mean provided the pay roll remains at its present level of $798,000,000.

If the pay roll increases beyond this amount the contribution corresponding to the increase would tend to liquidate some part of the liability of $393,000,000.

In considering this question of the amount which the Government might properly appropriate for account of the retirement fund, the Budget Bureau decided to recommend an appropriation of an even 2.5 per cent of the pay roll, or a total of $19,950,000. This would mean that the difference between 2.45 per cent and 2.50 per cent of the pay roll, or, roughly, $400,000, the Government would apply to the liquidation of this accrued liability of $393,000,000.[4]

This bill passed the House of Representatives on January 13 and the Senate on February 4, 1928.

Analysis of Act of 1926

Employments Covered

THE employees within the scope of the act include:

1. All employees in the classified civil service of the United States.

2. Certain specified employees working in the District of Columbia, not otherwise covered, and superintendents of national cemeteries.

3. All employees of the Panama Canal on the Isthmus of Panama who are citizens of the United States.

4. Certain unclassified employees in cities and establishments in which appointments are made under specified conditions.

5. All regular annual employees of the municipal government of the District of Columbia appointed by the commissioners or other competent authority.

6. All employees to whom the Federal employees' retirement act of May 22, 1920, and amendments shall have been extended by executive order.

[4] Congressional Record, Jan. 12, 1928, vol. 69, p. 1442.

7. Postmasters of the first, second, and third class who have been promoted, appointed, or transferred from the classified civil service.

Employees whose employment is intermittent or of uncertain duration and who fall within groups 2, 3, and 4 do not come under the act and any employee or group of employees so employed and within one of the other groups may be excluded by the President from coverage by the act.

Several classes of employees are specifically excluded from the act. They are: (*a*) Certain employees of the lighthouse service, (*b*) members of the police and fire departments and school officers and teachers of the District of Columbia, (*c*) postmasters except those described in group 7 above, (*d*) employees excluded by Executive order from the benefits of the Federal employees' retirement act of May 20, 1920. Groups (*a*) and (*b*) are covered by special retirement systems. Employees in the foreign service of the United States are also provided for by a special retirement system. (43 U. S. Stat. L., p. 144.)

Any employee or group of employees in the civil service not covered may be brought under the act by Executive order upon recommendation of the Civil Service Commission.

Retirement

All employees covered by the act who have attained the age of 70 years and rendered at least 15 years of service are eligible for retirement and an annuity as described below; except that after 15 years of service, letter carriers, post office clerks, sea post clerks, laborers, and mechanics are eligible for retirement and the annuity upon attaining 65 years; and after 15 years of service, railway postal clerks, those employees whose occupations are hazardous or require great physical effort or which necessitate exposure to extreme heat or cold, and employees 15 years or more in service in the Tropics are eligible upon attaining the age of 62 years.

The classification of employees for the purpose of assignment to the various age groups is determined jointly by the Civil Service Commission and the heads of the department, branch, or independent office of the Government concerned. The term "mechanics" is defined to include certain employees of the Government Printing Office and special provision is made for certain mechanics transferred or reduced to minor positions.

The act provides that all employees covered by the act shall, on arriving at retirement age and having rendered 15 years of service, be automatically separated from the service and all salary shall cease, but if the head of the department, branch, or office certifies to the Civil Service Commission that by reason of the efficiency and willingness of the employee to remain in the civil service the continuance of such employee therein would be advantageous to the public service, such employee may be retained in the service for two years, receiving additional extensions for two-year periods thereafter; after August 20, 1930, however, no employee may be continued in the civil service more than four years beyond the age of retirement. No person receiving the old-age annuity may be employed again in any position covered by this act.

Any employee covered by the act who has had 15 or more years of service and who, before becoming eligible for old-age retirement, becomes totally disabled for useful and efficient service by reason of disease or injury not due to vicious habits, intemperance, or willful misconduct on his part shall, upon his request or the request or order of the head of the department, branch or office concerned, be retired and allowed the annuity described below. The application for retirement must be made prior to or within six months after separation from the service. Medical examination and report by a medical officer of the United States or physicians or surgeons designated by the Commissioner of Pensions, showing disability, is required. At least one annual medical examination is required in each case (unless it is clearly evident that it is unnecessary) until the employee reaches the regular retirement age. No person shall be entitled to both the payments under this act and those under the United States employees' compensation act for the same period of time, but the employee may elect to receive the greater benefit conferred by either act for any part of the time.

Employees, 45 years of age or over, who, after at least 15 years of service and before becoming eligible for old-age retirement, become involuntarily separated from the service, but not by reason of misconduct or delinquency, are entitled to certain allowances described below. But these allowances cease if such employees be reemployed in the Government service.

Annuities and Refunds

The annuity allowed an employee for old-age retirement under the act is computed by multiplying the average annual basic salary (not to exceed $1,500) received by such employee during the 10 years of allowable service immediately preceding the date of retirement by the number of years of service (not to exceed 30) and dividing the product by 45. The law provides that the maximum allowance per year shall be $1,000 but it also provides that the annuity shall be fixed at the nearest multiple of 12, making the actual maximum $999.96

An employee retired under the act because of disability shall be entitled to an annuity computed on the same basis as that for old-age retirement but, if before reaching retirement age such employee is found, after examination, to be restored to an earning capacity which would permit him to be appointed to some appropriate position fairly comparable in compensation to the position occupied at the time of retirement, payments cease 90 days after such examination.

An employee, 55 years of age or over, involuntarily separated from the service after at least 15 years of service and before becoming eligible for old-age retirement may elect to be paid either (*a*) the total amount deducted from his basic salary with interest or (*b*) an immediate life annuity, beginning at the date of separation from the service, having a value equal to the present worth of the annuity which would have been allowed him at the age at which he would otherwise have become eligible for retirement, or (*c*) a deferred annuity, beginning at the age at which he would otherwise become eligible for retirement, of the amount which would have been allowed him at that age. An employee between 45 and 55 years of age, involuntarily separated from the service after at least 15 years of service and before becoming

eligible for retirement, shall be entitled to a deferred annuity, but upon reaching 55 years of age he may elect to receive the immediate life annuity based on its present worth at the time.

Any employee covered by this act, who is transferred to an employment not under the act or who becomes separated from Government service before becoming eligible for retirement, shall be refunded the amount deducted from his salary with interest. But if such employee reenters the service in any employment covered by the act, such refund must be redeposited, with interest, in order to receive any benefit under the act. In case of the death of an annuitant after retirement but before he has received payments equal to the deductions from his salary, with interest, the excess shall be paid to his legal representatives. If an employee dies before becoming eligible for retirement or establishing his claim for an annuity, the amount deducted from his salary, with interest, shall be paid to his legal representatives. If a former employee entitled to a refund becomes legally incompetent the refund shall be paid to his guardian or committee.

None of the moneys mentioned in this act are assignable, subject to execution, levy, attachment, garnishment, or other legal process.

The aggregate period of service which forms the basis for calculating the amount of any benefit is computed from the date of original employment, including periods of service at different times and in one or more departments, branches, or offices, and service overseas, and in the Army, Navy, Marine Corps, or Coast Guard. But in the case of an employee electing to receive a pension or retired pay on account of military or naval service, or compensation under the war risk compensation act, the period of his military or naval service upon which such pension is based is not included. He may, if so entitled, receive both a pension for his military or naval service and an annuity under this act. Employees who transfer from an employment covered by this act to an employment not so covered but in Government service and who later return to an employment covered by the act receive credit for such time in the employment not covered upon contributing to the fund the amount he would have contributed if he had continued in the covered employment. Periods of separation from the service and any leave of absence exceeding six months in the aggregate in any calendar year shall not be included in computing length of service.

All persons already retired under the provisions of the act of May 22, 1920, shall have their annuity computed and paid in accordance with the act of 1926, but in no case is the annuity to be reduced.

The act provides that payments shall be made by check on the first business day of each month following the period for which the payment has accrued. The old-age retirement annuity commences from the date of separation from the service and continues during the life of the employee.

Source of Funds

Funds are secured by deductions from the basic salary of all employees covered by the act. From July 31, 1920, to July 1, 1926, deductions were at the rate of 2½ per cent. Since that time, however, employees have been required to contribute 3½ per cent of their basic salaries. These amounts so deducted are deposited in the

Treasury of the United States to the credit of the "civil-service retirement and disability fund" out of which fund annuities, refunds, and allowances are to be paid. All employees covered are deemed to have consented to these deductions. The Secretary of the Treasury is authorized to receive as a supplement to the fund any donations by private individuals or organizations for the benefit of civil-service employees. The Secretary of the Treasury is directed to invest portions of the retirement fund in United States bonds and in Federal farm loan bonds and the income from such investments is made a part of the fund.

Administration

The administration of the act is placed in the Commissioner of Pensions under the direction of the Secretary of the Interior. An appeal from the final action of the Commissioner of Pensions is allowed to the Secretary of the Interior. The Commissioner of Pensions is required to make an annual report and to transmit to Congress, through the Secretary of the Interior, the reports and recommendations of the board of actuaries.

The Civil Service Commission is required to keep a record of essential information concerning individual service and to furnish the Commissioner of Pensions such reports therefrom as he shall request. The commission is also required to prepare and keep tables, records, and other information which may be used to serve as a guide for future valuations and adjustments of the plan for retirement.

Three actuaries (one of whom shall be the Government actuary), selected by the Commissioner of Pensions and known as the board of actuaries, shall make an annual report upon the actual operations of this act, make a valuation of the "civil-service retirement and disability fund" at least every 5 years, prepare such tables as may be required by the Commissioner of Pensions for the purpose of computing annuities under the act, and shall have authority to recommend such changes as in their judgment may be deemed necessary.

The Secretary of the Interior shall submit annually to the Bureau of the Budget, estimates of the appropriations necessary to finance the retirement fund and to continue this act in full force and effect.

The Comptroller General shall establish and maintain an account showing the annual liabilities of the Government under this act and shall keep such other accounts as may be deemed necessary.

Statistics of Operation of the Act

THE report relating to the Bureau of Pensions for the fiscal year ending June 30, 1927, found in the annual report of the Secretary of the Interior, contains some interesting statistics showing the operation of the act. In presenting figures on the number of claims for refund settled each year since the first retirement law became operative in 1920, the report states that it is believed that these figures present a fair index of turnover in the civil service as a whole and concludes that employment conditions in the civil service are gradually becoming stabilized and that unless some unusual condition

arises the annual turnover will soon reach a normal proportion. The number of claims for refund settled during each fiscal year are:

1921	26, 116	1925	36, 742
1922	70, 978	1926	34, 005
1923	58, 502	1927	31, 760
1924	45, 434		

The following tables were taken from the report relating to the Bureau of Pensions:

Receipts and disbursements, civil-service retirement, year ending June 30, 1927

Balance in the fund July 1, 1926	$54, 629, 004. 93
Transfers on the books of the Treasury Department to the credit of the "civil-service retirement and disability fund" [amount deducted from salaries and credited to fund]	24, 355, 882. 00
Interest, profits, and miscellaneous items	2, 812, 581. 84
Total in fund	81, 797, 468. 77
Disbursements on account of annuities	9, 598, 285. 73
Disbursements on account of refunds (including $329,869.02 interest)	3, 862, 288. 82
Treasury settlement	133. 27
Total disbursements	13, 460, 707. 82
Balance in the fund June 30, 1927	68, 336, 760. 95

NUMBER, SEX, AND CAUSE FOR WHICH RETIRED OF CIVIL-SERVICE ANNUITANTS ON THE ROLL JUNE 30, 1927, AND AGGREGATE CONTRIBUTIONS MADE BY THEM

Class	Total number	Male		Female		Aggregate contributions
		Retired for age	Retired for disability	Retired for age	Retired for disability	
Mechanics	3, 195	2, 595	396	167	37	$361, 619
City and village letter carriers	2, 414	1, 793	621			324, 759
Rural letter carriers	2, 205	1, 918	279	2	6	268, 861
Post-office clerks	1, 222	842	226	100	54	156, 663
Railway mail clerks	1, 132	1, 017	115			136, 731
Departmental and other clerks	3, 112	1, 880	543	395	294	376, 845
Classified and unclassified laborers	805	532	113	95	65	73, 136
Tropical service and hazardous occupation	34	17	17			6, 671
Total	14, 119	10, 594	2, 310	759	456	1, 705, 290
Average contributions						120. 77

Number of civil-service annuitants receiving each classified amount, average annuity, and annual value of retirement roll, June 30, 1927

Amount of annuity	Number of annuitants
Under $100	10
Between $100 and $200	106
Between $200 and $300	409
Between $300 and $400	831
Between $400 and $500	1, 765
Between $500 and $600	1, 560
Between $600 and $700	1, 508
Between $700 and $800	1, 528
Between $800 and $900	2, 117
Between $900 and $999.96	1, 545
$999.96	2, 740
Total	14, 119
Average annual rate	$721. 39
Annual value of retirement roll	$10, 185, 305. 41

NOTE.—The annual value of the retirement roll is reached by multiplying the number of annuitants by the average annual rate, and it represents the amount necessary to pay such annuitants for one year.

AVERAGE SALARY RECEIVED DURING LAST 10 YEARS OF SERVICE BY ANNUITANTS ON RETIREMENT ROLL, JUNE 30, 1927

Average salary	Total on roll	Eligible for retirement at—			Aggregate annuities	Aggregate compensation
		Age 62	Age 65	Age 70		
Less than $300	26		21	5	$3,377	$6,243
$300 to $600	179	1	138	40	43,781	83,910
$600 to $900	1,141	5	702	434	467,427	889,990
$900 to $1,200	2,603	27	1,966	610	1,363,028	2,819,676
$1,200 to $1,500	4,981	354	3,679	948	3,819,210	6,682,737
$1,500 to $1,800	3,652	414	2,748	490	3,117,814	5,913,517
$1,800 to $2,100	965	262	397	306	855,444	1,855,125
$2,100 to $2,400	308	87	106	115	277,778	682,165
$2,400 to $2,700	130	9	41	80	117,368	328,070
$2,700 to $3,000	56	4	20	32	52,166	159,184
$3,000 to $3,300	43	1	13	29	39,016	134,956
$3,300 to $3,600	16	2	4	10	14,197	54,998
$3,600 and over	19		6	13	16,231	83,855
Total	14,119	1,166	9,841	3,112	10,186,837	19,694,426

Average annuity	$721.39
Average annual compensation	1,394.88

Number of civil-service annuitants and amount of annuities paid, by fiscal years

	Annuitants at end of year	Annuities paid during year
1920–21	6,471	$2,590,568.52
1921–22	7,576	4,188,258.89
1922–23	9,334	4,964,001.92
1923–24	10,548	5,692,443.59
1924–25	11,689	6,235,830.16
1925–26	12,524	6,766,601.17
1926–27	14,119	9,598,285.73

The total annual deductions from the salaries of Federal employees covered by the act have been sufficient, since the passage of the act, to meet the annuities of retired employees and allow a balance to accumulate in the retirement and disability fund. As noted above, this balance in the fund as of June 30, 1927, amounted to $68,336,760.95.

The board of actuaries in its sixth annual report, for the year ending June 30, 1926, estimated that 3.98 per cent of the basic annual salaries of employees covered by the act would be sufficient to cover the continuing or normal cost of the system (not including the accrued liability). As noted above, by act of Congress, deductions are made from the salaries of employees at the rates of 3.5 per cent, regardless of the age, salary, length of service, or physical condition of the employee. Under this provision one employee may contribute 3.5 per cent over a 50-year period on an average salary of $3,000 and yet receive the same annuity as another employee who has been contributing only 30 years on an average salary of $1,500.

The board of actuaries, commenting on the retirement act as amended July 3, 1926, says:

> The reports of the board of actuaries have repeatedly stressed several important points in respect to the retirement act as it existed before the recent amendments. The main points were as follows: First, the board believed that the plan was unfair to employees because it exacted uniform contributions from employees on the basis of their full salaries and then provided benefits based on limited salaries irrespective of the employee's age, so that certain employees paid a small part of the cost of their allowances while others with

greater service and apparently greater claims to consideration from the Government were forced to pay practically the entire cost of benefits; second, the retirement allowances were on the average too small to offer a satisfactory means of retiring employees; third, no system of records to protect the Government and the employees was provided for under the act; and fourth, the system was not being properly financed by appropriations to cover the currently accruing liability, so that the Government was piling up a tremendous accrued liability to be met by future taxpayers or to be repudiated with hardship and embarrassment to employees.

An examination of the new law to determine how far the defects of the original law have been removed indicates that while the new act is an improvement over the previous law, the plan is still so inequitable that the board believes it will ultimately have to be amended.

The situation covered by the first point raised by the actuaries has not been changed. As to the second point due to the amendment of 1926 which raised the amount of the annuity, the act, the actuaries say, now comes nearer to providing an adequate means of retirement. With reference to the third point raised, the actuaries say that under the new law undoubtedly the Comptroller General will inaugurate a system of records to protect the Government and the employees and this will mean a very substantial improvement in the administration of the system. As to the fourth point, Congress has not yet properly financed the system by appropriations to cover the accrued and currently accruing liability.

Public-Service Retirement Systems In Foreign Countries

THIS is the second article on public service retirement systems in foreign countries, and comprises part of the study on various retirement systems now being made by the Bureau of Labor Statistics. The retirement systems of Great Britain and France are described in the Labor Review for January, 1928 (pp. 33–42).

AUSTRIA [1]

Legislation

THE main laws on which the present Austrian civil-service retirement and pension system is based are the Austrian Constitution; the law of January 25, 1914; the pension law of December 17, 1921; and the salary law of July 18, 1924. There are other laws [2] affecting retirement and pensions, but they are rather of a supplementary nature, concern certain details, or contain temporary measures in connection with war-time emergencies and the rise of the cost of living.

[1] The data on which this section is based are from Reichsgesetzblatt, Jan. 27, 1914, and July 31, 1917; Staatsgesetzblatt, Nov. 30, 1918, Dec. 18 and 30, 1919, and June 5 and Oct. 13, 1920; Bundesgesetzblatt, Dec. 29, 1921, July 29 and Oct. 22, 1922; May 16 and July 24, 1924, Dec. 18 and 31, 1926, and Apr. 14, 1927; unpublished material furnished to the Department of Labor through the Department of State.

[2] These laws which are still in force either in whole or in part, are the following: Imperial decree of Dec. 9, 1866(granting pensions to civil-service employees); law of May 21, 1868 (relating to civil-service employees in the judiciary); law of May 14, 1896; imperial decree of June 9, 1915, and administrative resolution of Dec. 10, 1915; decree of Ministry of Finance of June 20, 1917; executive order of State Finance Office of Nov. 28, 1918; law of Oct. 20, 1919 (relating to the military police); law of Oct.30, 1919 (relating to guards in the Finance Bureau); law of Oct. 30, 1919 (relating to the police); law of Oct. 1, 1920 (concerning civil-service employees in the post and telegraph service); law of Oct. 1, 1920 (known as the accident survivor law); law of July 14, 1921; decree of April 27, 1922; law of July 24, 1922; resolution of Sept. 28, 1922; resolution of Feb. 14, 1923; law of Mar. 21, 1925; law of Apr. 3, 1925; executive order of Ministry of Commerce and Transportation of April 7, 1925, No. 11470 (referring to the postal service); law of May 26, 1926; decree of Dec. 7, 1926 (referring to mail carriers on a commission basis and to their survivors); law of Dec. 10, 1926; law of April 1, 1927; decree of Apr. 12, 1927 (referring to postal employees and their survivors); decree of Ministry of Social Welfare of May 4, 1927.

The officials and employees in Government offices and establishments, including State corporations, have the right to pension, with the exception of contract civil employees. "Contract employees" are employees engaged for a specific task.

Provisions as to Retirement and Pensions

GENERAL provisions.—A civil-service employee, upon retirement from service, is paid either a pension or a lump sum. He draws his pension from the 1st of the month following his retirement, of which he is formally notified, and until that date he continues to receive his salary in full.

Retirement age and disability.—A civil-service employee is entitled to retire if he is disabled for service, either permanently or temporarily. In the first case he retires permanently and in the other temporarily. Any civil-service employee may be compelled to retire if he is permanently disabled or has passed the age of 60 and has acquired the right to full pension. An employee is pensioned, under legal regulations, when he has been absent from his work more than one year on account of sickness.

The cause, degree, and probable duration of disability of a civil-service employee must be ascertained by an officially appointed physician. In doubtful cases the proper authorities may reexamine the case. No examination is required when a civil-service employee has passed his sixtieth birthday.

Judges retire on December 31 following their sixty-fifth birthday. A judge may be compelled to retire permanently or temporarily on the ground of bodily or mental defect, ascertained by a disciplinary court.

Appeal.—If a civil-service employee is dissatisfied with the disposition of his pension claim, he may appeal to the administrative authorities, and if not satisfied with their decision he may, within six months, carry his case to the constitutional court for redress.

Basis for calculation of pension.—The annual pension is calculated on 78.3 per cent of the salary or income from service (that income which is recognized by the proper authorities as the basis for calculation). This 78.3 per cent of the income is called the "pension calculation basis" (*Ruhegenussbemessungsgrundlage*), and the maximum pension may not exceed this amount.

Length of service.—As a rule, a pension claim arises only after 10 years' service. For a shorter term of service than 10 years a lump sum is usually paid, which for a term of from 3 to 5 years of service amounts to the equivalent of the pension calculation basis, and for a term of 5 to 10 years of service is equal to twice the pension calculation basis.

After more than 10 years' service the pension is 40 per cent of the pension calculation basis. The pension increases by 2 per cent for each additional year of service, so that the maximum pension is reached after 40 years of service.

The pension increase to a civil-service employee who has completed a university course is 2.4 per cent of the pension calculation basis for each year after 10 years of service, so that he can obtain the maximum pension after 35 years of service.

Pension privileges.—The special per cent of 2.4 of the pension calculation basis for each year of service after 10 years is also granted to civil-service employees in executive positions in the post, telegraph, and telephone service and in supervisory positions in Federal prisons and jails.

For civil-service employees in the customs service and for police officers three years' service is counted as four. For military police officers one full year of service is counted as 16 months.

War-time privileges.—If a civil-service employee is retired because of permanent disability half a year is added to the period of his civil service for every calendar year of the war during which he was at least six months in active civil service, provided he is not entitled to other war pension privileges under paragraph 2 of the law of November 28, 1918. One year is added to his civil service time for each calendar year in which a civil-service employee had at least three months of active military service, and in case he took part in fighting, was wounded by the enemy, or became disabled through war service (by disease), the counting of the calendar year as a "war year" is his right without regard to the duration of his military service.

Lump-sum payment.—A lump sum will be granted a civil-service employee at his request, provided he renounces for himself and his family all claims which may have arisen from his service. The lump sum amounts to the total salary for two years calculated at the rate of his last annual salary; that is, the salary or income which serves as the basis for calculation of pension.

Widow's and Orphans' Pensions

GENERAL provisions.—In case of death of a civil-service employee his surviving family are entitled to a death benefit either in the form of a lump sum or of a pension amounting to three times his last monthly salary.

The "family" as used in the pension law, includes the widow, unless a divorce can be proved in which the wife was the guilty party, and the legitimate children or children who have been legitimated by a subsequent marriage. The children of a civil-service employee are entitled to the death benefit only if there is no widow with a valid claim.

Widow's pension.—If a civil-service employee at the time of his death had not acquired the right to a pension, his widow is entitled to a lump-sum payment amounting to one-fourth of the last annual salary which serves as the basis of pension calculation; otherwise she is entitled to a widow's pension, equal to 50 per cent of the pension which her deceased husband was receiving or would have been entitled to at the time of his death.

The widow of a civil-service employee who had passed his sixty-fifth year of age before the marriage took place is entitled to a widow's pension only if such employee had had at least 15 years of service and if the marriage had lasted at least two years, or, in the case of the marriage of a retired employee, three years. In the latter case the difference in age between the married couple may not exceed 25 years.

However the condition as to the duration of a marriage contracted by a civil-service employee after he was 65 years of age is not insisted upon if a child has been born in wedlock or has been legitimated by

the marriage, or if proof can be furnished that the widow, at the time of the death of her deceased husband, was pregnant.

Orphans' pension.—Besides the widow's pension a widow is granted for each of her children for their education an amount equal to one-fifth of the widow's pension. The total of the widow's pension and the orphans' pensions may not exceed the pension calculation basis of a civil-service employee who died during service. The pension of a widow of a retired employee may not exceed the sum of his pension.

The orphan's pension is paid until the child reaches 21 years of age, or has been otherwise provided for; if by reason of physical or mental defect the child is unable to earn a livelihood, the pension may be granted for a longer time, i. e., for the lifetime of the child. Should a child, because of studies or extended special training, not be able to earn its living at the age of 21 years, the pension may be continued until its twenty-fourth year.

The children, if no widow files a claim, are entitled, in case the civil-service employee at the time of his death was not entitled to a pension, to a lump sum, amounting to one-fourth of the last annual salary which serves as the basis of pension calculation; otherwise they are entitled to an undivided orphans' pension amounting to half the customary widow's pension.

If the total sum of the orphans' pension to which the widow would have had a claim exceeds the amount of the widow's pension, the excess is to be allotted as a supplement to the widow's pension, for the orphans' pension may not exceed that of the widow. Whenever a child starts earning its own living, this supplement is reduced by the sum representing the portion for one child.

Loss of Right to Pension

THE right to a pension expires on the loss of Austrian citizenship or when a civil-service employee is sentenced for a crime, or declares his intention to leave the service and renounces his claim to the pension, or when a disciplinary court decrees the forfeiture of the pension.

The widow loses her right to a pension when she marries again. If a widow has not claimed the lump sum which may be paid instead of a pension, the widow's pension is suspended as long as the second marriage lasts.

Contributions of Civil-Service Employees

A CIVIL-SERVICE employee pays pension contributions equal to 3.2 per cent of his salary for the duration of his service if he is entitled to a full pension before the fortieth year of service, and amounting to 2.8 per cent in the case of a pension payable after 40 years of service.

Contract Civil-Service Employees

UNDER the ordinance of January 16, 1925, a contract civil-service employee in full-time employment, when prevented by illness from performing his service and this is not due to carelessness or design, has a claim to full pay for a month, or, if he has served more than two years, for two months. In exceptional cases the salary may also be paid for a third month.

BELGIUM [3]

CIVIL-SERVICE retirement and pensions in Belgium are governed and regulated by numerous laws. The most important is, perhaps, the law of July 21, 1844, covering the system of civil-service pensions. This law was successively amended and modified by the laws of February 17, 1849, January 10, 1886, June 3, 1920, and July 29, 1926. There have also been enacted special laws relating to pensions of judges (law of July 25, 1867), high school teachers (law of July 30, 1879), grammar school teachers and professors and teachers in public or elementary schools (laws of 1876, 1884, 1901, and 1912), and the clergy (law of April 24, 1900).

Since July 1, 1924, all pensions are composed of a fixed sum and of a changeable sum. The latter varies according to the fluctuations of the value of the franc in relation to the cost of living. This combination has given satisfactory results to all concerned so far, except that it has somewhat complicated the administrative work. Whether it will be retained or will be abandoned or modified, owing to the stabilization of the franc, remains to be seen.

In examining the existing laws governing civil-service retirement and pensions in Belgium, a decided line must be drawn between pensions to civil-service employees themselves and pensions to their widows and orphans.

Pension of Civil-Service Employees

THE pensions to civil-service employees are gratuitous, being charged to the public treasury. There is no special pension fund to maintain these pensions, the necessary sums for their payment being included yearly in the budget of public debt.

The pensions paid are, as a general rule, proportioned to the salaries and the length of service. The payment of more than one pension to a civil servant or the payment of a pension and a salary to him is authorized only under certain conditions.

The regulations as to retirement and the payment of pensions of civil-service employees in various administrative departments may be summed up as follows:

Magistrature

Age and length of service.—Retirement is required at the age of 70 years in the jurisdiction of lower courts, and from 70 to 75 years in the jurisdiction of higher courts. For 30 years of civil service, of which at least 15 years have been in the magistrature, a pension is paid equal to the average salary of the last three years.

In case a civil-service employee has reached the retirement age and has been in civil service less than 30 years his pension is one-thirtieth less than the average salary of the last three years.

Disability pensions.—When a civil-service employee who has been in the service five years or over is disabled from any cause other than accident in the service, he is entitled to a pension of one-sixth of the

[3] The data on which this section is based are from Les Codes et les lois spéciales les plus usuelles en vigueur en Belgique, Brussels, 1925; Axters, Henry, Commentarie de la loi organique, Brussels, 1898, XIV, pp. 427–460—des pensions; and unpublished material furnished to the Department of Labor through the Department of State.

average salary of the last five years, and in addition one thirty-fifth of the same average salary for each year of service over five years.

Accident pension.—In case of a permanently disabling accident occurring in the service the employee is entitled to a pension equal to one-fourth of the last year's salary, and in addition one thirty-fifth of the last year's salary for each year of service over five years.

Maximum pension.—The maximum pension in each of the above cases in the magistrature is a sum equal to the salary or income which served as a basis for the settlement.

High-School Instruction Service

Age, length of service, disability, and pension.—When a civil-service employee has been 30 years in the service, or when he has reached the age of 70 years and has been in the service 10 years, or when he has served 20 years and has been permanently incapacitated in the service by a cause other than accident, he is entitled to a pension equal to the average salary of the last five years of service. When he has reached the age of 60 years and is disabled in service by a cause other than accident, he is entitled to a pension amounting to one-sixth of the average salary of the last five years of service and in addition to one thirty-fifth of the same average salary for each year of service over five years.

Accident pension.—In case a civil servant has suffered an accident in service, permanently disabling him, he is entitled to a pension equal to one-fourth of the last salary and, in addition, one thirty-fifth of the last salary for each year of service over five. This is increased to one-third of the last salary when he has shown extraordinary courage and devotion.

Maximum pension.—The maximum pension in each of the above cases in the high-school instruction service is equal to the salary or income which served as a basis for settlement.

Normal-School and Intermediate Instruction Service

Age, length of service, disability, and pension.—When a civil-service employee has reached the age of 55 years and has served 30 years, or the age of 60 years and has served 15 years, or when he is permanently disabled in the service by a cause other than accident, he is entitled to an annual pension amounting, per year of service, to one fifty-fifth of the most favorable average salary of five consecutive years during his service. The maximum pension is two-thirds of the most favorable average salary of five consecutive years during his service.

Accident pension.—In case of a permanently disabling accident the employee is entitled to a pension amounting to one-fourth of the last annual salary, and in addition one fifty-fifth of the last annual salary for each year of service over five years.

Maximum pension.—The maximum pension in each of the above cases in the normal and intermediate instruction service is equal to two-thirds of the salary or income which served as a basis for settlement.

Public or Elementary School Instruction Service

Age, length of service, disability, and pension.—When a civil-service employee has reached the age of 50 years and has been in service 30 years, or the age of 60 years and has been in service 15 years, or when he has been in service 10 years and is permanently disabled in the service by a cause other than accident, he is entitled to a pension amounting, for each year of service, to one-fiftieth of the average salary of the last five years of service.

Accident pension.—When a civil-service employee has suffered an accident in service which permanently disables him he is entitled to a pension equal to one-fourth of the last salary, and in addition one-fiftieth of the same salary for each year of service over five years.

Maximum pension.—The maximum pension in each of the above cases in the public or elementary school instruction service is equal to two-thirds of the salary or income which served as a basis for settlement.

All Other Civil-Service Employees

Age, length of service, disability, and pension.—When a civil-service employee has reached the age of 65 years and has been in the service 30 years, or when he has been in the service 10 years and is permanently disabled in the service by a cause other than accident, he is entitled, in case of office service, to a pension amounting, for each year of service, to one-sixtieth of the average salary of the last five years, or in case of field service to one-fiftieth of the average salary of the last five years for each year of service performed.

Accident pension.—An employee, who, in the course of his employment has suffered a permanently disabling accident is entitled to a pension amounting to one-fourth of the last annual salary, and in addition one-sixtieth of the same salary for each year of service over five years.

Maximum pension.—The maximum pension in each of the above cases is equal to three-fourths of the salary or income which served as a basis for the settlement.

Widows' and Orphans' Pensions

THE pensions to widows and orphans are paid from special funds established and regulated by law. These funds are maintained by means of deductions made from the salary of their members, and, at least in principle, the funds can not be subsidized by the public treasury. However, it became necessary to break this rule in 1920 after a general revision and owing to the depreciation of the franc.

The funds for widows and orphans are placed under the control of a board of governors composed of civil-service employees appointed by the Government. The funds must be converted into State securities or treasury bonds.

The law simply outlines the organization of the funds, and so each fund has its own by-laws, which differ greatly in respect to deductions and the conditions as to payment of pensions.

The most important points in the by-laws of the various funds for widows and orphans of civil-service employees in the Departments of Finance, Justice, and Colonies are as follows:

Department of Finance

Amount of deductions.—For all employees in the department: (*a*) Four per cent of the salary and a supplementary deduction for married employees amounting to 1½ per cent of the salary from the time of entering the administration; (*b*) salary of first month and a supplementary deduction for married employees amounting to 1 per cent of the salary in case of disproportion in age of the married couple; (*c*) first two months of all increases and a supplementary deduction amounting to 5 per cent on pensions of married employees; and (*d*) 5 per cent on all pensions of widows and orphans.

Conditions for approval of pensions.—Five years' service and three years' married life in cases of widow's pension and five years' service only in cases of orphans' pensions are required for approval of pension.

Widow's pension.—For 10 years' service or less, 20 per cent of average salary of last 5 years and 1 per cent for each year of service over 10 years, this 1 per cent not to exceed 140 francs per year. The maximum annual pension is 10,000 francs, or one-half of the last annual salary.

Orphans' pensions.—The pension paid to whole orphans up to 18 years of age is a sum equal to three-fifths of the widow's pension in case of one orphan to four-fifths in case of two orphans, and to the widow's pension in case of three orphans; and in addition, 2 per cent of the average salary per orphan in excess of three, with maximum of 10 per cent. Where the mother is living the orphans' pension is, for each child, 2 per cent of the average salary, with maximum of 10 per cent.

Department of Justice

Amount of deductions.—For all employees in the department: (*a*) Five per cent of the salary and a supplementary deduction for married employees amounting to 2½ per cent of the annual salary during 10 years and 1 per cent of salary thereafter; (*b*) salary of first month and a supplementary deduction for married employees amounting to 5 per cent on pensions of married employees; (*c*) first three months of all increases; and (*d*) 5 per cent on all pensions of widows and orphans.

Conditions for approval of pensions.—Five years' service and three years' married life in cases of widow's pensions and five years' service only in cases of orphans' pensions are required for approval of pension.

Widow's pension.—The basis for the calculation of widow's pension is 26½ per cent of total deductions from husband's salary, with maximum of 10,000 francs, and in case of disproportion in age, 1 per cent less for each year of difference in age.

Orphans' pension.—The orphan's pension is equal to three-fifths of the widow's pension in case of one orphan; to four-fifths in case of two orphans; to the widow's pension in case of three orphans; and to 10 per cent of the mother's pension for each child in excess of three. Where the mother is living, the pension to each child amounts to 10 per cent of the mother's pension.

Department of Colonies

Amount of deductions.—For all employees in the department: (*a*) Five per cent of salaries and a supplementary deduction for married employees amounting to 1 per cent of salary; (*b*) salary of first month and a supplementary deduction for married employees amounting to 10 per cent on pensions of married employees less than 65 years of age; (*c*) first three months of all increases and a supplementary deduction for married employees amounting to 3 per cent on pensions of married employees over 65 years of age; (*d*) 5 per cent on all pensions of widows and orphans.

Widows' and orphans' pensions.—Pensions to widows and orphans are calculated on actuarial or insurance bases.

CZECHOSLOVAKIA [4]

CZECHOSLOVAKIA is a new State composed of certain Provinces which formerly belonged to Austria, Hungary, and Germany. The new State inherited from these countries their civil-service retirement, pension, and insurance systems, which have been coordinated and amended to include certain new features. The successive laws and amendments have each included new groups of employees under the insurance system until practically all employees in private and Government service who are not otherwise entitled to pensions or compensation in some form are under compulsory insurance.

As a result of the numerous laws and amendments, the present-day Czechoslovakian pension and insurance system has become quite complicated. According to information obtained from the Czechoslovakian Legation in Washington, a new system is now under consideration.

Law of February 5, 1920

CZECHOSLOVAKIA became an independent Republic on October 28, 1918. On February 5, 1920, a law (No. 89) was passed, effective July 1, 1920, which amended the old imperial pension law of December 16, 1906.

The law of February 5, 1920, made insurance compulsory for all employees in the Czechoslovakian Republic between the ages of 16 and 55 years, including brain workers and employees in supervisory positions, clerical workers in offices, commercial houses, warehouse-transportation enterprises, and law and notary offices, but excluding unskilled and day laborers and those employees of the Government and of religious organizations recognized by the Government who were already insured.

Employees liable to compulsory insurance were grouped into 16 salary classes, the first class including those with an annual salary up to 900 crowns, and the sixteenth or highest class those with an annual salary of 9,000 crowns and over.

The law declares that the objects of the insurance are to provide: (*a*) Disability benefits; (*b*) old-age benefits; (*c*) educational allowances (for bringing up children) in addition to disability and old-age pension; (*d*) widow's pensions; (*e*) educational allowances for orphans; (*f*)

[4] The data on which this section is based are from Sbirka zákonů a nařizeni, státu Československeho, pt. XVIII, February 24, 1920, pt. CXLIV, Dec. 31, 1920, pt. 112, October 30, 1924, pt. 24, Nov. 15, 1924, and pt. 93, Nov. 1, 1925; finanční Zákon Republika Ceskoslovenské (Statni Rozposnet-budget) 1924–1927.

funeral allowances; and (*g*) lump-sum payments to widow, orphans, or needy parents.

To be entitled to full benefits the insured employee must have contributed to the fund for 120 months, (called "waiting time" or "term"). If disability or old age or death occurs after 60 payments but before 120 monthly payments have been made the benefits are payable in reduced amounts proportioned to the number of payments made. In case of a disabling accident, the employee is entitled to full benefits regardless of the number of his monthly contributions.

Disability and old-age benefits.—The benefit consists of two parts, "regular" and "additional."

The size of the "regular" benefit is determined by the salary class of the insured employee, the income of the last 24 contribution months being used as the basis of calculation. The regular disability benefit per year is as follows: Class 1, 180 crowns; class 2, 270 crowns; class 3, 360 crowns; class 4, 540 crowns; class 5, 720 crowns; class 6, 900 crowns.

If the wage class is higher than the sixth the benefit is computed by adding to the benefit in class 6 the following specified amount for each month for which the insured employee has paid his contribution: Class 7, 1½ crowns; class 8, 3 crowns; class 9, 4½ crowns; class 10, 6 crowns; class 11, 7½ crowns; class 12, 9 crowns; class 13, 10½ crowns; class 14, 12 crowns; class 15, 13½ crowns; class 16, 15 crowns. The regular disability benefit, however, may not be less than one-fourth of the sum of the total contributions of the insured employee for the entire waiting time (120 months) or up to the date of injury.

The "additional" disability benefit begins after the completion of the waiting time (120 months) and amounts annually to one-eighth of the contribution paid after the required 120 months' contribution.

After 60 months of contribution the insured employee is entitled to an annual benefit equal to two-thirds of the "regular" benefit, and for every additional contributing year one-fifteenth of the regular disability allowance is added, but the reduced disability pension payable after 60 contributing months must not be less than one-sixth of the amount of the contributions paid to date.

The disability benefit may be increased as much as 50 per cent if the insured employee is so disabled that he requires care by persons outside his family.

The old-age benefit is a life pension, payable from the day the insured becomes 65 years of age.

Survivors' benefits.—A widow's pension is payable from the day of the death of her husband until she remarries or dies.

Every child under 18 years of a deceased insured father or mother who received or was entitled to a disability or old-age benefit at the time of his death is entitled to an educational benefit. Illegitimate children are also entitled to this benefit if the paternity of the deceased insured was legally established before his death Educational allowances are payable from the day of the death of the parent until the child is 18 years of age or until the child dies, marries, or finds other means of support. In exceptional cases this allowance may be continued beyond the time the child reaches 18 years.

The disability or old-age benefit of a person whose child or children would be entitled to an educational allowance in case of his death may be increased to allow for his care of such children. For each child this addition amounts to one-sixth of the regular disability benefit. If the person receives a reduced benefit the additional allowance shall be only one-sixth of this amount for each child. But the total of such additional allowances may not be more than 50 per cent of the regular or partial disability allowance received.

If the insured dies before the completion of 60 contributing months, but not as the result of an industrial accident, and if all other conditions necessary for a widow's pension or educational allowance are met, the widow may claim a final settlement. If there is no widow of if she is not entitled to make such a claim the orphan children may claim it in equal parts. If there are neither widow nor orphan children entitled to such a settlement claim to it may be made by the needy mother of the deceased, provided she was dependent on him for support. If there is no mother a needy father previously dependent on the deceased may claim it.

As a final settlement the widow or children get twice the regular annual disability allowance of the deceased, while the father or mother receive only the amount of the annual disability allowance to which the deceased was entitled, according to the wage class and after the completion of 120 contributing months.

Funeral benefits.—The survivors of an employee who under this law was entitled to disability or old age or widow's or educational allowances and who had completed 60 contributing months, if they have given him burial, are entitled to funeral benefits equal to one-fourth of the benefit which the deceased received or to which he was entitled.

Time of payment of benefits.—All benefits, including educational allowances, are payable monthly and in advance.

Law of December 22, 1920

THE law of December 22, 1920, amends the workmen's insurance law of March 30, 1888, as amended May 15, 1919. It provides for medical aid, maternity pensions, and funeral allowances, but does not apply to those Government employees who are entitled to at least a year's salary in case of illness.

Sick benefits.—If illness continues beyond three days and the patient is incapable of work he receives the following daily sickness benefit from the day sickness began.

	Crowns		Crowns
Wage class 1	1. 4	Wage class 8	14. 0
Wage class 2	2. 7	Wage class 9	16. 0
Wage class 3	4. 0	Wage class 10	18. 0
Wage class 4	6. 0	Wage class 11	20. 0
Wage class 5	8. 0	Wage class 12	22. 0
Wage class 6	10. 0	Wage class 13	24. 0
Wage class 7	12. 0		

Sick benefits are paid at the end of each week until the patient recovers, but not longer than one year.

Maternity benefits.—Maternity benefits are paid in the above amounts for six weeks preceding and six weeks following childbirth, provided the mother does not engage in remunerative labor during

that period. A mother who nurses her baby shall receive, in addition to the sick benefit, one-half of that amount for 12 weeks following childbirth. This period may be extended to 26 weeks.

Funeral benefit.—If the sick person dies within six months after his claim to sick benefit expires his survivors may receive as a funeral allowance an amount equal to thirty times the average daily wage of the insured, but not less than 150 crowns.

Benefits to members of family of insured.—The sick benefits enumerated above are also available to the members of the family of the insured, including husband, wife, legitimate, illegitimate, and step children, until the completion of their sixteenth year of age, parents, brothers, sisters, grandparents, father-in-law and mother-in-law, who constitute the household of the insured and who are not subject to compulsory insurance. But funeral benefits may not exceed 60 crowns for a child up to 2 years of age, 180 crowns for a child over 2 and under 14 years of age, and 300 crowns for a person of 14 years of age or older. Insured employees having a taxable annual income exceeding 20,000 crowns are not entitled to sickness insurance benefits for members of their household.

A maternity benefit of up to one-half of the regular sick benefit may be paid for six weeks before and six weeks after childbirth to mothers in the family of the insured.

The allowance to a member of the family of the insured may run up to one-fourth of the regular sick benefit and may be extended up to 26 weeks.

Persons and prospective mothers who are being cared for at home may, with their consent, be supplied nursing care. Prospective mothers, with their consent, may be sent for confinement to institutions caring for such cases. In this event the expenses shall be charged against the sick benefit but may not consume more than one-half of it.

Wage and contribution classes.—The wage and contribution classes of the employees insured for sickness are as follows:

	Daily wage in crowns	Monthly contributions in crowns
Wage class 1	up to 3	2
Wage class 2	over 3 and up to 4	4
Wage class 3	over 5 and up to 7½	6
Wage class 4	over 7½ and up to 10½	9
Wage class 5	over 10½ and up to 13½	12
Wage class 6	over 13½ and up to 16½	15
Wage class 7	over 16½ and up to 19½	18
Wage class 8	over 19½ and up to 22½	21
Wage class 9	over 22½ and up to 25½	24
Wage class 10	over 25½ and up to 28½	27
Wage class 11	over 28½ and up to 31½	30
Wage class 12	over 31½ and up to 34½	33
Wage class 13	over 34½	36

By a special ruling sick benefits may be increased beyond those specified above as follows: The daily sick benefit in class 1 may be raised to 2¼ crowns and in the other classes to 90 per cent of the lowest wages in each class, and the funeral allowance may be raised to forty-five times the daily average wage.

The sick benefit may be increased 10 per cent of the regular benefit, if the sickness continues beyond 13 weeks, 20 per cent if sickness

continues beyond 26 weeks, and 30 per cent if sickness continues beyond 39 weeks.

For employees whose daily wage is over 37½ crowns a special wage class may be created with average daily wage of over 39 and up to 42 crowns and with a daily sick benefit of over 26 and up to 28 crowns.

Law of December 30, 1920

THE law of December 30, 1920, amends the previous laws in the following respects: If the insured dies after the completion of the waiting time (120 months) the final settlement made to his surviving mother or father is calculated on the basis of the income of the deceased during his last 24 contributing months. However, the amount may not be less than one-fourth of the contributions paid during the last 120 contributing months.

Law of October 9, 1924

THE law of October 9, 1924, relates to insurance of the employees in private and Government service in case of sickness, disability, and death. Those employees who are already insured or have a right to pension or compensation are excluded.

Contributions by employees.—The employees are divided into the following wage classes:

	Daily wage in crowns		Basic daily wage in crowns for calculation of contributions
Class 1		up to 6	4
Class 2	from 6	up to 10	8
Class 3	from 10	up to 14	12
Class 4	from 14	up to 18	16
Class 5	from 18	up to 22	20
Class 6	from 22	up to 25½	24
Class 7	from 25½	up to 28½	27
Class 8	from 28½	up to 31½	30
Class 9	from 31½	up to 34½	33
Class 10	from 34½		36

The actual size of the contribution in each class is calculated on an actuarial or mathematical basis. The law specifies only that the employee's contribution is not to exceed 5 per cent of his average daily wage. The contribution is paid half by the employees and half by their employers (Government and private).

The sickness-insurance wage and contribution classes are grouped into the following classes for disability and old-age insurance:

	Employees' weekly contributions in crowns
Class A (classes 1–3)	4. 3
Class B (classes 4 and 5)	5. 7
Class C (classes 6 and 7)	7. 1
Class D (classes 8–10)	8. 8

Government contributions.—The Government contribution to the disability and old-age insurance fund is as follows: (*a*) 500 crowns a year for each employee insured; (*b*) 250 crowns a year for each widow or widower receiving benefits; (*c*) 100 crowns a year for each

half orphan receiving benefits; and (*d*) 200 crowns a year for each whole orphan receiving benefits. The total Government contribution for orphans in a single family is not to exceed 500 crowns per annum. The Government does not, however, contribute anything to the fund for the benefit of employees whose income the previous year, exclusive of any insurance benefits, was large enough to be subject to an income tax.

Sickness insurance benefits.—The sickness-insurance benefits are as follows: Free medical attention, nursing care, medicine, etc., are given from beginning of illness, but not to continue longer than one year. Medical attention is also given to the members of the family of the insured during his illness. From the fourth day of illness the following daily benefit payment, to continue only for one year, is provided:

Daily benefit:	Crowns	Daily benefit:	Crowns
Class 1	2. 7	Class 6	16. 0
Class 2	5. 3	Class 7	18. 0
Class 3	8. 0	Class 8	20. 0
Class 4	10. 6	Class 9	22. 0
Class 5	13. 3	Class 10	24. 0

Funeral benefits.—Funeral benefits are as follows: If the insured dies within six months after the expiration of his claim to sick benefits his family receives for funeral expenses thirty times the amount of his average daily wage, but not less than 150 crowns.

For funeral expenses of immediate members of the family of the insured the following benefit payment is made: 60 crowns for each child under 2 years of age; 180 crowns for each child from 2 to 14 years of age; 250 crowns for each person over 14 years of age.

Maternity benefits.—Maternity benefits are as follows: Free service of midwife and, if necessary, of physician; sick benefits for six weeks preceding and six weeks following childbirth. To mothers who nurse their children an additional benefit for 12 weeks following childbirth in an amount equal to one-half of the sick benefit is provided for.

Disability and old-age benefits.—The insured person receives 500 crowns a year plus one-fifth of the amount he contributed to the disability and old-age fund. At the age of 65 years the disability benefit becomes an old-age benefit if the insured is no longer able to perform his usual service because of his age even though he is not disabled.

Dependents' benefits.—A widow is entitled to one-half of her husband's former disability or old-age benefits, provided her physical condition renders her incapable of earning more than one-third of the wage she might otherwise earn.

A half orphan under 17 years of age is entitled to one-fifth of the disability or old-age benefit received by the deceased insured parent. A whole orphan under 17 years of age is entitled to two-fifths of the disability or old-age benefit received by the insured parent. The total of orphans' benefits in a single family, however, may not exceed the amount of the disability or old-age benefits to which the deceased insured was entitled.

Dependent grandchildren are considered as children.

Contributions and expenditures.—Contributions of civil officials, employees, and laborers to the pension and insurance funds from 1924 to 1926 were as follows: 1924, 71,145,000 crowns; 1925, 77,212,000

crowns; 1926, 59,800,000 crowns. State expenditures for pensions to and insurance of civil officials, employees, and laborers during the same period were: 1924, 459,810,360 crowns; 1925, 469,179,000 crowns; 1926, 404,555,230 crowns.

GERMANY [5]

Legislation

ON March 31, 1873, a law was enacted which granted pensions to civil officials. This law was modified by the laws of April 20, 1881, April 21, 1886, March 5, 1888, May 18, 1907, and June 18, 1923.

It should be observed that the German system of civil-service retirement and pensions makes a distinction between officials (*Beamte*) and employees (*Angestellte*). The distinction lies in a certain variation in nature of employment.

The law of 1907 defines an "official" as any official either directly appointed by the Kaiser or appointed according to the constitution of the State or to regulations issued by the Kaiser. At present officials are appointed, in the main, either by the President or under administrative general regulations, while employees are appointed under the regulations of the specific department, Government corporation, or establishment. Their appointment might be considered temporary in the sense that they can be discharged when the conditions of service require their retirement. Officials, on the contrary, are as a rule appointed for life.

The civil employees called "contract employees" are engaged for a specific task or serve a preliminary term before they can be appointed to the position of officials.

Civil employees in the service of the Federal Government, of the States, and of the municipalities or communes have, in contrast to the officials, no claim whatsoever at the time of their retirement to any pension on account of their service. Therefore, no special funds exist in the Government departments for the granting of pensions to such retired employees.

All such employees, however, are subject to insurance in accordance with the insurance regulations of November 20, 1911, as stated in the proclamation of May 28, 1924, if their annual salaries do not exceed a certain limit, which at the present time is 6,000 reichsmarks. If the conditions are complied with they receive a pension from the Government insurance office.

The employees' insurance laws have since been changed by the following rules and ordinances: Law of August 30, 1924 (relating to State railroad employees); ordinance of December 12, 1924; and laws of March 23, 1925, July 28, 1925, June 25, 1926, April 3, 1927, and April 8, 1927.

[5] Data on which this section is based are from Reichsgesetzblatt, 1873, 1881, 1886, 1888, 1907, 1923–1927; unpublished material furnished the Department of Labor by the Department of State; unpublished material collected and compiled by the legislative reference division, Library of Congress; Die Angestelltenversicherung nach dem Stande Vom. 1, Juli, 1926, an official publication.

Retirement and Pensions of Civil Officials

Old Age, Length of Service, and Disability

A CIVIL official leaving the service at the age of 65 years has the right to a pension if he applies for retirement. The granting of the pension rests with the central authority (*oberste Reichsbeholde*) if he was appointed by departmental authority; if he was appointed by the President the latter's approval is required.

A civil official of the Federal Government who has completed 10 years' service and is not physically able to continue his service has the right to a pension. If he is permanently disabled for service by reason of sickness, wound, or accident incurred in the service he has the right to a pension before he has served 10 years. If, before completing 10 years' service, he is disabled outside the service and can not continue the latter, he may be granted either a temporary or a life pension by the Federal Council.

The length of service is counted from the day of taking oath of office. The time of service of an official when he is employed on half pay, or when he is in the service of one of the German States, or when appointed on probation as a former soldier entitled to a civil pension in the service of a State, or of a local government, is counted. The time spent in military service is added to the time of civil service.

Amount, Computation, and Time of Payment of Pensions

The annual pension for service of 10 years or under is thirty-five one-hundredths of the annual salary. It increases from the tenth to the twenty-fifth year of service by two one-hundredths for each additional year and thereafter by one one-hundredth. A pension is not to exceed eighty one-hundredths of the salary. In case of retirement on account of disability incurred outside service a pension is not to exceed thirty-five one-hundredths of the salary.

The pension is calculated on the basis of the last aggregate annual salary received by a civil official. This includes, under certain circumstances, gratuities, allowances, fixed fees, and perquisites, but does not include money for keeping up the official State and office expenses.

A pension starts from the end of the quarter following the month during which official notice has been given the retired civil official of the pension and its amount, when a shorter term is not fixed in the application or by formal consent of the official. Pensions are payable quarterly and in advance.

When a deceased pensioner leaves a widow or other legitimate heirs a lump sum is paid to them in an amount equal to three monthly payments of pension.

Widows' and Orphans' Pensions

The widow and legitimate or legitimated children of a civil official who at the time of his death would have had the right to a pension, and those of a retired official receiving a life pension, have the right to widows' and orphans' pensions.

A widow's pension is forty one-hundredths of the pension which the deceased received or would have been entitled to at the time of his death.

Each child whose mother is living and entitled to a widow's pension on the death of the official is entitled to an orphan's pension equal to one-fifth of the widow's pension, and in the case of children whose mother is dead or not entitled to a widow's pension on the death of the official each orphan has the right to a pension of one-third of the widow's pension.

Widows' and orphans' pensions, separately or together, are not to exceed the amount of pension which the deceased official was receiving or would have been entitled to. If in the aggregate they would reach a higher sum they are proportionally reduced.

If the widow is more than 15 years younger than her deceased husband was her pension is reduced by one-twentieth per year of difference in age from the sixteenth to the twenty-fifth year. But for each additional year of marriage after five years her pension is increased by one-tenth until the full amount of the widow's pension is reached. A widow is not entitled to a pension if the marriage took place less than three months before death and was for the purpose of securing a widow's pension.

The widow and orphans of a retired civil official are not entitled to pension if the marriage took place after his retirement. Widows' and orphans' pensions are payable monthly and in advance.

The right to a widow's pension ceases at the end of the month in which she marries or dies. In case of an orphan the right to pension ceases at the end of the month during which he completed his eighteenth year or of his death before that age.

Pensions Paid by Government

Pensions of civil officials are paid out of funds provided entirely by the Government. Pensions to widows and orphans of such officials are paid partly out of Government funds and partly out of a special contribution by the officials of 3 per cent of their salary or pension.

Insurance of Civil Employees

INSURANCE of employees in the Government service and that of employees in private service are governed by the same laws, rules, and regulations, but in this review we are concerned only with employees in the service of the Federal Government, States, communes, and Government corporations and establishments.

General Provisions of the Law

The insurance laws apply: (*a*) To those employees who are subject to compulsory insurance (*Versicherungspflichtige*) in the services specified by the law; (*b*) to those employees who, having left such service after having made insurance contributions for at least four months and who are still fit for service, of their own free will again become subject to insurance (*freiwillig weiterversichern*); and (*c*) to those employees who have not been insured and are not subject to compulsory insurance, but who voluntarily become subject to insurance (*Selbstversicherte*).

If the annual salary of a civil employee is more than 6,000 marks he is not subject to compulsory insurance. If he formerly received an aggregate annual salary of not more than 6,000 marks and was

therefore compulsorily insured, then, in case of an increase of his salary to more than 6,000 marks per annum, he falls out of the group of employees liable to compulsory insurance, but may of his own free will continue or again become subject to insurance.

Contributions Toward Insurance

The amount of contribution toward the insurance is in proportion to the employee's salary, as may be seen from the following table:

MONTHLY CONTRIBUTION IN SPECIFIED SALARY CLASSES OF CIVIL EMPLOYEES

Salary class	Annual salary	Monthly salary	Monthly contribution
			Marks
Class A	Under 600 marks	Under 50 marks	2
Class B	From 600 to 1,200 marks	From 50 to 100 marks	4
Class C	From 1,200 to 2,400 marks	From 100 to 200 marks	8
Class D	From 2,400 to 3,600 marks	From 200 to 300 marks	12
Class E	From 3,600 to 4,800 marks	From 300 to 400 marks	16
Class F	From 4,800 to 6,000 marks	From 400 to 500 marks	20

The highest monthly salary in any group subject to compulsory insurance is 500 marks. If an employee works only half time the contribution for insurance is only half the amount he would pay if he were on full time.

Employees pay 50 per cent and the Government pays 50 per cent of the contribution; for instance, the entire monthly contribution on a monthly salary of from 100 to 200 marks (class C) is 8 marks, the insured employee paying 4 marks and the Government 4 marks. If the monthly salary of an employee is not more than 50 marks the Government pays the entire contribution. The same rule applies to apprentices.

Each employee receives an insurance card from the local insurance office. The National Insurance Office, through the local insurance offices, sells insurance stamps to the employers, the salary class and the money value being designated on the stamp. The employer affixes the proper stamps to the insurance cards of his employees on a pay day near the end of each calendar month and writes the date in ink on the stamps. Half of the value of the stamps so used is deducted from the salary of the employee.

Insurance Pensions or Benefits

An insured employee receives a pension in the event of either old age or disability, and, in case of his death his survivors get a pension.

To become eligible for a pension an employee must have paid contributions for a certain minimum period of time specified by law, which is called the waiting time or term (*Wartezeit*). Its length is as follows:

(*a*) For pension to an insured female employee, 60 contribution months; (*b*) for pension to an insured male employee, 120 contribution months; (*c*) for pension to survivors of employees of both sexes, 120 contribution months.

When an employee has passed his sixty-fifth year or is permanently disabled in service he is entitled to a pension.

When an employee is disabled continuously for 26 weeks he is entitled to a pension during the further continuation of his occupational disability (sickness pension).

Survivors' Pensions

The widow's or widower's pension amounts to six-tenths and the orphan's pension to five-tenths of the retirement pension exclusive of the additional sum known as "child support" (*Kinderzuschutz*). The child support is an addition to the pension of 90 marks per annum for each child up to 15 years of age, or up to 21 years of age when the child is in school or in occupational training or when the child, as a result of bodily or mental defect, is not able to earn its living.

"Children" include legitimate children, legitimated children, adopted children, illegitimate children of an insured male employee when their paternity is legally proven, illegitimate children of an insured female employee, stepchildren when they are dependent upon the insured.

The pension, together with the total amount of child support, is not to exceed the highest salary in the class of the insured; if it does exceed that amount the child support is accordingly reduced.

The following is an example of the pension to survivors: After the death of an employee whose pension was, or would have been in case of permanent incapacity, 1,263.8 marks, the survivors' annual pension for the widow and the two children is as follows:

	Marks
Widow's pension (six-tenths of the pension of her deceased husband, or 1,283.8 marks)	770. 28
Orphan's pension (five-tenths of 1,283.8 marks, or 641.9 marks) for two children	1, 283. 80
Total	2, 054. 08

Medical Treatment

To prevent an insured employee from becoming permanently disabled as a result of sickness the National Insurance Office may provide for medical treatment if it can be expected that medical treatment will restore his ability for further service. During his medical treatment in a hospital or in an institution for convalescents his dependents receive from the insurance office an allowance for the support of the family, called "house money" (*Hausgeld*), amounting daily to 23 per cent of the last monthly contribution made by such employee. For instance, if his last monthly contribution was 12 marks the daily allowance for the support of his family will be 2.76 marks.

Amount of Retirement Pensions

The amount of the annual pension paid to a retired employee who is unmarried and to one who is married and has two children, after 10, 20, and 30 years' contribution, in the various salary classes, is shown in the following table:

AMOUNT OF ANNUAL PENSIONS PAID TO MARRIED AND UNMARRIED RETIRED EMPLOYEES IN SPECIFIED SALARY CLASSES

Salary class	After 10 years' contribution		After 20 years' contribution		After 30 years' contribution	
	Unmarried employee	Married employee with 2 children	Unmarried employee	Married employee with 2 children	Unmarried employee	Married employee with 2 children
	Marks	*Marks*	*Marks*	*Marks*	*Marks*	*Marks*
Class A	516	600	552	600	588	600
Class B	552	732	624	804	696	876
Class C	624	804	768	948	912	1,092
Class D	696	876	912	1,092	1,128	1,308
Class E	768	948	1,056	1,236	1,344	1,524
Class F	840	1,020	1,200	1,380	1,560	1,740
Class G	930	1,110	1,380	1,560	1,830	2,010
Class H	1,020	1,200	1,560	1,740	2,100	2,280

Insurance Offices

A local insurance office consists of an official appointed by the Government, who acts as chairman, one representative of the insured employees, and one representative of the employers.

A district or provincial insurance office consists of an official appointed by the Government, who acts as chairman, six representatives of the insured employees, and six representatives of the employers. The office is divided into various chambers.

The National Insurance Office is composed of permanent members appointed by the Government, and six members elected by the employees and six by the employers, and its decisions are final.

Appropriations for Pensions

The appropriations for civil pensions granted during the past three years were as follows: 1925, 45,445,566 reichmarks; 1926, 85,466,000 reichmarks; and 1927, 87,626,000 reichmarks (estimated).

SWITZERLAND [6]

Legislation

INSTEAD of pensions the Swiss Government has a system of obligatory or compulsory insurance of civil-service employees (*fonctionnaires, employés, et ouvriers fédéraux*), based upon the laws of September 30, 1919, and October 6, 1920, amplified and interpreted, in certain particulars, by the decisions of the Federal Council of January 18, 1921, and of May 8, 1923.

[6] The data on which this section is based are from Statuts de la caisse d'assurance des fonctionnaires, employés et ouvriers fédéraux du 6 octobre 1920; Arrêté du Conseil fédéral concernant l'execution de certaines dispositions des statuts de la caisse d'assurance du 17 janvier 1921; Decisions du conseil d'administration concernant l'admission des ouvriers et du personnel auxiliaire dans la caisse d'assurance du 18 janvier 1921; Annexe au Comte d'Etat de la Confédération suisse, la caisse d'assurance des fonctionnaires employés et ouvriers fédéraux en 1921–1925.

General Provisions

THE insurance laws provide benefits for civil-service employees in case of old age and disability caused either by sickness or accident and, in case of death, for their survivors.

Those insured are the elected or appointed civil employees. Persons who have left the service for the third time and those who are provided for from communal or other sources are not eligible for insurance.

Civil-service employees who can not present a certificate of good health or who are over 40 years of age when entering the service can be insured only as savings contributors. If during their service their health appears to be good they may be insured, and in that case the savings contributions they have made are converted into insurance contributions.

Insurance begins at the time of entering the service, and leaving the service means giving up the insurance. If a civil-service employee leaves the service for any cause other than disability or death and if he has not the right to a lump-sum payment his insurance contributions are returned to him without interest. The return of his contributions or the payment of a lump sum precludes all claim to insurance benefits. Should he reenter the service, which means again becoming subject to insurance, he must return his refunded contributions or the lump-sum payment and his previous service time is added to his second period of service.

A service year for officials and employees is considered as consisting of 12 months' service, and for laborers as consisting of 330 days' labor, except that for those laborers who work also on Sundays and holidays it consists of 365 days' labor.

The maximum yearly salary or wages considered for insurance purposes is 15,000 francs.

Benefits

INSURANCE benefits consist of pensions or lump-sum payments.

A pension is paid to the insured employee when he, having reached 70 years of age or having had 50 years', or in the case of a woman 35 years', service,[7] retires, not being able to continue service, or when, after 5 years' service in the case of a married employee or 15 years' service in the case of an unmarried employee, he is permanently disabled in service either by sickness or accident, or when after 15 years' service he is not reelected or is discharged for no fault of his. In case of his death his survivors receive a pension.

A lump sum is paid to the insured if he is disabled during his first 15 years of service.

Relief is given in certain specific cases out of a relief fund.

Amount of the pension.—The amount of pension is calculated as a percentage of the last annual salary when a civil-service employee retires.

[7] Retirement after 70 years of age or 50 years', or in the case of a woman 35 years', service is not compulsory.

Annual payments in the case of a life pension are made according to the following scale:

Years of service	Percentage of last annual salary	Years of service	Percentage of last annual salary
Less than 1 year	15. 0	16 years	47. 0
1 year	20. 0	17 years	48. 0
2 years	25. 0	18 years	49. 5
3 years	30. 0	19 years	51. 0
4 years	35. 0	20 years	52. 5
5 years	36. 0	21 years	54. 0
6 years	37. 0	22 years	55. 5
7 years	38. 0	23 years	57. 0
8 years	39. 0	24 years	58. 5
9 years	40. 0	25 years	60. 0
10 years	41. 0	26 years	62. 0
11 years	42. 0	27 years	64. 0
12 years	43. 0	28 years	66. 0
13 years	44. 0	29 years	68. 0
14 years	45. 0	30 years	[8] 70. 0
15 years	46. 0		

Increase and decrease of pension.—A female civil-service employee who has served at least 15 years in the first or second classes of the telephone and telegraph service has the right to an increase of her disability pension by 1 per cent per year of the yearly salary which served as the basis for calculation of her pension, but the increased pension is not to exceed 70 per cent of her annual salary at retirement.

If a retired employee receives a pension from other sources for previous service his disability pension is decreased in the amount of his other pension.

Partial pension.—When an employee is disabled in service and as a result is transferred, at a lower salary, to some other work which he is still able to perform he has the right to a partial disability pension as compensation for his lost earning power.

If an employee who receives a pension is reelected or reappointed for service his pension ceases and he again comes under the insurance system, making corresponding contributions if his annual salary is higher than the pension he received. If his salary is lower than the latter he receives a partial pension in order to equalize his income from his service with his pension.

Survivors' Pensions

WIDOW'S pension.—The widow's pension is normally 50 per cent of the pension of her deceased husband, but never less than 25 per cent and never in excess of his pension. If the widow is 20 years younger than her deceased husband she is entitled to only half of the usual widow's pension. If the marriage took place after her deceased husband had reached 60 years of age the widow has no right to a pension. If a widow remarries she is paid a lump sum equal to three times her annual pension.

Orphans' pensions.—Each legitimate child of the deceased insured civil-service employee is entitled to 10 per cent of the annual salary of the deceased till he reaches the age of 18 years, but if the child is not capable of remunerative employment by reason of some physical

[8] Maximum.

or mental defect he is entitled to a pension during his lifetime. A child over 18 years of age at the time of the death of his father is not entitled to a pension.

The aggregate sum of the pensions to all the children of the deceased must not exceed 30 per cent of his annual salary. If after the death of an insured employee no widow appears, or if she loses her right to pension or dies the orphan's pension is doubled.

Lump-Sum Payments

IF AN unmarried employee during his first five years of service is disabled in service he is paid a lump sum equal to a percentage of his annual salary as follows: When disabled in the first year of service, 50 per cent; in the second year, 75 per cent; in the third year, 100 per cent; in the fourth year, 125 per cent; and in the fifth year, 150 per cent.

If after five years' service and before the completion of the fifteenth year the insured is not reelected or is discharged for no fault of his, he receives a lump-sum payment as follows: From 5 to 8 years' service, 125 per cent of the last annual salary; from 8 to 12 years' service, 150 per cent; from 12 to 15 years' service, 200 per cent.

Relief

RELIEF is paid out of a special relief fund in particular cases of need. For instance, if the deceased had dependent grandparents or other close relatives, except widow and children, dependent upon him, an annual relief payment of not to exceed 20 per cent of his annual salary is made. The relief is also given as an addition to the pension of a disabled civil-service employee if after his retirement there appears in his family an additional dependent. Whether relief is needed and in what amount are decided in each case by the governing council.

Contributions

THE Government contributes 7 per cent of the annual salary of the insured, a sum equivalent to five monthly payments of any increase in the salary of the insured, and expenses of the upkeep of the insurance offices, and also makes up any deficits that may occur,

The employee contributes 5 per cent of his annual salary and four monthly payments of any increase in his annual salary,

When an insured male civil-service employee has reached the age of 70 years, or when he has been in the service 50 years, he is released from making contributions; a female employee is released after 35 years of service.

For the relief fund the Government contributed an initial amount of 250,000 francs. The insured employees contribute 1 per cent of their annual salary on December 31 of each year. The relief fund is augmented by gifts, legacies, uncollected pensions, etc.

Savings Deposits

IF AN official or employee is not able at the time of entering service to present a certificate of good health or is over 40 years of age he is not eligible for insurance, but must make savings deposits equal

to the insurance contributions he would make if insured. The Government contributions are the same as in the case of the insured employee. The savings deposits bear interest, which is compounded at certain intervals.

When a savings depositor leaves the service his savings deposits, with interest, are returned to him, or, in case of his death, are paid to his heirs, in which case the Government contributions are added to the general relief fund.

When a savings depositor, after at least five years' service, resigns on account of disability acquired in the service, or because he is not reelected or is discharged for no fault of his, his savings deposits plus the Government contributions, with interest, are paid to him or his heirs.

Insurance Offices

GENERAL control over the insurance system is vested in the Federal Council. The highest executive office is the governing council, while the actual insurance business is done by various offices of the Federal financial departments.

The governing council consists of a president and 18 members. The Federal Council appoints the president and 10 members, and 8 members are elected by the insured, the method of election being prescribed by the Federal Council. The tenure of service of the president and the members is three years. Important questions are brought to the governing council for mediation and decision. The rights, duties, and procedure of the governing council are prescribed by the Federal Council.

Total Contributions and Payments

THE total contributions and the contributions by the Government and by the civil-service employees to the insurance fund, the savings deposits, and the relief fund, and the amount paid out in pensions and lump sums and for relief, and the deposits returned are shown in following table:

FINANCIAL STATEMENT OF SWISS INSURANCE SYSTEM FOR CIVIL-SERVICE EMPLOYEES, 1921 TO 1925, BY YEARS

Year	Contributions to the insurance fund			Savings deposits (contributions)		
	By Government	By insured	Total	By Government	By insured	Total
	Francs	*Francs*	*Francs*	*Francs*	*Francs*	*Francs*
1921	12,925,294	9,619,652	22,544,946	775,334	560,235	1,335,569
1922	10,498,514	7,913,934	18,412,448	599,259	429,571	1,028,830
1923	9,855,054	7,026,421	16,881,475	520,689	375,772	896,461
1924	12,052,099	8,795,654	20,847,753	520,951	378,401	899,352
1925	9,934,833	7,134,523	17,068,356	510,321	370,373	880,694

Year	Contributions to relief fund			Paid in pensions	Paid in lump sums	Paid for relief	Deposits returned
	By Government	By insured	Total				
	Francs	*Francs*	*Francs*	*Francs*	*Francs*	*Francs*	*Francs*
1921	250,000	180,000	430,000	7,328,127	498,150	4,040	54,263
1922	3,330	159,000	162,330	9,836,394	144,083	9,357	245,875
1923	3,850	159,000	162,850	10,933,207	224,406	697,993	299,113
1924	----------	146,000	146,000	12,835,990	200,145	789,013	2,055,368
1925	----------	139,000	139,000	13,891,312	116,249	800,388	552,200

COMPARISON OF EUROPEAN CIVIL SERVICE

Item	Austria	Belgium	Czechoslovakia
Principal laws	Constitution; acts of 1914, 1921, and 1924.	Acts of 1844, 1849, 1886, 1920, and 1926.	Acts of 1920 and 1924.
Type of system	Insurance.	Pension (noncontributory).	Insurance.
By whom administered.	Federal Ministry of Finance.	Ministry of Finance.	Ministry of Social Welfare.
Employees covered.	Employees in Government offices, establishments, and corporations.	Government employees.	Employees in Government offices, establishments, and corporations.
Conditions for retirement.	Age 60 years, after 10 years' service for annuity; 3 to 10 years' service for lump sum. Disability: No service requirements.	Age 65 years, after 30 years' service. Disability: Accident, no service requirement; other, 10 years' service; special provisions for magistrature and school services.	Age 65 years, after 10 years' service; minimum 5 years' service. Disability: Accident, no service requirement; other, 10 years' service; minimum, 5 years' service.
Retirement allowances.	Service and disability benefits: Annuities—Maximum, 78.3 per cent of last annual income from service. Lump sum for less than 10 years' service—Maximum, twice 78.3 per cent of last annual income from service.	Service and disability pensions: One-sixtieth of average salary of last five years, or in field service one-fiftieth of such salary for each year of service. Accident pension: One-fourth of last annual salary plus one-sixtieth of such salary for each year of service over 5 years. Maximum pension in any case, three-fourths of salary used as basis for calculation. Special provisions for magistrature and school services.	Service and disability benefits: From 180 to 900 crowns annually for salary classes 1 to 6; 900 crowns plus 1½ to 15 crowns for each month of contributions for classes 7 to 16. In addition one-eighth of contributions paid after 10 years' contributions. Proportionate amounts for 5 10 years' service. Sick benefits: 1.4 to 24 crowns, varying with salary.
Provision for survivors.	*Widow:* Half of benefits of deceased husband. *Orphans:* One-fifth of widow's annuity for each child up to 21 years; if no widow, undivided orphans' annuity of one-half of widow's annuity.	No provision under retirement system, but special funds, established and regulated by law, are maintained by deductions from salaries of members. Provision varies from fund to fund; in Department of Finance it is: *Widow*—From 20 per cent of average salary of deceased for last 5 years to 50 per cent of last annual salary; maximum, 10,000 francs. *Orphans*—For each child up to 18 years, from 2 to 10 per cent of average salary of deceased; if no widow, three-fifths of widow's pension for 1, four-fifths for 2, and entire amount for 3, plus 2 per cent of average salary per orphan in excess of 3—maximum, 10 per cent.	*Widow:* Half of benefits of deceased husband. *Orphans:* For each child under 17 years, one-fifth of benefits of deceased; if no widow, two-fifths of such benefits.
Contributions	Calculated on actuarial or mathematical basis—50 per cent by Government and 50 per cent by employees. Civil-service employees contribute 3.2 per cent of salary for benefits for service under 40 years, and 2.8 per cent for benefits for service exceeding 40 years.	Government bears entire cost, appropriating annually the necessary sums.	Calculated on actuarial or mathematical basis—50 per cent by Government and 50 per cent by employees. Law stipulates employee's contribution shall not exceed 5 per cent of daily wage.

RETIREMENT, PENSION, AND INSURANCE SYSTEMS

Great Britain	France	Germany	Switzerland
Superannuation acts, 1834 to 1919, and acts of 1920 and 1924.	Acts of 1924 and 1926	Acts of 1873, 1881, 1886, 1888, 1907, and 1923.	Acts of 1919 and 1920.
Pension (noncontributory)	Pension (contributory)	Pension (noncontributory) for officials; insurance for employees.	Insurance.
Commissioners of the Treasury.	Ministry of Finance	National Insurance Office.	Federal Council.
Civil-service employees and Crown appointees.	Permanent employees in Government offices, and industrial establishments.	Government officials, employees, and laborers.	Government officials, employees, and laborers.
Age 60 years after 10 years' service. Disability: Accident, no service requirement; other, 10 years' service for pension; no service requirement for gratuity.	Age 60 years after 30 years' service or 55 years after 25 years' service, including 15 years' field service. Disability: No service requirement, except when disability is incurred outside service, when it is 15 years.	Officials: Age, 65 years. Employees: Age, 65 years after 10 years' service for males, 5 years' service for females. Disability: Officials and employees—No service requirement.	Age 70 years or 50 years' service for males 35 years' service for females. Disability: No service requirement.
Service and disability (after 10 years' service) pensions: Men—One-eightieth of average of final (last three years) income from service multiplied by years of service plus lump sum equal to one-thirtieth of average of final income from service for each completed year of service or one and one-half times the income, whichever is smaller. Women—One-sixtieth of average of final income from service multiplied by years of service. Lump-sum gratuity for disability if less than 10 years' service or in case of accident in service.	Service pensions: From one-half to three-fourths of average income from service during last three years; maximum, 18,000 francs per annum. Disability pension: For disability incurred in service, at least 1,500 francs or one-half of last salary, or longevity pension; for disability incurred outside service, after 15 years' service, one-sixtieth of average salary in case of office service or one-fiftieth in case of field service.	Service pensions: Officials—From 35 to 80 one-hundredths of last annual income from service, varying with years of service. Employees—From 516 to 2,280 marks per annum, varying with salary, years contributing, and whether married and having children or not. Disability Officials—Not to exceed 35 one-hundredths of the income from service. Employees—Same as service pensions.	Service and disability benefits: From 15 to 70 per cent of last annual salary, varying with years of service.
On death incurred in discharge of duty widow and orphans may be granted a gratuity not exceeding 1 year's salary of deceased, or annual allowance not exceeding salary of deceased or £300, whichever is smaller.	*Widow:* Half of pension of deceased husband. *Orphans:* For each child under 21 years, 10 per cent of pension of deceased; if no widow, 10 per cent of pension of deceased plus proportionate share of widow's pension.	*Widow:* Officials—40 per cent of pension of deceased husband. Employees—60 per cent of basic retirement benefits of deceased. *Orphans:* Officials—One-fifth of widow's pension; if no widow, one-third of such pension. Employees—For each child under 15 years, 50 per cent of basic retirement benefits of deceased.	*Widow:* From 25 to 100 per cent (normally, 50 per cent) of benefits of deceased husband. *Orphans:* For each child under 18 years 10 per cent of annual salary of deceased; if no widow, 20 per cent of such salary.
Government bears entire cost, appropriating annually therefor.	9 per cent of salary by Government (appropriating annually necessary sums); 6 per cent of income from service by employees.	Officials: Government bears entire cost; benefits to their widows and orphans, partly by Government and partly by officials, who contribute 3 per cent of salary. Employees: 50 per cent by Government and 50 per cent by employees. Employees contribute from 1 to 10 marks per month, varying with wage.	7 per cent of annual salary of insured plus 5 monthly payments of any increase in salary, cost of administration, and any deficit, by Government; 5 per cent of his annual salary and 4 monthly payments of any increase in salary, by employee.

PRODUCTIVITY OF LABOR

Productivity of Labor in Australia

MR. C. H. WICKENS, the Commonwealth statistician for Australia, has computed an index of Australian productive efficiency for the period 1908 to 1924.[1] The index covers all primary and manufacturing industries, but separate indexes were constructed for (1) agriculture, (2) pastoral, (3) dairying, poultry, and bee farming, (4) forestry and fisheries, (5) mining, and (6) manufacturing. The indexes of productivity were obtained by dividing indexes of production by indexes of employment, the resulting figure showing the changing output per person on the 1911 base.

The indexes of employment are based upon the numbers of persons engaged in the several industries each year. For manufacturing the numbers are obtained from the returns made annually by manufacturers, and for mining the numbers employed are obtained by the mines departments of the several States. But for the other four groups the only data available were the census figures for 1901, 1911, and 1921, so the figures for intermediate years had to be estimated.

In constructing the indexes of production Mr. Wickens does not use data on actual physical output. The indexes are derived from the value added by manufacture in each group of industries. In manufacturing, the data on value of output, cost of raw materials, and the resulting value added in the process of manufacture are obtained from the annual census returns. But in the case of the five primary groups of industries the value of production had to be obtained by multiplying physical quantities produced by the prices of the various commodities.

Having obtained the money value of the production of each group of industries and the number of persons engaged in each group, Mr. Wickens then constructs a table for the average value of production per person engaged, without reference to the changing value of money over the period. This last factor is then corrected by production price indexes, which show the variations in the price level of each of the six groups of industries for the years 1908 to 1924 on a base of 1911. The production price indexes vary considerably from one group to another, as is shown by the fact that in 1920 the price index for dairying, poultry, and bee-farming products is 249.3 while that for mining is 166.2, yet in 1924 the indexes are 155.1 and 160.3, respectively. The average value of production per person engaged in each group of industries is corrected by the production price index of that group, the result giving the average value of production per person corrected to the 1911 price level.

This last set of figures was then reduced to indexes on a 1911 base and the result is a table showing productive efficiency.

[1] The Economic Record, Melbourne, November, 1927, pp. 175–188.

The productive efficiency index is stated to have been obtained "by taking the total production of each industry expressed in terms of money, by correcting this for the variation in the numbers of persons engaged, and for the changes in price level, and by relating the results to those for an arbitrarily selected base year, 1911."

The following table presents the principal findings of the study, the base being changed from 1,000 to 100 in order to facilitate comparison with existing data for the United States:

PRODUCTIVE EFFICIENCY INDEXES BY INDUSTRY GROUP

[1911=100.0]

Year	Agriculture	Pastoral	Dairying, poultry, and bee farming	Agriculture and kindred industries [1]	Forestry and fisheries	Mining	Manufacturing	All industries
1908	98.3	80.7	82.6	85.9	87.8	94.8	98.0	92.0
1909	116.3	93.3	85.3	98.9	83.8	94.3	98.8	99.6
1910	124.6	105.2	98.7	111.0	92.6	95.1	99.1	105.8
1911	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1912	124.1	85.4	96.7	100.0	106.9	104.4	101.5	100.8
1913	127.0	99.1	102.5	108.5	109.0	105.3	102.6	105.3
1914	55.0	97.0	100.2	77.0	87.5	104.3	103.4	86.3
1915	176.2	70.6	83.6	100.4	77.6	111.0	104.1	102.2
1916	144.4	69.3	100.8	91.9	67.5	108.1	104.9	96.4
1917	118.8	75.5	116.6	91.9	62.6	103.6	103.6	95.1
1918	94.2	78.2	117.5	86.4	65.8	110.4	100.8	91.3
1919	75.2	86.1	111.7	81.8	76.0	83.5	104.3	87.0
1920	139.0	70.5	121.9	97.9	85.3	91.3	103.2	97.9
1921	129.1	87.0	148.5	107.2	95.6	101.7	104.4	103.2
1922	122.0	83.0	139.9	99.0	91.0	110.3	105.4	99.9
1923	131.1	74.2	143.4	93.6	89.6	114.2	107.2	97.6
1924	150.5	91.0	177.9	112.2	89.6	113.9	107.5	107.9

[1] A combination of preceding three columns.

The most striking things about the figures are (1) the comparatively small increase in productivity and (2) the wide variations from year to year in all except the manufacturing group. Since the variations mentioned are primarily due to the droughts and other influences affecting agricultural production, the data for (1) agriculture, (2) pastoral, and (3) dairying, poultry, and bee farming were combined into a general index for "agriculture and kindred industries."

The following conclusions are presented:

> The evidence disclosed by the investigations here made for the period of 17 years from 1908 to 1924 are (1) that there have been fluctuations in productive efficiency during the period but that the most marked of these have been usually due to drought; (2) that in the group which may be designated "greater agriculture," although there have been severe drought reversals, there has been, on the whole, a steady upward movement and that the production per person engaged is about 3 per cent greater for the terminal than for the initial quinquennium of the period; (3) that in the case of manufacturing there has been a similar increase of about 6 per cent; (4) that for the combined group of industries dealt with there has been a similar increase for the same period of about 1⅔ per cent; (5) that for the combined industries, when allowance is made for progress in numbers and variation in price level, the most striking feature of the results is the relative uniformity of efficiency in the industries concerned, except in years of drought.

There are several points which deserve some comment. One is his method of using value of product adjusted for price levels as the index of production. Productivity efficiency must be expressed in

physical product. The question then becomes one as to what extent the adjusted value of product approximates the physical product of each industry.

The slow regular upward trend of productivity in manufacturing indicates that a value of product index serves very well as an index of physical production, but it is possible to conceive of situations in which this would not be the case.

Referring to the other five groups of industries, it is evident that, with the possible exception of mining, annual productivity indexes are almost meaningless. As Mr. Wickens points out, the influence of droughts and other uncontrollable factors are of so much greater influence in determining output than the efficiency of management or workers in the industry that the index gives almost no indication of the latter. Even when five-year averages are used the weather influences are likely to predominate in the index.

Lastly, it is interesting to compare the situation in Australia with that in the United States. The best available figures on man-hour output in this country for the period 1900 to 1925 indicate an increase in productive efficiency in manufacturing of nearly 50 per cent, most of which must have taken place during the period covered by the Australian figures. Yet the latter show an increase of less than 10 per cent—from an index of 98 in 1908 to 107.5 in 1924.

This does not necessarily mean that productive efficiency in Australia is lower than in the United States. Productivity may have been high at the beginning of the period, thus leaving less opportunity for improvement. Again, the marked difference in the manufacturing industries in the two countries must be taken into consideration. The industries which have contributed largely to the increase in productivity in the United States, such as automobiles, iron and steel, rubber manufacturing, and petroleum refining, are relatively small and undeveloped in Australia. On the other hand, the leading Australian industries, measured by value added in the process of manufacture, are sawmilling, ironworks and foundries, printing, electric light and power, railway and tram repair shops, etc., which would not, even in the United States, show any marked increase in productivity over this period. The food and drink industries, such as flour milling, baking, brewing, etc., are, in respect to the value added by manufacture, fully as large as all metal industries combined. Therefore, the productive efficiency index for Australia applies to quite a different set of industries than that for the United States, and no conclusions can safely be drawn concerning the relative efficiency of manufacturing industries in the two countries.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS

Migration of United States Industry

AN ANALYSIS of the relative outputs of the 11 States which produce two-thirds of the manufactures of the United States indicates that the recent gains of Ohio, Michigan, and Indiana in value added by manufacture and in number of wage earners are at the expense of certain eastern and western groups. This conclusion is from an article by Sidney G. Coon in the Iron Age of January 5, 1928. In order to determine the migration of industry in this country, the writer has studied the reports of the United States Bureau of the Census and also the reports of the American Iron and Steel Institute and the Iron Age on iron and steel production.

Shift of the Center of Manufacturing

DISREGARDING separate districts and taking into consideration "the movement of the center of activity of the country as a whole," calculations based on the 1904 United States Census of Manufactures showed the center of such manufacture to be approximately 91 miles to the eastward and almost 19 miles to the northward of Columbus, Ohio.

The shift of the manufacturing center from 1904 to 1925 was as follows:

Year	Miles east of Columbus	Miles north of Columbus
1904	91	19
1909	74	16
1914	71	17
1919	23	18
1921	34	13
1923	17	13
1925	3½	8

Percentage Comparisons

IN ORDER to do away with the uncertain influences of changing business conditions, Mr. Coon, instead of comparing the total production or number of employees or dollar value, showed the percentage of output which each State or section contributed to the total for the country. This method, according to the writer, seemed to be the most rational for his purpose, even though it takes no account of the fact that all sections are not proportionately affected by changing business conditions.

Production of Rolled Iron and Steel

IN STUDYING rolled iron and steel production in the United States from 1911 to the present a well-defined movement into Indiana, Michigan, and Ohio, as a group, is shown. This movement is both from the East and West but not from the South, which also shows a steady expansion in production.

In 1911 and 1914 Pennsylvania's output was approximately 49½ per cent of the country's total. The percentage of this State is now [1926?] under 39. In the meantime Indiana's proportion of the total output has advanced from 6 to 13 per cent and Ohio's has risen from 18 to approximately 22 per cent. As a consequence, even though the percentage in Illinois has experienced a decline (compared with that in Pennsylvania), Ohio, Indiana, and Illinois as a group in 1926 produced 42 per cent of the total output of the United States, while in 1911 their combined contribution was only 34 per cent.

The territory south of the Ohio River, exclusive of the two Virginias, shows a rise from less than 3 per cent of the total in 1911 to nearly 5 per cent of the total in 1926. The expansion in the Birmingham district was a very important factor in this increase in the South's share in production.

The Manufacturing Movement in General

IN THE course of the study special attention was given to that section of the United States west of New England, east of the Missouri River, and north of the Ohio River, which includes 11 States, constituting "the most intensive large manufacturing area in the country." While these States cover only 18½ per cent of the Nation's territory "they contain 49 per cent of its inhabitants and produce 67 per cent of its manufactured products."

In 1904, 1909, and 1914 the "Empire group" (New York, New Jersey, and Pennsylvania) contained 34 per cent of the total wage earners in the country; in 1919 and 1921, approximately 32 per cent; and in 1923 and 1925 some 30 per cent. In the same period the proportion of wage earners in Ohio and Michigan increased from 10 per cent in 1904 and 1909 to approximately 14 per cent in 1923 and 1925.

From 1904 to 1914, inclusive, Indiana and Illinois together had 10 per cent of the total employment, which percentage in recent years has risen to 10¾.

Missouri, Iowa, Minnesota, and Wisconsin as a group have held for years practically the same proportion of the total wage earners of the country—7¼ per cent.

Without taking into consideration New England, the South, and the Far West, the Ohio-Michigan group was found to have gained in industrial expansion at the expense mainly of the Empire group.

"This study does not show in the same way as with the rolling-mill study, a movement from both west and east into the middle section. It does show, however, that that middle section is growing faster than the sections surrounding it and to the (relative) loss of some of them."

Study of 68 Cities

A STUDY of the changing volume of production in 68 principal manufacturing cities in six sections of the country showed in certain respects results similar to those yielded by the preceding analyses.

There has been a slight falling off in the territory covered by New York, New Jersey, and eastern Pennsylvania, in which 14 of these cities are located. There has been a slight falling off in the section around Chicago, including 11 cities, in that area from Louisville and Kansas City on the south up to Minneapolis

on the north. There has been a decided gain, as shown by the other studies in the area comprised by Michigan, Ohio, and western Pennsylvania, represented by 10 cities.

New England's proportion has declined steadily, as shown by records of its 11 cities. The South has shown a moderate gain, represented by figures from 10 cities, while the Far West and the Southwest have shown a consistent gain, considerably exceeding that of the South. This western area, which contains 12 of the cities, has almost reached the New England percentage of the total, although in 1914 it was only six-tenths as great as New England.

The movement recorded in the foregoing paragraphs may probably be attributed to the enormous growth of the automobile industry. The chief seat of that industry and also of its principal auxiliary services of supply is located in the Michigan-Ohio-Indiana group. "And it is precisely into that area that we have found industry going from contiguous areas on either side." Attention is called by Mr. Coon to the industrial recession in these three States in 1921 and to the correspondingly heavy decline in the same year in automobile production. "Only 41 per cent as many cars were produced in 1921 as in 1923, whereas for manufacturing as a whole the ratio was 72 per cent." The "tie-up" between the automobile industry "and the relative movement of manufacturing activity into the area dominated by that industry is striking."

Industrial Distribution of Workers in Japan [1]

THE employment and sex of 4,676,666 workers in Japan at the close of June, 1927, are shown in the following table:

INDUSTRIAL DISTRIBUTION OF WORKERS IN JAPAN AT END OF JUNE, 1927

Kind of employment	Number of workers		
	Males	Females	Total
Factories:			
State	99,357	28,752	128,109
Public	6,520	2,234	8,754
Private	977,863	1,022,677	2,000,540
Total	1,083,740	1,053,663	2,137,403
Mines	226,637	69,378	296,015
Transportation and communications	393,842	28,366	422,208
Casual workers and others	1,418,266	402,774	1,821,040
Grand total	3,122,485	1,554,181	4,676,666

Cooperation between Nova Scotia Mine Workers and Operators

THE mistrust and open hostility which formerly existed between the Nova Scotian coal miners and operators have given place to a new spirit—a spirit of good will and confidence, according to a recent issue of the Canadian Coal Mining Journal quoted in the Canadian Labor Gazette of November, 1927.

One of the latest manifestations of this good feeling "is the joint action of the executive officers of the mine workers' coal-pit committees traveling the mine together with the president, mine superin-

[1] International Labor Office. Industrial and Labor Information, Geneva, Dec. 12, 1927, p. 330.

tendents, and other colliery officials for the purpose of ascertaining and removing all cause of complaint." During these joint journeys numerous useful suggestions were made both by the workers affected and the committee of union and company officials, which have facilitated the solution of various remaining grievances.

The most discontented colliery was tackled first. The difficulties of other collieries were then taken up in the same way with similar gratifying results. Attention is called to the fact that the discussion of mine grievances right on the spot, underground, is quite a different matter from grappling with them in an open union meeting in which passion frequently sways reason and "side issues enter to stir up and inflame the mind. Free from all distracting influence, disputed questions can be viewed from all angles, the very discussion of them in such a place by the best minds acting as a challenge to settle them there and then."

Early in October, 1927, President John W. McLeod and other officials of the United Mine Workers were invited by Dr. A. C. Jost, provincial health officer, to cooperate with the Nova Scotian Department of Health with a view to improving the sanitary conditions in mining districts, special reference being made to the possibilities of a recurrence of infantile cholera in 1928. The officials of the union willingly promised cooperation in this important undertaking.

Factory Conditions in South Africa

ACCORDING to the annual report of the chief inspector of factories, the year 1926 in South Africa was marked by a steady progress in industrial developments. Employment on the whole showed no striking fluctuations, though there were some changes in the racial distribution of employment. Thus in some districts there was a marked falling off in the number of male Asiatics employed in factory work, and in others, though there was no change of this kind, there was a distinct tendency to take on European instead of native or colored workers. Some factories had even adopted the policy of employing only Europeans. In all districts there was a steady increase in the number of women employed, especially in the clothing and printing industries.

An interesting fact recorded was that the aversion to work in factories shown by so many Europeans was disappearing and that women of a more intelligent type were taking up factory work. The effect of this change was that many factories which had hitherto employed non-Europeans were endeavoring to staff their factories with Europeans only.

Concerning the employment of juveniles, conditions were not uniform. In general there seems to have been a decrease in the number employed under 14, while for those between 14 and 16 conditions varied from district to district. The report notes that when older workers can be secured employers are generally unwilling to take juveniles, owing to the restrictions placed upon their hours of work. "Manufacturers find it inconvenient to employ a class of labor which is not permitted to work the same hours as the remainder of the staff."

The department finds that work concerning the safety and health of employees is becoming more and more important, and it suggests

that the time is ripe for the adoption of systematic measures along such lines. South Africa, it is pointed out, has many problems of this kind not encountered elsewhere. The majority of its workers are not accustomed to industrial life; the rural population has been attracted to industrial centers where no proper preparation for their reception has been made. Consequently, dangerous or unhealthful conditions are common in the factories and slum areas are increasing rapidly outside them. Organized scientific research into the problems of industry is almost nonexistent, and South Africa is thereby placed at a disadvantage when compared with other industrial countries.

During the year 339 industrial accidents were reported, including 40 fatalities, which is an increase over the preceding year of 85 accidents and 12 fatalities. Only 121 of the accidents, including 9 of the fatalities, involved Europeans, and it is suggested that this preponderance of natives points to the fact that ignorance may be an important cause of accidents. The industrial schools and technical colleges try to train their students in safety-first methods, but "there is still a remarkable indifference displayed by manufacturers with regard to the instruction of non-European workers."

> The absence of shop rules dealing with such matters as the wearing of loose clothing, the shifting of belts in motion, the replacement of guards, and many of the other well-known causes of accident is still a conspicuous omission constantly commented on by all inspectors. The promulgation of regulations dealing with the guarding of transmission and woodworking machinery has done much to improve the physical conditions, but the battle against unnecessary injury can only be waged successfully with the help of education and discipline.

A discussion of welfare work indicates that progress in this line is slow. An improvement in washing facilities is noted, but there is still difficulty in securing the provision of hot water, soap, and towels. A proper supply of drinking water is often lacking, and seating arrangements leave much to be desired.

> The pressing need, however, appeared to be for the provision of seats for occasional use by workers whose normal duties are performed standing. In the laundry industry the work of ironing is heavy and tiring, and the provision of chairs for occasional rests would be of great benefit. * * * It is frequently found that workers are made to stand at their work unnecessarily either on account of the mistaken idea that they will work harder and better or because it has been the general rule to do so. The introduction of mechanical and other means would enable much work that is now done standing to be performed sitting.

The practice of introducing rest periods is becoming more general, but is largely confined to industries employing female workers. An account is given of the effect of rest periods in one of the Government offices in which 14 girls were employed at copying work. "The department complained that the accommodation and the lighting of the office in which the work was being carried on was unsatisfactory; that the attendance of the girls was irregular, and the output poor." Lighting and ventilation were improved, and rest periods, totaling 50 minutes in a seven-hour day were introduced. The girls were required to spend this time in the open air.

> The report received from the department was as follows:
> With the introduction of the scheme a steady increase in the output of the work resulted, which, having reached a very satisfactory mark, did not fall below it. Cases of absence were rare, and the experiment, which was in operation for more than five months and was applied to 14 typists, proved a success.

WOMEN IN INDUSTRY

Studies in Preparation by United States Women's Bureau

A NUMBER of special studies on questions concerning the industrial employment of women are in course of preparation by the United States Women's Bureau and are outlined in the annual report of that bureau for the fiscal year 1926–27.

An extensive field investigation, covering many different sections of the country and many different types of industry, has been conducted to secure information regarding the various types of women's employment and "any relation which could be found between opportunities for such employment and legislative regulation." The report, which the bureau expects to have ready for distribution within the next few months,[1] will include a chronological study of the laws and amendments to laws regulating the employment of women in each State; a history of the labor legislation affecting women in New York, Massachusetts, and California, showing the origin of the various laws and the forces that proposed and opposed them, and a special study of trade-unions in relation to labor legislation for women.

Another bulletin which is in process of publication contains the results of the bureau's research study of the development of minimum wage laws in the United States, 1912 to 1927, analyzes the provisions of the laws, as well as orders issued under them, and summarizes the methods used in carrying them out. In addition, the relation of the courts to these laws is discussed. It is pointed out that the bulletin is primarily a report on the ways in which the various States have worked out machinery for administering this new type of legislation rather than a report on the results of it.

A report on wages, hours, and working conditions of women industrially employed in Flint, Mich., now in course of preparation, is considered of general significance by the Women's Bureau in that Flint is a one-industry city, owing its unusual growth during the past 30 years entirely to the manufacture of automobiles and their accessories.

Other reports on which the bureau is engaged include a study of foreign-born women in industry, based on interviews with women living in Philadelphia and its vicinity and in the Lehigh Valley. Information has been obtained concerning ages, residence in United States, marital status, size of family, number of wage earners in the family, and the industrial experience of these women in their native countries and in the United States. An analysis is being made of employment statistics for men and women collected by the State of Ohio during the 11-year period 1914 to 1924 but not published by that State since 1915. A compilation of the material already col-

[1] Since the manuscript of this article was sent to the printer the report (Bul. 63) has been issued.

lected by the bureau on earnings of woman workers in 13 States is being pushed to completion as other work permits. The bureau is also continuing the collection of figures on time lost by men and women employed in certain textile mills covered in the study of that subject published in 1926.

Wage-earning Girls in Cincinnati

THE Helen S. Trounstine Foundation and the Young Women's Christian Association of Cincinnati have recently made public a study [1] of certain conditions of the life and needs of a group of wage-earning young women in that city, regarded as fairly representative of the wage-earning girls in general. The study, which was carried out by the questionnaire method, covers 368 girls, divided into two groups—one, known as the general sample group, including 105 factory girls, 109 store girls, and 73 office girls, while the other, known as the institutional group, is made up of 50 girls, variously employed, living in the Young Women's Christian Association, and 31 in other similar institutions.

For the general sample group it was found that the average weekly wage was $18.11 for those living at home and $19.09 for those living elsewhere, but this differed according to occupation, the figures being as follows:

	Living at home	Living elsewhere
Factory group	$19.03	$20.17
Store group	14.74	17.95
Office group	21.12	20.36

For the institutional group the average weekly wage was $17.79.

Data given for the several groups show that of the factory group 5 per cent, of the office group 3 per cent, and of the store group 34 per cent received less than $12 a week, while the percentages receiving under $15 a week were, respectively, 15, 16, and 51. Unemployment varied considerably, only 1 per cent of the store group having been unemployed for four weeks or more during the year, against 4 per cent of the office group and 52 per cent of the factory group.

The study deals carefully with the question of the adequacy of the wages reported and reaches the following conclusions:

1. A review of budgets made up by different authorities indicates that a minimum wage for health and decency for a working girl, dependent upon her own resources, in an Ohio city, should be not less than $17.25.
2. The practice of excusing low wages for working girls on the ground that they live at home is not justified from a social viewpoint, although approximately 80 per cent of such girls do live at home.
3. Two-thirds (66 per cent) of the girls of the general sample group and 14 per cent of the girls of the institutional group gave some portion of their wages regularly to their families.
4. Forty-seven per cent of the general sample group contributed $10 or more per week regularly to their families.

The report includes a study of the organized homes for working girls in Cincinnati, which shows that the accommodation provided by such institutions is inadequate and that the girl who is obliged to take a room where she can get it is likely to fare badly.

[1] Helen S. Trounstine Foundation and Young Women's Christian Association of Cincinnati. Wage-earning girls in Cincinnati. Cincinnati, 1927.

The findings regarding the housing situation for working girls living away from home in Cincinnati indicate: (1) That only a small percentage of such girls, probably less than one-fifth, can be accommodated in institutions such as the Young Women's Christian Association; (2) that the prices of rooms outside of such institutions are much higher than [the prices of] rooms in the institutions; (3) that rooming houses furnish homes to more girls than do the institutions; and (4) that the hygienic and moral conditions in such rooming houses are generally undesirable.

Housing conditions in Cincinnati, as in other large cities, constitute a serious problem for the working girl who lives away from home * * *. If a non-family girl of low income and limited education or experiences can not find a home in one of the regular institutions she should have the most careful and friendly assistance in finding a suitable place to live. Such service should be regarded as an important responsibility of the institutions toward the girls whom they themselves can not accommodate.

Other recommendations deal with the desirability of making a study of the diet and the amount spent for food by working girls, the results of the investigation indicating "that many working girls may be seriously decreasing their vitality and undermining their health through undue curtailment of their food," and with the need for careful and intelligent provision of opportunities for recreation and for educational development for the working girls, especially for those living away from home.

CHILD LABOR

Employment Certificates Granted in Various States and Cities

THE annual report of the United States Children's Bureau for the fiscal year 1926–27 contains statistics of the number of children of 14 and 15 years of age who received first regular employment certificates in 10 States, 24 cities in other States, and the District of Columbia.

The records show that 107,257 children of 14 and 15 years of age received first regular employment certificates in 1926, an increase of 5 per cent as compared with 1925, in those States and cities for which comparable figures are available.

Valuable as are these reports of the number of work permits issued, it must be remembered that a variation from one year to the next in the number of children receiving first certificates in any particular locality may be due not to actual increases or decreases in the total number of working children but to other factors. More children, for example, may receive certificates because the application of the child-labor law has been extended to occupations not previously covered or because the administration of the law has been improved. Also, actual increases or decreases in the total number of working children may be due to other causes than changes in the child-labor law or in its enforcement—particularly to the fluctuations of business and industrial conditions.

The age at which children receive first regular employment certificates was reported by 8 States, 21 cities in other States, and the District of Columbia. Nearly two-fifths (38 per cent) of the 90,046 children whose ages were reported went to work for the first time when they were 14 years of age. The influence of a high-grade requirement for the issuance of employment certificates is reflected in the fact that the proportion of children going to work at 14 years of age was more than twice as large in places where there was no eighth-grade requirement as it was in places where this restriction was in effect. Of the 42,949 children to whom certificates were issued in 4 States and 7 cities where the educational requirement was less than graduation from the eighth grade, 56 per cent obtained first regular certificates at the age of 14, as compared with 24 per cent of 42,786 children in 3 States and 6 cities where graduation from the eighth grade was required without exceptions.

The educational attainment of the children is affected of course by the educational requirements for employment certificates set up by the State. In Indiana and Minnesota, for instance, in which the eighth-grade standard was in effect for children of both 14 and 15 years of age and from which both grade and age reports were received, practically 100 per cent of the children had actually completed the eighth grade.

* * * In San Francisco, Calif., and in New York City, Niagara Falls, Rochester, Syracuse, and Yonkers, N. Y.—States which had the eighth-grade requirement for 14-year-old children only and a lower requirement for 15-year-old children—67 per cent of 38,692 children receiving first certificates (including practically all those aged 14 and more than one-half of those aged 15) had attended or completed the eighth grade. Reports on certificates issued in 4 States and 13 cities having less than an eighth-grade requirement for both 14 and 15 year old children showed that 49 per cent of the children receiving certificates

had completed or last attended the eighth or a higher grade and that 22 per cent had not advanced further than the sixth (or a lower) grade.

The occupations of 34,034 children who received first regular certificates were reported by 8 States, 16 cities in other States, and the District of Columbia. Forty-six per cent of these children entered manufacturing or mechanical industries, 30 per cent went into mercantile establishments, and 25 per cent into "other" employment, which comprises a large number entering messenger and errand work.

The records of work permits issued to children between 14 and 16 years of age in the places reporting to the bureau, although they do not include the large number entering occupations for which certificates are not required under the State laws, nor those going to work illegally, are representative of conditions in most of the important child-employing centers as regards at least the legal employment of children of work-permit age in most industrial and commercial pursuits. But the number of first regular certificates issued does not indicate the total number of children at work at any given time but only the number beginning work during a single year.

International Program for Protection of Young Workers

ACCORDING to the press reports of the International Federation of Trade Unions, that body, in conjunction with the Labor and Socialist International, and the Socialist Youth International, recently adopted the following as the minimum program for the protection of young workers:

1. Prohibition of all wage-earning work for children up to the completion of the fourteenth year..
2. Compulsory attendance at an elementary school until admission to wage-earning work.
3. Introduction of compulsory instruction (vocational) until the completion of the eighteenth year.
4. The extension up to the completion of the eighteenth year of protective legislation applicable to apprentices and young workers (manual and nonmanual).
5. Establishment of a maximum 48-hour week, to include vocational instruction and the time required for clearing up.
6. A free Saturday half day and a free Sunday; if not Saturday, some other free half day to be given during the week.
7. Prohibition of night work for young workers.
8. A minimum three weeks of paid holiday for wage-earning young persons under 16 (inclusive of apprentices), and two weeks' paid holiday for wage-earning young persons between 16 and 18 (inclusive of apprentices).
9. Regulations providing for the welfare, unemployment relief, and training of unemployed young workers.
10. The regulation of vocational training, in the organization of which the trade-unions shall be entitled to an equal share with the unions of the employers.

In order to forward this plan, these international bodies call upon all affiliated organizations to incorporate the program in their social policy, to advocate it at meetings and by manifestoes, to secure wherever possible the cooperation of other sections of the public interested in the welfare of the young, and to press vigorously for the ratification by the various countries of the international agreements relating to the minimum age for the admission of children to industrial work, night work for young persons, minimum age for admission to such occupations as work on board ships, trimming and stoking, and the like, and conditions under which children may be employed in agriculture.

Special stress is laid on the point that where existing legislation is in any respect more advantageous than the projected plan the latter must be modified accordingly, so that no gain already made shall be imperiled.

Protection of Minors by Brazilian Decree [1]

THE following are the outstanding provisions of the Brazilian child-labor law, Federal decree (No. 5083) of December 1, 1926, the operation of which will extend throughout the Republic.

The law forbids the employment of young persons under 12 years of age in any kind of work and those over 12 and under 14 years who have not completed their primary-school education. A special permit for the latter to work may be obtained, however, when the minor's subsistence or that of his parents depends upon his employment, provided he is able to receive some school instruction. No minor under 14 years of age may be engaged in manual work in factories, shops, shipyards, mines or other underground work. The law prohibits the employment of minors under 18 years of age in work which may endanger their health, life, or morals.

A health certificate is required before a minor under 18 years of age may be employed. Labor inspectors may request any minor under 18 years of age to submit to a medical examination in order to determine whether the work is suitable to his physical condition. Upon the advice of the examining physician, the inspectors may require a minor to discontinue any particular work.

The working hours of minors under 18 years may not exceed six a day, and one or more rest periods aggregating not less than one hour must be granted these workers. The law forbids night work (i. e., work done between 7 p. m. and 5 a. m.) for minors under 18 years.

Boys under 16 years of age and girls under 18 years may not be engaged to act or to appear in theaters or in other places of amusement before a public audience, nor under 21 years to appear in music halls or cabarets. A fine of 1,000 to 3,000 milreis [2] will be imposed for failure to comply with this provision.

Boys under 14 years of age and girls under 16 years may not engage in street trades. Minors found so engaged are liable to be regarded as public charges and their relatives or guardians may be fined from 50 to 500 milreis and required to serve a jail sentence of from 10 to 30 days.

Circus directors or those employing minors under 16 years to perform dangerous acrobatic exhibits, gymnastics, or animal training are subject to a fine of from 100 to 1,000 milreis and imprisonment from three months to one year. The same penalty will be imposed on parents forcing their children under 12 years of age to take part in such performances.

Employers, parents, or guardians of young persons under 16 years of age who will permit them to engage in the occupations prohibited by this law will be punished by a fine of from 50 to 500 milreis and imprisonment for from 10 to 30 days.

[1] Brazil. Diario Official, Rio de Janeiro, Dec. 4, 1926, pp. 22126, 22127.
[2] The average exchange rate of the milreis in 1926=14.44 cents.

INDUSTRIAL ACCIDENTS

Accidents on Steam Railroads in the United States in 1923 and 1926

SUPPLEMENTING the statistics of steam railway accidents in the United States for 1923 and 1926, published in the Labor Review for August, 1927 (p. 45), the revised official data herein are presented as given by the Interstate Commerce Commission in its forty-first annual report recently issued. The bureau of statistics of the commission reports that the casualties in connection with the operation of trains numbered 6,689 killed and 49,649 injured and states that—

> The statistics of railway accidents show a decided tendency in the direction of greater safety. Over a long period of years the improvement is striking. So recently as 1917 the number of railway fatalities was over 10,000. In 1926 the corresponding number was about 7,000. The number of railway accidents fluctuates to some extent with the volume of business done, but if a comparison is made between the figures for 1926 and 1923, two recent years of large traffic, it appears that the safety efforts of the railways are making themselves felt.

The following table illustrates the point:

TABLE 1.—NUMBER OF PERSONS KILLED AND INJURED IN RAILWAY ACCIDENTS IN THE UNITED STATES, 1923 AND 1926, BY CLASS OF PERSONS

Class of person	1923		1926	
	Number killed	Number injured	Number killed	Number injured
Trespassers	2,779	3,047	2,561	2,545
Employees	1,645	39,734	1,371	34,202
Passengers	138	5,847	152	4,461
Persons carried under contract (mail clerks, Pullman conductors, etc.)	21	674	13	664
Other nontrespassers	2,339	7,162	2,592	7,777
Total, train	6,922	56,464	6,689	49,649
Nontrain	463	115,248	401	80,586
Grand total	7,385	171,712	7,090	130,235

Table 2 shows the number of killed and injured in 1926 compared with 1924 and 1925, by type of accident.

TABLE 2.—NUMBER OF PERSONS KILLED AND INJURED IN RAILWAY ACCIDENTS IN 1924, 1925, AND 1926, BY TYPE OF ACCIDENT

Type of accident	1924		1925		1926	
	Number killed	Number injured	Number killed	Number injured	Number killed	Number injured
Highway grade crossings	2,149	6,525	2,206	6,555	2,491	6,991
Highway grade crossings involving automobiles	1,688	5,650	1,784	5,916	2,062	6,358
Derailments of trains as result of collisions between trains and automobiles	16	69	15	30	11	54
Total	3,853	12,244	4,005	12,501	4,564	13,403

Highway grade crossing accidents involving automobiles show an increase each year in number of persons killed and injured, but when based upon automobile registration the rates per million automobiles are as follows: In 1924—killed, 96; injured, 321.2; in 1925—killed, 89.4; injured, 296.5; in 1926—killed, 93.7; injured, 289.

Accident Experience in the Federal Departments

THE following table is derived from figures compiled by the United States Employees' Compensation Commission. It concerns only civilian employees. The period covered is the six years ending with 1926.

In the computation of rates it was necessary, due to lack of precise information, to assume a uniform working-day of eight hours. Since a considerable portion of Federal employees are on duty a less number of hours, it follows that the number of man-hours used as a divisor in the computation of rates is larger than it should be. The effect is to depress the rates somewhat. The comparison of the departments is also disturbed by the fact that they have varying proportions of seven and eight hours work. In general the effect of this lack of detailed information is to render the rates smaller than they would be if the data were more complete.

When the 1925 figures became available it was noted that the Department of Commerce, Department of the Interior, the Navy Department, and Government Printing Office showed declining rates from 1924 to 1925. The situation is somewhat more satisfactory from that aspect. The following show some decline from 1925 to 1926: All services (15.37 to 15.33), Department of the Interior (31.39 to 19.09), Department of Labor (12.40 to 9.66), Treasury (8.05 to 5.04), Department of War (60.64 to 43.82), all other services (14.94 to 10.34).

The following show increases: Department of Agriculture (26.21 to 33.95), Department of Commerce (9.82 to 12.58), Government Printing Office (2.71 to 4.05), Department of Navy (15.74 to 17.62), Post Office (9.91 to 11.43).

The fact that 5 out of 10 show declining rates and that these declines are sufficient to produce a slight favorable balance on the entire group is reason for a degree of satisfaction. It can not be very pronounced when it is observed that many of these rates are markedly in excess of those prevailing in the better steel mills.

NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY RATES IN THE GOVERNMENT SERVICE, 1921 TO 1926, BY DEPARTMENTS AND YEARS

[Based on number of employees shown by the Civil Service Commission's yearly reports and on number of accidents reported to the United States Employees' Compensation Commission]

Year	Number of employees	Number of accidents			Frequency rates (per 1,000,000 hours' exposure)		
		Fatal	Nonfatal	Total	Fatal accidents	Nonfatal accidents	Total
All Government Services							
1921	560,673	362	18,042	18,404	0.25	12.88	13.13
1922	535,185	353	17,905	18,258	.26	13.38	13.64
1923	535,781	279	17,713	17,992	.20	13.22	13.43
1924	546,981	278	20,260	20,538	.20	14.82	15.02
1925	538,290	314	20,374	20,688	.23	15.14	15.37
1926	536,426	318	19,209	19,527	.25	15.08	15.33
Total	3,253,336	1,904	113,503	115,407	.24	14.40	14.64
Department of Agriculture							
1921	18,722	10	638	648	0.22	13.63	13.85
1922	19,773	11	919	930	.22	18.59	18.82
1923	20,078	17	971	988	.34	19.34	19.68
1924	20,385	25	1,287	1,312	.49	25.25	25.74
1925	20,098	26	1,291	1,317	.52	25.69	26.21
1926	20,688	34	1,652	1,686	.68	33.27	33.95
Total	119,744	123	6,758	6,881	.43	23.52	23.95
Department of Commerce							
1921	11,748	9	246	255	0.31	8.38	8.69
1922	11,267	15	272	287	.53	9.66	10.19
1923	11,199	11	332	343	.40	11.86	12.25
1924	12,119	8	319	327	.26	10.52	10.79
1925	14,631	11	348	359	.30	9.52	9.82
1926	14,682	11	433	444	.30	12.28	12.58
Total	75,646	65	1,950	2,015	.33	9.95	10.28
Government Printing Office							
1921	4,403	2	89	91	0.18	8.09	8.27
1922	4,024	1	63	64	.10	6.26	6.36
1923	3,989	----------	42	42	----------	4.21	4.21
1924	4,269	----------	44	44	----------	4.13	4.13
1925	3,984	----------	27	27	----------	2.71	2.71
1926	4,109	1	39	40	.10	3.95	4.05
Total	24,778	4	304	308	.17	6.55	6.72
Department of the Interior							
1921	19,735	14	957	971	0.29	19.39	19.68
1922	17,834	18	1,041	1,059	.41	23.35	23.75
1923	17,092	16	1,415	1,431	.37	33.12	33.49
1924	16,679	19	1,676	1,695	.46	40.20	40.64
1925	13,125	11	1,019	1,030	.34	31.06	31.39
1926	13,468	8	609	617	.25	18.84	19.09
Total	97,933	86	6,717	6,803	.37	28.58	28.35
Department of Labor							
1921	3,768	1	112	113	0.11	11.89	11.99
1922	3,744	2	100	102	.22	10.68	10.90
1923	3,821	----------	112	112	----------	11.72	11.72
1924	3,876	1	111	112	.11	11.46	11.56
1925	3,614	5	107	112	.55	11.84	12.40
1926	4,011	2	90	92	.21	9.45	9.66
Total	22,834	11	632	643	.20	11.53	11.73

NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY RATES IN THE GOVERNMENT SERVICE, 1921 TO 1926, BY DEPARTMENTS AND YEARS—Continued

[Based on number of employees shown by the Civil Service Commission's yearly reports and on number of accidents reported to the United States Employees' Compensation Commission]

Year	Number of employees	Number of accidents			Frequency rates (per 1,000,000 hours' exposure)		
		Fatal	Nonfatal	Total	Fatal accidents	Nonfatal accidents	Total
	Department of the Navy						
1921	60,653	36	2,918	2,954	0.24	19.25	19.48
1922	42,515	27	1,516	1,543	.25	14.27	14.52
1923	40,557	30	1,423	1,453	.30	14.04	14.33
1924	42,686	28	1,882	1,910	.26	17.64	17.90
1925	42,842	24	1,662	1,686	.23	15.52	15.74
1926	42,973	39	1,778	1,817	.38	17.24	17.62
Total	272,226	184	11,179	11,363	.28	17.11	17.39
	Post Office Department						
1921	281,658	62	5,218	5,280	0.08	7.42	7.50
1922	284,207	64	6,196	6,260	.10	8.72	8.81
1923	294,226	50	6,559	6,609	.07	8.92	8.99
1924	301,000	42	7,395	7,437	.06	9.83	9.89
1925	304,092	47	7,488	7,535	.06	9.85	9.91
1926	289,980	56	7,896	7,952	.08	11.35	11.43
Total	1,755,163	321	40,752	41,073	.08	9.67	9.75
	Department of the Treasury						
1921	68,648	30	1,157	1,187	0.18	6.74	6.91
1922	56,392	44	1,203	1,247	.31	8.53	8.84
1923	53,604	17	938	955	.13	7.00	7.13
1924	53,121	16	1,013	1,029	.12	7.63	7.75
1925	52,607	22	1,037	1,059	.17	7.88	8.05
1926	51,569	19	864	883	.11	4.93	5.04
Total	335,941	148	6,212	6,360	.18	7.70	7.88
	Department of War						
1921	53,553	124	6,125	6,249	0.92	45.74	46.68
1922	46,840	104	5,648	5,752	.89	48.23	49.12
1923	44,842	96	4,913	5,009	.85	43.82	44.68
1924	45,906	102	5,295	5,397	.89	46.14	47.03
1925	38,975	115	5,793	5,908	1.18	59.45	60.64
1926	45,285	63	4,700	4,763	.58	43.24	43.82
Total	275,401	604	32,474	33,078	.91	49.13	50.04
	Other Government Services						
1921	37,785	74	582	656	0.78	6.16	6.95
1922	48,589	67	947	1,014	.55	7.80	8.34
1923	46,373	42	1,008	1,050	.36	8.70	9.06
1924	46,940	37	1,238	1,275	.31	10.55	10.86
1925	44,322	53	1,602	1,655	.48	14.46	14.94
1926	49,661	85	1,148	1,233	.71	9.63	10.34
Total	273,670	358	6,525	6,883	.55	9.93	10.48

Decrease in Severity of Industrial Accidents in New York State

WHAT appears to be a steady decrease in the severity of industrial accidents in New York State, as measured by the average weeks of compensation paid in permanent partial disability cases over a period of years, is set forth in a brief report prepared by the State department of labor and published in its bulletin for December, 1927. This is indicated by the average weeks of compensation awarded per case of permanent partial disability for the years ending June 30, 1924 to 1927, as follows: 1923–24, 50.9 weeks; 1924–25, 50 weeks; 1925–26, 45.4 weeks; 1926–27, 42.9 weeks.

Attention is called to the fact that prompt first aid to prevent infection, X-ray examinations to locate fractures, and treatment to eliminate stiffness, for all of which the compensation law provides, are responsible for this decrease, in four years' time, of eight weeks per case. It is further suggested that the improvement is even more significant when it is remembered that on July 1, 1924, laws became effective increasing the periods of compensation awards for loss of eye from 128 to 160 weeks and for loss of thumb from 60 to 75 weeks. In spite of this fact, the following year, 1925, showed a decrease in the average number of weeks compensation was paid instead of an increase as might be expected, indicating that "even then some favorable factors were at work tending to decrease the severity of some types of accidents."

A study of awards by types of injury was also made to determine those in which improvement was shown. As a result it was found that in each type, except two—foreign bodies in the eye and all other—there was an almost continuous decline during the four years. Except for concussions, the number of which is too small to be significant, the largest improvement occurred in dislocations, from 77.1 weeks in 1924 to 55.3 weeks in 1927, or a drop of 28.3 per cent. Foreign bodies in the eye show an apparent increase over the four-year period, due to the change in the law noted above, which caused an increase to 87 weeks in 1925. Since that year, however, the decrease has been continuous.

The following table shows the changes in average weeks for which compensation was awarded during the year 1927 as compared with 1924:

AVERAGE WEEKS OF COMPENSATION AWARDED IN PERMANENT PARTIAL DISABILITY CASES, 1927 COMPARED WITH 1924, BY NATURE OF INJURY

Nature of injury	1924		1927		Decrease in average number of weeks
	Number of cases	Average number of weeks	Number of cases	Average number of weeks	
Bruises, contusions, and abrasions	859	43.5	1,164	37.0	6.5
Burns and scalds	384	65.6	447	59.0	6.6
Concussions	5	171.4	6	49.2	122.2
Cuts, punctures, and lacerations	6,389	39.7	7,425	32.9	6.8
Traumatic amputations	1,942	60.4	1,693	58.7	1.7
Dislocations	236	77.1	276	55.3	21.8
Fractures	5,060	59.1	6,703	48.1	11.0
Sprains and strains	328	53.6	611	45.2	8.4
Foreign bodies in eye	73	76.2	92	76.5	[1] .3
All other	250	63.3	101	86.7	[1] 23.4
Total	15,526	50.9	18,518	42.9	8.0

[1] Increase.

A similar showing is made by an analysis of awards in temporary disability cases, in which every group except concussions showed a decrease in average weeks. The total decrease was 1.6 weeks; concussions showed 1.8 weeks increase. Asphyxiation showed the largest decrease, from 9.1 to 6.1 weeks.

Industrial Accidents in Lima, Peru, 1924 to 1926

THE Statistical Abstract of Peru for the year 1926 contains official figures showing the number of industrial accidents which have occurred in Lima.

The following table, taken from this report, gives the number of industrial accidents each year from 1924 to 1926, by industry:

NUMBER OF INDUSTRIAL ACCIDENTS IN LIMA, PERU, 1924 TO 1926, BY INDUSTRY

Industry	1924	1925	1926	Industry	1924	1925	1926
Agriculture and forestry	71	51	31	Building	546	511	485
Alcohol and liquors	101	146	147	Textiles and weaving	74	93	167
Pottery and ceramic works	26	16	4	Furniture	7	10	5
Tanneries and shoe factories	17	20	29	Paper and printing	31	16	21
Electrical	621	686	393	Government service	4	5	6
Railway	119	223	237	Tobacco	10	5	1
Automobile	50	48	52	Glass	-------	-------	29
Gas	2	2	4	Various	156	152	146
Food	47	51	73				
Metal work and engineering	41	21	29	Total	1,991	2,120	1,925
Sawmills	68	64	66				

HEALTH AND INDUSTRIAL HYGIENE

Industrial Hygiene Work of United States Public Health Service

THE annual report of the Surgeon General of the Public Health Service of the United States for the fiscal year 1927 gives an account of the activities of the office of industrial hygiene and sanitation. The recent studies carried out by this division include an investigation of the hazards of tetraethyl lead; studies of various occupational health hazards and occupational diseases and of the causes of industrial absenteeism;[1] and studies carried on in cooperation with other Government departments and with industrial and other agencies.

The first investigation of tetraethyl lead gasoline[2] was carried out principally in Ohio, where it was being used at the time, although its sale had been temporarily discontinued by the corporation manufacturing the gasoline. In connection with this investigation it was found that appreciable amounts of lead were present in garage dust even where no lead-containing motor fuel had been used. A subsequent survey was made in cooperation with the health officers of a number of large cities, therefore, to determine how general this dissemination of small but distinct amounts of lead might be. In this study samples of air were collected from garages and other work places and, although the analyses have not yet been completed, the results so far as determined indicate that there is as high lead content in the air in some other industrial establishments supposed to be free from lead exposure, as in garages.

The studies of occupational health hazards also included a number of investigations of the hazards of dusty trades. The dust studies which have been completed deal with the effects of dust in the cement, granite-cutting, metal-polishing, and anthracite-mining industries, while studies dealing with soft-coal dust, vegetable dust, and municipal dust are still being carried on.

The cement study showed that as the period of service in the industry increased there was a rapid increase in the disability from respiratory diseases but that there was also an interesting process of self-selection of the employees in that those who were least susceptible to the effects of the dust were more likely to remain in the industry while those who were less resistant tended to leave the industry. The rate of disability from respiratory diseases among a group of persons who had been employed from 1 to 8 years was 235 cases per 1,000 men. With longer periods of employment the rate rose rapidly, so that among a group of men with from 12 to 20 years of service there were 769 cases of respiratory disability per 1,000 men. This higher rate was not associated with advancing age, as the same tendency toward respiratory disability was found among the men under 45 as among those over 45. Diseases of the upper respiratory tract were most common among these workers and the

[1] See Labor Review, April, 1926, pp. 131, 132; June, 1927, pp. 57–59.
[2] Idem, March, 1926, pp. 126–129.

incidence of pneumonia and tuberculosis was relatively low. The rate among men exposed to the dustiest work in the mill and quarry and, in addition, to the inclemency of the weather ranged from 60 to 109 per cent higher than that in the relatively nondusty departments of the plant. Furunculosis, diseases of the eye, including conjunctivitis, and diseases of the stomach and intestines were frequent among those working in the more dusty trades, while rheumatism was especially frequent among outdoor workers.

The sickness records and the physical examinations of workers in the granite-cutting industry show that the chief hazard is a rapidly fatal form of pulmonary tuberculosis, to which the cutters, both those doing hand-pneumatic work and those working with surface machines, are particularly liable. Workers in occupations in which they are not exposed to more than the average dustiness of the sheds did not appear to be seriously affected, so it appeared that it is practicable to reduce the dust to an approximately safe level through proper ventilation.

Severe disability from granite dust does not appear, ordinarily, except after years of exposure, although the presence of silicosis can be detected in most workers within a very few years after entering the industry. The mortality rate from tuberculosis among granite cutters has been rising rapidly in recent years and the present survey showed a rate of 18 per 1,000 in the population which was under direct observation.

An unfinished study of the effects of the cotton dust on the workers in a spinning and weaving plant shows from the preliminary analyses of the sickness records and physical examinations that there is a high rate of sickness of short durations and a large number of cases of postnasal and pharyngeal catarrh. There was also more sickness among night workers than among day workers, especially in the weaving room, where the relative humidity was necessarily kept high, and in the carding room, where there was the most dust.

The study of the dust hazard in anthracite mining showed that there was exposure to enormous quantities of dust. The miners and miners' helpers were exposed in some cases to as much as 233,000,000 particles per cubic foot of air, and the men engaged in breaking new ground for mining by means of rock drilling had an average exposure of about 130,000,000 particles per cubic foot as contrasted with an exposure of about 2,500,000 particles for the maintenance men.

The petrographic analysis of the dusts in the different industries showed that in silver polishing free silica was present in amounts varying from one-tenth of 1 per cent to 1.75 per cent, although in one case the dust contained 19 per cent free silica; hard-coal dust averaged about 1.5 per cent free silica and the rock dust from these mines about 31 per cent, while the granite dust from Barre, Vt., contained approximately 31 per cent and the mixture of granite dust and the dust from the grinding machines showed approximately 38 per cent of free silica, with a small amount of steel fragments.

Other studies carried out by the division of industrial hygiene include an investigation of the problem of ventilation with a view to obtaining accurate information on the efficiency and operating requirements of ventilating systems in actual use; an investigation

of lead poisoning in a storage-battery plant in Connecticut; and studies in illumination covering the effect of varying conditions of illumination upon vision and production, and showing the distribution of daylight within factories and schoolrooms with windows of all sizes, heights, and locations, and ceilings of varying heights.

In addition to these and other similar studies, a general investigation of industrial morbidity among large groups of workers is continued from year to year, monthly reports being received of sickness causing a disability of one week or longer among 135,000 employees, members of 35 sick benefit associations. Analyses of these figures are published periodically and show the frequency and severity of disabilities, by sex, and according to the type of sickness, season of the year, etc., for this representative sample of the industrial population.

Sick Leave Among Employees in the Department of Commerce During 1926

STATISTICAL information as to the amount of sickness occurring among any large group of workers is of interest, since the effort in the majority of industrial and commercial establishments at the present time is in the direction of prevention, and any information as to the extent of the problem is therefore of value in carrying out sickness-prevention work.

The report of the Secretary of Commerce for the year 1927 gives the amount of annual and sick leave taken by the employees of the department in the District of Columbia. The figures cover a total of 3,469 employees. The average sick leave reported for the entire group—6.36 days—is somewhat below the commonly accepted estimate of eight days lost per person per year, although many individual companies which have stressed the preventive feature in their medical work have been able to reduce the time lost on account of sickness much below that reported in this instance.

The following table shows the average amount of sick leave in the different offices of the Department of Commerce during the year 1926, by sex:

SICK LEAVE REPORTED IN THE DEPARTMENT OF COMMERCE DURING THE YEAR 1926, BY SEX

[In the count of leave all periods of one-half day or over were counted as a whole day; periods of less than one-half day were omitted]

Bureau	Number of employees	Male		Female		Total	
		Number of days	Average per employee	Number of days	Average per employee	Number of days	Average per employee
Office of the Secretary	105	214	3.45	339	7.88	553	5.27
Bureau of the Census	736	1,085	3.83	3,812	8.42	4,897	6.65
Bureau of Foreign and Domestic Commerce	481	1,430	5.67	2,446	10.68	3,876	8.06
Bureau of Standards	667	2,197	3.73	748	9.47	2,945	4.42
Bureau of Fisheries	67	205	4.77	233	9.71	438	6.54
Bureau of Lighthouses	34	131	5.46	117	11.70	248	7.29
Coast and Geodetic Survey	176	1,016	6.35	110	6.87	1,126	6.40
Bureau of Navigation	48	122	6.10	319	11.39	441	9.18
Steamboat Inspection Service	13	30	5.00	62	8.86	92	7.08
Patent Office	954	3,747	5.63	2,412	8.35	6,159	6.46
Bureau of Mines	188	496	4.68	806	9.83	1,302	6.93
Total and average	3,469	10,673	4.83	11,404	9.05	22,077	6.36

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

Priority of Lien of Alaskan Compensation Law

VARIOUS legal methods have been provided from time to time to protect workmen entitled to awards under the State workmen's compensation laws. These laws have been of the same nature as those relating to the protection of the payment of wages. They fall generally into six classes:

1. Those restricting or making invalid the waiving of a right to compensation.
2. Those restricting, prohibiting, or making illegal the assignment of compensation.
3. Those exempting awards from attachment, garnishment, and execution.
4. Those making an award a lien on the employer's property.
5. Those giving the award or lien a preference over claims or liens of other creditors in the event of bankruptcy, receivership, or death of employer.
6. Those giving a prior lien upon the real estate of the employer.

There are also cases of special protective provisions in favor of the State in the collection of premiums due the State fund by an employer, as in Oregon and Washington, where the premium is made a lien upon property.

Alaska has taken the initiative in creating the sixth class given above. Section 5 of the 1927 Alaska workmen's compensation law reads as follows:

SECTION 5. Every employee and every beneficiary entitled to compensation under the provisions of this act shall have a lien for the full amount of such compensation, including costs and disbursements of suit and attorneys' fees therein allowed or fixed, upon all of the property in connection with the construction, preservation, maintenance, or operation of which the work of such injured or deceased employee was being performed at the time of the injury or death of such employee. For example, in the case of any employee injured or killed while engaged in mining or in any work connected with mining, the lien shall extend to the entire mine and all property used in connection therewith; and in the case of an employee injured or killed while engaged in fishing or in the packing, canning, or salting of fish, or other branch of the fish industry, the lien shall extend to the entire packing, fishing, salting, or canning plant or establishment and all property used in connection therewith; and the same shall be the case with all other businesses, industries, works, occupations, and employments. The lien herein provided for shall be prior and paramount and superior to any other lien on the property affected thereby, except liens for wages or materials as is now or may hereafter be provided by law, and shall [be] of equal rank with all such liens for wages or materials. The lien hereby provided for shall extend to and cover all right, title, interest, and claim of the employer of, in, and to the property affected by such lien, and also all right, title, interest, claim, or lien of any other person in or to such property, unless such person, who is not the employer of the employee so injured or killed, but who claims some right, title, or interest in or to or lien upon such property, shall at least 10 days prior to the injury out of which the claim for compensation arises have posted and used reasonable diligence to keep

posted in at least three conspicuous places on the property subject to such lien a notice that the right, title, claim, interest, or lien of such person in or to such property shall not be subject or subordinate to the lien of any claim for compensation by this act provided. *Provided, however,* That nothing herein contained shall be deemed to affect the obligation of any valid contract existing on or before August 8, 1927. Any person claiming a lien under this act shall, within four months after the date of the injury from which the claim of compensation arises, file for record in the office of the recorder of the precinct in which the property affected by such lien is situated a notice of lien, signed and verified by the claimant or some one on his or her behalf, and stating in substance the name of the person injured or killed out of which injury or death the claim of compensation arises, the name of the employer of such injured or deceased person at the time of such injury or death, a description of the property affected or covered by the lien so claimed, and the name of the owner or reputed owner of such property.

The lien for compensation herein provided may be enforced by a suit in equity, as in the case of the enforcement of other liens upon real or personal property, at any time within 10 months after the cause of action shall arise. Nothing in this section contained shall be deemed to prevent an attachment of property as security for the payment of any compensation as in this act provided.

A suit or action for the lien for compensation herein provided may be joined with an action for compensation otherwise provided under the terms of this act in the same declaration or complaint.

Laws making certain debts liens upon the property of the debtor are not unusual. Those most generally known are taxes, judgments, mortgages, and mechanics' liens. In the field of labor legislation there are three outstanding types of debts which have in many States been made liens: Liens for wages for work done, mechanics' liens, and liens for workmen's compensation awards. The first is but a development of the common-law lien of the worker for the value of his services. This originally applied only to personal property upon which he had performed labor, as a jeweler's lien upon a watch he has repaired. The mechanics' lien, also a development of the common-law lien, in actual practice more directly protects the contractor and subcontractor than it does the wage worker. The award for compensation has been made a lien upon the property of the employer in several States. The reason for the lien is evident when it is noticed that the award has replaced the old judgment for damages and the judgment was a lien upon the real estate of the employer.

Some States merely make the compensation award a lien. Others go further and give the award preference or priority over the claims and liens of other creditors in the case of bankruptcy, receivership, or in the administration of estates. This is for the purpose of allowing a more equitable distribution of the assets of the bankrupt or the estate of the deceased. The law quoted above goes further than either of these two types of laws. It is similar to them in that it makes the award a lien and in that it gives the award or lien priority of payment. It is different in that it gives priority over existing liens even in cases of the solvency and during the life of the employer.

A brief reading of the above section raises a question of constitutionality. It appears on its face that a person who has held a mortgage or lien against the property, created prior to the injury, is deprived of his property without due process of law. But this contention, if raised, is apparently met by the protection that the law gives to persons having such liens. They may protect their rights by complying with the provisions of the section as to posting notice of their rights upon the property.

In the absence of the enforcement of strict requirements for insurance carriage with responsible insurance companies or the filing of bonds or other securities to protect a possible award and also further protection against insolvency of employer or insurance company, there is always a possibility that the workman may be left with a valueless award which he can not collect. The above law was enacted to provide for such a contingency or probably a worse case, where the employer deliberately intended, in the case of large awards, to avoid payment. The possibilities of this are greater than one may suspect. In the case of a mine explosion where there are several deaths and the possibilities of large awards great, a mine owner, with property depreciated in value because of the explosion, may prefer to allow the property to be sold on the foreclosure of a mortgage rather than attempt to pay the award. In this case it would be very likely that the workman or his dependents would have a valueless award. If the owner holds title to the mine in the name of a corporation, he could readily organize a new corporation and buy in the same property, on foreclosure of a prior lien, in the name of the new corporation and continue operations relieved of the burden of the compensation awards.

Sickness and Invalidity Insurance in Chile [1]

Scope of Law

ACCORDING to a decree (No. 34) of January 22, 1926, promulgating the text of the Chilean law (No. 4054), insurance against sickness and invalidity is compulsory for all persons under 65 years of age who normally have no income or means of subsistence other than the wages paid them by their employer, provided that the said wage or salary does not exceed 8,000 pesos [2] a year. The law covers apprentices and persons employed on probation even if they do not receive wages; also artisans and craftsmen who work independently, persons who perform public service, small manufacturers, and small tradesmen, provided their average annual income does not exceed 8,000 pesos a year.

Persons subject to the law but who belong to a mutual benefit society which insures its members are exempt from insurance if the society has been approved by the central insurance fund.

Employers, employers' associations, and lawfully constituted mutual benefit societies may undertake the duties assigned by this law to the local funds as regards sickness insurance only. In order to assume these obligations, they must obtain a permit from the President of the Republic and bind themselves to provide the medical attention and sick benefits as provided by this law.

Persons not liable to insurance who are under 45 years of age and whose income does not exceed 8,000 pesos a year may voluntarily insure themselves in order to secure the benefits of this law, provided that they obtain a health certificate from the physician appointed by the fund. Insured persons whose income increases to over 8,000 pesos may continue their insurance voluntarily, provided that the income does not exceed 16,000 pesos a year.

[1] Chile. Diario Oficial, núm. 14,411, Santiago, Mar. 3, 1926, pp. 538–540.
[2] Average exchange rate of the peso in 1926=12.08 cents.

Benefits

THE fund shall grant the following benefits to insured persons: (1) Medical attention shall be granted from the first day of the illness and in addition hospital care upon the orders of the physician. Medical attention shall be provided by a qualified panel of physicians under a contract with the fund, the insured person having the right to select his physician from the panel. The insured shall be reimbursed for expenses incurred for specialists who have been called in, with the authorization of the governing body. Medical attention shall be furnished for a period of 26 weeks and in special cases the local funds may extend it to a year. (2) A sick benefit shall be paid for the first week equivalent to the entire wage of the insured, for the second week one-half of the said amount, and thereafter one-quarter for the duration of the illness, provided he has a family to support. If the sick person has no family, he shall be entitled to only half of the benefit. (3) Medical care shall be granted woman workers during pregnancy, confinement, and the post-confinement period, and also financial aid amounting to one-half of the regular wage of the worker for a period of two weeks before and two weeks after childbirth and a nursing benefit equal to one-fourth of the mother's wages to be paid to her as long as she nurses her child.[3] (4) A sum of 300 pesos is to be paid to the family of the insured person in case of the death of the latter for funeral expenses. (5) An invalidity pension is to be granted to persons suffering from a chronic disease causing permanent total disability except in the cases entitled to compensation under the workmen's compensation law, provided that the disease was not caused intentionally or by a criminal act or serious fault on the part of the insured person. The amount of the pension shall be equal to the average wage received by the insured person during the preceding year if he had been insured for 10 years or more, to 75 per cent thereof if he had belonged for 5 and under 10 years, and to 50 per cent thereof in other cases. (6) An insured person becomes entitled to an old-age pension upon reaching the age of 55 years but may declare at the time of registration that he wishes to draw this pension at the age of 60 or 65 years instead of at the age of 55 years.

Under the law persons shall not be entitled to draw the invalidity pension and the old-age pension at the same time.

Capital of the Funds

THE cost of the insurance shall be defrayed from the following sources: (1) Contributions from the employers, the workers, and the State, amounting to 3, 2, and 1 per cent, respectively, of the employees' weekly wage; contributions from small manufacturers and tradesmen and those who work independently equal to 3½ per cent of the proportionate income for each week, the State paying an equal amount; (2) the proceeds of fines imposed for violations of this law, the public health code, and certain provisions of the penal code;

[3] In order to carry out effectively this provision of the law, the fund has decided to establish a national maternity council. Plans for the work of the council provide for the organization of prenatal, maternity, and infancy consultation centers, maternity homes, dispensaries for the treatment of venereal diseases, and a system of home visiting. El Mercurio (Santiago), Apr. 4, 1926.

(3) the interest on the capital of the funds, income derived from their property, legacies, donations, and bequests which they may receive; (4) the proceeds of a tax of 1 per cent on all payments made by the State or municipal councils, with the exception of payments in connection with the foreign debt and grants to institutions for charitable purposes; (5) the proceeds of an additional tax imposed on insurance companies, the management and capital of which are not established in Chile, amounting to 2 per cent of their gross receipts from policies other than life-insurance policies, on which the tax shall be equal to 1 per cent.

The amounts to be paid for apprentices or persons employed on probation shall correspond to the lowest wage paid for the kind of work on which they are employed. The employer shall pay both his own contribution and that due from the insured person of this class.

Administration of Funds

AN ORGANIZATION consisting of a central fund and local funds situated in the principal towns shall be set up for the purpose of organizing and directing the operation of sickness and invalidity insurance. Funds may also be set up in other towns or villages and in mining or industrial establishments specified by the local fund concerned, in agreement with the central fund. A governing body consisting of nine persons, three of whom shall be elected at a general meeting of the insured persons, three by the employers who pay for the insurance, and three appointed by the President, shall direct and manage the local funds.

New Unemployment Insurance Act in Great Britain

THE Labor Review for December, 1927, contained an account of a bill then before Parliament, recasting and consolidating the legislation dealing with unemployment insurance. This was passed and received royal assent shortly before the close of the month, the bill having received numerous amendments in its passage through Parliament. The text of the act, as passed, is not yet available, but the Manchester Guardian, in its issue for January 2, 1928, makes the following summary of its provisions:

> The changes effected, or sought to be effected, by the unemployment insurance act, which comes into operation on April 19, 1928, are as follows:
>
> Slight changes in the rates of benefit.
>
> Creation of a new class of insured persons between the ages of 18 and 21, whose rates of contribution and benefit will be less than those of adults, but more than those of boys and girls under 18.
>
> Disallowance of claims under the "30 contributions" rule, after a transitional period of one year. Discretionary power of the Ministry of Labor to disallow claims by certain classes to cease.
>
> Unemployed persons to be called upon to perform suitable work other than that to which they have been accustomed.

Of the changes introduced by the act, the enforcement of the 30 contributions rule is likely to have the most far-reaching consequences. Under the acts which this supersedes, the Ministry of Labor was given power to waive at discretion the requirement that the claimant for

extended benefit must have paid 30 contributions into the fund within the two years preceding the year in which he made his claim. Under the new law this power is withdrawn, and after the lapse of the transitional period of one year no one may draw benefit unless he can qualify in respect to the 30 contributions. This requirement met with strong opposition, as its effects were feared for the regions of greatest industrial depression, where unemployment has been so serious and prolonged that many persons may find themselves unable to qualify. The Government issued a White Paper while the question was before Parliament, giving data on which it based the conclusion that the number who would be excluded from benefit under this provision would not exceed 56,000, and might, if the industrial situation should improve, be much less. On the other hand, approximately 26,000 excluded under the old law would become eligible under the new provisions, so that the changes would not result in the exclusion of more than 30,000 from benefit. These findings, however, have not met with unqualified acceptance.

One feature of the new bill, the putting all benefit upon the basis of a right, is looked upon with general favor. Under the old legislation a claimant who could meet certain requirements was entitled to benefit for a definite length of time, which was known as standard benefit and was his as a right. If, after exhausting his standard benefit, he still could not secure employment, he might apply for the so-called extended benefit, which was regarded as a matter of grace and might be given or withheld at the discretion and according to rules laid down by the Ministry of Labor. Under the new act the limitation of the period during which benefit may be drawn as a matter of statutory right is abolished, and the applicant is entitled to benefit as long as genuinely unemployed. This, however, is coupled with the provision that if, after a reasonable time, employment in the claimant's own trade or occupation can not be secured, he may be required to take any suitable work which can be found, and, if he refuses, further benefit will be withheld.

WORKERS' EDUCATION AND TRAINING

Need of a Clearing House for Occupational Studies

THE need for a clearing house for occupational studies is emphasized by Winifred M. Hausam, director of the Los Angeles Bureau of Vocational Service, in the Vocational Guidance Magazine of December, 1927.

The occupational research section of the National Vocational Guidance Association is endeavoring to work out some scheme for meeting this need, and last winter the Personnel Research Federation appointed a committee for the same purpose.

The problem is one which has to be solved by all technical and professional associations. Some of them, Miss Hausam states, have attempted to meet the situation by having their professional journals and magazines report on the studies made and books published along their respective fields. The American Management Association and certain other organizations have instituted an abstracting service which covers a large amount of material and presents it to the members in digested form. Some such scheme is necessary in order to use occupational studies with discrimination and to avoid duplication in experiments.

May Rogers Lane's Bibliography and Reviews of Occupational Studies, which was issued in February, 1927, is declared to be "a splendid initial contribution" to the clearing-house scheme. In addition to being a history of occupational studies which have been issued in pamphlet form this bibliography points out the need there is for "elucidating standards of content and presentation."

Improvement in standards for the making of occupational studies can only be accomplished, the writer holds, through the process of experimentation and comparison of results. Technique for the measurement of results must also be developed by similar methods.

In one city a research department head sent out a questionnaire to teachers of occupations, in order to ascertain the value of the occupational studies made. As the results of the inquiry were not satisfactory to her, she went into the teaching field herself for the purpose of finding out by actual experiment the value of the research department's work.

If similar efforts were made wherever occupational studies are being used and the results of such investigations and experiments compared, at least one step would be taken "toward measuring those values of occupational studies which are measurable."

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in December, 1927

DATA regarding industrial disputes in the United States for December, 1927, with comparable data for preceding months, are presented below. These reports are made possible through the cooperation of the conciliation service of the Department of Labor and other agencies.

Disputes involving fewer than six workers and those lasting less than one day have been omitted. Data for November and December are subject to revision because of the fact that reports for these months are more or less incomplete.

Table 1 shows in summary form for each of the months, June to December, inclusive, the number of disputes which began in these months, the number in effect at the end of each month, the number of workers involved, and the economic loss (in man-days) involved. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working days as normally worked by the industry or trade in question. It is to be noted that the figures given include only those disputes which have been verified by the bureau.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JUNE TO DECEMBER, 1927

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
June, 1927	75	82	18,585	196,047	4,859,468
July, 1927	62	62	33,763	199,087	5,307,089
August, 1927	53	50	8,066	198,367	4,998,596
September, 1927	46	49	12,514	197,588	4,960,249
October, 1927	48	56	12,695	81,766	2,722,110
November, 1927 [1]	22	50	4,122	82,973	2,049,155
December, 1927 [1]	18	49	3,488	81,511	2,138,079

[1] Preliminary figures, subject to revision.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives, by industry, the number of strikes beginning in October, November, and December, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN OCTOBER, NOVEMBER, AND DECEMBER, 1927, BY INDUSTRIES

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	October	November	December	October	November	December
Automobiles	1			135		
Barbers			1			21
Brewery and soft-drink workers	1			15		
Building trades	3	2	2	196	159	720
Chauffeurs and teamsters	2	1		172	118	
Clerks and salesmen	1			420		
Clothing	5	7	2	246	888	245
Electrical supplies			1			93
Food workers	1			350		
Furniture	4	1	1	132	32	65
Glass	3	1		1,427	520	
Leather	2		1	362		45
Metal trades		1	1		52	26
Mining	7	3	3	7,544	2,009	1,375
Motion-picture and theatrical workers	2			23		
Oil and chemicals	1		1	27		75
Printing and publishing		1	3		21	149
Slaughtering and meat packing			1			600
Stationary engineers and firemen	1			24		
Steamboat men	1			175		
Street-railway employees	1			50		
Textile	9	4	1	675	173	74
Miscellaneous	3	1		722	150	
Total	48	22	18	12,695	4,122	3,488

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in December, classified by number of workers and by industries:

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN DECEMBER, 1927, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in December, 1927, involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers
Barbers		1			
Building trades			1	1	
Clothing		1	1		
Electric and gas supplies		1			
Furniture		1			
Leather		1			
Metal trades		1			
Mining		1	1		1
Oil and chemicals		1			
Printing and publishing		3			
Slaughtering and meat packing				1	
Textile		1			
Total		12	3	2	1

In Table 4 are shown the number of industrial disputes ending in December, by industries and classified duration:

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN DECEMBER, 1927, BY INDUSTRIES AND CLASSIFIED DURATION

Industry	Classified duration of strikes ending in December, 1927			
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months
Barbers	1			
Building trades		2		
Chauffeurs and teamsters				1
Clothing	2	1		
Electrical and gas supplies	1			
Furniture	1			
Metals			1	
Mining	3			
Oil and chemicals	1			
Printing and publishing	3			
Slaughtering and meat packing	1			
Miscellaneous				1
Total	13	3	1	2

Principal Strikes and Lockouts Beginning in December, 1927

COAL miners, Pennsylvania.—Five mines of the Jeddo-Highland Coal Co., Jeddo, Pa., were affected by a strike of 1,150 miners from December 9 to December 19, because of a dispute growing out of the discharge by the company of a shopman "for refusing to do part of his duties." The colliery local claimed jurisdiction and struck, rendering the mines idle. The men "returned to work unconditionally after which the grievance was considered on its merits as per contract."

Building trades, Massachusetts.—A dispute between the building trades council on the one hand and the Building Trades Employers' Association on the other as to the correct interpretation of an arbitration award, resulted in a strike of 600 building-trades workmen in Boston on December 28.

According to press reports, employees of the Waterproofing Co. were awarded $1.37½ an hour, and the unions contended that this award applied to all cement finishers and waterproofing workers employed by any and all contractors connected with the Building Trades Employers' Association, while the contractors interpreted it as applying only to those employed by the Waterproofing Co. According to a statement given out by the secretary of the Building Trades Employers' Association, the Waterproofing Co. was the only employer of the association at issue in arbitration and, therefore, the only concern affected by the award. The other contractors, it is said, are paying cement finishers $1.25 an hour, the rate agreed upon under an agreement which is binding until next April and which carries a provision that any dispute arising under it shall be submitted to arbitration, without a strike.

The spokesman for local union 534, which includes the cement finishers, claims that the association is not complying with the terms

of the arbitration decision in refusing to pay the higher rate to all cement men under its control.

This strike was called off, it is understood, on January 10, following the entering of a stipulation in equity court which provides for the return of the men and the withdrawal of action by one of the employing companies against the unions.

Principal Strikes and Lockouts Continuing into December, 1927

BITUMINOUS coal miners.—The strike of April 1 continues in part. The Secretary of Labor on December 12 addressed a second telegram to the operators who had declined to attend the conference called by him on December 9. The text of his second telegraphic request was as follows:

Deeply regret your decision not to attend conference called by me and ask that you reconsider. The subject for consideration is far broader than any immediate wage question. As said in my previous telegram, this conference is for frank and free discussion of all questions at issue.

The public is now aware of overproduction, overdevelopment, the vast waste of our natural resources, and hopes for some move toward permanent stabilization of the industry to guarantee steady supplies of coal with fair profit to the operator and steady employment at fair wages to the miner.

It is a great mistake to assume this conference is called in the interest of labor only. I, personally, and representatives of the Department of Labor, have discussed the matter with more operators and miners.

All previous conferences attended by miners could also have been attended by operators had they so desired. Nothing is ever lost by conference, and with many operators losing money and thousands of miners out of work, the public has become very much interested.

Even if the mines be more or less fully manned, as stated, does this guarantee the industry a future free from the same grievance and the same unsettlement and unemployment as now exist?

The present time seems to me the more apporpriate for conference because the existing supply of coal will permit discussion without passion or prejudice. On behalf of the public and the thousands of miners unemployed and in the interest of the industry itself, I would strongly urge you to be present for full consideration of the problem in its broad humanitarian as well as economic aspects.

The conference began on the morning of the 13th and after three days' session took a recess on December 15, subject to call by the Secretary at a later date. The Secretary gave out on December 15, the following statement concerning the conference:

The committee of three operators and three representatives of the miners, formed at the conference on the coal situation called by Secretary of Labor Davis, recessed December 15. This committee is ready to confer again with Secretary Davis on any date he may name, or it may hold sessions of its own. In the meantime the parties composing it will from time to time file reports or suggestions with Secretary Davis.

In reviewing the work of the conference the Secretary said:

The coal situation will take all the thought this country can give it. And the subject ought to be aired and discussed, particularly at this time. The public is not now angered by the inconvenience of a coal shortage, and the problem can be faced without passion or prejudice. If this conference had accomplished nothing else, it served to arouse and focus this public attention.

The present economic condition in coal mining is all the more a matter for the public because this conference proved again that the job of bringing it to order is beyond the reach of any Federal authority, and is so big that no one mind or group of minds within the industry is able or willing to tackle it.

Tackle the coal situation from what angle you will, overdevelopment is the snag you strike every time, and the snag is a tough one. What overdevelopment costs individual operators, in ruinous competition, low or no profits, or loss and

insolvency, is their own affair. But in the bulk, these losses affect the prosperity of the entire country, and so become very distinctly the nation's affair.

This chaos in coal becomes all the more a matter of concern to the entire country in view of the effect it has on the producing and purchasing power of a potential 3,000,000 of our population. This overdeveloped industry provides only part-time employment to more than 600,000 miners. In many cases, even where the highest daily wage is paid, the great majority of these workers are poorly employed, with a weekly earning such as to leave their families little to live on. With wages cut, they have even less.

Leaving aside the humanitarian aspect, the economic loss these people represent to the country is serious enough. It means that the coal industry is hitting every other industry in the country to the extent of taking 3,000,000 buyers out of the market. And to that extent the coal industry, as now run or not run, is a liability on the country at large.

It is not a case of bad or vicious management. It is a situation where the mass of evil conditions is too great for the industry as now consituted to wipe out. If ever an industry needed a "czar," coal is that industry. This conference, as I have already stated, developed the suggestion of one way out. The other is for leaders in the coal industry to submit the industry to control by an umpire or overlord. If they did so, they could bring about order and stabilization at a stroke.

Such a man would, in himself, take over the functions of a suggested rationing and arbitration commission. The man selected would have to be one of ability, courage, decision and heart, a man of the type of Charles Evans Hughes.

In declining to attend the conference, T. N. Moran, secretary of the Fairmont Coal Operators' Association, West Virginia, stated that "coal production in Fairmont region, 1927, exceeded all previous records with the greatest number of men working in its history."

The Monongahela Coal Operators' Association, West Virginia, through its executive secretary declined to attend the conference, with the statement that all of the operators in that association "are now, and for several years past have been, operating full time and are now operating as continuously as the conditions of the market will permit in a peaceful manner and without friction or trouble of any kind as between the respective companies and their employees. There is no strike in any mine over which this association has jurisdiction."

The reply by S. H. Robbins, of the Ohio Coal Operators' Association, declining the Secretary's invitation was as follows:

I acknowledge your message inviting coal operators to meet with representatives of United Mine Workers of America on Tuesday morning next. The matter of accepting or declining an invitation from a Cabinet officer of the United States is one of such importance that I have called into consultation the executive committee of the coal operators of Ohio and this telegram is sent you after full consideration. We will not meet with representatives of the United Mine Workers of America with whom we have no contract, with whom we have severed all relations, and, who have no interest in the properties we control. For more than six months we endeavored conscientiously to negotiate a wage scale with the officials of the union, but they arbitrarily refused to recognize known economic and competitive conditions in the coal business, and a further conference would lead to no beneficial results. It would not benefit the general public because it is now abundantly supplied with coal at very low prices. It would not benefit the miners who remain unemployed because we have already offered and yet continue to offer them employment at the highest wages now possible. Our mines are not closed to them as individuals and our information and belief is that many would return to work but for the misleading and unwarranted advice of the union officials. It would not benefit the thousands of miners who are now regularly at work at satisfactory wages and whose welfare you must consider. It would not benefit the owners of coal mines because the wages which can be paid and the operation of mines are governed by the laws of supply and demand which they can not control. For these and many other reasons we respectfully decline your invitation.

J. D. A. Morrow, president of the Pittsburgh Coal Co., in telegraphing Secretary Davis a second time declining to attend the conference, said:

Your further suggestion as to the scope of your proposal does not change the fact that you are attempting to draw this company into a conference with officials of the miners' union. We have definitely and permanently severed all relations with that organization. We repeat, therefore, that we can not attend your conference.

Replying to Secretary Davis's second telegram urging central Pennsylvania operators to reconsider their refusal to attend the Washington conference, Charles O'Neill, president of the Association of Bituminous Operators of Central Pennsylvania, wired: "It is necessary for me to advise that you have the final answer of this association." His telegram continued as fellows:

The operators of central Pennsylvania made every effort to avoid the development of the present situation. Protracted joint conferences considering a new wage agreement were held with the United Mine Workers of America, district No. 2, in May and June this year. A complete presentation of facts affecting the coal industry of this district was submitted to the miners at that time. The financial losses borne by the union operators for three years under the so-called Jacksonville agreement were pointed out. The diversion of millions of tons of business to other competing fields reaching the same markets was shown. The much lower wage levels paid in fields competitive with this district were proven. The alarming depreciation in property values was considered. The number of idle mines and idle miners was discussed. The general property and business depression prevalent in many communities was admitted. No consideration was given to these facts. The operators were asked to renew an impossible wage agreement. The mines were forced to close down July 1 after this conference had failed. The mines remained idle for 30 days, during which period the mine workers were asked to place themselves in a position to really negotiate a workable agreement. This they refused to do. Many of the miners of central Pennsylvania, realizing the utter folly of the policy that was bringing greater chaos to the industry, solicited the operators for employment. The mines were opened and are now producing as much coal as they can market. Stabilization of the industry must be sought when there is more peace in the industry and when passion and prejudice will have been entirely removed from the discussion. Such consideration must also include the great coal fields of southern West Virginia and Kentucky as well as those which you have invited to participate in a joint conference with the United Mine Workers of America. For these and many other sound reasons the central Pennsylvania operators must again decline your invitation.

The Governor of Ohio again endeavored but without success, to bring about a conference between Ohio coal operators and striking miners. The president of district 6, United Mine Workers, announced on January 7 that the miners would accept the governor's invitation to participate in a conference at Columbus on January 16, but the Ohio Coal Operators' Association on January 10 declined to participate.

Coal miners, Colorado.—The strike of October 18 is apparently nearing termination. By the middle of December, reports indicated that miners had returned to work until production approached normal throughout the State. Production in the southern field was reported to be practically normal by December 23. Disturbances, however, continue to occur sporadically and arrests are being made from time to time by State police.

An investigation of the industry in the northern field is being conducted by the State industrial commission to determine the cause of the strike, to be followed by hearings in other parts of the State.

On December 29 it was announced that, effective January 1, the Colorado Fuel & Iron Co., operating in the southern fields, and said to be the largest producing coal operator in Colorado, would increase the basic wage of miners to $6.52 per day.

It was also announced on December 31 that the new year would bring a wage increase of 50 cents per day to the men employed by 10 coal operators in northern Colorado, thus bringing the day rate in these mines up to $6.77. The few other small operators in that territory are expected to meet the prevailing wage.

Conciliation Work of the Department of Labor in December, 1927

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 24 labor disputes during December, 1927. These disputes affected a known total of 34,607 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On January 1, 1928, there were 52 strikes before the department for settlement, and, in addition, 11 controversies which had not reached the strike stage. The total number of cases pending was 63.

Company or industry and location	Nature of controversy	Craft concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1927	1927		
White Motor Truck Co., Jersey City, N. J.	Strike	Garage workers	(1)	Pending	(1)		(1)	
Superior Fashion Clothing Co., New York City.	do	Clothing workers	Violation of agreement	Unclassified. Returned pending disposition by impartial chairman before arrival of commissioner.	Nov. 18	Dec. 1	200	
Barstown Stove Co., Providence, R. I.	Lockout	Molders	Molders discharged	Pending. Casting department discontinued.	Nov. 7		26	
Wet Wash Laundry, New York City.	Strike	Drivers	Asked union recognition and union wage scale.	Pending	Dec. 5		150	400
Correct Tucking Co., New York City.	do	Tuckers	Union dispute	do	Nov. 1		6	6
Clark Rig Building Co., Ventura, Calif.	do	Oil rig builders	Asked 12½ per cent increase	Adjusted. Allowed 10 cents increase per hour on rig building.	Dec. 2	Dec. 3	75	
Cloth headwear makers, Chicago, Ill.	Lockout	Headwear makers	Violation of agreement	Pending	Dec. 1		220	
Tomhicken Mines, Hazelton, Pa.	Strike	Miners	Miners were refused conference on grievance.	Adjusted. Conference granted and miner given a place as desired.	Dec. 5	Dec.	130	2
Eastern Steamship Co., Clyde Mallory Lines, Ocean Steamship Co., South Pacific Steamship Co., and Morgan Lines, New York City.	do	Lighter captains	Asked increase—$2.50 per week.	Adjusted. Returned without change	Oct. 29	Dec.	260	1,000
Jeddo Highland Coal Co., Jeddo, Pa.	do	Miners	Working conditions	Adjusted. Returned; officials to fix terms.	Dec. 9	Dec. 16	1,210	10
D. Becker & Sons, Philadelphia, Pa.	do	Upholsterers	Asked union recognition and signed agreement.	Pending	(1)		85	125
Leather goods workers, Brooklyn, N. Y.	do	Leather goods	Asked union recognition	Pending. Injunction against picketing in force.	Sept. 26		45	40
Veterans' Hospital, Tucson, Ariz.	Controversy	Carpenters	Asked $9 per day; now receiving $7 and $8 per day.	Pending	(1)		25	
St. Mary's College, Oakland, Calif.	do	Plumbers	Asked pay for transportation to and from work.	do	(1)		10	
Lehigh & Wilkes-Barre Coal Co., Sugar Notch, Pa.	Strike	Miners	Promotion of men not entitled thereto.	Adjusted. Returned; district officials to fix terms.	Nov. 29	Dec. 1	1,012	9
Dode Fitzgerald, Orpheum, and Regent Theaters, Anderson, Ind.	Controversy	Operators, musicians, and stage hands.	Asked recognition	Pending	(1)		28	50
Ipswich Mills, Gloucester, Mass.	Strike	Hosiery workers	Wage cut of 10 per cent	do	(1)		150	1,350

[1] Not reported.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, DECEMBER, 1927—Continued

Company or industry and location	Nature of controversy	Craft concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Ohio Rake Co., Dayton, Ohio	Strike	Farm implements	Wage cut of 35 per cent, 9-hour day, piecework, and open shop.	Unable to adjust	Dec. 5	Dec. 28	26	159
Moving-picture theater musicians, New Bedford, Mass.	Controversy	Musicians	Alleged violation of agreement; wage scale.	Adjusted. Tentative settlement	(1)	Dec. 23	15	
Building trades, Indianapolis, Ind	do	Iron workers	Jurisdiction of placing boilers	Pending	Dec. 20		20	400
Coal Bluff Mining Co., Terre Haute, Ind.	Threatened strike.	Miners	Wages and conditions	Adjusted. Continued at work pending decision by officials.	Dec. 22	1928 Jan. 7	1,200	
Keith Albee Building, Boston, Mass.	Strike	Cement workers	Wages	Adjusted. Allowed $1.37½ per hour; conditions improved.	Dec. 27	Jan. 9	28	26,000
Excelsior Cleaning & Dyeing Co., New York City.	do	Laundry workers	Asked union recognition	Adjusted. Union agreement signed; no change in wages.	Dec. 14	Jan. 3	15	
Shepherd Construction Co. and Curtis Construction Co., Wilkes-Barre, Pa.	do	Plumbers, electric workers, and plasterers.	Asked closed shop	Unable to adjust	Dec. 5	Jan. 9	120	
Total							5,056	29,551

[1] Not reported.

Compulsory Investigation of Industrial Disputes in Colorado

IN 1915 a law was passed in Colorado, modeled in the main after the Canadian industrial disputes investigation act, which provides that all industrial disputes occurring in Colorado and involving four or more workers must be held in abeyance until the State industrial commission holds hearings and renders a decision. The Journal of Political Economy for October, 1927, contains an article [1] giving an analysis of the compulsory-investigation features of this act and its amendments, a summary of operations under the act, and a discussion of the value of the plan, from which the data given in this review have been taken.

General Provisions of the Legislation

THE Industrial Commission of Colorado was created to administer the act. This commission is composed of three members appointed by the governor for a term of six years, with the arrangement that the appointment of one member will expire every two years. Not more than two of the commissioners may belong to the same political party. One commissioner represents the employers, one the employees, and the third is assumed to represent the public, although this is not specifically stated in the law.

All disputes concerning wages, hours, or working conditions, which involve four or more men, come under the jurisdiction of the commission, except that domestic servants, farm laborers, elective officials, and members of the National Guard are exempt from the operations of the act. The jurisdiction of the commission continues until after a final hearing and award or until a prior voluntary termination of the dispute. The law provides that "employers and employees shall give to the industrial commission and the one to the other at least 30 days' prior written notice of an intended change affecting conditions of employment or with respect to wages or hours." It is unlawful for an employer to declare a lockout or for employees to go on strike before the commission terminates jurisdiction, even if the commission fails to file an opinion within the 30-day period. However, any individual worker may quit work at will, and an employer may discharge an employee, if such action is not taken as part of a strike or lockout. Furthermore, there is a provision which states that "nothing in this act shall prohibit the suspension * * * of any industry or any part of the activities of an industry for any cause not constituting a lockout." The decisions of the commission are not binding, unless it has been selected as arbitrator.

In holding hearings, which are informal, the commission is empowered to summon witnesses and to examine them under oath, to order the submission of books and documents, and to admit all evidence whether strictly legal evidence or not. Deputies may be sent to examine the books of employers involved in disputes and to visit places of employment.

The act provides severe penalites for disobedience, the following being examples: For failure to give access to records, not less than

[1] Journal of Political Economy, Chicago, October, 1927, pp. 657–683: "Eleven years of compulsory investigation of industrial disputes in Colorado," by Colston E. Warne and Merrill E. Gaddis.

$50 a day; for striking within the prohibited period, not more than $50 for each day on strike or six months' imprisonment, or both; for inciting, encouraging, or aiding such a prohibited strike, not more than $1,000 a day or six months' imprisonment, or both; for locking out employees, not more than $1,000 a day or six months' imprisonment or both; for failure or refusal to testify or produce books, not more than $100 a day or 30 days' imprisonment; for refusal to obey a lawful order of the commission, not more than $100 a day.

Operations under the Act

THE figures on the number of controversies, workers involved, etc., from 1915 to 1924, as given in the article, have been taken from the records of the industrial commission. According to these data, the number of controversies from 1915 to 1923 ranged from 80, involving 36,110 [2] workers (in the period from December 1, 1918, to December 1, 1919), to 286, involving 23,641 workers (in the period from December 1, 1920, to December 1, 1921). The smallest number of employees involved in disputes occurring in any year from 1915 to 1923 was 18,037 in the 107 controversies which took place during 1919–20, and the highest number was 36,110 in the 80 controversies in 1918–19. During 1923–24 the number of disputes declined to 59, involving only 1,836 workers. However, in the opinion of the writers, it is a matter of conjecture whether this decline was due to increased respect for the commission's decisions, to a lessening of the challenge of organized labor, or to a more stabilized wage situation.

Factors Entering into Commission's Wage Decisions

IN THE settlement of wage controversies by the commission, it is reported, not less than five different factors have been taken into consideration: (1) The cost of living, (2) the profitableness of the industry (3) the possible effect of the wage change on the consumer, (4) the wage situation in the same industry in other States, and (5) payment in occupations requiring an equal degree of skill. Of these, the commission is said to regard cost of living as the most important.

In attempting to arrive at a basis for the determination of the cost of living, the commission has prepared its own budget estimates of the expenses of a family of five at the minimum-of-subsistence level. From these estimates index numbers have been prepared purporting to show monthly changes in the cost of living since 1914. However, the authors of the report under review state that these estimates "have proved to be neither accurate nor scientific in method," but add that "most awards have contained only an apparent guess at the changes in the cost of living," and that "other factors have played a prominent rôle in shaping the decisions."

Among these other factors they consider as outstanding the question of the profitableness of the industry, although to obtain information on this point "no thoroughgoing examination of the books of a company has yet been made under its [the commission's] direction.

[2] The authors call attention to the fact that the 24,865 men involved in the street-railway, steel, and coal strikes are for some reason omitted from the commission's records for 1918–19. This number has been added to the 11,245 listed, making a total of 36,110.

* * * Apparently the statements of the employers have been relied upon."

As regards the possible effect of wage changes on the consumer, it was found that in a few cases attention was given to this question. In respect to the fourth factor listed, namely, the wage situation in the same industry in other States, the commission is said to have "stoutly contended that Colorado industry should not be penalized in interstate competition by an excessive wage scale. * * * As a result of this position of the commission, companies with strong interstate competition (or those which have out-of-state plants) have been alert in calling attention to low wages prevailing in other States." In a few instances, also, definite attention has been given to wages paid in occupations requiring a degree of skill similar to that required in the particular occupation under consideration. The commission has not prepared any occupational analyses but bases its decisions in this matter on statements of the contestants in the disputes.

In addition to the above factors, reference is made to other problems which have been met:

> Coupled with wage disputes, other vexatious problems have been encountered. One of these, the closed shop, has been handled indecisively. It appears that the commission either believes this issue outside of its jurisdiction or holds the practice to be undesirable. Another bone of contention, that of allowing workers to be represented by agents of their own choosing, is nevertheless decided in favor of the unions. Limitation of output and jurisdictional disputes are outlawed. The refusal to use materials made by nonunion labor is termed "unfair and unreasonable, inasmuch as it is punishing an employer who has been friendly with, and fair to, members of [organized labor]."[3] Any attempt by employers to victimize "disturbers" among their employees is likewise forbidden. Thus, during the wave of wage reductions in the coal fields, many employees who were discharged for refusing to sign the reduction agreement were ordered reinstated with payment for the time lost.

Effectiveness of the Industrial Commission Act

ACCORDING to the authors of the present article, the commission seems to have been unable to do anything to prevent the major disputes which have developed out of controversies subject to its jurisdiction. The most prominent of these were the coal strikes of 1919, 1921, and 1922, the steel strike of 1919 in the Minnequa works of the Colorado Fuel & Iron Co., the Denver street-railway strike of 1920, the printers' strike of 1921, and the packing-house strike of 1921. However, it is pointed out that although the commission has been unable to ward off extensive strikes, it has often impaired the effectiveness of unlawful walkouts. It has also to its credit some "settlements of consequence" in metal-mine disputes. In recent years, a number of union groups have invoked the aid of the commission to a greater extent in the handling of their troubles, these groups including such organizations as the typographical union, the bakery workers, the pressmen, and the building-trades unions, as well as certain smaller unions. Still, the article states, "as a general rule the successful work of the commission has centered in the cases where the union has doubted its ability to strike effectively or where the workers have been unorganized. * * * Frequently

[3] The source of this quotation is given as Journeymen Stone Cutters' Association of N. A. *v.* Fernald and Walton, file 1149, Sept. 4, 1921.

unorganized workers have no option but to accept the decision; indeed they may welcome the intervention of the commission. In a number of cases they have been afraid to protest wage cuts. * * * Organized labor has more confidence in its economic power than in an appointive commission."

The investigators found that a wide difference of opinion appears to exist as to the effectiveness of the act, which they sum up as follows:

> * * * Supporters stress the community benefit of holding industrial struggles in abeyance while both parties are brought into conference. Strikes and lockouts are decreased in number, production continues, justice may be substituted for economic power, and good will takes the place of the hatred which follows industrial conflicts. Opponents are equally insistent for trade-unionism and the closed shop. The strike, the strongest weapon of the unions, can not be effective because of the limitations thrown around its use. In its place the doubtful expedient of an appeal to the commission is given. Furthermore, they hold that the commissioners may be, and generally are, biased. The commission often works slowly, is opportunistic, can not enforce its decisions, and is not able to prevent the victimization of union leaders.

In considering the advantages and drawbacks which have accompanied the administration of this law, as they see them, the authors analyze the situation as follows:

> To the credit of the commission it may be said that: (1) In the smaller disputes industrial stoppage has been minimized; (2) open industrial warfare has been made less probable; (3) employers and employees have increasingly come to use the plan voluntarily in obtaining settlements; (4) the compulsory features of the law have been kept in the background, stress being placed on conciliation; (5) embittered disputants have been brought together without loss of dignity or disadvantage in bargaining position; and (6) many formalities and technicalities have been avoided to get at the facts.
>
> On the other hand, serious limitations have appeared. (1) The commission has employed untrustworthy cost-of-living statistics as a basis for wage decisions. That appropriations have not been available lessens in no way the necessity of accurate statistical calculations as a basis of sound judgment when responsibility for making wage awards is assumed. (2) The commission has failed to analyze carefully the ability of an industry to pay a given wage. (3) No adequate or uniform principle has been used as the basis for wage fixation. (4) The commission has frequently failed in large disputes, either through tardy action or by the lack of a consistent policy. (5) Interstate disputes have not been well handled, a difficulty which seems inherent in any plan for State regulation of industrial controversies. (6) The commission has not been able or willing to protect the workers from the preparations made by employers during the 30-day period. The strategic power of labor has been materially reduced by the law. (7) Preventive work has been neglected, very little having been accomplished (as contemplated by the law) to prevent disputes through inspections that would reveal sweated conditions, unsanitary environment, unsafe or dangerous machinery. In fact, action is ordinarily taken only after disputes have arisen. (8) The commission has failed to gain the support of public opinion by making its annual reports uniform, clear, and sufficiently detailed to be of value either to the student of industrial problems or to the general reader. (9) Adequate steps have not been taken to prevent companies from victimizing men who have been active in pressing demands for wage increases. It is easy for a company to find such men to be "inefficient." (10) It is a moot question whether unorganized workers are benefited by the enactment. Such workers are seldom adequately and coherently represented. Furthermore, they find organization difficult, if not impossible, to attain because of the ineffectiveness of the suspended strike. Moreover, under the open shop they are hesitant to ask the commission to intervene in the adjustment of wages.

The writers consider that it is an open question whether trust should be placed in this plan of compulsory investigation, and they consider as even more doubtful the advisability of extending the

experiment in its present form to other States, "where the problems would be more complex and where the voice of public opinion would be even less pronounced than in Colorado." However, they make specific suggestions which they believe would insure the greater effectiveness of the plan, which are quoted below:

First, sufficient appropriations should be granted to allow the commission to carry on its work adequately. (Careful statistical studies are especially needed.) Second, the law should include some principle or principles of wage fixation for the guidance of commissioners; especially should a clear and specific minimum wage basis be established. Third, the 30-day waiting period should be scaled down to 10, or possibly 5, days. This procedure would secure the benefit of allowing both parties to "cool off," while minimizing the advantage given the employer by the waiting period. Fourth, the law should contain an expressed recognition of collective bargaining to be exercised by both parties through agencies of their own choosing. As an experiment, a suggestion might be to insist upon all workers' having organizations through which negotiations would be carried on. Such organizations would be registered by the commission. In this way much of the existing difficulty could be avoided. * * * Finally, the commission should make its reports uniform, clear, and sufficiently detailed to reveal the nature of results obtained. Steps should also be taken to give such reports widespread publicity.

Strikes in China, 1925 and 1926 [4]

THERE was a remarkable increase in the number of strikes in China in 1926 in comparison with preceding years, the record being 535 for 1926 and 318 for 1925, while for the 8-year period, 1918 to 1925, there were were only 698, counting those directly resulting from the "Shanghai affair" of May 30, 1925.

This phenomenal rise in the number of strikes is declared to be a fair indication of "the growing labor movement and its increasing complexities." At the same time it is pointed out that strike reporting and data collection for 1926 were more satisfactory than for former periods, and consequently the number of unreported strikes should be fewer in 1926 than for previous years.

The number of strikes and of strikers and the duration of strikes in 1925 and 1926 are shown in the following statement. The figures in parentheses used here, as well as in the tables following, include the strikes arising from the incident in Shanghai on May 30, 1925.

	1925		1926
Total number of strikes	183	(318)	535
Strikes for which number of strikers was reported	103	(198)	313
Total number of strikers	403, 334	(784, 821)	539, 585
Average number of strikers per dispute	3, 916	(3, 964)	1, 723. 91
Strikes for which duration was reported	95	(120)	340
Total number of days lost	505	(2, 266)	2, 335
Average duration of strikes (days)	5. 32	(18. 88)	6. 87

[4] Labor Review, October, 1926, pp. 99–112; and Chinese Economic Journal, Peking, December, 1927, pp. 1077–1079.

The number of strikes of 1925 and 1926, classified by industries, is as follows:

	1925		1926
Textile trades	73	(105)	201
Foods and foodstuffs	11	(25)	34
Household goods	7	(12)	10
Construction and building	9	(15)	19
Tool making and manufacturing	8	(27)	64
Communication and transportation	30	(42)	77
Basic industries	7	(9)	5
Educational enterprises	14	(20)	41
Personal hygiene and public health	3	(10)	18
Ornaments and luxuries	6	(11)	23
Miscellaneous	15	(42)	43
Total	183	(318)	535

The number of reported strikes for 1925 and 1926, classified by causes, is as follows:

	1925		1926
Economic pressure:			
High cost of living	11	(11)	19
Wage increase	78	(79)	210
Increase in fees	4	(4)	9
Increase in taxes	2	(2)	4
Wage deduction or reduction	9	(9)	8
Treatment of labor:			
Working hours	3	(3)	13
Maltreatment	27	(27)	30
Change of working conditions	4	(4)	10
Policy of employer	11	(11)	14
Foreman	7	(7)	45
Tips, bonuses, etc			8
Against dismissal of workman			36
Miscellaneous			16
Popular movements:			
Patriotic demonstrations	2	(136)	16
New-thought movements	5	(5)	3
Right to organize unions	4	(4)	11
Outside conflicts	4	(4)	15
Sympathetic strikes			16
Miscellaneous	11	(11)	23
Cause unknown	1	(1)	29
Total	183	(318)	535

With reference to mediation methods it should be noted that in 1926 "the part played by the Kuomintang government as an arbitrator was appreciably more important than in former years, because in 1926 the Kuomintang gradually extended its influence in the Wu-han area and the lower Yangtze Valley and wherever the party has gone it has carried with it the tactics of directing the labor movement. In 1926, out of a total of 535 strikes, 266 cases were settled either through the efforts of the representatives of employers and employees or of third parties."

End of Lockout of Cigar Makers in Germany

A REPORT from Egmont C. von Tresckow, consul in charge at Berlin, states that the strike of 120,000 cigar workers in Germany was brought to an end on December 1, 1927, as a result of negotiations between the workers and employers held in conjunction with the Federal Minister of Labor. An agreement

was reached which provides that the reprisals taken by the hostile parties shall be repealed immediately, work is to be resumed without delay, and no punishments are to be inflicted upon the strikers. The existing wage agreement which was to expire March 31, 1928, is extended until March 31, 1929, and the current wages will, from March 31, 1928, be increased 12 per cent, and for the districts of Hamburg and Bremen 10 per cent. At the suggestion of one of the parties, conditions in the industry may be reinvestigated after October 1, 1928, with a view to determining whether the cost of living warrants a revision of the wage scales. Such an investigation would be made by three neutral persons, to be appointed by the Federal Minister of Labor.

Industrial Disputes in India, First Half of 1927

THE Government of India has recently issued a bulletin containing statistics relating to the industrial disputes occurring in India during the six months ending June 30, 1927, which is summarized in the October, 1927, issue of the Bombay Labor Gazette. During this period there were 74 disputes, involving 78,698 workpeople and occasioning an aggregate loss of 977,244 working-days. Grouped by the kinds of establishments in which they occurred, the disputes were as follows:

GENERAL EFFECTS OF DISPUTES, BY ESTABLISHMENTS

Kind of establishment	Number of disputes	Number of workpeople involved	Number of working-days lost
Cotton mills	27	12,220	129,749
Jute mills	7	23,596	178,415
Engineering workshops	5	3,642	26,295
Railways (including railway workshops)	2	23,114	563,421
Others	33	16,126	79,364
Total	74	78,698	977,244

While the greatest number of disputes occurred in cotton mills, they were apt to be less important than in some other industries. All the 27 disagreements which occurred in cotton mills involved fewer people and far less loss of time than the 7 occurring in jute mills or the 2 railway disputes. These last were by far the most serious disputes of the half year, accounting for 57.7 per cent of the total time lost in all disputes.

Exactly half of the disputes, 37, arose over questions of pay, 20 were due to matters of personnel, 3 related to question of leave and hours, and 14 are grouped as due to other causes. The two railroad disputes arose over questions of personnel. In cotton mills, disagreements as to pay caused the greatest number of disputes, 14, personnel accounted for 10, and miscellaneous causes for 3.

Seventy-two of the disputes were settled during the half year. The employees were entirely successful in 8 of these (11 per cent), partially successful in 25 (35 per cent), and wholly unsuccessful in 54 per cent. In the two large railway disputes they were partially successful. In the cotton-mill disputes they were wholly successful in 2 cases, partly so in 5, and unsuccessful in 20. Two disputes were still pending at the close of the period covered.

WAGES AND HOURS OF LABOR

Index Numbers of Wages, 1840 to 1926

General Index of Hourly Wages

IN THE Labor Review of February, 1921, an index of earnings per hour of wage earners generally was given for the period 1840 to 1920. In the preparation of that index number use was made of such wage data as were available for the various lines of employment, except that figures for agricultural labor were excluded.

Frequent demand has been made for the continuation of this index down to a later year from persons who want to follow the trend of the broad field of wage rates rather than rates in specified industries and occupations.

There never has been a wage-rate census in the United States. Satisfactory wage-rate data have been collected in many of the major industries, but there are other industries for which wage figures have not been compiled. However, while the information is not all inclusive, sufficient data are available to warrant continuation of the index down to 1926.

TABLE 1.—INDEX NUMBERS OF WAGES PER HOUR, 1840 TO 1926 (EXCLUSIVE OF AGRICULTURE)

[Currency basis during Civil War period. 1913=100]

Year	Index number	Year	Index number	Year	Index number	Year	Index number
1840	33	1862	41	1884	64	1906	85
1841	34	1863	44	1885	64	1907	89
1842	33	1864	50	1886	64	1908	89
1843	33	1865	58	1887	67	1909	90
1844	32	1866	61	1888	67	1910	93
1845	33	1867	63	1889	68	1911	95
1846	34	1868	65	1890	69	1912	97
1847	34	1869	66	1891	69	1913	100
1848	35	1870	67	1892	69	1914	102
1849	36	1871	68	1893	69	1915	103
1850	35	1872	69	1894	67	1916	111
1851	34	1873	69	1895	68	1917	128
1852	35	1874	67	1896	69	1918	162
1853	35	1875	67	1897	69	1919	184
1854	37	1876	64	1898	69	1920	234
1855	38	1877	61	1899	70	1921	218
1856	39	1878	60	1900	73	1922	208
1857	40	1879	59	1901	74	1923	217
1858	39	1880	60	1902	77	1924	223
1859	39	1881	62	1903	80	1925	226
1860	39	1882	63	1904	80	1926	229
1861	40	1883	64	1905	82		

The early part of 1920 was a period of great industrial activity, and in this period employment and hourly earnings reached their highest point. A sharp downward trend of employment occurred in the latter part of the year. There was a great reduction in employment in the depressed year, 1921, accompanied, as might be expected, by a reduction in wage rates. The slump continued in 1922. As business conditions improved in 1923 there was a gain in wage rates which has been augmented each succeeding year.

It must not be assumed that changes have been alike in all lines of employment. Heavy factors in the upward trend since 1922 are the trades engaged in baking, building, stonework, auto driving, freight handling, and printing. All of these trades were particularly active during recent years and they have had very substantial wage increases. The building trades and all of these trades collectively had a wage rate 26 per cent higher in 1926 than in 1920. Anthracite-coal workers had an increase of 10 per cent in the latter part of 1923. On the other hand, earnings per hour in many lines were considerably lower in 1926 than in 1920. To illustrate, there was a decrease of 32 per cent in hourly earnings in cotton manufacturing, of 22 per cent in woolen manufacturing, of 15 per cent in the iron and steel industry, and of 6 per cent in railroad wages, all as between 1920 and 1926.

Farm-wage Index

FARM-WAGE rates are collected by the Department of Agriculture, and that department has computed index numbers therefor. Average rates and index numbers computed from them for the period 1866 to 1926 are published in the Yearbook of Agriculture for 1926.

The index numbers as computed by the Department of Agriculture have the average for the five years, 1910–1914, as the base or 100. In Table 2 the index numbers are printed in their original form on the 1910–1914 base. In addition these index numbers have been converted to a 1913 base to permit a comparison with the general index above.

TABLE 2.—INDEX NUMBERS OF FARM-WAGE RATES, 1866 TO 1926

(Years 1866 to 1878 in gold)

Year	Index numbers of farm wage rates on basis of—		Year	Index numbers of farm wage rates on basis of—		Year	Index numbers of farm wage rates on basis of—	
	Average, 1910–1914 =100	1913=100		Average, 1910–1914 =100	1913=100		Average, 1910–1914 =100	1913=100
1866	55	53	1894	61	59	1915	102	98
1869	54	52	1895	62	60	1916	112	108
1874 or 1875	59	57	1898	65	63	1917	140	135
1877 or 1879	56	54	1899	68	65	1918	176	169
1879 or 1880	59	57	1902	76	73	1919	206	198
1880 or 1881	62	60	1906	92	88	1920	239	230
1881 or 1882	65	63	1909	96	92	1921	150	144
1884 or 1885	65	63	1910	97	93	1922	146	140
1887 or 1888	66	63	1911	97	93	1923	166	160
1889 or 1890	66	63	1912	101	97	1924	166	160
1891 or 1892	67	64	1913	104	100	1925	168	162
1893	67	64	1914	101	97	1926	171	164

Wages of Milkers in the Dairy Industry in California, 1906 to 1927

A STUDY of the economic aspects of the dairy industry in California, made at the request of the various dairy interests of that State, has recently been published by the agricultural experiment station of the College of Agriculture of the University of California.[1]

[1] University of California. College of Agriculture. Agricultural Experiment Station. Economic aspects of the dairy industry, by Edwin C. Voorhies. Berkeley, 1927. (Bulletin 437.)

In considering the question of labor in the dairy industry, data were obtained on the wages paid to workers whose sole occupation is the milking of the cows. This work is done in most States by the regular farm help or by the dairyman's family, but in California many of the dairy farms employ professional milkers, who possess a skill that the average farm laborer does not attain. On the larger dairy farms these milkers are employed to milk "strings" of cows varying in number from 20 to 33.

The following table shows the maximum, minimum, and average monthly wages paid to milkers in California from 1906 to 1927, in addition to board and keep. The figures were obtained by the investigator from employment agents operating at San Francisco, Stockton, Sacramento, and Los Angeles.

MAXIMUM, MINIMUM, AND AVERAGE MONTHLY WAGES PAID TO MILKERS IN CALIFORNIA, 1906–1927

Year	Wages per month			Index numbers (1910–1914=100)		
	Minimum	Maximum	Average	Minimum wage	Maximum wage	Average wage
1906	$30.00	$40.00	$35.00	85.7	95.2	90.9
1907	30.00	40.00	35.00	85.7	95.2	90.9
1908	35.00	40.00	37.50	100.0	95.2	97.4
1909	35.00	40.00	37.50	100.0	95.2	97.4
1910	35.00	40.00	37.50	100.0	95.2	97.4
1911	35.00	40.00	37.50	100.0	95.2	97.4
1912	35.00	40.00	37.50	100.0	95.2	97.4
1913	35.00	45.00	40.00	100.0	107.1	104.0
1914	35.00	45.00	40.00	100.0	107.1	104.0
1915	40.00	50.00	45.00	114.3	119.0	116.9
1916	40.00	50.00	45.00	114.3	119.0	116.9
1917	45.00	55.00	50.00	128.6	131.0	129.9
1918	60.00	77.50	68.75	171.4	185.0	178.6
1919	80.00	100.00	90.00	228.6	238.1	233.8
1920	90.00	100.00	95.00	257.1	238.1	246.8
1921	90.00	110.00	100.00	257.1	261.9	259.7
1922	70.00	90.00	80.00	200.0	214.3	207.8
1923	75.00	95.00	85.00	214.3	226.2	220.8
1924	80.00	100.00	90.00	228.6	238.1	233.8
1925	80.00	100.00	90.00	228.6	238.1	233.8
1926	80.00	100.00	90.00	228.6	238.1	233.8
1927 (through October)	70.00	100.00	85.00	200.0	238.1	220.8

Report of Belgian Commission on Eight-Hour Day [2]

IN 1924 a commission was appointed by the King of Belgium to inquire into the effects of the law of June 14, 1921, instituting in that country an 8-hour day and a 48-hour week. Among the 41 members of this body were Government officials, university professors, industrialists, and representatives of labor organizations.

The full report of the commission, published in 1927, contains 467 pages and includes hearings, replies to questionnaires, reports of subcommittees, and the recommendations adopted by the commission. It is, however, frequently and emphatically pointed out in this volume that replies to the commission's inquiries were often mere expressions of opinions which were backed by neither investigation nor proofs. The fact that so many undertakings and organizations

[2] Belgium, Ministère de l'Industrie, du Travail et de la Prévoyance Sociale, Compte-rendu des travaux de la commission chargée de s'enquérir des effets de la loi du 14 juin 1921 instituant la journée de huit heures et la semaine de quarante-huit heures, Brussels, 1927, pp. 455–457, 462, 463; and International Labor Office, Industrial and Labor Information, Geneva, May 23, 1927, pp. 299–304.

failed to reply at all also adversely affects the value of the findings. With these shortcomings in view, various excerpts from the reports of the three subcommittees are given below:

Reports of First Subcommittee

NATIONAL production.—In 1923–24 production in coal mining and in the iron and cement industries was about up to the pre-war level. In about 50 per cent of the undertakings working up iron and steel the output was very much above that level, while in quarries, work on zinc and allied metal, and in the mechanical and in the metal-construction industries there was deficit in production.

In certain branches of the textile industry national production in general was reported to be appreciably greater than before the war as was also production in tanneries and chocolate, margarine, and tobacco factories. On the other hand, some branches of the textile industry are either at the pre-war level or slightly above it. Lower production is recorded in the woolen industry of the Verviers district, in the shoe factories and in the clothing industry.

Hourly production.—Among the industries in which it was reported hourly production had increased were coal mining, metal mining, the extraction and preparation of mineral, certain quarries, and the working up of iron and steel. Hourly output had increased in half of the screw-bolt factories and in the majority of mechanical and metal-construction undertakings. A decrease was reported, according to the replies received from employers, in coal-tar distillation and in the manufacture of artificial silk, glue and gelatine, matches, ultramarine blue, and paper.

Labor.—In the textile industry in Flanders a scarcity of apprentices was noted, as was also a shortage of labor, especially skilled labor, in certain undertakings in quarries and mechanical engineering. The number of workers has increased in the chemical and paper industries and cost prices have risen.

Equipment.—Improvement in equipment was reported in various industries. Many of the employers, however, regard this improvement as normal and not as the result of the hours-of-work law.

Report of Second Subcommittee

UNEMPLOYMENT.—The law would seem to have had no general or uniform effects on unemployment. The provisions of the act permits of special adaptation to circumstances in order not to interfere with the needs of production. There is a conflict of opinion as to whether the act has influenced the seasonal trade, 9 employers declaring that it had and 13 that it had not. On the same question 22 replies from workers were on the positive side and 29 on the negative. Legislators hoped that the shortening of the working-day would immediately give work to the jobless. However, the taking of work from those who have it to give it to those who have it not is declared to be far too simple a scheme to solve such a complex problem as unemployment, influenced as it is by the fluctuating demands for commodities, slowing down of production, cost prices, and other factors.

Migration.—The conclusion is reached that in general there is no relation between immigration and the eight-hour law, and the exodus of Belgian labor is attributed to the higher wages and other special advantages given to workers in France as well as to the more liberal application of the eight-hour law in that country.

Report of Third Subcommittee

UTILIZATION of workers' spare time.—A great majority of the employers' replies are heavy with pessimism in regard to the manner in which the workers utilize the leisure secured under the eight-hour act. In general, employers consider that the workers use this time to go to theaters, motion pictures, cabarets, dances, etc. A much smaller group of employers state, however, that serious-minded workers devote their spare time to the cultivation of small plots of ground or to working for farmers or to other remunerative employment. Young unmarried workers prefer sports and other amusements.

For the most part the workers' replies present a sharp contrast to those of the employers. With a few exceptions, employees answer that the new leisure contributes to their physical and intellectual development and "raises their social level." Among the more frequently reported uses of their spare time were gardening, small-scale land cultivation and stock breeding, reading, the following of trade courses, attendance at adult schools, study circles, conferences, and membership in musical and dramatic societies. A few of the workers' replies stated that trade courses were not so well attended or attended no better than before the law was enacted.

Recommendations of Commission

THE commission as a whole recommended a simplification of "the formalities and negotiations" provided in article 7 of the law to secure authorization for overtime "to meet an extraordinary accumulation of orders."

In the commission's judgment, it was also advisable to authorize making up days lost, with the proviso, however, that the number of hours worked per day should not exceed 10 or not exceed an average of 48 hours a week for a six months' period.

The commission was of the opinion that the difficulties arising from the "regrettable prejudices and numerous misunderstandings" disclosed by its inquiry might be solved in part by a loyal and exact interpretation of the act and in part by agreement between the heads of undertakings and the labor organizations.

Decision of Minister of Labor, Industry, and Social Welfare

ON JANUARY 11, 1927, in conformity with the views of the commission, the Ministry of Industry, Labor, and Social Welfare rendered a decision, which is reproduced in part below:

As regards the conditions required for the grant of authorizations prolonging hours of work under section 7 of the act, it seemed desirable, as a result of the work of the committee of inquiry into the effects of the act, to define clearly certain circumstances which might justify the grant of such authority. From this point of view, the fact that production has been interrupted by a circum-

stance outside the control of the employer and the workers may be henceforth assimilated to the "extraordinary accumulation of orders" provided for explicitly in the text of section 7. As circumstances of this nature may be quoted disasters such as accidents, fires, floods, collapses of buildings, and incidents of industrial life such as the breakage of machines, the installation of new apparatus, etc., always provided, however, that strikes, lockouts, and stoppages of work due to local fêtes continue to be excluded.

Generally speaking, the Factory Inspection Department must do its utmost to hasten so far as possible notification of requests for exemptions under section 7 of the act. For this purpose the Provincial Factory Inspection Service is requested to proceed with such notification as often as possible on the same day as the reception of the requests, so that it may be possible on the day after the reception to send the full dossier of the question to the Central Factory Inspection Department, which will examine them without delay and pass them to the third section of Labor Office. This department will immediately draw up the necessary decree and submit it to me on the same day.

Wage Rates in Brazil in 1926

THE prevailing wage rates for a selected list of occupations in Brazil during the year 1926 appeared in a communication from Consul Digby A. Willson at Rio de Janeiro, dated September 14, 1927. The following table was compiled from this report:

WAGES IN SPECIFIED OCCUPATIONS AND LOCALITIES IN BRAZIL, 1926

[Conversions into United States currency made on basis of milreis=12 cents]

Occupation	Federal District	Rio de Janeiro	Sao Paulo	Santas	Pernambuco
	Daily wages				
Mechanics, skilled	$1.80–$3.00	$1.44–$2.16	$1.80–$2.40	[1]$42.00–$60.00	$1.44–$2.40
Carpenters	1.80– 3.60	1.44– 2.40	2.40– 3.60	1.92	.96– 1.44
Bricklayers	1.44– 3.00	1.20– 2.40	1.44– 2.16	1.92	.96– 1.20
Electricians, skilled	1.80– 4.20	1.44– 1.92	1.80– 3.60	[1]48.00– 84.00	1.80– 2.16
Electricians, ordinary	1.20– 1.68	.96– 1.20	1.20– 1.80	[1]30.00– 36.00	.96– 1.44
Stevedores	1.80	1.80	----------	1.80	1.44
Chauffeurs	1.80– 2.40	1.44– 1.80	1.80– 3.00	1.80– 2.40	.96– 1.80
Motormen, railway	1.44– 2.40	.96– 1.80	1.44– 2.40	1.20– 1.92	.96– 1.44
Conductors, railway	.96– 1.44	.72– .84	.96– 1.44	.96– 1.20	.96– 1.08
Factory workers, male	.96– 3.00	.72– 1.80	1.20– 2.64	[1]24.00– 30.00	.48– .60
Factory workers, female	.84– 1.68	.36– 1.08	.60– 1.44	[1]18.00– 24.00	.25– .48
Factory workers, minors	.36– .76	.24– .60	.36– .72	[1]12.00– 18.00	.25
Laborers, unskilled	.36– .84	.36– .60	.36– .78	.36– .72	.60
Agricultural workers, during harvest season	----------	.48– .84	.60– .96	----------	.36– .54
Agricultural workers, other seasons	----------	.48	.48– .72	----------	.24– .42
	Monthly wages				
Waiters	$12.00–$21.00	$3.60–$7.20	$12.00–$18.00	$3.60–$9.00	$4.80–$7.20
Cooks	18.00– 36–00	12.00–24.00	18.00– 42.00	15.00–30.00	9.00–18.00
Maids	12.00– 24.00	9.00–12.00	12.00– 24.00	9.00–15.00	4.20– 9.00

[1] Per month.

Payment for Overtime in Germany [3]

INFORMATION (based on statements in the German press) is given below of provisions governing hours of work and payment of overtime incorporated in collective agreements or arbitration awards in the main German industries (metal, mining, textile, chemical, woodworking, and tobacco) under the emergency act of April 14, 1927.

[3] Reprinted from International Labor Office, Industrial and Labor Information, Geneva, Nov. 28, 1927, pp. 264–266.

It will be remembered that the act prescribes an eight-hour day for all classes of workers covered by the orders of November 23, 1918, and March 18, 1919 (industrial workers and employees). Whereas, however, previous regulations did not fix special rates of remuneration for overtime, section 6a of the act provides that overtime shall be conditional on an increase of 25 per cent as from the forty-ninth hour, unless the interested party has made some other arrangement after the coming into operation of the act or special circumstances justify a different regulation.

The act adds that where on April 1, 1927, overtime was regulated by a collective agreement or authorized by official permit, section 6a shall not come into operation until the expiration of the collective agreement or the official permit, but in no case later than July 1, 1927.

Metal Industry

SAXONY.—An arbitration award of April, 1927, provides for the reintroduction of the 48-hour week; prior to that date it was permissible to prolong the working week up to 52 hours. Whenever authorized, overtime must be paid at special rates. The award does not define these rates.

Iron and steel group of northwest Germany.—By an award given at the end of July, 1927, weekly hours of work were reduced, as from August 2, 1927, from 59 to 57 for continuous process iron foundries; as from August 8, from 56 to 54 hours; and after October 3 from 54 to 52 hours for establishments engaged in the transformation of metal. The award contains no special provisions respecting the payment for overtime.

Cologne.—An arbitration award made compulsory on July 24, 1927, fixes 48 hours as the working week. Employers may order a weekly prolongation of four hours until November 1 and of three hours after that date. Wages are increased by 20 per cent from the forty-ninth to the fifty-second hour.

Aix-la-Chapelle.—An arbitration award provides for a 10 per cent increase in wages from the forty-ninth to the fifty-fourth hour from July 1 to November 1, and a 25 per cent increase after that date. From July 1 an increase of 25 per cent must be paid from the fifty-fifth hour.

Berlin.—A standard collective agreement, concluded at the end of May, 1927, establishes a 48-hour week. Where necessary an extra hour per day may be ordered from Monday to Friday, inclusive. The average working hours may not exceed 51 per week for a period of 12 weeks. The agreement provides for an increase of 15 per cent for overtime and of 50 per cent for work done on Sundays and public holidays.

Wurtemberg.—An arbitration award in operation since June 1, 1927, provides for a normal week of 48 hours and the following increases in respect of overtime: 10 per cent from the forty-ninth to fifty-second hour; 20 per cent from the fifty-third to the fifty-fourth hour; 25 per cent from the fifty-fifth to the fifty-sixth hour; 50 per cent after 56 hours.

Lower Silesia.—According to an award of July 1, 48 hours are worked per week. The increase for overtime is 15 per cent from the forty-ninth to the fifty-fourth hour and 25 to 50 per cent from the fifty-fifth hour.

Mining Industry

LOWER Silesia.—According to an arbitration award made compulsory on June 1, 1927, daily hours of work for surface workers vary from 9 to 9½, according to circumstances. Overtime wages are increased by 15 per cent for the 9th hour and by 25 per cent for the 10th hour.

Saxony.—According to an arbitration award issued during April, 1927, workers received, as from July 1, an increase of 15 per cent for the 9th hour and of 25 per cent for the 10th hour.[4]

Textile Industry

AS IT was not found possible to draw up new regulations by common consent in the textile industry, awards were issued in April, May, June, and July, 1927, at the request of one or the other of the parties concerned.

The normal working week was fixed at 48 hours, increases for overtime varying from 10 to 25 per cent from the forty-ninth hour up to the fifty-sixth hour, according to the districts and branches of the industry concerned.

Chemical Industry

IN ACCORDANCE with section 6a of the emergency act of April 14, 1927, an arbitration award allows workers in the chemical industry a 25 per cent increase in wages for every hour of overtime worked according to the provisions of the act.

Woodworking Industry

THE standard collective agreement previously in force in the German woodworking industry granted for the first three hours worked in excess of the 48-hour week an increase of 10 per cent of the average wage. In virtue of an arbitration award made on July 1 at the request of the Federal Minister of Labor, an increase of 25 per cent must be paid for the first three hours of overtime.

Paper, Cardboard, Cellulose, and Wood-pulp Industry

THE two-shift system was previously in force in this industry. An arbitration award accepted by both parties at the end of July, 1927, prescribes the 8-hour day and 48-hour week. The three-shift system was to be brought into operation before September 30, but in case of necessity this date could be extended to December 31, 1927. Wages are increased by 10 per cent from the forty-eighth to the fifty-fourth hour and by 25 per cent after the fifty-fourth hour.

---

[4] Attention should also be drawn to the following three arbitration awards given before the coming into operation of the act of April 14, 1927:

The Ruhr.—An award of Mar. 18, 1927, prescribes the 8-hour day for underground workers, the reduction of working hours from 10 to 9 for surface workers in continuous-process establishments, and a reduction of the daily hours of attendance from 12 to 10. Wages are increased by 25 per cent after the 9th hour in continuous-process undertakings where a 10-hour day is in operation.

Aix-la-Chapelle.—An arbitration award of Mar. 26, 1927, establishes a shift of 7 hours for underground workers. Overtime must be carried out so that the shift does not exceed 8½ hours. Since June 14 the length of the shift has been reduced to 8¼ hours. The hours of work of surface workers are the same as those underground.

Upper Silesia.—An arbitration award of Feb. 22, 1927, provides for underground workers a reduction of one-quarter hour as from Mar. 1, and a second one-quarter hour as from Sept. 1, 1927. Wages are increased by 25 per cent for the 9th hour in continuous-process undertakings.

Tobacco Industry

BEFORE the coming into operation of the emergency act weekly hours of work were 54 but could be prolonged to 56 without extra renumeration being paid. The arbitration award accepted by the two parties provides for a 48-hour week as from May 21, 1927. Wages are increased by 20 per cent from the forty-ninth to the fifty-fourth hour and by 25 per cent after the fifty-fourth hour.

Minimum Wages in Tokyo Building Trades [5]

AT A RECENT conference of the Bureau of Social Affairs of Tokyo it was decided to establish the following standard minimum daily wages for building workers placed through the municipal employment exchange on public and private undertakings of that city:

MINIMUM WAGES IN BUILDING TRADES OF TOKYO

[Conversions into United States currency based on exchange rate in October, 1927, of yen=46.56 cents]

Occupation	First class		Second class		Third class	
	Yen	United States Currency	Yen	United States Currency	Yen	United States Currency
Carpenters	2.70	$1.26	2.40	$1.12	2.10	$0.98
Stonemasons	3.30	1.54	2.70	1.26	2.40	1.12
Plasterers	2.80	1.30	2.50	1.16	2.20	1.03
Foremen	2.00	.93	1.80	.84	1.60	.74
Navvies	1.90	.88	1.70	.79	1.50	.70
Unskilled laborers:						
Males	1.50	.70	1.40	.65	1.30	.61
Females	.80	.37	.75	.35	.70	.33
Foremen	2.50	1.16				

It is anticipated that these minimum standards will be applicable from October 1, 1927, to March 31, 1928.

The fixing of this minimum wage scale in the building trades will indirectly have an effect on the wage standards for similar workers not engaged through the municipal employment exchange, and eventually may affect the wages in allied industries.

Wages in Switzerland, 1926 [6]

A REPORT of the wages of workers in various industries in Switzerland who were injured in industrial accidents during the year 1926 is given in the December, 1927, issue of the bulletin published by the Federal Labor Bureau.

The wages are reported for five classes of workers—foremen and master workmen, skilled and partly skilled workers, unskilled workers, women, and young persons under 18 years of age. In general

[5] International Labor Office. Industrial and Labor Information. Geneva, Dec. 5, 1927, p. 297.
[6] Switzerland. Office fédéral du Travail. Informations de Statistique sociale. December, 1927, pp. 342-349.

the wages showed little variation from the average for 1925. There was no change in the average wages of unskilled workers in 1926, while there was an increase of 2 per cent in the wages of foremen and of 1 per cent in each of the other three groups over the average wages paid in 1925.

The daily wages of the four classes of adult workers mentioned above who were injured in accidents in 1926 were from 106 to 108 per cent higher than in 1913, but real wages, measured by the cost of living, were only from 27 to 28 per cent higher than in the pre-war year. There was a slight decrease in the cost of living in 1926 over that of 1925, resulting in a slight increase in the real wages of adult workers.

The following table shows the average daily wages of Swiss workers in 1913 and 1926 and index numbers of actual wages and real wages in 1926, by industry groups:

AVERAGE DAILY WAGES OF WORKERS INJURED IN ACCIDENTS IN SWITZERLAND IN 1913 AND 1926 AND INDEX NUMBERS OF ACTUAL WAGES AND REAL WAGES

[Average exchange rate of franc in 1926=19.31 cents]

Industry group	Average wages paid		Index numbers of—	
	1913	1926	Actual wages	Real wages
			1913=100	
Foremen:	*Francs*	*Francs*		
Metal industry	8.85	16.65	188	116
Building	7.60	16.22	213	131
Wood industry	7.61	15.36	202	125
Textiles	7.41	14.65	198	122
Food products and tobacco	7.89	18.58	235	145
Skilled and semiskilled workers:				
Metal and machine industries	6.36	12.58	198	122
Building	6.20	13.23	213	131
Wood industry	5.58	11.90	213	131
Clocks	6.78	12.72	188	116
Food products and tobacco	5.86	13.54	231	143
Manufacture of vehicles	4.78	10.69	224	138
Electricity	6.19	13.79	223	138
Gas and water stations	6.35	16.04	253	156
Unskilled workers:				
Metal and machine industries	4.88	9.90	203	125
Building	4.75	10.10	213	131
Wood industry	4.29	9.06	211	130
Stone and earth products	4.41	9.42	214	132
Chemicals	4.59	10.43	227	140
Food products and tobacco	5.30	10.95	207	128
Commercial establishments	5.28	11.04	209	129
Mines and quarries	5.09	9.27	182	112
Forestry	4.57	8.77	192	119
Women:				
Textiles	3.18	6.83	215	133
Clocks	3.83	7.42	194	120
Food products and tobacco	2.63	5.88	224	138
Young persons (under 18 years of age):				
Metal and machine industries	2.78	4.90	176	109
Building	3.88	7.43	191	118
Textiles	2.60	4.60	177	109
Stone and earth products	3.26	5.48	168	104

TREND OF EMPLOYMENT

Employment in Selected Manufacturing Industries in December, 1927

EMPLOYMENT in manufacturing industries *decreased* nine-tenths of 1 per cent in December as compared with November, while pay-roll totals *increased* 1.7 per cent.

The level of employment in December, 1927, was 6.4 per cent below the level of employment in December, 1926, and pay-roll totals were 6.6 per cent lower in December, 1927, than in December, 1926.

The Bureau of Labor Statistics' weighted index of employment for December, 1927, is 85.1, as compared with 85.9 for November, 1927, 87.6 for October, 1927, and 90.9 for December, 1926; the weighted index of pay-roll totals for December, 1927, is 89.3, as compared with 87.8 for November, 1927, 91.2 for October, 1927, and 95.6 for December, 1926.

The report for December, 1927, is based on reports from 10,607 establishments in 54 of the chief manufacturing industries of the United States. These establishments in December had 2,922,922 employees whose combined earnings in one week were $77,975,546.

Comparison of Employment and Pay-Roll Totals in December and November, 1927

SEVENTEEN of the 54 separate industries had more employees in December than in November and 33 industries reported increased pay-roll totals.

Agricultural-implement factories increased their employees nearly 7 per cent; automobile plants increased 4.3 per cent; rubber-boot factories increased 4.4 per cent; the slaughtering and meat-packing, silk-goods, carpet, pottery, and rubber-tire industries each gained in the neighborhood of 2.5 per cent in employment. The increases in each of the remaining 9 industries were between 1.7 per cent and less than one-tenth of 1 per cent.

The increases in pay-roll totals, in December as compared with November, in general were considerably greater than in employment—for example, the pay rolls of the agricultural-implement and the rubber-tire industries were each over 10 per cent higher in December than in November, automobile-plant pay rolls were 8.7 per cent higher, and silk-goods mills reported an increase of 6.8 per cent. Men's clothing and cast-iron pipe with very small increases in employment reported increases in pay-roll totals of 6.8 and 5.7 per cent, respectively, while several industries, such as iron and steel, boots and shoes, and chemicals coupled *decreased employment* with *increased pay-roll totals.*

The outstanding decreases both in employment and pay-roll totals were for the greater part seasonal, the industries most affected being cement, brick, steam fittings, stoves, sawmills, furniture, paper boxes, glass, ice cream, sugar refining, and cigars and cigarettes.

The contrasting *increases* of considerable size in pay-roll totals and smaller *decreases* in employment are clearly illustrated by the changes in the totals of the 12 groups of industries. Eight groups show larger pay rolls, ranging from an increase of 8 per cent in the group of miscellaneous industries to 1.3 per cent in the chemical group, while only 3 groups show increased employment—paper, 0.3 per cent, vehicle, 0.9 per cent, and miscellaneous, 0.8 per cent. The lumber, stone-clay-glass, tobacco, and food groups reported decreases in both items.

The East Central divisions—both North and South—alone of the 9 geographic divisions show increases in December as compared with November both in employment and pay-roll totals; the outstanding decreases were in the Pacific and Mountain divisions.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN NOVEMBER AND DECEMBER, 1927

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1927	December, 1927		November, 1927	December, 1927	
Food and kindred products	**1,609**	**228,012**	**225,956**	(1)	**$5,804,215**	**$5,797,794**	(1)
Slaughtering and meat packing	186	84,967	86,885	+2.3	2,197,558	2,265,723	+3.1
Confectionery	301	39,611	38,123	−3.8	735,461	739,419	+0.5
Ice cream	195	8,782	8,429	−4.0	290,495	279,783	−3.7
Flour	320	16,034	15,660	−2.3	433,685	426,596	−1.6
Baking	593	68,361	67,213	−1.7	1,844,620	1,799,827	−2.4
Sugar refining, cane	14	10,257	9,646	−6.0	302,396	286,446	−5.3
Textiles and their products	**1,863**	**609,913**	**605,340**	(1)	**11,964,498**	**12,171,904**	(1)
Cotton goods	454	234,200	229,747	−1.9	3,782,547	3,740,333	−1.1
Hosiery and knit goods	245	83,610	82,150	−1.7	1,628,584	1,622,019	−0.4
Silk goods	196	54,566	55,724	+2.1	1,136,230	1,213,754	+6.8
Woolen and worsted goods	187	65,227	64,801	−0.7	1,458,587	1,474,739	+1.1
Carpets and rugs	28	23,825	24,400	+2.4	633,939	670,206	+5.7
Dyeing and finishing textiles	99	32,879	32,771	−0.3	803,308	811,776	+1.1
Clothing, men's	281	61,781	61,799	+ (2)	1,376,397	1,469,461	+6.8
Shirts and collars	94	20,754	20,625	−0.6	345,134	346,606	+0.4
Clothing, women's	206	22,066	22,172	+0.5	553,193	568,618	+2.8
Millinery and lace goods	73	11,005	11,151	+1.3	246,579	254,392	+3.2
Iron and steel and their products	**1,762**	**618,315**	**611,075**	(1)	**17,604,106**	**17,861,759**	(1)
Iron and steel	204	252,248	248,554	−1.5	7,344,692	7,413,703	+0.9
Cast-iron pipe	42	12,537	12,596	+0.5	274,939	290,742	+5.7
Structural ironwork	153	23,269	23,064	−0.9	675,666	702,001	+3.9
Foundry and machine-shop products	950	219,170	218,811	−0.2	6,268,229	6,435,068	+2.7
Hardware	71	31,747	31,644	−0.3	779,393	786,229	+0.9
Machine tools	149	27,809	27,793	−0.1	852,681	869,560	+2.0
Steam fittings and steam and hot-water heating apparatus	107	36,164	34,146	−5.6	981,067	960,402	−2.1
Stoves	86	15,371	14,467	−5.9	427,439	404,054	−5.5
Lumber and its products	**1,136**	**216,689**	**208,836**	(1)	**4,894,200**	**4,697,966**	(1)
Lumber, sawmills	449	117,817	112,774	−4.3	2,465,651	2,333,342	−5.4
Lumber, millwork	264	31,658	31,214	−1.4	760,374	754,483	−0.8
Furniture	423	67,214	64,848	−3.5	1,668,175	1,610,141	−3.5
Leather and its products	**351**	**116,620**	**114,177**	(1)	**2,453,845**	**2,489,500**	(1)
Leather	123	27,002	26,974	−0.1	667,493	688,048	+3.1
Boots and shoes	228	89,618	87,203	−2.7	1,789,352	1,801,452	+0.7

Footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN NOVEMBER AND DECEMBER, 1927—Continued

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1927	December, 1927		November, 1927	December, 1927	
Paper and printing	**901**	**178,880**	**179,153**	(1)	**$5,834,361**	**$5,955,593**	(1)
Paper and pulp	212	57,851	57,305	−0.9	1,522,216	1,535,352	+0.9
Paper boxes	172	20,813	20,168	−3.1	475,718	458,569	−3.6
Printing, book and job	308	50,906	51,739	+1.6	1,795,869	1,879,356	+4.6
Printing, newspapers	209	49,310	49,941	+1.3	2,040,558	2,082,316	+2.0
Chemicals and allied products	**357**	**88,726**	**87,535**	(1)	**2,575,380**	**2,591,779**	(1)
Chemicals	129	33,050	32,476	−1.7	899,706	922,484	+2.5
Fertilizers	171	10,485	10,447	−0.4	199,497	204,373	+2.4
Petroleum refining	57	45,191	44,612	−1.3	1,476,177	1,464,922	−0.8
Stone, clay, and glass products	**659**	**110,906**	**105,526**	(1)	**2,900,304**	**2,764,835**	(1)
Cement	99	25,386	23,661	−6.8	745,203	683,855	−8.2
Brick, tile, and terra cotta	386	32,574	30,502	−6.4	825,680	765,093	−7.3
Pottery	63	13,734	14,127	+2.9	363,512	381,186	+4.9
Glass	111	39,212	37,236	−5.0	965,909	934,701	−3.2
Metal products, other than iron and steel	**224**	**49,932**	**49,579**	(1)	**1,320,668**	**1,337,790**	(1)
Stamped and enameled ware	70	19,600	19,211	−2.0	495,130	474,683	−4.1
Brass, bronze, and copper products	154	30,332	30,368	+0.1	825,538	863,107	+4.6
Tobacco products	**171**	**47,620**	**45,351**	(1)	**828,107**	**799,937**	(1)
Chewing and smoking tobacco and snuff	29	8,386	8,325	−0.7	127,402	131,031	+2.8
Cigars and cigarettes	142	39,234	37,026	−5.6	700,705	668,906	−4.5
Vehicles for land transportation	**1,173**	**432,836**	**441,999**	(1)	**13,473,458**	**14,143,550**	(1)
Automobiles	200	274,757	286,520	+4.3	8,692,944	9,447,432	+8.7
Carriages and wagons	61	1,745	1,774	+1.7	37,706	37,573	−0.4
Car building and repairing, electric-railroad	378	24,825	24,708	−0.5	774,992	785,593	+1.4
Car building and repairing, steam-railroad	534	131,509	128,997	−1.9	3,967,816	3,872,952	−2.4
Miscellaneous industries	**401**	**247,583**	**248,395**	(1)	**6,983,641**	**7,363,139**	(1)
Agricultural implements	92	24,317	26,006	+6.9	687,202	758,602	+10.4
Electrical machinery, apparatus, and supplies	168	120,818	117,767	−2.5	3,395,746	3,472,885	+2.3
Pianos and organs	39	7,787	7,494	−3.8	236,108	234,323	−0.8
Rubber boots and shoes	10	19,197	20,037	+4.4	491,557	501,145	+2.0
Automobile tires	55	49,749	50,980	+2.5	1,428,839	1,572,928	+10.1
Shipbuilding, steel	37	25,715	26,111	+1.5	744,189	823,256	+10.6
All industries	**10,607**	**2,946,032**	**2,922,922**	(1)	**76,639,783**	**77,975,546**	(1)

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION							
New England	1,359	403,440	395,313	−2.0	$9,606,268	$9,678,092	+0.7
Middle Atlantic	2,493	830,708	819,030	−1.4	23,018,293	23,252,639	+1.0
East North Central	2,855	938,512	946,602	+0.9	27,131,494	28,256,562	+4.1
West North Central	983	153,139	150,465	−1.7	3,793,916	3,756,050	−1.0
South Atlantic	1,117	279,261	276,685	−0.9	5,196,149	5,203,970	+0.2
East South Central	505	111,027	111,104	+0.1	2,065,463	2,093,274	+1.3
West South Central	442	85,137	83,800	−1.6	1,794,585	1,798,011	+0.2
Mountain	186	27,288	26,137	−4.2	752,338	693,195	−7.9
Pacific	667	117,520	113,786	−3.2	3,281,277	3,243,753	−1.1
All divisions	**10,607**	**2,946,032**	**2,922,922**	(1)	**76,639,783**	**77,975,546**	(1)

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

[2] Less than one-tenth of 1 per cent.

TABLE 2.—PER CENTS OF CHANGE, NOVEMBER TO DECEMBER, 1927—12 GROUPS OF INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, November, 1927, to December, 1927		Group	Per cent of change, November, 1927, to December, 1927	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	−1.1	−0.2	Metal products, other than iron and steel	−0.6	+2.4
Textiles and their products	−0.6	+1.9	Tobacco products	−5.2	−3.7
Iron and steel and their products	−1.1	+1.5	Vehicles for land transportation	+0.9	+2.3
Lumber and its products	−3.9	−4.5	Miscellaneous industries	+0.8	+8.0
Leather and its products	−2.0	+1.6			
Paper and printing	+0.3	+2.0	**All industries**	**−0.9**	**+1.7**
Chemicals and allied products	−1.4	+1.3			
Stone, clay, and glass products	−4.5	−4.0			

Comparison of Employment and Pay-Roll Totals in December, 1927, and December, 1926

THE level of employment in manufacturing industries in December 1927, was 6.4 per cent below the level of employment in December, 1926, and pay-roll totals were 6.6 per cent lower.

Comparing conditions in December, 1927, with December, 1926, each of the 12 groups of industries shows a decrease in employment and all except the paper group decreases in pay-roll totals over the 12-month period. The outstanding decreases were 11.2 per cent in employment and 14 per cent in pay-roll totals, both in the iron and steel group. The smallest decreases in both items were in the food and the textile groups, ranging from 0.6 to 1.5 per cent.

The notable increases in separate industries were 1 per cent in employment and 14.7 per cent in pay-roll total in the automobile industry and 11.8 and 8 per cent in the rubber-boot and shoe industry. Agricultural implements, baking, sugar refining, dyeing and finishing textiles, shirts and collars, women's clothing, newspaper printing, carriages and wagons, and chewing tobacco also show considerable improvement.

The pronounced decreases in employment over this 12-month period were 18.6 per cent in shipbuilding, 16.8 per cent in petroleum refining, 13.1 per cent in machine tools, 12.7 per cent in stoves, 12.5 per cent in steam-railroad car building and repairing and pianos, 12.2 per cent in foundry and machine-shop products, 11.8 per cent in cast-iron pipe, 10.6 per cent in iron and steel and sawmills, and 10.5 per cent in millwork.

Each geographic division showed a falling off in employment from December, 1926, to December, 1927, the greatest decrease being in the West South Central, Middle Atlantic, and New England divisions, and much the smallest decrease being in the South Atlantic States.

The East North Central division, which showed a decrease of 2.8 per cent in employment, showed an increase of 0.2 per cent in pay-roll totals, while each of the remaining 8 divisions showed decreased pay-roll totals ranging from 1 per cent to 11.1 per cent.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS, DECEMBER, 1927, WITH DECEMBER, 1926

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change, December, 1927, compared with December, 1926	
	Number on pay roll	Amount of pay roll
Food and kindred products	**−0.6**	**−0.6**
Slaughtering and meat packing	−2.4	−2.4
Confectionery	−1.1	−1.6
Ice cream	−5.3	−3.9
Flour	−0.8	+3.1
Baking	+1.7	+0.8
Sugar refining, cane	+5.1	+1.4
Textiles and their products	**−1.3**	**−1.5**
Cotton goods	+0.7	−0.7
Hosiery and knit goods	−1.0	+2.0
Silk goods	−1.7	+1.5
Woolen and worsted goods	−6.2	−7.6
Carpets and rugs	+0.5	−2.1
Dyeing and finishing textiles	+2.0	+2.4
Clothing, men's	−6.0	−9.4
Shirts and collars	+0.7	+3.5
Clothing, women's	+1.1	+2.8
Millinery and lace goods	−2.3	−2.4
Iron and steel and their products	**−11.2**	**−14.0**
Iron and steel	−10.6	−14.2
Cast-iron pipe	−11.8	−13.3
Structural ironwork	−8.0	−7.9
Foundry and machine-shop products	−12.2	−14.7
Hardware	−5.9	−9.3
Machine tools	−13.1	−13.9
Steam fittings and steam and hot-water heating apparatus	−7.9	−10.5
Stoves	−12.7	−15.6
Lumber and its products	**−9.5**	**−8.7**
Lumber, sawmills	−10.6	−8.5
Lumber, millwork	−10.5	−11.7
Furniture	−5.9	−7.3
Leather and its products	**−8.1**	**−11.0**
Leather	−3.9	−3.9
Boots and shoes	−9.5	−14.4
Paper and printing	**−0.7**	**+0.6**
Paper and pulp	−2.2	−2.8
Paper boxes	−3.3	−0.7
Printing, book and job	−0.9	+0.8
Printing, newspapers	+1.9	+3.4
Chemicals and allied products	**−6.8**	**−5.1**
Chemicals	−0.9	+3.1
Fertilizers	−0.4	−0.9
Petroleum refining	−16.8	−16.1
Stone, clay, and glass products	**−7.9**	**−9.6**
Cement	−8.3	−8.7
Brick, tile, and terra cotta	−9.5	−12.9
Pottery	−3.1	−2.8
Glass	−8.3	−9.9
Metal products, other than iron and steel	**−8.1**	**−8.9**
Stamped and enameled ware	−5.3	−5.1
Brass, bronze, and copper products	−9.3	−10.0
Tobacco products	**−2.1**	**−2.1**
Chewing and smoking tobacco and snuff	+2.7	+2.7
Cigars and cigarettes	−2.7	−2.7
Vehicles for land transportation	**−6.2**	**−1.8**
Automobiles	+1.0	+14.7
Carriages and wagons	+7.9	+3.3
Car building and repairing, electric-railroad	−0.5	+0.9
Car building and repairing, steam-railroad	−12.5	−12.6
Miscellaneous industries	**−10.5**	**−9.0**
Agricultural implements	+1.1	+1.8
Electrical machinery, apparatus, and supplies	−7.1	−6.8
Pianos and organs	−12.5	−14.6
Rubber boots and shoes	+11.8	+8.0
Automobile tires	−2.2	−1.0
Shipbuilding, steel	−18.6	−14.1
All industries	**−6.4**	**−6.6**

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION		
New England	−7.6	−8.1
Middle Atlantic	−8.4	−9.7
East North Central	−2.8	+0.2
West North Central	−5.0	−4.4
South Atlantic	−1.4	−4.4
East South Central	−5.4	−8.3
West South Central	−9.1	−7.9
Mountain	−6.9	−11.1
Pacific	−3.4	−1.0
All divisions	**−6.4**	**−6.6**

Per Capita Earnings

PER CAPITA earnings in December, 1927, for the 54 industries combined were 2.6 per cent higher than in November, 1927, and 0.3 per cent lower than in December, 1926.

Increases in per capita earnings in December, 1927, as compared with November, 1927, are shown in 45 industries, 11 of the increases being between 4 and 9 per cent. The shipbuilding industry leads among these 11 with an increase of 8.9 per cent, followed by rubber tires with 7.4 per cent, men's clothing with 6.7 per cent, cast-iron pipe with 5.2 per cent, and electrical machinery with 4.9 per cent; the automobile industry shows an increase of 4.2 per cent.

Employees in 22 industries were averaging greater earnings in December, 1927, than in December, 1926. The automobile industry shows an increase in per capita earnings of 13.6 per cent, shipbuilding an increase of 5.4 per cent, flour an increase of 4.2 per cent, while silk goods, hosiery, shirts, and chemicals show increases of over 3 per cent each.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS DECEMBER, 1927, WITH NOVEMBER, 1927, AND DECEMBER, 1926

Industry	Per cent of change December, 1927, compared with—		Industry	Per cent of change December, 1927, compared with—	
	November, 1927	December, 1926		November, 1927	December, 1926
Shipbuilding	+8.9	+5.4	Glass	+1.9	−1.8
Automobile tires	+7.4	+1.2	Pottery	+1.9	+0.1
Clothing, men's	+6.7	−3.7	Millinery and lace goods	+1.8	−0.2
Cast-iron pipe	+5.2	−1.6	Paper and pulp	+1.8	−0.8
Electrical machinery, apparatus, and supplies	+4.9	+0.1	Woolen and worsted goods	+1.8	−1.4
Structural ironwork	+4.8	+0.2	Dyeing and finishing textiles	+1.4	+0.3
Silk goods	+4.6	+3.3	Hosiery and knit goods	+1.3	+3.1
Confectionery	+4.5	−0.4	Cigars and cigarettes	+1.2	+0.3
Brass, bronze, and copper products	+4.4	−1.3	Hardware	+1.2	−3.5
Chemicals	+4.4	+3.9	Shirts and collars	+1.1	+3.1
Automobiles	+4.2	+13.6	Slaughtering and meat packing	+0.9	−0.1
Steam fittings and steam and hot-water heating apparatus	+3.7	−3.1	Cotton goods	+0.8	−1.3
Chewing and smoking tobacco and snuff	+3.6	−0.1	Printing, newspapers	+0.8	+1.6
Boots and shoes	+3.5	−5.4	Flour	+0.7	+4.2
Agricultural implements	+3.2	+0.3	Sugar refining, cane	+0.7	−3.4
Carpets and rugs	+3.2	−2.5	Lumber, millwork	+0.6	−1.3
Leather	+3.2	(1)	Petroleum refining	+0.5	+0.7
Pianos and organs	+3.1	−2.4	Stoves	+0.4	−3.3
Printing, book and job	+2.9	+1.8	Ice cream	+0.3	+1.5
Fertilizers	+2.8	−0.6	Furniture	(2)	−1.4
Foundry and machine-shop products	+2.8	−3.1	Car building and repairing, steam-railroad	−0.5	−0.2
Iron and steel	+2.4	−4.0	Paper boxes	−0.5	+2.5
Clothing, women's	+2.3	+1.7	Baking	−0.7	−0.9
Machine tools	+2.1	−0.8	Brick, tile, and terra cotta	−1.1	−4.0
Car building and repairing, electric-railroad	+1.9	+1.3	Lumber, sawmills	−1.1	+2.1
			Cement	−1.5	−0.4
			Carriages and wagons	−2.0	−4.2
			Stamped and enameled ware	−2.2	(1)
			Rubber boots and shoes	−2.3	−3.4

[1] No change.

[2] Less than one-tenth of 1 per cent.

Wage Changes

TEN establishments in 8 industries reported increases in wage rates during the month ended December 15, 1927. These increases averaged 7.9 per cent and affected 318 employees, or 8 per cent of the total employees in the establishments concerned.

Twenty-six establishments in 13 industries reported decreases in wage rates during the same period. These decreases averaged 10.2 per cent and affected 9,234 employees, or 86 per cent of the total employees in the establishments concerned.

The only significant increases or decreases reported in this period were the decreases of 10 per cent each reported by 9 cotton-goods establishments, which affected 7,291 employees, or 94 per cent of the total employees in those establishments.

TABLE 5.—WAGE ADJUSTMENTS OCCURRING BETWEEN NOVEMBER 15 AND DECEMBER 15, 1927

Industry	Establishments		Per cent of increase or decrease in wage rates		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
			Increases				
Foundry and machine-shop products	950	1	5.0	5.0	8	10	(1)
Hardware	71	2	8.0	8.0	50	8	(1)
Machine tools	149	1	5.6	5.6	9	27	(1)
Printing, newspapers	209	1	11.0	11.0	21	13	(1)
Chemicals	129	2	5.0–10.0	8.4	111	6	(1)
Brick, tile, and terra cotta	386	1	5.0–10.0	7.5	45	98	(1)
Glass	111	1	9.0	9.0	41	5	(1)
Electrical machinery, apparatus, and supplies	168	1	5.0	5.0	33	8	(1)
			Decreases				
Slaughtering and meat packing	186	1	20.0	20.0	50	75	(1)
Baking	593	1	5.0	5.0	21	84	(1)
Cotton goods	454	9	10.0	10.0	7,291	94	3
Clothing, men's	281	1	5.0	5.0	34	52	(1)
Structural ironwork	153	1	10.0	10.0	150	68	1
Foundry and machine-shop products	950	2	5.0–10.0	9.5	95	27	(1)
Lumber, millwork	264	1	20.0	20.0	20	37	(1)
Paper and pulp	212	1	10.0	10.0	66	50	(1)
Brick, tile, and terra cotta	386	3	5.0–10.0	8.6	346	90	1
Glass	111	3	8.5–15.0	12.2	1,040	96	3
Cigars and cigarettes	142	1	10.0	10.0	34	22	(1)
Car building and repairing, electric-railroad	378	1	5.0	5.0	39	100	(1)
Automobile tires	55	1	5.0	5.0	48	13	(1)

[1] Less than one-half of 1 per cent.

Indexes of Employment and Pay-roll Totals in Manufacturing Industries

Table 6 shows the general index of employment in manufacturing industries and the general index of pay-roll totals from January, 1923, to December, 1927.

TABLE 6.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES JANUARY, 1923, TO DECEMBER, 1927

[Monthly average, 1923=100]

Month	Employment					Pay-roll totals				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
January	98.0	95.4	90.0	92.3	89.4	91.8	94.5	90.0	93.9	90.9
February	99.6	96.6	91.6	93.3	91.0	95.2	99.4	95.1	97.9	96.4
March	101.8	96.4	92.3	93.7	91.4	100.3	99.0	96.6	99.1	97.7
April	101.8	94.5	92.1	92.8	90.6	101.3	96.9	94.2	97.2	96.6
May	101.8	90.8	90.9	91.7	89.7	104.8	92.4	94.4	95.6	95.6
June	101.9	87.9	90.1	91.3	89.1	104.7	87.0	91.7	95.5	93.3
July	100.4	84.8	89.3	89.8	87.3	99.9	80.8	89.6	91.2	89.1
August	99.7	85.0	89.9	90.7	87.4	99.3	83.5	91.4	94.6	91.0
September	99.8	86.7	90.9	92.2	88.0	100.0	86.0	90.4	95.1	90.1
October	99.3	87.9	92.3	92.5	87.6	102.3	88.5	96.2	98.6	91.2
November	98.7	87.8	92.5	91.4	85.9	101.0	87.6	96.2	95.4	87.8
December	96.9	89.4	92.6	90.9	85.1	98.9	91.7	97.3	95.6	89.3
Average	**100.0**	**90.3**	**91.2**	**91.9**	**88.5**	**100.0**	**90.6**	**93.6**	**95.8**	**92.4**

Index numbers of employment and pay-roll totals for each of the 54 manufacturing industries surveyed by the Bureau of Labor Statistics and for each of the 12 groups of industries, and also general indexes for the combined 12 groups of industries, are shown in Table 7 for each month of 1927, together with average indexes for the years 1923, 1924, 1925, 1926, and 1927. This is in continuation of the tabulations presented in the Labor Review for August, 1925, and February, 1927, which recorded data, by months, from July, 1922, to December, 1926.

In computing the general index and the group indexes the index numbers of separate industries are weighted according to the importance of the industries.

Following Table 7 is a series of graphs, made from index numbers, showing clearly the course of employment for each month of 1927 as compared with the corresponding month of 1926. The first chart represents the 54 separate industries combined and shows the course of pay-roll totals as well as the course of employment, and following this presentation are charts showing the trend of employment through the two years in each separate industry.

For all of the basic data for these 55 charts the monthly average index for the year 1923 equals 100.

TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1927, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, AND 1927

[Monthly average, 1923=100]

Month and year	General index		Food and kindred products							
			Group index		Slaughtering and meat packing		Confectionery		Ice cream	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	**100.0**	**100.0**	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	**90.3**	**90.6**	**95.6**	**97.9**	93.7	94.4	88.7	93.4	96.5	97.2
1925 average	**91.2**	**93.6**	**90.9**	**93.7**	85.0	86.7	84.4	90.1	97.5	102.6
1926 average	**91.9**	**95.8**	**89.8**	**93.8**	81.4	84.5	86.0	93.5	96.2	104.4
1927 average	**88.5**	**92.4**	**89.3**	**93.8**	81.0	84.4	83.0	91.5	90.4	97.5
1927—Jan	**89.4**	**90.9**	**88.5**	**92.7**	84.4	87.7	83.0	91.5	80.3	85.1
Feb	**91.0**	**96.4**	**88.1**	**92.1**	82.7	84.0	81.4	90.6	80.9	86.0
Mar	**91.4**	**97.7**	**87.2**	**91.0**	79.2	80.6	79.3	89.0	83.4	90.1
Apr	**90.6**	**96.6**	**86.0**	**90.0**	77.5	80.0	75.9	82.2	87.9	95.1
May	**89.7**	**95.6**	**86.6**	**92.7**	78.4	83.1	75.0	84.4	95.8	102.8
June	**89.1**	**93.3**	**90.7**	**96.4**	83.6	87.6	77.5	87.6	103.5	110.7
July	**87.3**	**89.1**	**89.9**	**95.5**	83.6	88.2	73.1	80.7	107.6	116.6
Aug	**87.4**	**91.0**	**89.1**	**93.7**	80.2	83.7	77.9	85.6	104.2	111.9
Sept	**88.0**	**90.1**	**92.1**	**95.9**	80.1	83.8	93.1	101.1	95.7	104.4
Oct	**87.6**	**91.2**	**92.6**	**96.3**	79.6	82.9	97.5	104.5	86.7	94.0
Nov	**85.9**	**87.8**	**90.9**	**94.8**	80.5	84.2	93.0	100.1	81.2	87.7
Dec	**85.1**	**89.3**	**89.9**	**94.6**	82.4	86.8	89.5	100.6	78.0	84.5

Month and year	Food and kindred products—Continued						Textiles and their products			
	Flour		Baking		Sugar refining, cane		Group index		Cotton goods	
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**	100.0	100.0
1924 average	94.7	97.6	101.3	103.8	97.9	100.8	**88.2**	**86.8**	83.0	80.7
1925 average	90.4	92.5	99.5	102.4	97.8	100.0	**89.3**	**89.5**	84.0	81.9
1926 average	87.6	90.2	100.8	105.5	93.6	95.6	**86.1**	**85.9**	83.1	81.0
1927 average	87.0	89.7	102.2	107.8	92.5	94.4	**87.2**	**88.5**	87.3	87.9
1927—Jan	86.1	87.9	98.7	103.5	83.1	83.6	**88.1**	**88.8**	86.2	85.9
Feb	85.8	87.4	100.0	106.2	84.3	87.7	**89.7**	**94.0**	87.4	89.0
Mar	85.5	86.4	101.1	107.1	89.9	91.5	**89.7**	**94.0**	87.8	90.4
Apr	82.4	83.5	101.0	106.5	93.0	94.5	**88.3**	**88.9**	87.6	89.1
May	84.3	**87.4**	100.5	107.4	96.4	100.8	**86.8**	**87.0**	87.3	88.8
June	85.3	88.9	104.8	110.4	98.7	104.4	**86.0**	**86.2**	87.6	88.5
July	87.6	88.5	103.0	108.7	100.0	101.0	**84.2**	**83.5**	87.2	86.1
Aug	88.6	90.5	102.1	107.4	98.7	100.2	**85.3**	**86.5**	86.6	86.8
Sept	90.9	92.5	104.7	110.1	95.1	95.2	**86.9**	**88.6**	87.5	88.1
Oct	91.2	97.7	105.6	110.8	95.9	97.3	**87.6**	**90.2**	87.9	89.3
Nov	89.3	93.5	103.6	109.1	90.1	90.9	**87.1**	**86.3**	87.9	87.0
Dec	87.2	92.0	101.8	106.4	84.7	86.1	**86.6**	**87.9**	86.2	86.0

Month and year	Textiles and their products—Continued									
	Hosiery and knit goods		Silk goods		Woolen and worsted goods		Carpets and rugs		Dyeing and finishing textiles	
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	90.7	90.9	94.3	94.3	91.0	90.1	92.1	86.4	92.1	91.9
1925 average	98.1	105.6	103.3	109.4	88.9	87.2	94.6	91.8	99.5	102.4
1926 average	97.9	109.6	100.2	106.5	80.3	78.9	93.9	90.8	97.9	100.1
1927 average	96.9	112.1	98.6	105.6	80.0	79.4	96.3	94.5	98.8	102.9
1927—Jan	97.7	109.4	98.9	101.9	85.0	85.0	98.2	96.6	98.2	101.6
Feb	98.3	115.1	99.4	109.5	85.2	85.6	98.4	99.4	99.4	106.4
Mar	98.2	116.5	101.3	111.5	82.1	80.7	98.4	99.1	100.0	107.1
Apr	98.3	114.8	101.2	106.0	79.7	77.4	97.8	95.0	100.1	105.8
May	97.6	115.7	100.3	108.3	77.8	76.5	96.5	96.6	98.3	101.3
June	97.2	112.0	97.8	105.6	78.2	77.5	96.0	95.2	97.2	99.7
July	91.0	98.9	96.7	101.3	74.7	73.4	95.0	88.3	95.3	95.0
Aug	92.6	104.7	97.7	104.7	78.1	77.6	94.3	93.2	96.5	98.6
Sept	96.5	108.3	98.1	104.5	78.9	78.6	94.2	90.8	98.3	103.3
Oct	98.1	117.0	97.2	105.3	79.8	80.4	94.0	90.5	100.1	106.3
Nov	99.5	116.3	96.1	100.9	80.7	79.6	95.4	92.1	101.0	104.3
Dec	97.8	115.9	98.2	107.8	80.1	80.5	97.7	97.4	100.7	105.4

TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1927, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, AND 1927—Continued

[Monthly average, 1923=100]

Month and year	Textiles and their products—Continued								Iron and steel and their products	
	Clothing, men's		Shirts and collars		Clothing, women's		Millinery and lace goods		Group index	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**
1924 average	90.1	86.4	84.6	83.3	88.7	87.3	87.1	87.9	**86.3**	**86.6**
1925 average	86.9	82.4	86.9	88.2	83.6	87.9	84.8	87.0	**87.3**	**90.6**
1926 average	84.3	77.9	84.1	85.4	79.2	80.4	72.4	75.1	**92.0**	**97.2**
1927 average	82.5	75.8	79.9	82.2	83.5	86.3	69.2	72.7	**85.7**	**89.3**
1927—Jan.	83.8	78.9	81.4	80.9	85.3	87.8	72.0	75.5	**88.1**	**90.9**
Feb.	86.7	84.1	82.2	83.4	90.2	99.9	74.7	80.2	**89.8**	**96.4**
Mar.	85.1	81.4	80.3	83.6	93.3	102.7	74.4	78.9	**90.3**	**97.8**
Apr.	79.6	67.4	79.0	81.6	90.6	92.9	73.5	78.5	**89.4**	**96.4**
May	78.5	67.4	78.3	81.0	85.4	82.3	69.8	72.7	**88.1**	**93.5**
June	82.5	77.3	77.7	79.6	77.3	72.4	64.9	68.2	**86.9**	**91.8**
July	82.7	79.3	76.7	79.3	75.2	75.2	62.4	62.0	**85.1**	**84.6**
Aug.	84.8	81.0	76.5	78.9	76.8	79.3	66.8	69.8	**84.4**	**87.1**
Sept.	83.9	78.6	79.0	80.4	80.8	87.3	70.0	75.2	**84.0**	**84.7**
Oct.	83.1	75.4	81.2	85.8	84.1	90.3	67.0	73.1	**82.6**	**84.4**
Nov.	79.5	67.0	83.3	85.8	81.3	81.8	67.0	68.1	**80.6**	**81.6**
Dec.	79.6	71.5	82.8	86.2	81.7	84.1	67.9	70.3	**79.7**	**82.8**

Month and year	Iron and steel and their products—Continued									
	Iron and steel		Cast-iron pipe		Structural iron-work		Foundry and machine-shop products		Hardware	
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	93.5	93.9	104.1	105.4	91.0	91.9	80.6	78.8	91.9	93.9
1925 average	95.9	99.1	101.3	103.6	91.8	97.4	80.7	81.8	91.4	96.6
1926 average	97.9	102.8	106.0	107.7	99.2	106.5	86.7	90.3	88.2	98.1
1927 average	91.0	93.9	95.2	94.9	94.1	101.1	81.3	83.5	81.3	89.2
1927—Jan.	93.0	94.9	97.2	91.0	94.1	98.1	84.2	86.0	83.9	92.7
Feb.	94.4	100.9	96.6	96.6	94.1	100.5	86.2	91.6	84.7	96.0
Mar.	95.6	104.0	99.4	101.9	93.5	100.4	86.3	91.8	84.9	96.3
Apr.	95.3	104.9	99.8	103.5	94.2	97.9	85.0	88.7	84.1	94.0
May	94.4	99.2	101.7	104.1	94.5	101.9	83.2	87.2	82.9	91.8
June	92.3	97.0	99.9	99.9	95.7	105.0	82.3	85.4	82.0	90.4
July	90.4	86.3	98.1	100.6	95.5	101.3	81.2	81.4	79.4	83.1
Aug.	89.3	90.5	95.6	97.4	97.1	108.0	80.8	82.2	76.8	83.1
Sept.	88.7	88.2	91.5	92.5	96.0	100.7	79.0	78.5	80.3	85.5
Oct.	87.6	88.3	88.8	87.2	93.1	101.7	77.4	77.6	79.7	86.7
Nov.	86.0	86.1	86.8	79.5	91.4	97.1	75.1	74.7	78.9	84.7
Dec.	84.7	86.9	87.3	84.1	90.6	100.9	74.9	76.7	78.6	85.5

Month and year	Iron and steel and their products—Continued						Lumber and its products			
	Machine tools		Steam fittings and steam and hot-water heating apparatus		Stoves		Group index		Lumber, sawmills	
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**	100.0	100.0
1924 average	83.6	84.7	95.4	97.3	86.3	88.7	**94.8**	**97.3**	93.9	96.5
1925 average	87.5	94.4	96.8	99.3	84.1	85.9	**93.1**	**98.1**	90.0	95.5
1926 average	101.9	113.1	96.8	102.0	86.0	87.8	**90.8**	**97.7**	86.9	93.9
1927 average	94.6	104.3	89.6	93.7	78.4	79.4	**83.4**	**91.0**	79.1	86.7
1927—Jan.	102.8	113.2	87.9	90.9	74.8	73.8	**84.0**	**87.1**	79.1	81.9
Feb.	102.0	112.7	91.9	99.3	80.0	83.1	**83.2**	**89.3**	78.1	83.7
Mar.	100.7	112.1	90.9	98.1	82.1	84.6	**82.9**	**90.6**	77.9	85.2
Apr.	98.8	107.8	91.0	96.2	80.4	83.1	**82.8**	**89.5**	78.3	84.2
May	96.2	107.1	89.9	96.0	80.8	82.3	**83.8**	**92.7**	80.4	89.5
June	95.1	105.5	90.6	96.4	80.5	81.7	**84.0**	**92.7**	80.7	90.1
July	92.3	98.5	91.1	92.7	67.3	64.8	**83.7**	**89.4**	80.4	86.7
Aug.	82.6	91.2	91.5	97.6	76.9	78.5	**84.5**	**92.5**	80.9	88.7
Sept.	92.1	101.3	93.0	96.7	80.6	80.9	**85.1**	**93.7**	81.2	90.3
Oct.	91.9	101.0	90.7	95.4	82.1	84.1	**84.5**	**94.5**	79.8	90.0
Nov.	90.3	99.8	85.5	83.6	80.2	80.2	**83.0**	**92.1**	78.0	87.7
Dec.	90.2	101.8	80.7	81.8	75.4	75.8	**79.8**	**88.0**	74.6	82.9

TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1927, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, AND 1927—Continued

[Monthly average, 1923=100]

Month and year	Lumber and its products—Continued				Leather and its products					
	Lumber, millwork		Furniture		Group index		Leather		Boots and shoes	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	100.0	100.0	100.0	100.0	**100.0**	**100.0**	100.0	100.0	100.0	100.0
1924 average	99.7	102.7	94.8	96.3	**90.6**	**88.3**	88.4	89.5	91.4	87.9
1925 average	101.5	106.6	98.7	101.5	**92.5**	**89.4**	90.0	91.2	92.6	88.6
1926 average	98.5	104.7	99.6	106.2	**90.3**	**87.8**	91.2	93.5	90.0	85.5
1927 average	87.9	93.4	95.7	104.3	**88.4**	**85.5**	89.7	90.9	87.9	83.4
1927—Jan	90.1	91.5	97.0	102.1	**91.6**	**87.3**	93.0	95.4	91.1	84.1
Feb	88.8	91.7	97.3	107.3	**92.1**	**92.3**	94.7	97.2	91.3	90.4
Mar	88.2	92.7	96.9	107.8	**91.6**	**90.0**	92.9	94.3	91.2	88.3
Apr	89.0	95.0	94.4	104.4	**87.1**	**84.2**	88.8	89.9	86.6	81.9
May	89.0	96.8	92.3	100.9	**85.5**	**81.8**	87.4	88.4	84.9	79.2
June	89.9	97.5	91.6	98.8	**85.2**	**82.5**	87.5	89.1	84.4	79.9
July	89.3	94.1	91.6	95.7	**88.2**	**86.7**	88.2	87.8	88.2	86.3
Aug	89.4	97.8	94.1	102.3	**91.0**	**93.3**	88.6	90.4	91.8	94.4
Sept	87.7	93.3	97.1	105.7	**91.3**	**91.0**	89.2	88.8	92.0	91.9
Oct	86.1	93.1	99.7	111.1	**89.4**	**85.4**	88.8	89.0	89.6	83.9
Nov	84.0	88.9	99.7	109.5	**84.6**	**75.3**	88.9	88.7	83.2	70.0
Dec	82.9	88.2	96.2	105.7	**82.9**	**76.5**	88.8	91.4	81.0	70.5

Month and year	Paper and printing									
	Group index		Paper and pulp		Paper boxes		Printing, book and job		Printing, newspapers	
1923 average	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	**100.2**	**102.2**	94.3	95.8	99.3	102.2	102.0	103.5	104.1	106.1
1925 average	**100.8**	**102.9**	94.4	99.2	99.9	104.7	101.5	106.0	106.7	110.1
1926 average	**103.6**	**111.5**	95.6	102.5	101.1	109.5	104.1	113.9	111.8	118.3
1927 average	**103.7**	**112.8**	93.3	99.0	97.9	108.4	104.4	116.2	115.6	123.7
1927—Jan	**104.3**	**112.7**	94.4	100.0	98.9	105.8	105.5	118.5	115.1	121.0
Feb	**104.4**	**113.3**	94.5	102.1	97.0	106.3	105.9	117.8	115.8	121.5
Mar	**104.4**	**114.2**	94.3	102.0	95.9	106.0	106.5	119.6	115.8	122.9
Apr	**103.6**	**113.0**	94.2	100.2	95.3	105.0	104.1	115.9	116.0	124.6
May	**102.8**	**112.6**	92.2	98.7	94.4	104.2	103.6	115.2	115.9	125.6
June	**102.4**	**111.0**	92.0	97.0	94.5	102.8	103.2	114.4	115.3	123.3
July	**101.8**	**109.0**	92.2	95.3	95.0	103.8	101.6	111.6	114.4	121.0
Aug	**102.4**	**110.6**	93.2	98.0	96.3	107.2	102.9	113.9	113.5	120.2
Sept	**103.4**	**111.7**	93.3	96.7	99.6	110.8	104.0	114.9	114.0	122.9
Oct	**104.2**	**113.7**	93.3	99.5	102.9	117.6	102.9	114.3	116.4	125.3
Nov	**105.1**	**114.7**	93.1	99.0	103.8	117.5	105.5	116.7	116.8	126.7
Dec	**105.4**	**117.0**	92.3	99.9	100.6	113.3	107.2	122.1	118.3	129.2

Month and year	Chemicals and allied products								Stone, clay, and glass products	
	Group index		Chemicals		Fertilizers		Petroleum refining		Group index	
1923 average	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**
1924 average	**91.6**	**92.7**	91.7	95.8	90.3	91.0	92.1	89.8	**96.7**	**101.3**
1925 average	**94.2**	**95.9**	92.7	97.6	98.8	98.6	94.3	93.2	**97.6**	**103.5**
1926 average	**98.4**	**101.8**	95.3	103.5	103.9	108.9	100.3	97.9	**99.7**	**106.4**
1927 average	**95.1**	**100.9**	95.3	107.3	94.7	102.3	94.9	93.6	**94.2**	**100.3**
1927—Jan	**98.3**	**101.9**	96.1	106.0	97.0	103.3	101.9	97.0	**89.4**	**91.8**
Feb	**100.0**	**106.0**	96.3	107.9	105.7	110.6	102.4	102.6	**91.1**	**98.2**
Mar	**105.0**	**110.0**	96.9	110.6	134.6	131.8	103.0	103.3	**94.8**	**102.8**
Apr	**105.2**	**109.5**	96.7	108.8	142.3	144.9	100.3	100.4	**97.8**	**105.8**
May	**94.3**	**100.2**	93.2	106.0	89.9	95.2	97.6	95.2	**98.9**	**107.9**
June	**90.3**	**100.0**	94.0	108.1	65.6	76.0	96.2	97.9	**99.0**	**105.6**
July	**89.4**	**95.1**	92.9	102.6	64.5	76.5	95.7	92.2	**94.4**	**96.9**
Aug	**90.0**	**96.4**	93.3	104.2	71.7	83.8	93.5	91.5	**94.8**	**100.7**
Sept	**93.8**	**98.5**	95.3	104.6	95.2	110.7	91.1	88.5	**95.0**	**99.4**
Oct	**92.6**	**98.3**	96.3	108.9	91.8	99.0	87.9	86.6	**93.4**	**100.6**
Nov	**91.7**	**96.9**	97.2	108.6	89.4	96.8	85.2	84.2	**93.0**	**98.6**
Dec	**90.4**	**98.2**	95.5	111.3	89.0	99.1	84.1	83.6	**88.8**	

TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1927, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, AND 1927—Continued

[Monthly average, 1923=100]

Month and year	Stone, clay, and glass products—Continued								Metal products other than iron and steel	
	Cement		Brick, tile, and terra cotta		Pottery		Glass		Group index	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**
1924 average	99.9	103.6	98.1	103.6	107.5	110.9	90.4	95.2	**92.7**	**91.6**
1925 average	96.6	100.7	99.6	104.2	104.9	112.2	93.4	100.9	**96.7**	**89.8**
1926 average	91.7	96.0	100.7	105.2	106.8	116.6	99.0	108.0	**97.5**	**98.5**
1927 average	87.9	92.6	95.0	99.0	100.9	109.8	93.2	100.9	**90.5**	**90.3**
1927—Jan	82.0	80.4	86.4	86.7	103.8	104.3	89.7	96.4	**92.4**	**91.9**
Feb	80.1	81.5	84.5	89.7	109.2	122.9	94.7	103.7	**92.5**	**95.2**
Mar	84.8	88.0	91.3	97.1	108.8	124.5	96.6	106.0	**94.6**	**97.9**
Apr	88.2	94.8	99.7	104.2	105.7	120.3	96.4	106.3	**93.9**	**91.3**
May	90.4	101.8	104.0	112.3	103.7	111.4	94.9	105.2	**93.5**	**95.1**
June	92.3	100.0	104.1	110.8	102.6	105.4	94.9	103.1	**90.7**	**91.5**
July	93.3	97.5	103.5	106.9	81.6	81.3	90.3	93.0	**89.5**	**86.9**
Aug	93.2	99.1	100.9	105.6	94.8	103.2	89.4	96.2	**90.0**	**88.3**
Sept	92.4	97.5	97.8	100.6	96.7	104.4	92.5	97.3	**88.9**	**86.0**
Oct	90.0	96.1	92.8	96.3	98.6	111.1	93.3	102.5	**87.9**	**86.7**
Nov	86.7	91.0	90.1	92.5	101.0	111.8	95.2	102.3	**86.5**	**85.1**
Dec	80.8	83.5	84.3	85.8	103.9	117.3	90.4	99.0	**86.0**	**87.1**

Month and year	Metal products, other than iron and steel—Continued				Tobacco products					
	Stamped and enameled ware		Brass, bronze, and copper products		Group index		Chewing and smoking tobacco and snuff		Cigars and cigarettes	
1923 average	100.0	100.0	100.0	100.0	**100.0**	**100.0**	100.0	100.0	100.0	100.0
1924 average	90.1	85.3	94.0	93.9	**94.0**	**95.6**	99.9	101.1	93.3	94.9
1925 average	94.2	91.7	97.9	100.2	**92.0**	**92.7**	92.0	98.2	92.1	92.0
1926 average	95.1	91.5	98.7	101.1	**85.6**	**87.7**	94.9	99.9	84.5	86.3
1927 average	84.6	82.9	93.2	93.0	**84.0**	**85.2**	92.7	97.6	82.9	83.7
1927—Jan	83.7	76.6	96.4	97.5	**77.8**	**77.6**	92.3	102.5	75.9	74.7
Feb	86.1	86.4	95.4	98.5	**83.6**	**80.6**	98.9	105.1	81.6	77.7
Mar	89.6	91.2	96.8	100.3	**83.5**	**82.1**	97.8	100.0	81.6	80.0
Apr	88.2	86.7	96.5	93.0	**81.6**	**79.0**	90.6	91.3	80.4	77.6
May	86.1	85.9	96.8	98.5	**82.4**	**84.6**	89.0	94.4	81.6	83.5
June	84.2	83.2	93.7	94.6	**84.6**	**87.8**	89.2	98.9	84.0	86.5
July	82.8	78.4	92.5	90.0	**84.6**	**86.7**	87.3	96.4	84.3	85.6
Aug	82.5	82.1	93.4	90.6	**78.5**	**80.8**	91.1	95.3	76.9	79.1
Sept	82.9	78.8	91.6	88.7	**87.8**	**91.4**	91.3	93.1	87.4	91.2
Oct	83.4	82.7	89.9	88.2	**89.8**	**92.3**	95.7	102.2	89.0	91.1
Nov	83.5	82.8	87.9	86.0	**89.1**	**91.3**	94.9	94.5	88.3	90.9
Dec	81.8	79.4	87.9	90.0	**84.5**	**87.9**	94.2	97.2	83.3	86.8

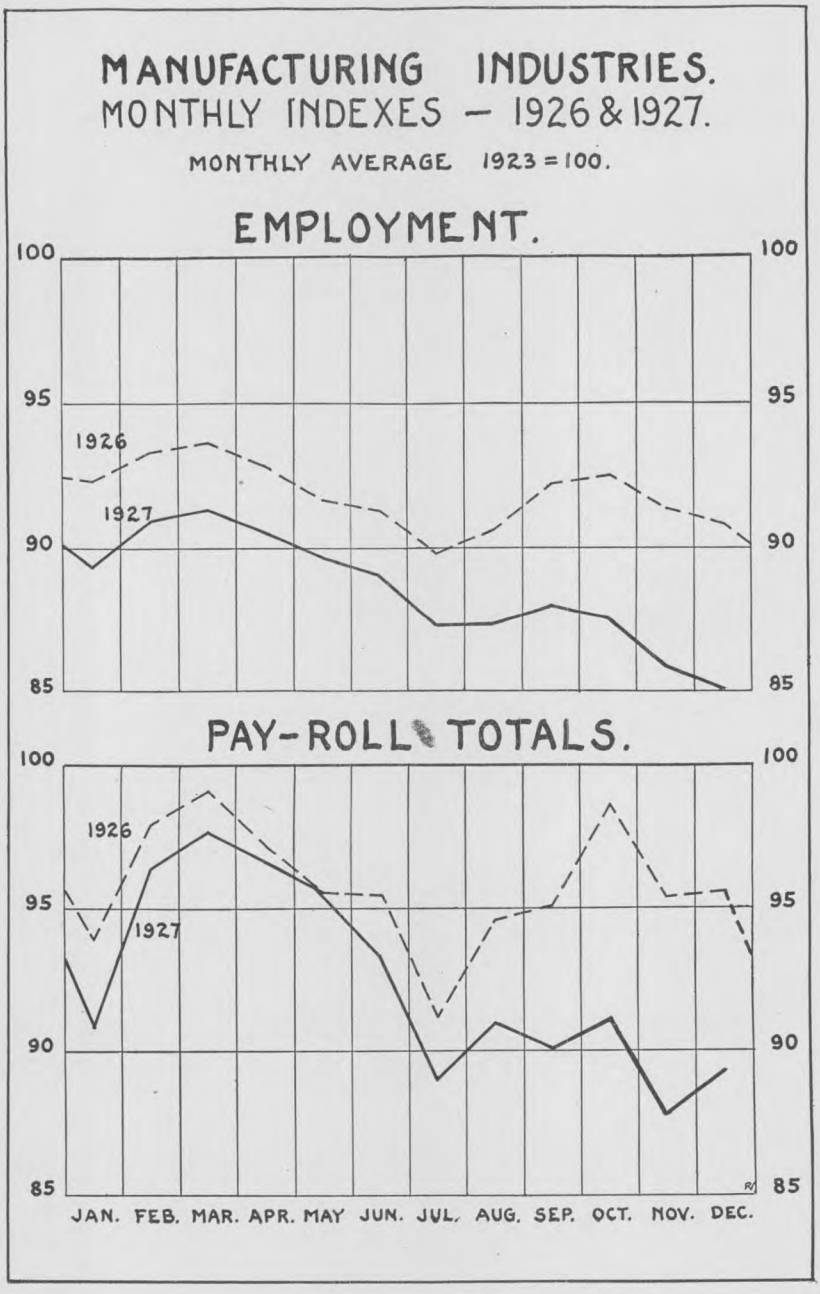
Month and year	Vehicles for land transportation									
	Group index		Automobiles		Carriages and wagons		Car building and repairing, electric-railroad		Car building and repairing, steam-railroad	
1923 average	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	**88.6**	**87.5**	93.6	91.1	83.5	87.7	88.7	88.8	85.5	85.0
1925 average	**91.0**	**93.5**	106.5	111.3	92.1	92.6	88.4	91.3	81.3	82.2
1926 average	**91.2**	**92.8**	107.6	108.7	91.9	92.3	88.7	90.8	80.8	82.7
1927 average	**82.8**	**85.0**	98.2	98.2	72.3	77.2	89.5	91.8	72.9	76.3
1927—Jan	**81.2**	**73.6**	90.3	69.0	62.6	66.4	88.1	89.6	75.5	75.8
Feb	**85.3**	**88.8**	101.7	102.9	73.4	77.0	89.1	90.6	75.0	80.0
Mar	**86.3**	**91.3**	106.1	112.6	74.5	79.7	89.5	92.5	73.9	77.9
Apr	**86.8**	**93.1**	106.9	115.8	73.3	80.8	89.5	91.9	74.2	78.9
May	**86.9**	**94.2**	107.2	116.5	74.1	80.4	88.4	92.6	74.3	80.4
June	**85.1**	**85.8**	101.6	96.4	70.5	76.3	89.8	93.1	74.7	78.8
July	**82.3**	**81.4**	95.3	91.9	67.6	73.6	90.3	90.4	74.0	74.3
Aug	**83.0**	**85.8**	99.1	100.1	72.5	78.8	90.8	92.3	72.6	76.5
Sept	**81.7**	**81.6**	96.2	94.5	76.2	81.2	90.8	91.5	72.0	72.8
Oct	**80.9**	**84.2**	95.2	98.1	74.8	81.5	90.0	91.2	71.4	74.9
Nov	**76.8**	**79.0**	87.2	86.3	73.5	75.3	88.9	92.1	69.5	73.7
Dec	**77.5**	**80.8**	91.0	93.8	74.8	75.0	88.4	93.4	68.2	71.9

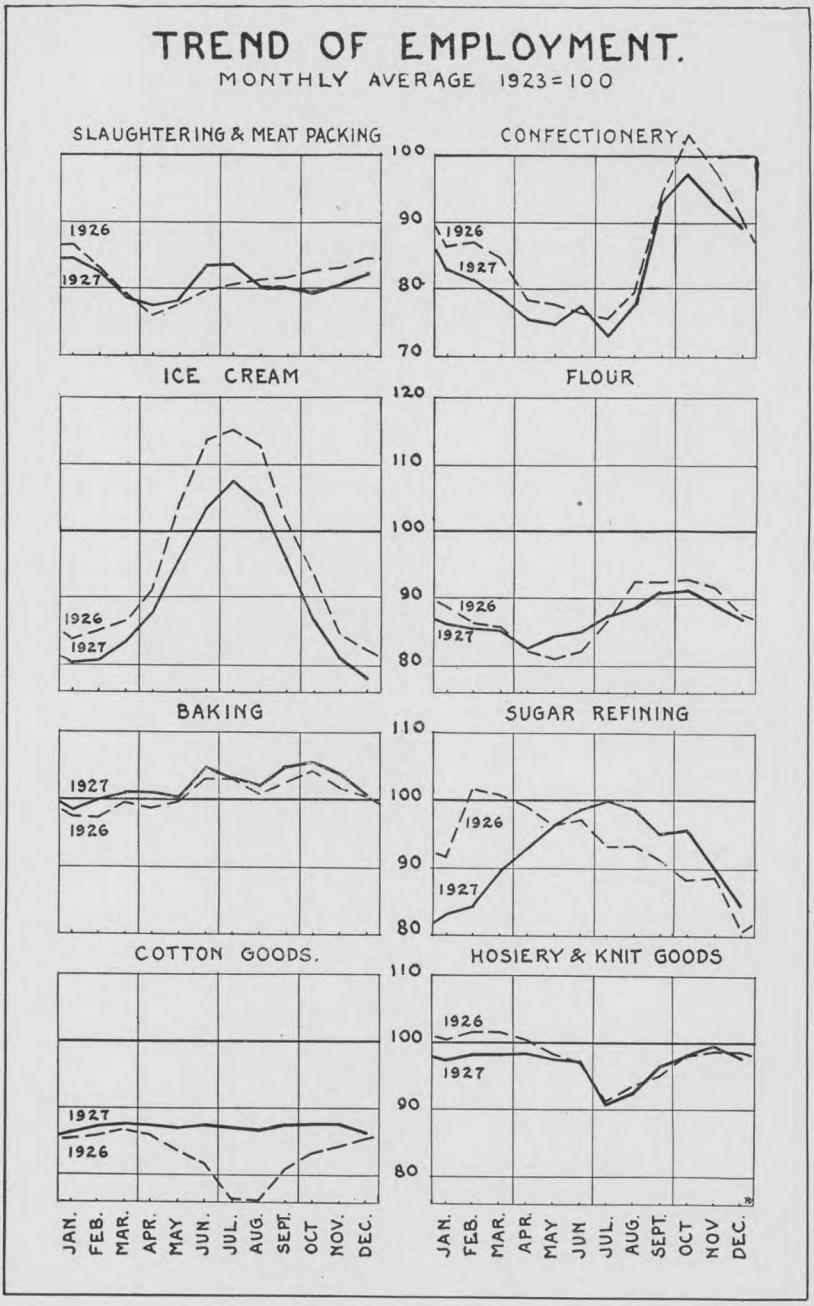
TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1927, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, AND 1927—Continued

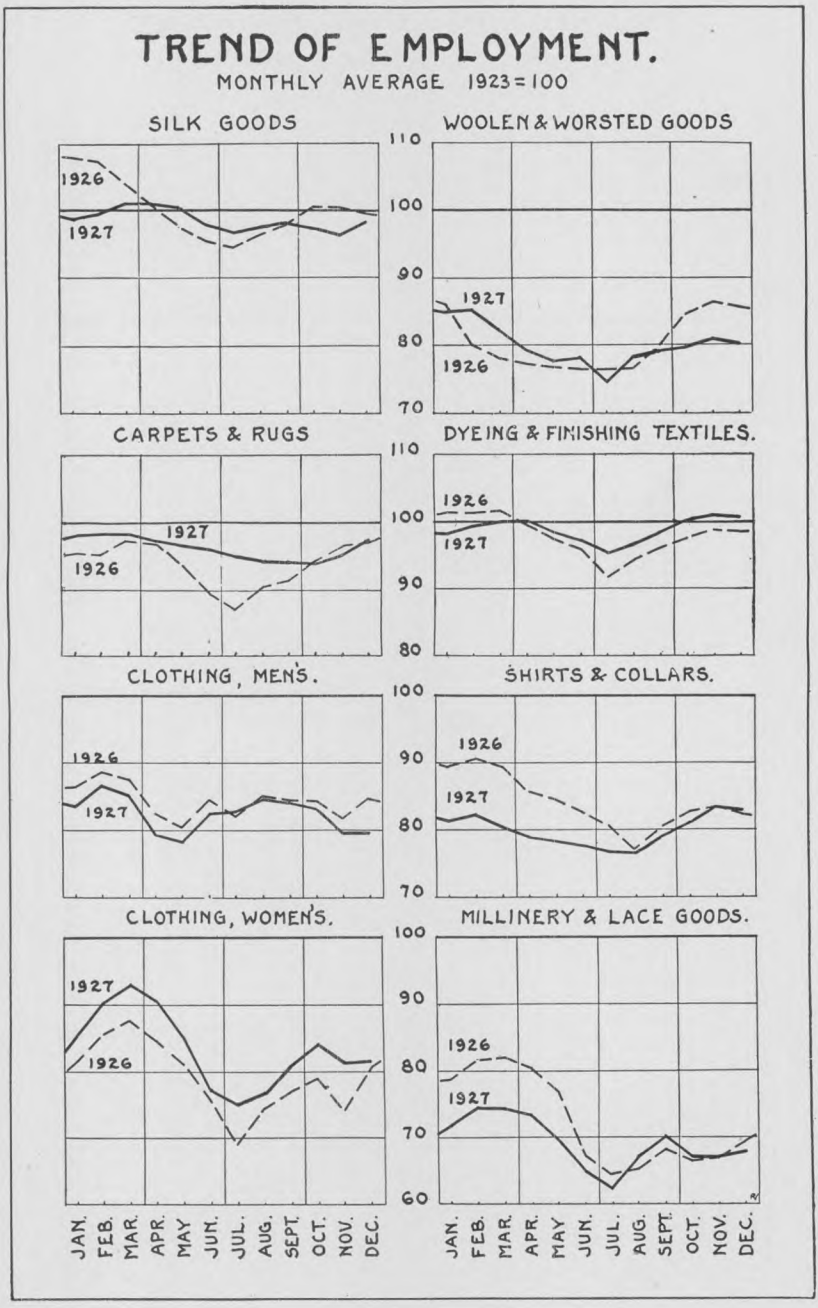
[Monthly average, 1923=100]

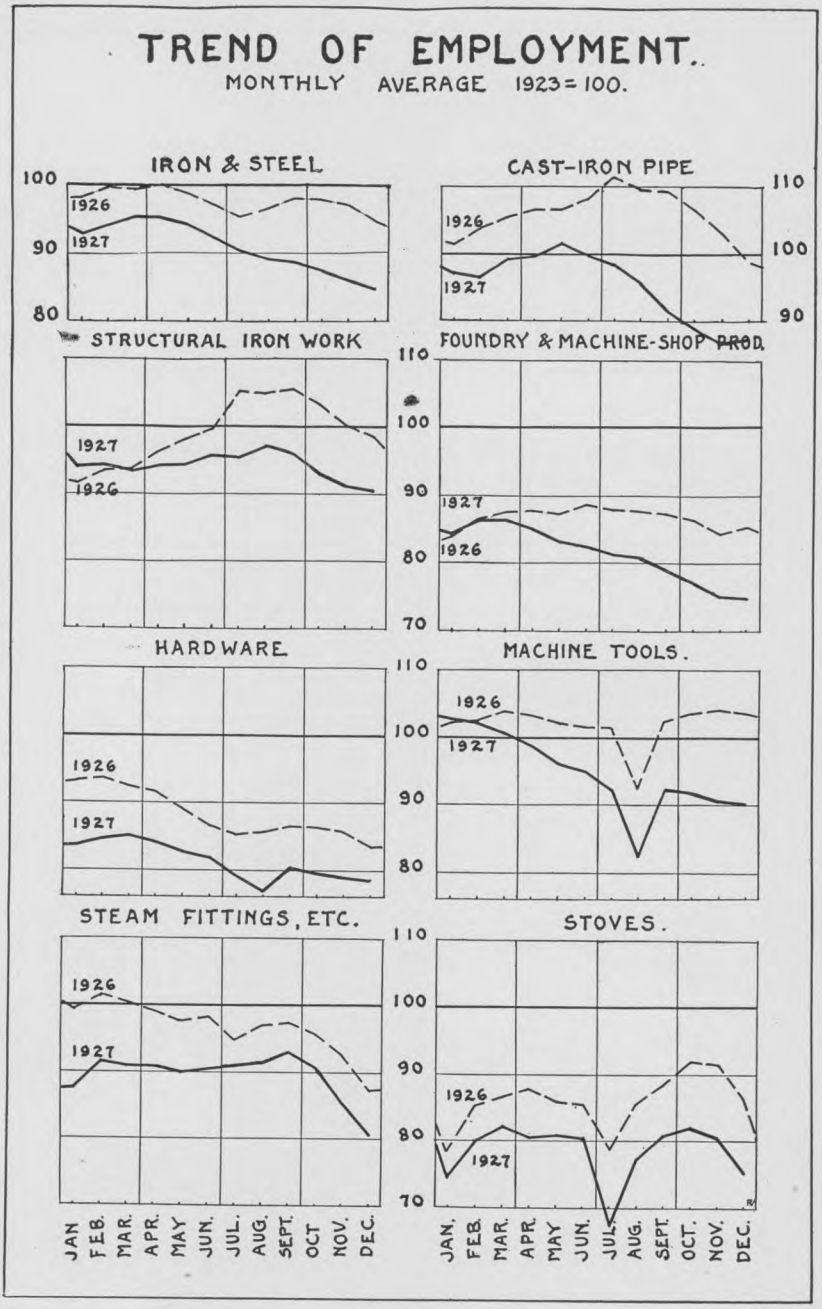
Month and year	Miscellaneous industries									
	Group index		Agricultural implements		Electrical machinery, apparatus, and supplies		Pianos and organs		Rubber boots and shoes	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	**87.8**	**90.6**	80.1	83.8	93.8	97.7	94.9	101.8	70.9	71.5
1925 average	**91.6**	**94.6**	92.4	101.1	90.9	95.0	94.0	103.1	83.3	91.2
1926 average	**96.8**	**101.9**	98.7	111.4	98.7	103.1	95.0	105.4	85.7	93.3
1927 average	**96.3**	**102.8**	90.7	102.7	93.8	98.7	85.9	92.1	88.5	100.5
1927—Jan.	**100.7**	**107.2**	93.8	104.1	96.3	101.1	93.3	98.0	89.5	102.9
Feb.	**102.5**	**109.2**	96.6	112.2	95.1	100.1	90.2	93.7	89.4	100.0
Mar.	**102.5**	**111.4**	96.6	109.5	93.8	100.4	87.4	92.3	87.6	97.5
Apr.	**101.8**	**113.3**	93.8	107.8	93.5	100.2	84.5	87.4	86.4	97.5
May	**100.2**	**109.3**	91.2	106.2	92.7	100.2	82.9	88.1	87.0	100.6
June	**98.7**	**104.9**	89.5	101.1	94.8	101.7	82.9	86.0	86.5	97.4
July	**94.2**	**99.5**	85.3	93.1	92.0	93.6	79.2	79.0	80.6	90.2
Aug.	**92.6**	**96.6**	86.6	99.0	92.4	97.7	83.8	89.2	80.7	91.3
Sept.	**91.4**	**93.2**	84.0	90.7	93.9	94.3	85.5	96.0	89.4	102.3
Oct.	**90.8**	**96.5**	87.6	98.4	95.1	100.4	87.8	100.0	92.0	105.1
Nov.	**89.7**	**92.4**	88.6	99.7	94.4	96.0	88.4	98.1	94.4	109.6
Dec.	**90.4**	**99.8**	94.7	110.1	92.0	98.2	85.0	97.3	98.6	111.8

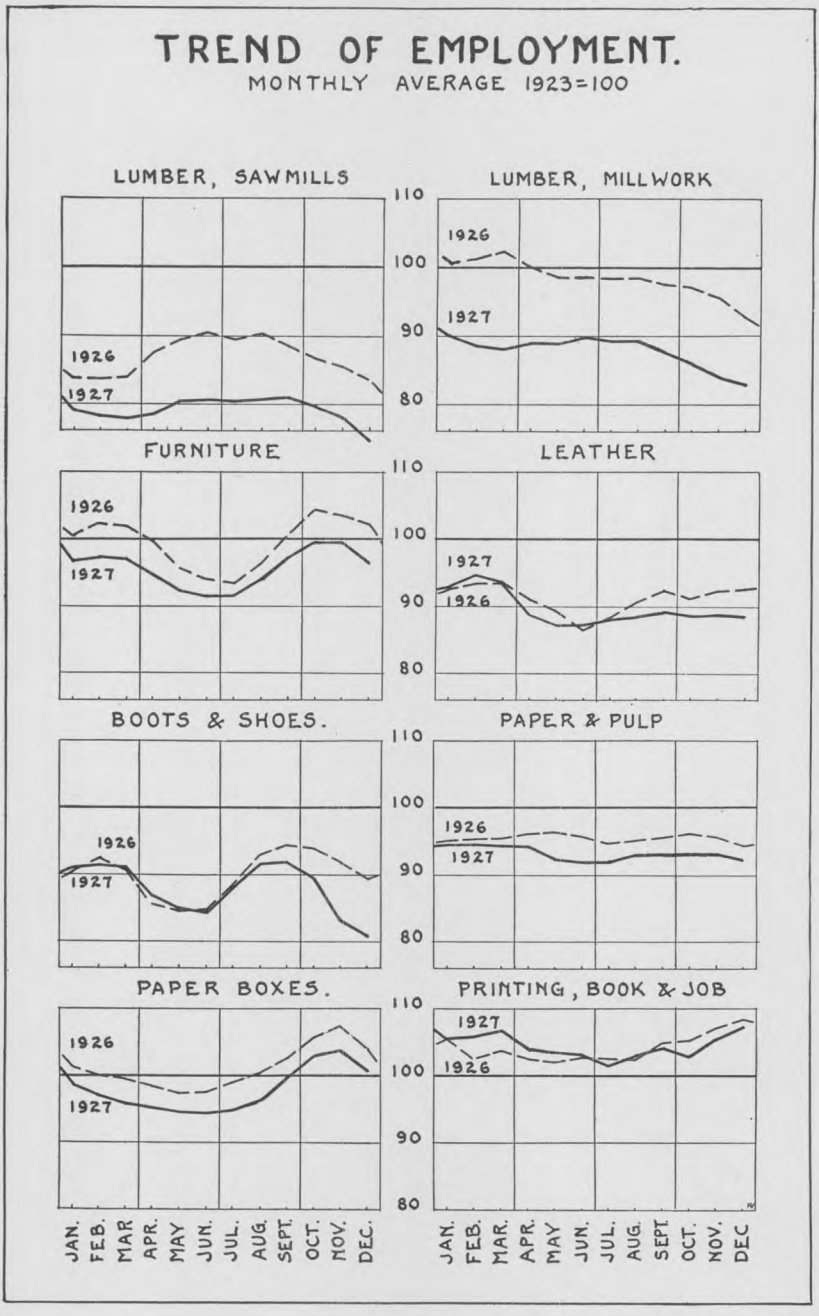
Month and year	Miscellaneous industries—Continued									
	Automobile tires		Shipbuilding, steel							
1923 average	100.0	100.0	100.0	100.0						
1924 average	97.3	99.9	83.1	86.2						
1925 average	112.2	113.9	85.3	87.7						
1926 average	109.8	113.4	92.1	97.1						
1927 average	106.8	111.4	96.5	102.8						
1927—Jan.	102.4	103.8	105.5	112.0						
Feb.	104.3	112.2	109.6	113.2						
Mar.	105.9	114.1	110.1	117.5						
Apr.	111.8	121.5	107.4	119.5						
May	116.0	124.5	103.2	110.9						
June	113.8	120.2	99.7	103.7						
July	111.4	114.2	93.3	100.1						
Aug.	110.4	114.0	89.3	91.4						
Sept.	106.7	109.7	86.3	87.5						
Oct.	102.1	104.3	84.9	91.6						
Nov.	97.3	94.1	83.9	88.1						
Dec.	99.7	103.6	85.1	97.5						

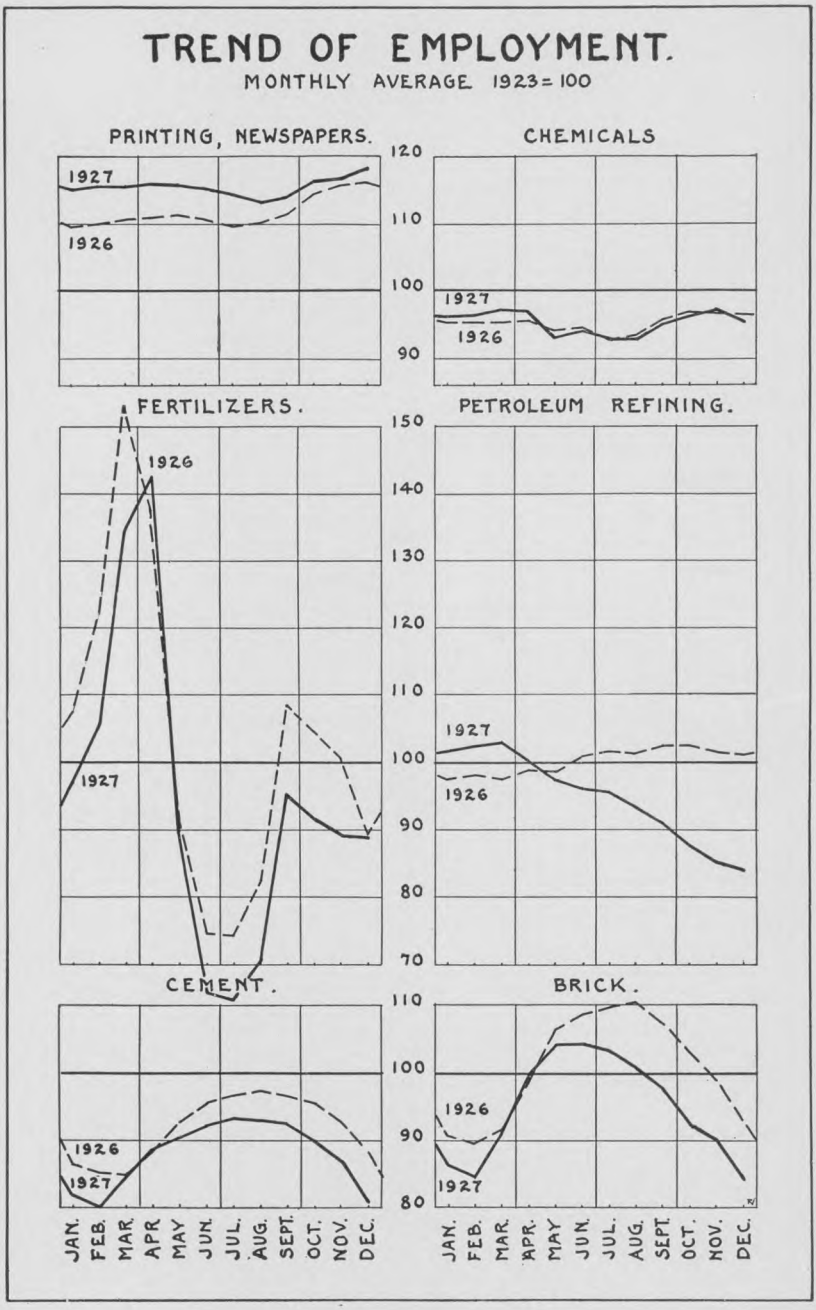


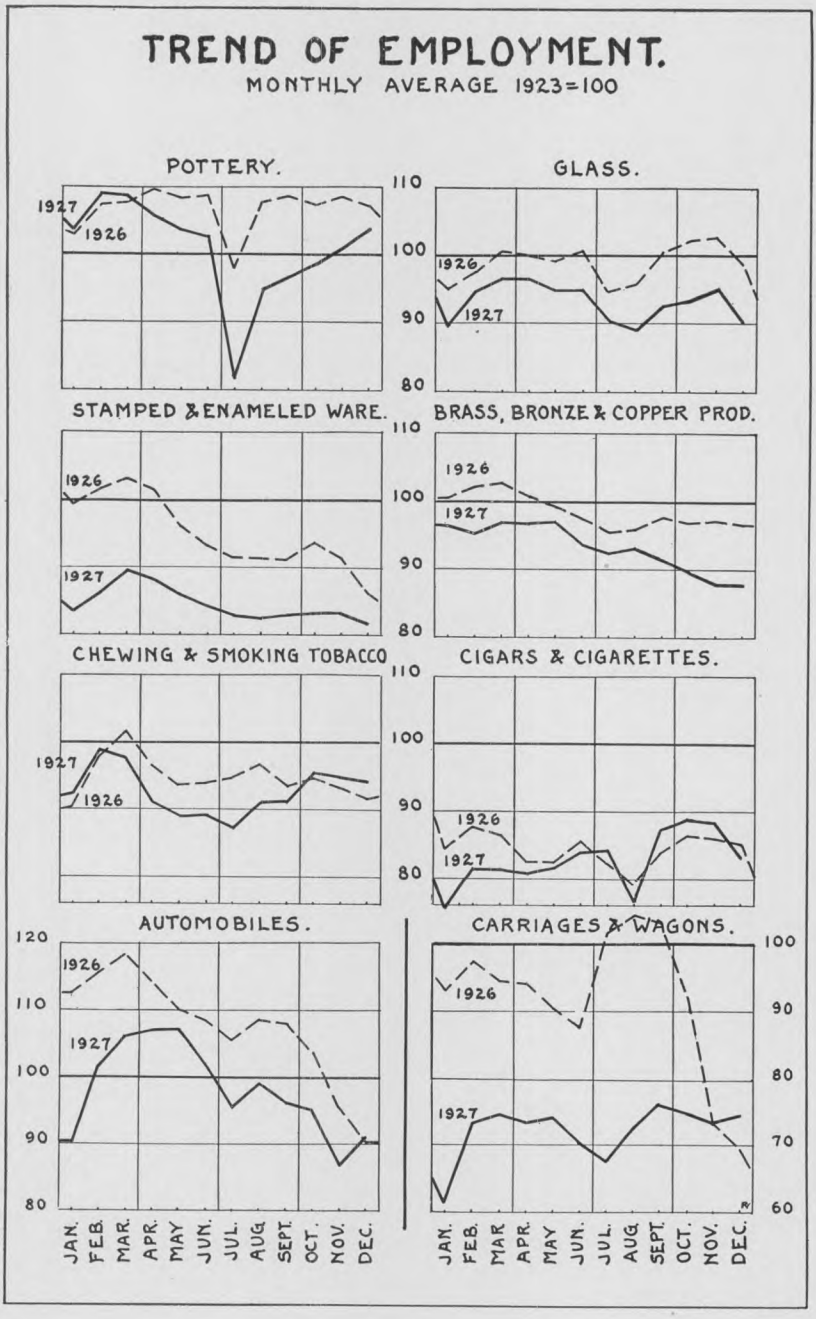


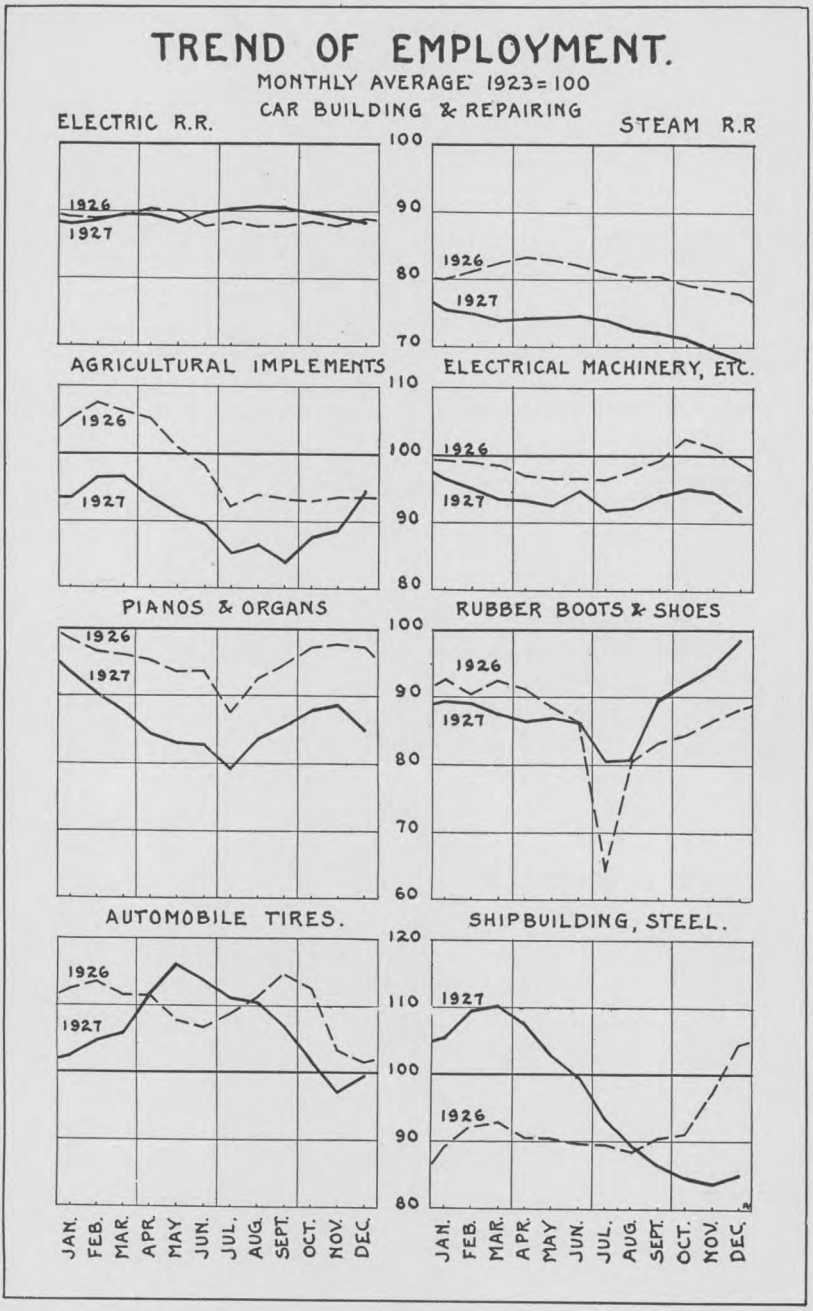












Proportion of Time Worked and Force Employed in Manufacturing Industries in December, 1927

REPORTS from 8,991 establishments in December, 1927, show that 1 per cent of these establishments were idle, 79 per cent were operating on a full-time schedule, and 20 per cent on a part-time schedule; 31 per cent had a normal full force of employees and 68 per cent were operating with reduced forces.

The establishments in operation were employing an average of 84 per cent of a normal full force of employees and were operating an average of 96 per cent of full time. These percentages indicate a drop of 1 per cent in average force employed and no change in operating time since the November report.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN DECEMBER, 1927

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of normal full force employed by establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Food and kindred products	**1,360**	(1)	**86**	**14**	**97**	**34**	**66**	**88**
Slaughtering and meat packing	152	------	91	9	99	52	48	91
Confectionery	241	(1)	85	14	97	28	72	82
Ice cream	140	1	91	9	98	6	94	64
Flour	273	(1)	73	27	92	45	55	88
Baking	543	------	91	9	99	33	67	93
Sugar refining, cane	11	------	82	18	94	18	82	82
Textiles and their products	**1,435**	**1**	**82**	**17**	**97**	**40**	**59**	**91**
Cotton goods	390	1	82	18	97	51	48	93
Hosiery and knit goods	178	------	89	11	98	47	53	92
Silk goods	160	------	79	21	97	39	61	93
Woolen and worsted goods	163	1	81	18	96	36	63	84
Carpets and rugs	20	------	100	------	100	45	55	101
Dyeing and finishing textiles	87	------	71	29	95	45	55	93
Clothing, men's	195	3	77	21	96	33	64	86
Shirts and collars	62	2	87	11	99	44	55	98
Clothing, women's	133	1	87	12	97	17	82	89
Millinery and lace goods	47	2	79	19	98	21	77	83
Iron and steel and their products	**1,579**	**1**	**63**	**36**	**93**	**20**	**80**	**80**
Iron and steel	159	4	74	23	94	14	82	82
Cast-iron pipe	36	------	53	47	86	19	81	79
Structural ironwork	147	------	78	22	97	28	72	83
Foundry and machine-shop products	863	(1)	60	40	93	17	82	77
Hardware	51	------	53	47	93	10	90	82
Machine tools	138	------	70	30	96	17	83	82
Steam fittings and steam and hot-water heating apparatus	103	1	54	45	91	28	71	82
Stoves	82	------	60	40	89	35	65	85
Lumber and its products	**972**	**1**	**78**	**21**	**97**	**29**	**69**	**82**
Lumber, sawmills	379	2	84	14	97	26	72	79
Lumber, millwork	219	(1)	65	35	95	20	80	74
Furniture	374	1	79	20	97	38	61	91
Leather and its products	**310**	**1**	**77**	**23**	**95**	**30**	**69**	**86**
Leather	114	------	90	10	99	32	68	86
Boots and shoes	196	1	69	30	92	29	70	86
Paper and printing	**764**	(1)	**92**	**8**	**99**	**55**	**45**	**97**
Paper and pulp	172	1	90	10	98	42	57	94
Paper boxes	152	------	86	14	98	43	57	91
Printing, book and job	293	------	94	6	100	52	48	99
Printing, newspapers	147	------	100	------	100	87	13	103
Chemicals and allied products	**298**	**1**	**83**	**16**	**98**	**19**	**79**	**77**
Chemicals	99	------	91	9	99	40	60	93
Fertilizers	158	3	73	25	96	7	91	55
Petroleum refining	41	------	100	------	100	17	83	77

[1] Less than one-half of 1 per cent.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN DECEMBER, 1927—Continued

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of normal full force employed by establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Stone, clay, and glass products	**533**	**2**	**77**	**21**	**95**	**17**	**81**	**82**
Cement	85	1	85	14	94	14	85	79
Brick, tile, and terra cotta	295	3	68	29	94	11	86	77
Pottery	60	2	85	13	97	35	63	94
Glass	93	------	94	6	99	24	76	84
Metal products other than iron and steel	**205**	------	**73**	**27**	**95**	**21**	**79**	**82**
Stamped and enameled ware	64	------	81	19	97	28	72	80
Brass, bronze, and copper products	141	------	70	30	95	18	82	84
Tobacco products	**142**	**1**	**80**	**19**	**97**	**42**	**57**	**93**
Chewing and smoking tobacco and snuff	26	------	77	23	97	46	54	94
Cigars and cigarettes	116	1	81	18	97	41	58	92
Vehicles for land transportation	**1,057**	(1)	**87**	**13**	**98**	**32**	**67**	**78**
Automobiles	177	------	77	23	96	18	82	77
Carriages and wagons	57	------	79	21	97	25	75	75
Car building and repairing, electric-railroad	358	(1)	90	9	99	56	44	95
Car building and repairing, steam-railroad	465	------	89	11	99	21	79	79
Miscellaneous industries	**336**	------	**74**	**26**	**97**	**25**	**75**	**85**
Agricultural implements	88	------	64	36	96	19	81	84
Electrical machinery, apparatus, and supplies	129	------	77	23	97	28	72	87
Pianos and organs	35	------	77	23	96	26	74	84
Rubber boots and shoes	10	------	80	20	99	80	20	103
Automobile tires	46	------	70	30	94	15	85	83
Shipbuilding, steel	28	------	93	7	99	25	75	72
Total	**8,991**	**1**	**79**	**20**	**96**	**31**	**68**	**84**

[1] Less than one-half of 1 per cent.

Employment and Pay-roll Totals on Class I Railroads, November, 1926, and October and November, 1927

THE number of employees on the 15th of November, 1927, and the total earnings of employees in the entire month of November, 1927, on Class I railroads of the United States are shown in the table following, together with similar information for October, 1927, and November, 1926. The data are presented for all occupations combined, excluding executives and officials, and also for the six general groups of occupation; under each group data are shown separately for a few of the more important occupations.

Class I railroads are roads having operating revenues of $1,000,000 a year and over.

EMPLOYMENT AND TOTAL MONTHLY EARNINGS OF RAILROAD EMPLOYEES—NOVEMBER, 1926, AND OCTOBER AND NOVEMBER, 1927

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	1926	1927		1926	1927	
	November	October	November	November	October	November
Professional, clerical, and general	**287,625**	**279,337**	**278,023**	**$39,388,763**	**$40,103,740**	**$39,420,646**
Clerks	169,049	162,102	160,808	21,876,885	22,114,927	21,557,016
Stenographers and typists	25,598	25,026	25,043	3,143,369	3,202,968	3,180,231
Maintenance of way and structures	**423,616**	**444,943**	**408,836**	**38,608,293**	**41,668,794**	**37,345,361**
Laborers, extra gang and work train	69,099	76,682	67,345	5,190,889	6,044,881	5,034,575
Laborers, track and roadway section	213,913	230,553	206,290	15,295,282	17,141,946	14,512,068
Maintenance of equipment and stores	**519,706**	**482,368**	**479,329**	**67,808,900**	**65,374,505**	**62,384,589**
Carmen	113,718	104,052	102,856	16,696,328	16,052,270	15,104,995
Machinists	60,880	58,207	58,116	9,650,738	9,432,834	9,006,858
Skilled trades helpers	115,277	106,583	105,745	12,768,700	12,264,930	11,626,962
Laborers (shops, engine houses, power plants, and stores)	42,926	40,409	40,306	4,067,626	3,958,265	3,819,957
Common laborers (shops, engine houses, power plants, and stores)	60,210	54,579	53,833	4,797,725	4,575,148	4,288,541
Transportation, other than train, engine, and yard	**212,743**	**206,841**	**203,243**	**25,735,546**	**26,134,844**	**25,098,670**
Station agents	30,599	30,271	30,212	4,707,685	4,810,645	4,723,021
Telegraphers, telephoners, and towermen	25,628	24,420	24,094	3,817,870	3,830,830	3,671,035
Truckers (stations, warehouses, and platforms)	41,040	38,455	37,086	3,732,087	3,753,790	3,440,433
Crossing and bridge flagmen and gatemen	22,085	21,753	21,590	1,659,501	1,677,708	1,665,474
Transportation (yardmasters, switch tenders, and hostlers)	**24,409**	**23,089**	**22,895**	**4,498,063**	**4,529,309**	**4,403,395**
Transportation, train and engine	**342,917**	**329,951**	**319,749**	**68,897,365**	**70,035,165**	**63,346,384**
Road conductors	38,288	37,531	35,915	9,081,271	9,342,127	8,425,214
Road brakemen and flagmen	78,052	75,551	72,524	13,621,386	13,955,596	12,369,783
Yard brakemen and yard helpers	57,800	54,481	53,674	10,099,113	10,306,206	9,485,901
Road engineers and motormen	45,841	44,654	42,786	12,376,226	12,516,603	11,209,366
Road firemen and helpers	47,124	45,552	44,218	9,200,964	9,392,012	8,399,641
All occupations	**1,811,016**	**1,766,529**	**1,712,075**	**244,936,930**	**247,846,357**	**231,999,045**

State Reports on Employment

California

THE following data, taken from the December, 1927, issue of the Labor Market Bulletin, issued by the State department of industrial relations, show changes in number of employees and in amount of weekly pay roll of 790 industrial establishments in California from November, 1926, to November, 1927:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 790 CALIFORNIA ESTABLISHMENTS BETWEEN NOVEMBER, 1926, AND NOVEMBER, 1927

Industry	Number of establishments reporting	Employees		Weekly pay roll	
		Number in November, 1927	Per cent of change as compared with November, 1926	Amount in November, 1927	Per cent of change as compared with November, 1926
Stone, clay, and glass products:					
Miscellaneous stone and mineral products	12	1,543	+14.0	$45,334	+4.3
Lime, cement, plaster	8	1,643	−26.2	50,928	−28.3
Brick, tile, pottery	21	3,424	−.6	84,583	+5.1
Glass	8	812	+4.1	25,752	−1.2
Total	49	7,422	−4.9	206,597	−6.5
Metals, machinery, and conveyances:					
Agricultural implements	6	1,642	+33.4	46,855	+32.6
Automobiles, including bodies and parts	14	1,422	−48.2	50,479	−45.4
Brass, bronze, and copper products	9	919	−8.6	26,541	−9.3
Engines, pumps, boilers, and tanks	9	826	+3.0	25,065	+.1
Iron and steel forging, bolts, nuts, etc	8	2,726	−12.8	81,384	−19.9
Structural and ornamental steel	20	3,761	−8.5	120,717	−4.2
Ship and boat building and naval repairs	6	5,257	−12.5	170,649	−12.2
Tin cans	7	2,019	−21.0	55,085	−19.1
Other iron foundry and machine-shop products	74	7,037	−13.6	214,989	−14.7
Other sheet-metal products	22	1,596	−4.4	45,084	−10.2
Cars, locomotives, and railway repair shops	16	7,120	−2.6	222,648	−1.4
Total	191	34,275	−11.3	1,059,496	−11.7
Wood manufactures:					
Sawmills and logging	26	12,483	+2.8	349,179	0
Planing mills, sash and door factories, etc	62	10,195	−6.1	268,401	−10.7
Other wood manufactures	42	5,386	+7.7	159,105	+11.0
Total	130	28,064	+.3	776,685	−2.1
Leather and rubber goods:					
Tanning	8	751	−13.0	22,364	−5.8
Finished leather products	5	448	−12.8	8,431	−20.7
Rubber products	7	2,253	−22.6	61,607	−20.5
Total	20	3,452	−19.5	92,402	−17.4
Chemicals, oils, paints, etc.:					
Explosives	4	498	+5.5	15,029	+2.5
Mineral oil refining	6	5,185	−29.5	195,160	−29.2
Paints, dyes, and colors	8	701	−1.4	16,791	−3.3
Miscellaneous chemical products	13	1,944	−15.6	51,331	−16.6
Total	31	8,328	−23.2	278,311	−24.6
Printing and paper goods:					
Paper boxes, bags, cartons, etc	13	2,003	−3.9	56,065	+5.7
Printing	59	2,481	−2.3	86,497	−4.0
Publishing	16	3,612	+.1	138,094	+.7
Other paper products	10	1,195	−5.3	30,604	+.2
Total	98	9,291	−2.2	311,260	+.2

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 790 CALIFORNIA ESTABLISHMENTS BETWEEN NOVEMBER, 1926, AND NOVEMBER, 1927—Continued

Industry	Number of establishments reporting	Employees		Weekly pay roll	
		Number in November, 1927	Per cent of change as compared with November, 1926	Amount in November, 1927	Per cent of change as compared with November, 1926
Textiles:					
Knit goods	12	1,158	+0.8	$24,621	0
Other textile products	6	1,512	−8.1	31,042	−15.9
Total	18	2,670	−4.5	55,663	−9.5
Clothing, millinery and laundering:					
Men's clothing	26	3,036	−3.8	66,131	−1.8
Women's clothing	10	868	−8.0	16,404	−5.4
Millinery	7	570	+7.3	9,951	+4.9
Laundering, cleaning, and dyeing	23	3,485	+3.0	76,806	−1.0
Total	66	7,959	−.7	169,292	−1.4
Foods, beverages, and tobacco:					
Canning, preserving of fruits and vegetables	36	7,220	−6.1	135,786	−5.2
Canning, packing of fish	7	849	−40.3	7,875	−64.7
Confectionery and ice cream	22	1,668	+.9	38,353	+4.3
Groceries not elsewhere specified	5	497	−5.0	12,865	+1.6
Bread and bakery products	22	3,690	+1.8	104,387	+1.3
Sugar	4	2,778	+.5	76,423	+3.2
Slaughtering and meat products	14	2,616	−1.6	78,019	−1.6
Cigars and other tobacco products	5	967	−7.8	17,863	−6.0
Beverages	3	419	+5.8	10,275	−1.1
Dairy products	9	2,705	−4.1	95,541	−.8
Flour and grist mills	12	1,341	−7.8	37,635	−4.5
Ice manufactures	15	1,233	+2.2	40,573	0
Other food products	13	1,704	+9.7	34,766	+17.8
Total	167	27,687	−3.9	690,361	−2.3
Water, light, and power	5	8,391	−2.4	253,782	−5.7
Miscellaneous	15	2,288	−15.5	63,295	−8.6
Total, all industries	790	139,827	−6.8	3,957,144	−7.6

Iowa

THE December, 1927, issue of the Iowa Employment Survey, published by the bureau of labor of that State, shows the following changes in volume of employment from November to December, 1927:

CHANGES IN VOLUME OF EMPLOYMENT IN IOWA, NOVEMBER TO DECEMBER, 1927

Industry	Number of firms reporting	Employees on pay roll, December, 1927	
		Number	Per cent of change as compared with November, 1927
Food and kindred products:			
Meat packing	8	7,643	+14.2
Cereals	2	1,086	+4.3
Flour	3	112	0.0
Bakery products	9	961	+1.5
Confectionery	4	151	+8.6
Poultry, produce, butter, etc	5	760	+16.9
Sugar, starch, sirup, glucose, etc	3	1,917	+4.5
Other food products, coffee, etc	9	369	+6.6
Total	43	12,999	+10.5
Textiles:			
Clothing, men's	10	992	−10.0
Millinery	2	151	+7.9
Clothing, women's, and woolen goods	3	531	+2.5
Hosiery, awnings, etc	4	806	0.0
Buttons, pearl	8	706	+8.0
Total	27	3,186	−1.0
Iron and steel works:			
Foundry and machine shops	30	2,682	−7.6
Brass, bronze products, plumbers' supplies	5	543	+1.3
Autos, tractors, and engines	6	2,095	+3.8
Furnaces	6	248	−.8
Pumps	4	337	−1.5
Agricultural implements	9	945	+4.1
Washing machines	8	2,647	+1.6
Total	68	9,497	−.7
Lumber products:			
Millwork, interiors, etc	16	2,214	−2.3
Furniture, desks, etc	8	826	−28.2
Refrigerators	3	140	−12.0
Coffins, undertakers' supplies	5	154	0.0
Carriages, wagons, truck bodies	5	91	−18.8
Total	37	3,425	−10.8
Leather products:			
Shoes	3	396	−2.7
Saddlery and harness	6	239	+7.2
Fur goods and tanning	4	74	+2.8
Gloves and mittens	3	255	−6.6
Total	16	964	−1.1
Paper products, printing and publishing:			
Paper products	5	354	−1.1
Printing and publishing	16	2,761	+.9
Total	21	3,115	+.7
Patent medicines, chemicals, and compounds	8	506	+.8
Stone and clay products:			
Cement, plaster, gypsum	8	1,394	−14.8
Brick and tile	12	739	−8.1
Marble and granite, crushed rock and stone	4	94	+8.0
Total	24	2,227	−11.9
Tobacco and cigars	4	289	+.7
Railway car shops	7	9,731	+6.3
Various industries:			
Auto tires and tubes	2	151	+1.3
Brooms and brushes	3	101	−2.0
Laundries	5	231	−1.3
Mercantile	6	3,548	+31.8
Public service	3	3,880	−.8
Seeds	3	451	−1.3
Wholesale houses	24	1,232	+.7
Commission houses	10	340	−.9
Other industries	7	1,201	−2.5
Total	63	11,135	+7.6
Grand total	318	57,074	+3.3

Maryland

THE commissioner of labor and statistics of Maryland furnished the following report showing the changes in volume of employment and weekly pay rolls in Maryland from November to December, 1927.

CHANGES IN EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MARYLAND, NOVEMBER TO DECEMBER, 1927

Industry	Establishments reporting for both months	Employment		Pay roll	
		Number of employees, December, 1927	Per cent of change as compared with November, 1927	Amount, December, 1927	Per cent of change as compared with November, 1927
Beverages and soft drinks	3	112	−8.2	$3,080	−3.6
Boots and shoes	6	998	−15.5	15,586	−7.2
Boxes, paper and fancy	8	368	−14.7	4,989	−14.1
Boxes, wooden	4	163	+1.8	2,484	−2.7
Brass and bronze	3	2,031	−7.2	51,030	−2.8
Brick, tile, etc	4	622	−1.9	14,489	−5.9
Brushes	4	567	+1.0	10,781	+2.5
Car building and repairing	3	273	−1.1	8,973	−7.4
Chemicals	4	719	+2.2	17,856	+.6
Clothing, men's outer garments	4	1,481	+27.3	29,650	+63.9
Clothing, women's outer garments	5	750	−4.8	8,165	−16.5
Confectionery	6	897	−.7	13,767	+10.6
Cotton goods	4	1,395	−1.0	20,700	−1.7
Fertilizer	5	535	+1.1	12,802	+11.5
Food preparations	4	136	−2.2	3,169	−5.3
Foundry	8	923	+3.4	22,416	−.7
Furnishing goods, men's	4	755	−4.8	10,829	−3.0
Furniture	9	822	−1.4	22,070	−3.9
Glass manufacture	3	765	−9.7	16,631	+6.3
Ice cream	4	247	−.5	8,288	+.3
Leather goods	4	500	−1.6	10,410	+13.5
Lumber and planing	6	390	−4.0	10,938	−3.4
Mattresses and spring beds	4	186	+1.0	4,941	−1.5
Plumbers' supplies	4	1,111	+2.4	29,933	+15.4
Printing	7	851	+1.3	29,947	+5.0
Rubber tires [1]	1	2,392	−.9	117,338	−13.8
Shipbuilding	3	656	+24.4	16,731	+19.1
Shirt manufacture	3	459	----------	7,224	+11.3
Silk goods	3	383	+2.1	5,918	+11.5
Stamping and enameling ware	4	994	−2.7	18,100	−9.4
Tinware	4	2,718	−1.1	59,620	−.9
Tobacco	5	338	----------	5,640	−8.9
Umbrellas	3	331	−27.1	5,108	−30.8
Miscellaneous	18	4,080	+.6	104,415	+2.1

[1] Half-monthly pay-roll period.

New Jersey

THE New Jersey Department of Labor has furnished the following data showing the changes in volume of employment and weekly pay rolls from October to November, 1927, in 844 establishments in that State:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 844 NEW JERSEY ESTABLISHMENTS, NOVEMBER, 1927, COMPARED WITH OCTOBER, 1927

Industry	Number of plants reporting	Employees		Weekly pay roll	
		Number in November, 1927	Per cent of change as compared with October, 1927	Amount in November, 1927	Per cent of change as compared with October, 1927
Food and kindred products:					
Baking	16	1,406	+0.4	$44,819	+0.6
Canning and preserving	8	4,167	−12.2	88,854	−5.3
Confectionery and ice cream	7	400	+.2	8,753	+.6
Provisions	3	1,295	−1.8	39,828	−.9
Other food products	12	2,906	−6.9	80,888	−10.6
Total	46	10,174	−7.4	263,142	−5.3
Textiles and their products:					
Carpets and rugs	3	1,233	+2.2	39,482	−7.3
Clothing	29	4,141	+1.5	79,222	−3.6
Cotton goods	15	7,306	+.8	140,690	−3.4
Dyeing and finishing textiles	37	12,282	+7.4	317,896	+9.3
Hats and caps	6	1,009	−5.1	30,633	+20.6
Hosiery and knit goods	17	4,006	+2.3	106,051	−2.2
Millinery and lace	9	849	+1.2	16,246	−4.1
Shirts and collars	9	2,051	+.1	39,769	−2.2
Silk goods	57	8,436	+.3	207,872	+.1
Woolen and worsted goods	18	10,632	−.2	284,624	−.4
Miscellaneous textile products	10	1,825	−2.0	37,628	−1.8
Total	210	53,770	+1.9	1,300,113	+1.2
Iron and steel and their products:					
Cast-iron pipe	6	3,263	−.8	85,002	−4.9
Electrical machinery, apparatus, and supplies	28	20,186	−2.9	541,138	−2.8
Foundry and machine shop products	79	16,918	−3.2	467,585	−7.1
Hardware	7	882	−.3	25,123	−.3
Iron and steel forgings	8	827	−7.4	25,068	−5.2
Machine tools	21	3,469	+2.7	97,180	+5.9
Steam fittings and steam and hot-water heating apparatus	13	3,683	−5.5	102,470	−8.6
Structural-iron work	10	1,665	+5.4	51,060	+8.5
Total	172	50,893	−2.5	1,394,626	−4.0
Lumber and its products:					
Furniture	5	1,312	+5.1	40,189	+9.3
Lumber and millwork	13	682	−3.8	18,809	−7.4
Total	18	1,994	+1.9	58,998	+3.4
Leather and its products:					
Boots and shoes	6	1,017	−1.1	23,370	−2.9
Leather	21	3,331	+3.6	94,422	−.9
Leather products	4	531	+2.5	15,359	+8.6
Total	31	4,879	+2.5	133,151	−.3
Tobacco products	12	3,808	−2.2	70,932	−2.7
Paper and printing:					
Paper and pulp	22	4,206	+2.2	116,437	+.3
Paper boxes	18	1,578	+.1	33,161	+7.1
Printing, book and job	12	2,549	+17.3	97,333	+45.7
Printing, newspaper	10	2,080	+2.1	87,204	+1.5
Total	62	10,413	+5.2	334,135	+11.5

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 844 NEW JERSEY ESTABLISHMENTS, NOVEMBER, 1927, COMPARED WITH OCTOBER, 1927—Continued

Industry	Number of plants reporting	Employees		Weekly pay roll	
		Number in November, 1927	Per cent of change as compared with October, 1927	Amount in November, 1927	Per cent of change as compared with October, 1927
Chemicals and allied products:					
Chemicals	42	9,117	+1.8	$260,988	+3.6
Explosives	6	2,445	+.1	72,061	+1.7
Oils and greases	9	1,547	+6.5	42,256	+3.6
Paints and varnishes	13	1,689	+.2	49,567	−2.3
Petroleum refining	8	13,602	−2.7	453,017	−3.7
Total	78	[1] 28,398	−.4	877,889	−.8
Stone, clay and glass products:					
Brick, tile, and terra cotta	26	3,993	−.8	116,991	−3.5
Glass	7	3,241	+5.5	72,112	+5.9
Pottery	19	3,970	−2.5	113,683	−10.0
Other products	2	993	+.9	36,140	−2.1
Total	54	12,197	+.4	338,926	−3.9
Metal products, other than iron and steel:					
Brass, bronze, and copper products	10	582	−7.5	17,495	−10.1
Sheet-metal and enamel ware	21	4,526	----------	125,875	+3.3
Smelting and refining	9	3,763	−.2	118,993	−1.4
Wire and wire goods	14	7,277	−.5	192,214	−8.0
Total	54	16,148	−.6	454,577	−3.5
Vehicles for land transportation:					
Automobiles and parts	13	5,874	−1.3	182,112	−5.1
Car building and repairing, steam railroad	9	4,741	−.7	147,374	+1.3
Total	22	10,615	−1.0	329,486	−2.4
Miscellaneous industries:					
Cork and cork specialties	5	1,510	+.3	36,703	−3.2
Jewelry and novelties	28	3,824	−1.5	134,063	+.7
Laundries	8	943	----------	18,902	−1.7
Musical instruments	3	8,743	+1.5	270,184	+.8
Rubber tires and goods	28	8,812	−1.0	217,704	−10.9
Shipbuilding	6	4,836	−17.4	151,853	−19.4
Miscellaneous	7	3,177	−3.0	94,139	−2.2
Total	85	31,845	−3.2	[1] 915,548	−6.5
Grand total, all industries	844	235,134	−.8	6,471,523	−2.0

[1] As given in the report; not the correct sum of the items.

New York

THE following statistics of changes in number of employees and in amount of weekly pay rolls were furnished by the New York State Department of Labor. The figures are based on reports from a fixed list of about 1,600 factories, having in November 475,571 employees, the total of the weekly pay rolls for the middle week of November being $13,670,997.

PER CENT OF CHANGE IN EMPLOYMENT AND IN PAY ROLLS IN NEW YORK STATE FACTORIES IN NOVEMBER, 1927, COMPARED WITH NOVEMBER, 1926, AND OCTOBER, 1927

Industry	Per cent of change			
	October, 1927, to November, 1927		November, 1926, to November, 1927	
	Employees	Pay rolls	Employees	Pay rolls
Stone, clay, and glass	−2.7	−4.3	−12.1	−13.8
Miscellaneous stone and minerals	+1.3	(1)	−11.4	−10.7
Lime, cement, and plaster	−8.4	−12.6	−19.4	−23.1
Cement	−5.7	−6.6	−17.6	−19.3
Brick, tile, and pottery	−4.3	−5.6	−7.7	−9.7
Brick	−9.0	−6.5	−17.2	−13.9
Pottery	−.6	−4.7	+2.7	−.5
Glass	+2.2	+2.6	−9.9	−9.9
Metals and machinery	−1.4	−3.6	−7.2	−9.8
Silver and jewelry	+.4	−1.6	−8.6	−6.9
Brass, copper, and aluminum	−3.3	−6.2	−3.8	−8.7
Iron and steel	−2.9	−3.7	−12.4	−15.6
Structural and architectural iron	+1.9	(1)	+19.1	+15.3
Sheet metal and hardware	−.9	−2.6	−7.4	−7.2
Hardware	−4.9	−12.2	+13.1	+6.3
Stamped and enameled ware	(1)	−6.9	−.6	−5.0
Firearms, tools, and cutlery	−1.3	−5.3	−15.7	−18.1
Cutlery and tools	−1.4	−2.4	−13.3	−12.9
Cooking, heating, and ventilating apparatus	−9.1	−12.9	−3.0	−5.6
Steam and hot-water heating	−10.5	−13.2	−4.2	−6.8
Stoves	−5.6	−14.6	+3.1	−1.7
Machinery, including electrical apparatus	−1.7	−5.7	−7.6	−11.9
Agricultural implements	+7.3	+4.4	+.6	−2.3
Electrical machinery and apparatus	−.9	−6.4	−2.4	−4.8
Foundries and machine shops	−3.0	−3.4	−16.5	−21.2
Automobiles, carriages, and airplanes	+1.1	−2.2	−4.4	−6.2
Automobiles and parts	+.9	−2.8	−4.4	−6.7
Railroad equipment and repair	−3.3	−4.0	−13.1	−13.7
Locomotives and equipment	−15.0	−20.2	−24.5	−29.9
Railway repair shops	+2.6	+3.4	−7.4	−5.9
Boat and ship building	+24.8	+50.0	−1.3	+14.4
Instruments and appliances	+.9	−1.9	−1.9	−6.8
Wood manufactures	−1.6	−3.1	−8.8	−11.3
Saw and planing mills	−3.7	−3.8	−13.5	−15.8
Millwork	−5.2	−4.2	−15.8	−17.8
Sawmills	(2)	+2.2	−3.5	−2.5
Furniture and cabinet work	+.2	−1.7	−3.4	−4.8
Furniture	+.2	−1.7	−.9	−.9
Pianos and other musical instruments	−4.2	−5.6	−15.3	−19.2
Miscellaneous wood, etc	(1)	−1.8	−5.6	−6.6
Furs, leather, and rubber goods	−3.7	−10.5	−4.0	−8.0
Leather	−2.6	−5.1	−11.2	−13.6
Furs and fur goods	−5.8	+.9	−13.7	−18.0
Shoes	−4.8	−14.7	−2.6	−8.0
Other leather and canvas goods	−.7	−5.0	−.9	+.2
Rubber and gutta-percha	−2.4	−5.0	−8.8	−11.1
Pearl, horn, bone, etc	+1.0	−1.1	−4.1	−5.1
Chemicals, oils, paints, etc	−.4	−.5	+.4	+1.3
Drugs and chemicals	−.1	−1.7	(1)	+1.2
Paints and colors	−.1	+2.1	−2.5	(1)
Oil products	−.6	(1)	−2.3	−1.3
Petroleum refining	−3.9	−1.8	−1.9	−5.7
Miscellaneous chemicals	−.6	−.8	+5.0	+4.8
Paper	+1.9	+4.2	−2.8	−3.1

[1] Change of less than one-tenth of 1 per cent.

[2] No change.

PER CENT OF CHANGE IN EMPLOYMENT AND IN PAY ROLLS IN NEW YORK STATE FACTORIES IN NOVEMBER, 1927, COMPARED WITH NOVEMBER, 1926, AND OCTOBER, 1927—Continued

Industry	Per cent of change			
	October, 1927, to November, 1927		November, 1926, to November, 1927	
	Employees	Pay rolls	Employees	Pay rolls
Printing and paper goods	+1.0	+2.0	−1.4	+0.6
Paper boxes and tubes	−.4	−1.4	−7.2	−8.4
Miscellaneous paper goods	−1.7	−1.3	−4.2	−5.8
Printing and bookmaking	+1.7	+2.8	+.1	+2.3
Printing, newspapers	+1.4	+1.7	+7.0	+10.6
Printing, book and job	+1.9	+3.0	−2.0	−1.0
Textiles	+.1	−2.6	−1.0	−3.2
Silk and silk goods	+4.4	+3.2	+2.8	+3.6
Wool manufactures	+.1	−1.2	−1.4	−4.0
Carpets and rugs	+1.2	−.9	+2.4	−1.9
Woolens and worsteds	+.1	−.2	−15.4	−12.9
Cotton goods	−2.6	−7.8	−.2	−5.2
Knit goods (except silk)	−.7	−4.4	−.9	−1.3
Other textiles	(1)	−3.8	−3.4	−6.7
Dyeing and finishing	(1)	−2.0	−1.0	−4.6
Clothing and millinery	−4.8	−9.3	−5.1	−3.5
Men's clothing	−11.7	−14.7	−9.2	−10.0
Men's furnishings	+1.0	+1.4	−7.3	−6.6
Shirts and collars	+.7	−1.9	−8.1	−5.5
Women's clothing	−3.4	−13.8	+8.4	+12.1
Women's underwear	+1.7	+.2	−22.9	−22.4
Women's headwear	−7.7	−10.0	−1.0	−2.4
Miscellaneous sewing	−.2	−1.0	−9.8	−6.4
Laundering and cleaning	+1.6	+1.4	+8.0	+8.3
Food and tobacco	−5.1	−2.9	−2.1	−1.1
Flour, feed, and cereals	−2.7	+3.6	−7.3	−3.3
Flour	−2.9	+2.4	−7.6	−3.1
Canning and preserving	−42.3	−39.3	−25.7	−23.2
Other groceries	−3.3	−4.2	+8.7	+2.6
Sugar refining	−4.0	−3.4	+19.4	+7.2
Meat and dairy products	+1.0	+2.0	+.3	+1.8
Meat packing	+1.8	+2.7	+1.0	+2.7
Bakery products	−2.6	+.1	+1.2	+1.2
Candy	(2)	(1)	−12.8	−7.4
Beverages	−15.6	−14.2	−.1	+.4
Tobacco	−.5	+5.4	−.3	−.4
Water, light, and power	+.2	+.5	+1.1	+1.3
Total	−1.9	−3.7	−4.8	−6.1

[1] Change of less than one-tenth of 1 per cent. [2] No change.

Pennsylvania

THE bureau of statistics of the Department of Labor and Industry of Pennsylvania furnished the following report on changes in employment, in weekly man-hours and in weekly pay-roll totals, in Pennsylvania from November to December, 1927:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES, IN TOTAL WEEKLY MAN-HOURS AND IN WEEKLY PAY ROLLS, IN 489 PENNSYLVANIA ESTABLISHMENTS BETWEEN NOVEMBER AND DECEMBER, 1927

Industry	Number of plants reporting	Number of wage earners		Total weekly man-hours		Total weekly pay roll: Per cent of change, November to December, 1927
		Week ending Dec. 15, 1927	Per cent of change as compared with November, 1927	Week ending Dec. 15, 1927	Per cent of change as compared with November, 1927	
Metal products:						
Blast furnaces	8	2,073	−0.3	110,296	+8.0	+8.1
Steel works and rolling mills	27	38,428	−1.8	1,723,303	−.3	+.1
Iron and steel forgings	8	1,312	+2.3	66,750	+10.0	+9.2
Structural-iron work	5	961	−12.2	44,266	−11.8	−12.4
Steam and hot-water heating apparatus	14	3,458	+1.2	137,307	+6.9	+4.1
Foundries	32	6,693	+.6	303,573	+4.5	+3.9
Machinery and parts	29	6,791	+2.8	328,494	+5.6	+4.6
Electrical apparatus	12	3,224	−19.7	153,092	−13.5	−13.4
Engines and pumps	8	2,719	−4.6	114,813	+6.5	+6.9
Hardware and tools	14	4,404	−1.3	200,278	+2.2	+3.7
Brass and bronze products	7	440	−2.2	21,494	−.9	+3.3
Jewelry and novelties	3	1,155	.0	57,440	+.4	+.5
Total	167	71,658	−2.1	3,261,106	+1.0	+1.1
Transportation equipment:						
Automobiles	7	3,756	+7.1	180,587	+14.0	+14.1
Automobile bodies and parts	9	5,835	+3.6	327,329	+9.6	+8.8
Locomotives and cars	9	5,543	−7.7	249,758	−5.3	−7.2
Railroad repair shops	5	2,460	+2.8	95,788	+3.7	+8.8
Shipbuilding	3	2,109	−4.7	92,403	−2.6	−1.5
Total	33	19,703	−.2	945,865	+4.2	+4.2
Textile products:						
Cotton goods	11	1,486	−3.1	74,119	−.2	+.1
Woolens and worsteds	10	3,005	+2.7	150,846	+3.9	+2.8
Silk goods	22	10,919	+4.4	524,202	+7.8	+8.6
Textile dyeing and finishing	5	763	−1.7	35,391	+6.2	+6.1
Carpets and rugs	5	1,808	+.7	89,640	+1.3	+3.6
Hosiery	6	1,664	−1.8	82,130	−3.6	+2.8
Knit goods, other	8	1,186	−7.7	59,201	−5.6	−1.4
Total	67	20,831	+1.8	1,015,529	+4.1	+5.3
Foods and tobacco:						
Bread and bakery products	17	1,516	+.3	78,076	+2.2	+1.0
Confectionery	5	1,977	.0	86,083	−9.5	−8.0
Ice cream	7	658	−3.1	40,007	+.5	−1.6
Meat packing	8	1,226	+.1	63,357	−.4	−2.6
Cigars and tobacco	5	207	−4.2	7,787	−6.2	−7.6
Total	42	5,584	−.4	275,310	−2.8	−3.1
Stone, clay, and glass products:						
Brick, tile, and pottery	17	2,835	−5.2	126,223	−8.3	−9.1
Cement	7	3,296	−6.8	187,463	−7.5	−8.2
Glass	13	4,220	−3.3	164,502	−18.4	−20.6
Total	37	10,351	−5.0	478,188	−11.8	−13.5
Lumber products:						
Lumber and planing mills	15	1,043	−2.2	47,590	−2.7	−3.0
Furniture	16	1,420	+10.4	67,326	+8.8	+13.7
Wooden boxes	4	222	−17.2	10,667	−19.8	−19.0
Total	35	2,685	+2.5	125,583	+1.2	+4.1

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES, IN TOTAL WEEKLY MAN-HOURS AND IN WEEKLY PAY ROLLS, IN 489 PENNSYLVANIA ESTABLISHMENTS BETWEEN NOVEMBER AND DECEMBER, 1927—Continued

Industry	Number of plants reporting	Number of wage earners		Total weekly man-hours		Total weekly pay roll: Per cent of change, November to December, 1927
		Week ending Dec. 15, 1927	Per cent of change as compared with November, 1927	Week ending Dec. 15, 1927	Per cent of change as compared with November, 1927	
Construction and contracting:						
Buildings	16	1,271	−15.4	49,640	−12.3	−9.8
Street and highway	3	973	−42.4	48,730	−50.3	−51.4
General	8	1,617	−9.8	84,018	−10.1	−14.0
Total	27	3,861	−22.5	182,388	−26.5	−26.9
Chemical products:						
Chemicals and drugs	11	801	+1.0	47,209	+1.4	+1.0
Paints and varnishes	6	929	−4.5	46,905	−2.7	−2.4
Total	17	1,730	−2.0	94,114	−.7	−.8
Leather and rubber products:						
Leather tanning	9	2,138	−3.0	106,540	−3.9	−3.5
Shoes	11	1,789	−.1	82,691	+1.2	−6.2
Leather products, other	4	198	−1.0	9,163	−4.7	−4.2
Rubber tires and goods	4	939	+2.3	47,691	+19.1	+20.2
Total	28	5,064	−1.0	246,085	+1.6	+.5
Paper and printing:						
Paper and wood pulp	8	2,607	+.7	143,767	+1.1	+2.0
Paper boxes and bags	3	211	−1.9	10,728	−1.0	−5.1
Printing and publishing	25	1,621	+1.2	76,442	+2.5	+2.4
Total	36	4,439	+.7	230,937	+1.5	+2.0
Grand total, all industries	489	145,906	−2.0	6,855,105	−.3	−.3

Wisconsin

THE November, 1927, issue of the Wisconsin Labor Market, issued by the State industrial commission, contains the following data showing changes in number of employees and in amount of weekly pay rolls in Wisconsin industries in October, 1927:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF PAY ROLL IN IDENTICAL ESTABLISHMENTS IN WISCONSIN FROM OCTOBER, 1926, AND SEPTEMBER, 1927, TO OCTOBER, 1927

Industry	Per cent of change			
	September, 1927, to October, 1927		October, 1926, to October, 1927	
	Employment	Pay roll	Employment	Pay roll
Manual				
Agriculture	.0	−7.3	+5.3	----------
Logging	−6.3	−7.5	+18.5	+6.2
Mining	−1.8	−1.6	−1.7	−4.9
Lead and zinc	+.4	−1.9	+.9	−1.0
Iron	−6.9	−1.1	−7.4	−12.8
Stone crushing and quarrying	−3.0	−3.0	+25.3	+52.2
Manufacturing	−1.1	−1.1	−3.3	−7.8
Stone and allied industries	−6.6	−2.2	+10.8	+5.7
Brick, tile, and cement blocks	−17.0	−22.9	−9.3	−13.6
Stone finishing	−.2	+7.4	+25.1	+14.2

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF PAY ROLL IN IDENTICAL ESTABLISHMENTS IN WISCONSIN FROM OCTOBER, 1926, AND SEPTEMBER, 1927, TO OCTOBER, 1927—Continued

Industry	Per cent of change			
	September, 1927, to October, 1927		October, 1926, to October, 1927	
	Employment	Pay roll	Employment	Pay roll
Manufacturing—Continued.				
Metal	−3.6	−6.9	−11.5	−19.7
Pig iron and rolling-mill products	−2.9	+2.8	−21.2	−26.9
Structural-iron work	+4.3	+3.2	−2.4	−6.9
Foundries and machine shops	−.6	+1.5	−9.5	−16.8
Railroad repair shops	−.5	+2.3	−3.7	−2.3
Stoves	+5.5	+10.3	−7.5	−9.5
Aluminum and enamelware	+2.8	+9.1	+2.3	+.1
Machinery	−5.2	−2.3	−3.9	−10.0
Automobiles	−13.0	−41.9	−27.5	−48.5
Other metal products	−4.4	+1.3	−15.5	−20.4
Wood	+.4	+6.1	−4.6	−4.6
Sawmills and planing mills	−5.4	−4.7	−8.9	−7.8
Box factories	−4.5	+.5	−17.7	−23.3
Panel and veneer mills	+2.2	+10.8	−15.6	−15.0
Furniture	+5.4	+15.6	+2.5	+1.9
Sash, door, and interior finish	−.7	+6.0	−2.2	−.8
Other wood products	+9.9	+20.4	+5.0	−4.1
Rubber	+5.6	+8.5	+32.1	+40.9
Leather	+1.1	+4.0	−16.5	−18.4
Tanning	+1.4	+9.8	−32.3	−32.4
Boots and shoes	+.7	−1.4	−20.3	−21.5
Other leather products	+1.4	+6.9	+12.2	+15.5
Paper	+.4	−.6	+1.3	−1.5
Paper and pulp mills	+.9	−1.3	+1.0	−3.0
Paper boxes	+.3	+3.4	−5.0	−4.3
Other paper products	−1.5	.0	+8.3	+9.3
Textiles	+2.5	+7.2	+10.3	+11.7
Hosiery and other knit goods	+5.6	+16.0	+10.3	+11.3
Clothing	−3.0	−3.4	+13.8	+15.3
Other textile products	+4.7	+4.8	+2.3	+4.2
Foods	−2.9	−3.4	+7.6	+3.3
Meat packing	−5.0	−8.0	+5.5	+15.9
Baking and confectionery	+3.2	+2.1	+1.9	−.8
Milk products	+12.7	−6.7	−6.0	−9.4
Canning and preserving	−24.6	−24.1	+84.7	+31.8
Flour mills	+41.7	+56.7	−4.0	+5.2
Tobacco manufacturing	+3.9	+3.0	+.9	−2.2
Other food products	−.9	+4.1	−4.4	−3.2
Light and power	−5.0	−4.9	+2.1	+4.5
Printing and publishing	−.8	+2.4	+4.0	+6.3
Laundering, cleaning, and dyeing	+.2	+2.6	+4.7	−1.1
Chemical (including soap, glue, and explosives)	+6.5	+3.6	−4.1	−12.9
Construction:				
Building	−6.6	−4.2	−6.4	+3.7
Highway	−11.0	−12.2	+6.5	
Railroad	−2.3	−3.5	+18.1	+19.9
Marine, dredging, sewer-digging	−12.7	−18.2	+99.0	+121.6
Communication:				
Steam railways	+3.4	+6.1	+8.5	+16.7
Electric railways	−4.5	−3.4	−1.2	+2.3
Express, telephone, and telegraph	−6.7	−4.3	+6.7	+6.6
Wholesale trade	+5.2	+17.8	+1.7	−1.2
Hotels and restaurants	−2.1		−6.0	
Nonmanual				
Manufacturing, mines, and quarries	+.1	−.8	+3.0	+4.8
Construction	+2.6	+5.0	+10.6	+13.6
Communication	−.1	−3.8	+1.0	+2.8
Wholesale trade	+.5	−1.1	+5.8	+5.6
Retail trade—sales force only	+4.6	+5.5	+16.7	+9.4
Miscellaneous professional services	−.2	+5.2	+9.6	+4.7
Hotels and restaurants	+.2		+3.3	

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from monthly reports of actual selling prices [1] received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food on December 15, 1926, and November 15 and December 15, 1927, as well as the percentage changes in the year and in the month. For example, the retail price per pound of bacon was 49.6 cents on December 15, 1926; 46.3 cents on November 15, 1927; and 45.3 cents on December 15, 1927. These figures show decreases of 9 per cent in the year and 2 per cent in the month.

The cost of the various articles of food combined shows a decrease of 3.6 per cent on December 15, 1927, as compared with December 15, 1926, and a decrease of 0.3 per cent on December 15, 1927, as compared with November 15, 1927.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE DECEMBER 15, 1927, COMPARED WITH NOVEMBER 15, 1927, AND DECEMBER 15, 1926

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent increase (+) or decrease (−) Dec. 15, 1927, compared with—	
		Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927
		Cents	*Cents*	*Cents*		
Sirloin steak	Pound	40.7	43.5	43.9	+8	+1
Round steak	do	35.3	37.8	38.2	+8	+1
Rib roast	do	30.2	31.9	32.4	+7	+2
Chuck roast	do	22.7	24.5	25.1	+11	+2
Plate beef	do	14.9	16.2	16.7	+12	+3
Pork chops	do	37.2	36.3	32.8	−12	−10
Bacon	do	49.6	46.3	45.3	−9	−2
Ham	do	57.1	53.0	51.9	−9	−2
Lamb, leg of	do	37.7	37.6	37.5	−1	−0.3
Hens	do	37.2	35.6	35.7	−4	+0.3
Salmon, canned, red	do	34.1	34.8	35.0	+3	+1
Milk, fresh	Quart	14.2	14.2	14.3	+1	+1
Milk, evaporated	15-16 ounce can	11.4	11.5	11.5	+1	0
Butter	Pound	59.3	56.4	58.4	−2	+4
Oleomargarine (all butter substitutes).	do	29.6	27.9	27.9	−6	0
Cheese	do	37.4	38.6	39.0	+4	+1
Lard	do	20.4	19.5	19.2	−6	−2
Vegetable lard substitute	do	25.4	25.1	25.2	−1	+0.4
Eggs, strictly fresh	Dozen	65.2	61.7	59.6	−9	−3
Eggs, storage	do	46.9	43.8	42.9	−9	−2

[1] In addition to retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE DECEMBER 15, 1927, COMPARED WITH NOVEMBER 15, 1927, AND DECEMBER 15, 1926—Continued

Article	Unit	Average retail price on—			Per cent increase (+) or decrease (−) Dec. 15, 1927, compared with—	
		Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927
		Cents	*Cents*	*Cents*		
Bread	Pound	9.4	9.3	9.2	−2	−1
Flour	do	5.6	5.4	5.4	−4	0
Corn meal	do	5.1	5.2	5.2	+2	0
Rolled oats	do	9.1	9.0	9.0	−1	0
Corn flakes	8-ounce pkg.	10.9	9.7	9.7	−11	0
Wheat cereal	28-ounce pkg.	25.4	25.5	25.5	+0.4	0
Macaroni	Pound	20.2	20.0	20.0	−1	0
Rice	do	11.2	10.4	10.3	−8	−1
Beans, navy	do	9.3	9.5	9.5	+2	0
Potatoes	do	4.0	3.0	3.0	−25	0
Onions	do	5.0	4.8	4.7	−6	−2
Cabbage	do	4.2	3.7	3.8	−10	+3
Beans, baked	No. 2 can	11.7	11.5	11.4	−3	−1
Corn, canned	do	16.2	15.7	15.7	−3	0
Peas, canned	do	17.3	16.6	16.7	−3	+1
Tomatoes, canned	do	12.2	11.8	11.8	−3	0
Sugar	Pound	7.3	7.2	7.1	−3	−1
Tea	do	76.9	77.5	77.3	+1	−0.3
Coffee	do	50.7	47.8	48.1	−5	+1
Prunes	do	16.2	14.1	13.8	−15	−2
Raisins	do	14.4	13.8	13.7	−5	−1
Bananas	Dozen	34.9	34.4	34.8	−0.3	+1
Oranges	do	49.3	53.2	52.3	+6	−2
Weighted food index					−0.3	−3.6

Table 2 shows for the United States average retail prices of specified food articles on December 15, 1913, and on December 15 of each year from 1921 to 1927, together with percentage changes in December of each of these specified years, compared with December, 1913. For example, the retail price per pound of lard was 15.8 cents in December, 1913; 15.9 cents in December, 1921; 17.5 cents in December, 1922; 18.9 cents in December, 1923; 22.1 cents in December, 1924; 22.6 cents in December, 1925; 20.4 cents in December, 1926; and 19.2 cents in December, 1927.

As compared with December, 1913, these figures show increases of 1 per cent in December, 1921; 11 per cent in December, 1922; 20 per cent in December, 1923; 40 per cent in December, 1924; 43 per cent in December, 1925; 29 per cent in December, 1926; and 22 per cent in December, 1927.

The cost of the various articles of food combined showed an increase of 50.0 per cent in December, 1927, as compared with December, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE DECEMBER 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH DECEMBER 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on Dec. 15—								Per cent of increase Dec. 15 of each specified year compared with Dec. 15, 1913						
		1913	1921	1922	1923	1924	1925	1926	1927	1921	1922	1923	1924	1925	1926	1927
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*							
Sirloin steak	Pound	25.1	35.3	36.8	38.6	38.2	40.3	40.7	43.9	41	47	54	52	61	62	75
Round steak	do	22.6	30.8	31.5	32.9	32.4	34.4	35.3	38.2	36	39	46	43	52	56	69
Rib roast	do	19.9	26.7	27.3	28.3	28.0	29.6	30.2	32.4	34	37	42	41	49	52	63
Chuck roast	do	16.2	19.2	19.4	20.4	20.2	21.7	22.7	25.1	19	20	26	25	34	40	55
Plate beef	do	12.4	12.8	12.7	13.0	13.1	14.1	14.9	16.7	3	2	5	6	14	20	35
Pork chops	do	20.3	30.4	29.5	26.5	29.3	35.7	37.2	32.8	50	45	31	44	76	83	62
Bacon	do	26.7	38.7	40.3	37.5	39.9	48.6	49.6	45.3	45	51	40	49	82	86	70
Ham	do	26.5	44.4	45.4	44.7	46.6	53.1	57.1	51.9	68	71	69	76	100	115	96
Lamb, leg of	do	18.5	32.3	35.6	35.5	35.4	38.5	37.7	37.5	75	92	92	91	108	104	103
Hens	do	20.8	35.8	33.6	33.4	34.4	36.5	37.2	35.7	72	62	61	65	75	79	72
Salmon, canned, red	do		33.9	31.4	31.3	31.8	36.9	34.1	35.0							
Milk, fresh	Quart	9.1	14.1	13.7	14.3	13.8	14.3	14.2	14.3	55	51	57	52	57	56	57
Milk, evaporated	[1]		12.7	11.9	12.2	11.0	11.6	11.4	11.5							
Butter	Pound	39.7	52.1	60.2	60.3	52.5	58.6	59.3	58.4	31	52	52	32	48	49	47
Oleomargarine (all butter substitutes)	do		29.1	28.0	29.5	30.3	31.3	29.6	27.9							
Cheese	do	22.5	33.0	36.6	37.7	34.9	37.5	37.4	39.0	47	63	68	55	67	66	73
Lard	do	15.8	15.9	17.5	18.9	22.1	22.6	20.4	19.2	1	11	20	40	43	29	22
Vegetable lard substitute	do		21.6	23.3	24.0	25.5	25.7	25.4	25.2							
Eggs, strictly fresh	Dozen	47.6	70.5	66.5	64.9	69.8	66.2	65.2	59.6	48	40	36	47	39	37	25
Eggs, storage	do	34.5	49.1	40.8	41.4	48.2	47.4	46.9	42.9	42	18	20	40	37	36	24
Bread	Pound	5.6	9.1	8.6	8.7	8.9	9.4	9.4	9.2	63	54	55	59	68	68	64
Flour	do	3.3	5.0	4.9	4.5	5.6	6.1	5.6	5.4	52	48	36	70	85	70	64
Corn meal	do	3.1	4.1	4.0	4.4	5.2	5.2	5.1	5.2	32	29	42	68	68	65	68
Rolled oats	do		9.6	8.7	8.8	9.0	9.1	9.1	9.0							
Corn flakes	[2]		11.9	9.7	9.7	10.8	11.0	10.9	9.7							
Wheat cereal	[3]		29.3	25.5	24.3	24.4	25.3	25.4	25.5							
Macaroni	Pound		20.2	20.0	19.6	19.8	20.4	20.2	20.0							
Rice	do	8.7	9.3	9.5	9.7	10.6	11.4	11.2	10.3	7	9	11	22	31	29	18
Beans, navy	do		8.2	10.5	10.3	10.1	9.8	9.3	9.5							
Potatoes	do	1.8	3.1	2.1	2.6	2.3	5.2	4.0	3.0	72	17	44	28	189	122	67
Onions	do		8.0	4.6	6.0	5.3	5.7	5.0	4.7							
Cabbage	do		5.1	3.6	4.1	4.0	4.6	4.2	3.8							
Beans, baked	[4]		13.8	13.1	12.9	12.6	12.3	11.7	11.4							
Corn, canned	[4]		16.0	15.2	15.6	17.1	16.9	16.2	15.7							
Peas, canned	[4]		17.8	17.4	17.7	18.4	17.9	17.3	16.7							
Tomatoes, canned	[4]		13.0	12.7	12.9	13.7	12.7	12.2	11.8							
Sugar, granulated	Pound	5.4	6.5	8.3	10.4	8.8	6.7	7.3	7.1	20	54	93	63	24	35	31
Tea	do	54.5	67.7	68.5	70.2	73.8	75.8	76.9	77.3	24	26	29	35	39	41	42
Coffee	do	29.7	35.6	36.7	37.8	50.5	51.3	50.7	48.1	20	24	27	70	73	71	62
Prunes	do		18.7	20.1	17.8	17.3	17.1	16.2	13.8							
Raisins	do		25.5	19.2	16.0	14.6	14.4	14.4	13.7							
Bananas	Dozen		37.3	37.1	39.1	36.9	35.5	34.9	34.8							
Oranges	do		50.3	48.5	41.5	43.2	48.9	49.3	52.3							
Weighted food index [5]										44.1	41.0	44.5	45.7	59.2	55.7	50.0

[1] 15–16 ounce can.
[2] 8-ounce package.
[3] 28-ounce package.
[4] No. 2 can.
[5] Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: 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.

Table 3 shows for the United States average retail prices of specified articles of food for the years 1913 and 1927 and for each month of 1927.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES IN THE UNITED STATES BY YEARS, 1913 AND 1927, AND BY MONTHS FOR 1927

Article	Unit	Average for 1913	1927												Average for 1927
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	25.4	40.8	40.9	41.1	41.8	42.3	42.4	43.6	43.7	43.8	43.7	43.5	43.9	42.6
Round steak	do	22.3	35.3	35.4	35.6	36.4	36.9	37.0	37.9	38.1	38.1	37.9	37.8	38.2	37.1
Rib roast	do	19.8	30.3	30.4	30.4	30.9	31.2	31.1	31.7	31.7	31.8	31.9	31.9	32.4	31.3
Chuck roast	do	16.0	22.7	22.7	22.8	23.3	23.5	23.5	23.9	23.9	24.0	24.3	24.5	25.1	23.7
Plate beef	do	12.1	15.0	14.9	14.9	15.2	15.2	15.2	15.3	15.3	15.5	15.8	16.2	16.7	15.4
Pork chops	do	21.0	36.6	35.9	36.6	36.9	36.4	34.7	34.9	37.7	40.7	41.5	36.3	32.8	36.8
Bacon, sliced	do	27.0	48.9	48.5	48.4	48.1	47.6	47.1	46.6	46.5	46.5	46.6	46.3	45.3	47.2
Ham, sliced	do	26.9	56.8	56.7	56.5	56.7	56.3	55.5	54.6	54.3	53.8	53.6	53.0	51.9	55.0
Lamb, leg of	do	18.9	37.4	37.3	38.4	40.0	41.0	41.0	40.3	39.2	38.5	38.2	37.6	37.5	38.9
Hens	do	21.3	38.5	38.5	38.7	38.9	38.4	36.3	35.6	35.4	35.4	35.7	35.6	35.7	36.9
Salmon, canned, red.	do		33.5	33.2	33.0	32.7	32.5	32.3	32.3	32.9	33.9	34.4	34.8	35.0	33.4
Milk, fresh	Quart	8.9	14.1	14.1	14.1	14.0	13.9	13.9	14.0	14.1	14.1	14.2	14.2	14.3	14.1
Milk, evaporated	(1)		11.4	11.4	11.4	11.4	11.5	11.5	11.5	11.6	11.6	11.5	11.5	11.5	11.5
Butter	Pound	38.3	58.4	58.8	59.2	58.4	53.4	51.8	51.4	51.4	53.4	55.7	56.4	58.4	55.6
Oleomargarine (all butter substitutes).	do		29.2	29.0	28.7	28.6	28.4	28.2	28.0	28.0	27.8	27.9	27.9	27.9	28.3
Cheese	do	22.1	37.6	37.6	37.3	37.1	37.0	37.0	36.9	37.0	37.7	38.3	38.6	39.0	37.6
Lard	do	15.8	20.0	19.6	19.4	19.1	19.0	18.8	18.8	18.9	19.2	19.6	19.5	19.2	19.3
Vegetable lard substitute.	do		25.2	25.2	25.2	25.1	25.0	25.1	25.0	25.0	25.1	25.2	25.1	25.2	25.1
Eggs, strictly fresh	Dozen	34.5	55.9	44.2	35.4	33.9	33.6	33.5	36.9	42.0	48.7	56.6	61.7	59.6	45.2
Eggs, storage	do		45.0	37.7								42.1	43.8	42.9	
Bread	Pound	5.6	9.4	9.4	9.4	9.4	9.4	9.3	9.3	9.3	9.3	9.3	9.3	9.2	9.3
Flour	do	3.3	5.6	5.6	5.5	5.5	5.5	5.5	5.5	5.6	5.5	5.5	5.4	5.4	5.5
Corn meal	do	3.0	5.1	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Rolled oats	do		9.1	9.1	9.1	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Corn flakes	(2)		10.9	10.9	10.8	10.2	10.1	10.0	9.8	9.7	9.7	9.7	9.7	9.7	10.1
Whear cereal	(3)		25.5	25.4	25.5	25.4	25.5	25.4	25.4	25.5	25.5	25.5	25.5	25.5	25.5
Macaroni	Pound		20.1	20.1	20.1	20.0	20.0	20.0	20.0	20.1	20.1	20.1	20.0	20.0	20.1
Rice	do	8.7	11.0	10.8	10.8	10.7	10.6	10.7	10.7	10.7	10.6	10.5	10.4	10.3	10.7
Beans, navy	do		9.2	9.2	9.1	9.1	9.0	9.3	9.4	9.5	9.6	9.6	9.5	9.5	9.3
Potatoes	do	1.7	4.0	3.8	3.7	3.7	4.5	6.0	4.2	3.4	3.2	3.0	3.0	3.0	3.8
Onions	do		5.5	5.7	5.9	7.4	8.7	8.8	7.8	6.4	5.5	5.0	4.8	4.7	6.4
Cabbage	do		4.7	4.9	5.2	5.5	8.7	9.6	5.5	4.4	4.1	3.9	3.7	3.8	5.3
Beans, baked	(4)		11.7	11.7	11.6	11.6	11.6	11.5	11.5	11.5	11.4	11.5	11.5	11.4	11.5
Corn, canned	(4)		16.1	16.1	15.9	15.8	15.6	15.6	15.5	15.6	15.6	15.7	15.7	15.7	15.7
Peas, canned	(4)		17.2	17.1	17.0	17.0	16.8	16.7	16.7	16.7	16.7	16.7	16.6	16.7	16.8
Tomatoes, canned	(4)		12.3	12.2	12.2	12.1	12.1	12.0	12.0	12.0	11.9	11.9	11.8	11.8	12.0
Sugar, granulated	Pound	5.5	7.5	7.5	7.4	7.3	7.3	7.3	7.4	7.3	7.2	7.2	7.2	7.1	7.3
Tea	do	54.4	77.5	77.4	77.6	77.6	77.4	77.3	77.5	77.6	77.2	77.5	77.5	77.3	77.5
Coffee	do	29.8	50.2	49.9	49.3	48.8	48.2	47.9	47.6	47.4	47.3	47.4	47.8	48.1	48.3
Prunes	do		16.0	15.8	15.8	15.5	15.4	15.6	15.7	15.5	15.2	14.6	14.1	13.8	15.3
Raisins	do		14.4	14.4	14.3	14.3	14.3	14.3	14.4	14.3	14.3	14.2	13.8	13.7	14.2
Bananas	Dozen		34.5	34.7	34.1	34.0	33.9	33.5	33.4	33.7	33.5	33.9	34.4	34.8	34.0
Oranges	do		46.9	47.1	46.9	48.3	49.8	49.3	50.2	53.8	55.3	57.8	53.2	52.3	50.9

[1] 15–16 ounce can.
[2] 8-ounce package.
[3] 28-ounce package.
[4] No. 2 can.

Table 4 shows the changes in the retail prices of each of 22 articles of food for which prices have been secured since 1913, as well as the changes in the amounts of these articles that could be purchased for $1 in specified years, 1913 to 1927, and in each month of 1927.

TABLE 4.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR $1 IN EACH YEAR, 1917 TO 1927, AND IN EACH MONTH OF 1927

Year	Sirloin steak		Round steak		Rib roast		Chuck roast		Plate beef		Pork chops	
	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1
	Cents per lb.	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*
1913	25.4	3.9	22.3	4.5	19.8	5.1	16.0	6.3	12.1	8.3	21.0	4.8
1920	43.7	2.3	39.5	2.5	33.2	3.0	26.2	3.8	18.3	5.5	42.3	2.4
1921	38.8	2.6	34.4	2.9	29.1	3.4	21.2	4.7	14.3	7.0	34.9	2.9
1922	37.4	2.7	32.3	3.1	27.6	3.6	19.7	5.1	12.8	7.8	33.0	3.0
1923	39.1	2.6	33.5	3.0	28.4	3.5	20.2	5.0	12.9	7.8	30.4	3.3
1924	39.6	2.5	33.8	3.0	28.8	3.5	20.8	4.8	13.2	7.6	30.8	3.2
1925	40.6	2.5	34.7	2.9	29.6	3.4	21.6	4.6	13.8	7.2	36.6	2.7
1926	41.3	2.4	35.6	2.8	30.3	3.3	22.5	4.4	14.6	6.8	39.5	2.5
1927	42.6	2.3	37.1	2.7	31.3	3.2	23.7	4.2	15.4	6.5	36.8	2.7
January	40.8	2.5	35.3	2.8	30.3	3.3	22.7	4.4	15.0	6.7	36.6	2.7
February	40.9	2.4	35.4	2.8	30.4	3.3	22.7	4.4	14.9	6.7	35.9	2.8
March	41.1	2.4	35.6	2.8	30.4	3.3	22.8	4.4	14.9	6.7	36.6	2.7
April	41.8	2.4	36.4	2.7	30.9	3.2	23.3	4.3	15.2	6.6	36.9	2.7
May	42.3	2.4	36.9	2.7	31.2	3.2	23.5	4.3	15.2	6.6	36.4	2.7
June	42.4	2.4	37.0	2.7	31.1	3.2	23.5	4.3	15.2	6.6	34.7	2.9
July	43.6	2.3	37.9	2.6	31.7	3.2	23.9	4.2	15.3	6.5	34.9	2.9
August	43.7	2.3	38.1	2.6	31.7	3.2	23.9	4.2	15.3	6.5	37.7	2.7
September	43.8	2.3	38.1	2.6	31.8	3.1	24.0	4.2	15.5	6.5	40.7	2.5
October	43.7	2.3	37.9	2.6	31.9	3.1	24.3	4.1	15.8	6.3	41.5	2.4
November	43.5	2.3	37.8	2.6	31.9	3.1	24.5	4.1	16.2	6.2	36.3	2.8
December	43.9	2.3	38.2	2.6	32.4	3.1	25.1	4.0	16.7	6.0	32.8	3.0

Year	Bacon		Ham		Hens		Milk		Butter		Cheese	
	Cents per lb.	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per qt.*	*Qts.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*
1913	27.0	3.7	26.9	3.7	21.3	4.7	8.9	11.2	38.3	2.6	22.1	4.5
1920	52.3	1.9	55.5	1.8	44.7	2.2	16.7	6.0	70.1	1.4	41.6	2.4
1921	42.7	2.3	48.8	2.0	39.7	2.5	14.6	6.8	51.7	1.9	34.0	2.9
1922	39.8	2.5	48.8	2.0	36.0	2.8	13.1	7.6	47.9	2.1	32.9	3.0
1923	39.1	2.6	45.5	2.2	35.0	2.9	13.8	7.2	55.4	1.8	36.9	2.7
1924	37.7	2.7	45.3	2.2	35.3	2.8	13.8	7.2	51.7	1.9	35.3	2.8
1925	46.7	2.1	52.6	1.9	36.6	2.7	14.0	7.1	54.8	1.8	36.7	2.7
1926	50.3	2.0	57.4	1.7	38.8	2.6	14.0	7.1	53.1	1.9	36.6	2.7
1927	47.2	2.1	55.0	1.8	36.9	2.7	14.1	7.1	55.6	1.8	37.6	2.7
January	48.9	2.0	56.8	1.8	38.5	2.6	14.1	7.1	58.4	1.7	37.6	2.7
February	48.5	2.1	56.7	1.8	38.5	2.6	14.1	7.1	58.8	1.7	37.6	2.7
March	48.4	2.1	56.5	1.8	38.7	2.6	14.1	7.1	59.2	1.7	37.3	2.7
April	48.1	2.1	56.7	1.8	38.9	2.6	14.0	7.1	58.4	1.7	37.1	2.7
May	47.6	2.1	56.3	1.8	38.4	2.6	13.9	7.2	53.4	1.9	37.0	2.7
June	47.1	2.1	55.5	1.8	36.3	2.8	13.9	7.2	51.8	1.9	37.0	2.7
July	46.6	2.1	54.6	1.8	35.6	2.8	14.0	7.1	51.4	1.9	36.9	2.7
August	46.5	2.2	54.3	1.8	35.4	2.8	14.1	7.1	51.4	1.9	37.0	2.7
September	46.5	2.2	53.8	1.9	35.4	2.8	14.1	7.0	53.4	1.9	37.7	2.7
October	46.6	2.1	53.6	1.9	35.7	2.8	14.2	7.0	55.7	1.8	38.3	2.6
November	46.3	2.2	53.0	1.9	35.6	2.8	14.2	7.0	56.4	1.8	38.6	2.6
December	45.3	2.2	51.9	1.9	35.7	2.8	14.3	7.0	58.4	1.7	39.0	2.6

TABLE 4.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR $1 IN EACH YEAR, 1913 TO 1925, AND IN EACH MONTH OF 1926—Continued

Year	Lard		Eggs		Bread		Flour		Corn meal		Rice	
	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1
	Cents per lb.	*Lbs.*	*Cents per doz.*	*Dozs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*
1913	15.8	6.3	34.5	2.9	5.6	17.9	3.3	30.3	3.0	33.3	8.7	11.5
1920	29.5	3.4	68.1	1.5	11.5	8.7	8.1	12.3	6.5	15.4	17.4	5.7
1921	18.0	5.6	50.9	2.0	9.9	10.1	5.8	17.2	4.5	22.2	9.5	10.5
1922	17.0	5.9	44.4	2.3	8.7	11.5	5.1	19.6	3.9	25.6	9.5	10.5
1923	17.7	5.6	46.5	2.2	8.7	11.5	4.7	21.3	4.1	24.4	9.5	10.5
1924	19.0	5.3	47.8	2.1	8.8	11.4	4.9	20.4	4.7	21.3	10.1	9.9
1925	23.3	4.3	52.1	1.9	9.4	10.6	6.1	16.4	5.4	18.5	11.1	9.0
1926	21.9	4.6	48.5	2.1	9.4	10.6	6.0	16.7	5.1	19.6	11.6	8.6
1927	19.3	5.2	45.2	2.2	9.3	10.8	5.5	18.2	5.2	19.2	10.7	9.3
January	20.0	5.0	55.9	1.8	9.4	10.6	5.6	17.9	5.1	19.6	11.0	9.1
February	19.6	5.1	44.2	2.3	9.4	10.6	5.6	17.9	5.1	19.6	10.8	9.3
March	19.4	5.2	35.4	2.8	9.4	10.6	5.5	18.2	5.1	19.6	10.8	9.3
April	19.1	5.2	33.9	2.9	9.4	10.6	5.5	18.2	5.1	19.6	10.7	9.3
May	19.0	5.3	33.6	3.0	9.4	10.6	5.5	18.2	5.1	19.6	10.6	9.4
June	18.8	5.3	33.5	3.0	9.3	10.8	5.5	18.2	5.2	19.2	10.7	9.3
July	18.8	5.3	36.9	2.7	9.3	10.8	5.5	18.2	5.2	19.2	10.7	9.3
August	18.9	5.3	42.0	2.4	9.3	10.8	5.6	17.9	5.2	19.2	10.7	9.4
September	19.2	5.2	48.7	2.1	9.3	10.8	5.5	18.2	5.2	19.2	10.6	9.4
October	19.6	5.1	56.6	1.8	9.3	10.8	5.5	18.2	5.2	19.2	10.5	9.5
November	19.5	5.1	61.7	1.6	9.3	10.8	5.4	18.5	5.2	19.2	10.4	9.6
December	19.2	5.2	59.6	1.7	9.2	10.9	5.4	18.5	5.2	19.2	10.3	9.7

Year	Potatoes		Sugar		Tea		Coffee	
	Cents per lb.	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*
1913	1.7	58.8	5.5	18.2	54.4	1.8	29.8	3.4
1920	6.3	15.9	19.4	5.2	73.3	1.4	47.0	2.1
1921	3.1	32.3	8.0	12.5	69.7	1.4	36.3	2.8
1922	2.8	35.7	7.3	13.7	68.1	1.5	36.1	2.8
1923	2.9	34.5	10.1	9.9	69.5	1.4	37.7	2.7
1924	2.7	37.0	9.2	10.9	71.5	1.4	43.3	2.3
1925	3.6	27.8	7.2	13.9	75.5	1.3	51.5	1.9
1926	4.9	20.4	6.9	14.5	76.7	1.3	51.0	2.0
1927	3.8	26.3	7.3	13.7	77.5	1.3	48.3	2.1
January	4.0	25.0	7.5	13.3	77.5	1.3	50.2	2.0
February	3.8	26.3	7.5	13.3	77.4	1.3	49.9	2.0
March	3.7	27.0	7.4	13.5	77.6	1.3	49.3	2.0
April	3.7	27.0	7.3	13.7	77.6	1.3	48.8	2.0
May	4.5	22.2	7.3	13.7	77.4	1.3	48.2	2.1
June	6.0	16.7	7.3	13.7	77.3	1.3	47.9	2.1
July	4.2	23.8	7.4	13.5	77.5	1.3	47.6	2.1
August	3.4	29.4	7.3	13.7	77.6	1.3	47.4	2.1
September	3.2	31.3	7.2	13.9	77.2	1.3	47.3	2.1
October	3.0	33.3	7.2	13.9	77.5	1.3	47.4	2.1
November	3.0	33.3	7.2	13.9	77.5	1.3	47.8	2.1
December	3.0	33.3	7.1	14.1	77.3	1.3	48.1	2.1

Index Numbers of Retail Prices of Food in the United States

IN TABLE 5 index numbers are given which show the changes in the retail prices of specified food articles, by years, from 1913 to 1927,[2] and by months for 1926 and 1927. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1926 was 162.6, which means that

[2] For index numbers of each month, January, 1913, to December, 1926, see Bulletin No. 396, pp. 44 to 61; Bulletin No. 418, pp. 38 to 51; and Bulletin No. 445, pp. 36 to 49.

the average money price for the year 1926 was 62.6 per cent higher than the average money price for the year 1913. As compared with the relative price, 159.8 in 1925, the figures for 1926 show an increase of nearly 3 points, but an increase of 1.75 per cent in the year.

In the last column of Table 5 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 156.5 for November and 155.9 for December, 1927.

The curve shown in the chart on page 173 pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

TABLE 5.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1927, AND BY MONTHS FOR 1926 AND 1927

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1926: January	160.6	157.0	151.5	138.1	119.8	173.8	178.5	198.1	181.2	159.6	144.6	170.1
February	159.8	156.1	148.0	138.1	120.7	172.9	181.1	199.3	182.6	159.6	142.3	169.7
March	160.2	156.5	151.0	138.1	120.7	177.1	179.3	200.7	185.0	157.3	139.9	168.3
April	161.8	157.8	152.5	139.4	121.5	182.4	179.6	202.6	190.1	156.2	132.9	165.2
May	163.4	160.5	153.5	140.6	120.7	191.9	182.6	207.8	192.5	156.2	130.5	162.9
June	165.4	162.3	154.5	141.9	120.7	200.0	190.7	221.9	188.7	155.1	131.3	161.5
July	165.4	162.8	155.1	141.9	119.8	198.6	193.7	226.4	184.0	155.1	130.8	161.1
August	164.6	162.3	153.5	140.6	118.2	192.9	192.6	225.7	177.9	156.2	132.1	161.5
September	165.0	163.2	154.5	141.9	119.8	202.4	192.2	224.5	177.5	157.3	137.1	163.3
October	163.4	161.4	154.5	142.5	120.7	202.9	191.5	222.3	176.5	157.3	141.8	166.1
November	161.0	159.2	152.5	141.9	121.5	187.1	188.9	217.1	174.2	158.4	145.4	167.0
December	160.2	158.3	152.5	141.9	123.1	177.1	183.7	212.3	174.6	159.6	154.8	169.2
1927: January	160.6	158.3	153.0	141.9	124.0	174.3	181.1	211.2	180.8	158.4	152.5	170.1
February	161.0	158.7	153.5	141.9	123.1	171.0	179.6	210.8	180.8	158.4	153.5	170.1
March	161.8	159.6	153.5	142.5	123.1	174.3	179.3	210.0	181.7	158.4	154.6	168.8
April	164.6	163.2	156.1	145.6	125.6	175.7	178.2	210.8	182.6	157.3	152.5	167.9
May	166.5	165.5	157.6	146.9	125.6	173.3	176.3	209.3	180.3	156.2	139.4	167.4
June	166.9	165.9	157.1	146.9	125.6	165.2	174.4	206.3	170.4	156.2	135.2	167.4
July	171.7	170.0	160.1	149.4	126.4	166.2	172.6	203.0	167.1	157.3	134.2	167.0
August	172.0	170.9	160.1	149.4	126.4	179.5	172.2	201.9	166.2	158.4	134.2	167.4
September	172.4	170.9	160.6	150.0	128.1	193.8	172.2	200.0	166.2	158.4	139.4	170.6
October	172.0	170.0	161.1	151.9	130.6	197.6	172.6	199.3	167.6	159.6	145.4	173.3
November	171.3	169.5	161.1	153.1	133.9	172.9	171.5	197.0	167.1	159.6	147.3	174.7
December	172.8	171.3	163.6	156.9	138.0	156.2	167.8	192.9	167.6	160.7	152.5	176.5

TABLE 5.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913, 1920 TO 1927, AND BY MONTHS FOR 1926 AND 1927—Continued

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles [1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1926: January	141.1	156.2	167.9	187.9	173.3	133.3	341.2	121.8	139.9	172.1	164.3
February	140.5	127.0	167.9	190.9	173.3	133.3	335.3	121.8	139.9	172.1	161.5
March	138.6	111.6	167.9	187.9	173.3	134.5	329.4	121.8	139.9	172.1	159.9
April	136.1	111.9	167.9	184.8	170.0	134.5	394.1	120.0	140.3	171.5	162.4
May	136.1	112.8	167.9	184.8	170.0	134.5	352.9	121.8	140.4	171.1	161.1
June	143.0	118.0	167.9	184.8	170.0	134.5	294.1	125.5	141.4	171.1	159.7
July	144.9	122.0	167.9	181.8	170.0	134.5	241.2	125.5	141.5	171.5	157.0
August	143.7	130.1	167.9	181.8	170.0	133.3	211.8	127.3	141.7	171.1	155.7
September	141.1	149.3	167.9	175.8	170.0	134.5	229.4	127.3	141.5	171.1	158.5
October	138.6	168.7	167.9	172.7	170.0	133.3	223.5	129.1	142.1	170.8	160.0
November	133.5	191.3	167.9	172.7	170.0	129.9	235.3	129.1	141.7	170.5	161.6
December	129.1	189.0	167.9	169.7	170.0	128.7	235.3	132.7	141.4	170.1	161.8
1927: January	126.6	162.0	167.9	169.7	170.0	126.4	235.3	136.4	142.5	168.5	159.3
February	124.1	128.1	167.9	169.7	170.0	124.1	223.5	136.4	142.3	167.4	156.0
March	122.8	102.6	167.9	166.7	170.0	124.1	217.6	134.5	142.6	165.4	153.8
April	120.9	98.3	167.9	166.7	170.0	123.0	217.6	132.7	142.6	163.8	153.6
May	120.3	97.4	167.9	166.7	170.0	121.8	264.7	132.7	142.3	161.7	155.4
June	119.0	97.1	166.1	166.7	173.3	123.0	352.9	132.7	142.1	160.7	158.5
July	119.0	107.0	166.1	166.7	173.3	123.0	247.1	134.5	142.5	159.7	153.4
August	119.6	121.7	166.1	169.7	173.3	123.0	200.0	132.7	142.6	159.1	152.4
September	121.5	141.2	166.1	166.7	173.3	121.8	188.2	130.9	141.9	158.7	154.0
October	124.1	164.1	166.1	166.7	173.3	120.7	176.5	130.9	142.5	159.1	156.1
November	123.4	178.8	166.1	163.6	173.3	119.5	176.5	130.9	142.5	160.4	156.5
December	121.5	172.8	164.3	163.6	173.3	118.4	176.5	129.1	142.1	161.4	155.9

[1] 22 articles in 1913–1920; 43 articles in 1921–1927.

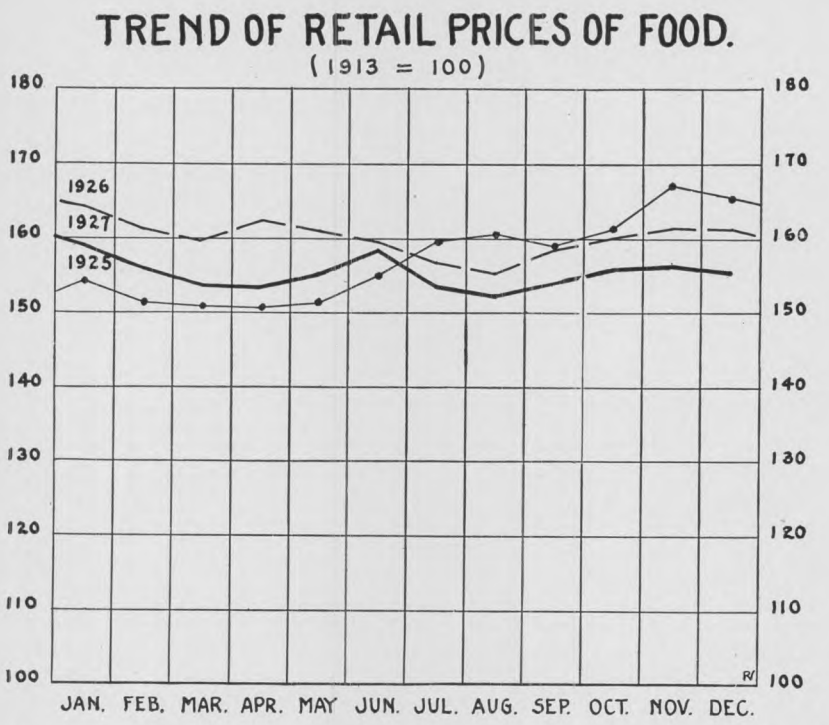


Table 6 shows by index numbers the trend in the retail cost of food in the United States from 1890 to 1927. The percentage decrease in the cost from 1926 to 1927 was 3, while the percentage increase from 1890 to 1927 was 123. This means that the cost of food in 1927 was nearly two and a quarter times as much as it was in 1890.

TABLE 6.—INDEX NUMBERS SHOWING THE TREND IN THE RETAIL COST OF FOOD IN THE UNITED STATES, BY YEARS, 1890 TO 1927[1]

[Average for year 1913=100]

Year	Relative price	Year	Relative price	Year	Relative price	Year	Relative price
1890	69.6	1900	68.7	1910	93.0	1920	203.4
1891	70.6	1901	71.5	1911	92.0	1921	153.3
1892	69.3	1902	75.4	1912	97.6	1922	141.6
1893	71.0	1903	75.0	1913	100.0	1923	146.2
1894	67.8	1904	76.0	1914	102.4	1924	145.9
1895	66.5	1905	76.4	1915	101.3	1925	157.4
1896	64.9	1906	78.7	1916	113.7	1926	160.6
1897	65.4	1907	82.0	1917	146.4	1927	155.4
1898	67.1	1908	84.3	1918	168.3		
1899	67.7	1909	88.7	1919	185.9		

[1] The number of articles included in the index number for each year has not been the same throughout the period, but a sufficient number have been used fairly to represent food as a whole. From 1890 to 1907, 30 articles were used; from 1907 to 1913, 15 articles; from 1913 to 1920, 22 articles; and from 1921, 43 articles. The relatives for the period have been so computed as to be comparable with each other.

Retail Prices of Food in 51

AVERAGE retail food prices are shown in Table 7 for 40 cities 15, 1927. For 11 other cities prices are shown for the same scheduled by the bureau until after 1913.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

[Exact comparisons of prices in different cities can not be made for some articles,

Article	Unit	Atlanta, Ga.				Baltimore, Md.				Birmingham, Ala.			
		Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
		1913	1926			1913	1926			1913	1926		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	23.7	40.8	43.5	43.5	22.3	37.8	40.7	41.5	28.0	41.1	42.5	42.5
Round steak	do	21.3	36.8	39.2	38.5	20.8	34.7	37.9	38.3	23.0	35.8	36.8	36.8
Rib roast	do	19.7	32.9	32.8	33.0	17.5	29.6	31.9	32.5	20.5	28.8	30.4	30.4
Chuck steak	do	15.8	25.4	25.8	25.5	15.3	21.5	24.1	24.6	16.1	22.9	23.5	23.3
Plate beef	do	9.9	13.3	15.5	14.9	12.6	15.0	16.6	17.5	10.0	14.0	15.4	15.3
Pork chops	do	23.3	35.8	36.2	33.8	17.0	35.8	32.5	30.5	20.6	36.9	36.8	34.4
Bacon, sliced	do	31.4	46.9	45.2	43.9	20.5	43.7	42.1	40.0	33.0	48.7	46.9	45.3
Ham, sliced	do	30.0	58.8	55.4	52.9	27.5	58.3	56.0	53.8	32.0	57.0	53.8	53.0
Lamb, leg of	do	20.2	40.0	40.2	39.4	17.5	37.1	37.9	37.7	21.9	38.6	40.9	40.9
Hens	do	20.3	36.8	36.1	36.8	20.7	37.8	38.1	37.8	19.3	36.8	33.4	33.5
Salmon, canned, red	do	-----	33.8	34.0	34.5	-----	31.2	32.6	33.1	-----	35.4	35.6	36.3
Milk, fresh	Quart	10.8	19.0	18.0	18.0	8.7	14.0	14.0	14.0	10.0	18.0	16.7	18.3
Milk, evaporated	15-16 oz.can	-----	13.2	13.5	13.5	-----	11.2	11.4	11.5	-----	12.5	12.6	12.4
Butter	Pound	40.4	58.6	56.7	58.0	40.2	63.8	61.0	62.5	44.0	60.6	58.9	59.0
Oleomargarine (all butter substitutes).	do	-----	26.9	27.3	26.9	-----	30.0	28.0	27.8	-----	36.5	32.8	32.0
Cheese	do	25.0	36.4	37.9	38.2	23.3	35.5	37.0	37.3	23.0	37.3	38.9	39.6
Lard	do	15.5	19.7	19.4	19.2	14.8	18.3	18.5	18.1	15.7	21.3	19.6	18.9
Vegetable lard substitute	do	-----	21.9	22.9	22.4	-----	23.9	22.9	22.6	-----	21.7	22.1	22.0
Eggs, strictly fresh	Dozen	43.3	61.1	57.0	59.5	40.4	65.2	61.8	60.0	41.8	60.9	53.8	57.3
Eggs, storage	do	28.5	45.2	44.3	46.0	33.1	45.5	41.5	39.5	35.0	47.8	43.7	42.6
Bread	Pound	5.6	10.7	10.8	10.8	5.5	9.8	9.8	9.8	5.4	10.3	10.4	10.4
Flour	do	3.4	6.5	6.4	6.4	3.1	5.3	5.1	5.1	3.6	6.8	6.7	6.6
Corn meal	do	2.6	4.0	4.1	4.1	2.5	3.9	4.2	4.1	2.5	4.1	4.2	4.2
Rolled oats	do	-----	9.7	9.4	9.6	-----	8.3	8.3	8.2	-----	10.0	10.3	10.2
Corn flakes	8-oz. pkg.	-----	11.5	9.8	10.0	-----	10.1	9.2	9.2	-----	12.2	10.5	10.5
Wheat cereal	28-oz. pkg.	-----	25.9	27.3	27.1	-----	24.3	24.6	24.6	-----	26.9	27.7	27.6
Macaroni	Pound	-----	21.9	21.4	21.6	-----	18.6	19.3	19.2	-----	18.7	18.8	18.9
Rice	do	8.6	11.3	9.9	9.3	9.0	10.3	9.5	9.7	8.2	11.2	10.5	10.4
Beans, navy	do	-----	10.4	10.8	10.7	-----	8.3	8.7	8.6	-----	10.5	10.3	10.4
Potatoes	do	2.3	4.8	4.1	4.0	1.8	4.3	3.0	2.9	2.1	5.3	4.5	4.4
Onions	do	-----	7.2	7.1	6.7	-----	5.0	4.1	4.2	-----	6.9	6.5	6.7
Cabbage	do	-----	4.8	4.7	4.7	-----	4.3	3.1	3.4	-----	5.6	5.2	5.2
Beans, baked	No. 2 can	-----	11.5	11.4	11.0	-----	10.5	10.8	10.8	-----	11.9	11.9	11.8
Corn, canned	do	-----	17.5	18.0	17.7	-----	14.7	14.8	14.5	-----	18.4	16.8	16.6
Peas, canned	do	-----	20.0	19.7	19.7	-----	15.0	15.0	14.8	-----	21.4	21.3	20.8
Tomatoes, canned	do	-----	11.0	11.1	10.8	-----	10.7	10.3	10.4	-----	11.2	10.9	11.0
Sugar, granulated	Pound	5.5	7.5	7.7	7.5	4.9	6.5	6.5	6.4	5.2	7.7	7.8	7.5
Tea	do	60.0	105.9	103.1	103.3	56.0	73.5	73.0	71.6	61.3	96.4	96.2	98.8
Coffee	do	32.0	51.5	48.2	48.6	24.4	47.5	43.8	44.2	28.8	53.9	50.9	51.1
Prunes	do	-----	17.8	14.8	14.3	-----	14.0	12.0	11.7	-----	18.7	17.4	17.1
Raisins	do	-----	16.5	15.5	15.3	-----	13.0	12.6	12.7	-----	15.4	15.0	15.0
Bananas	Dozen	-----	27.3	28.6	28.2	-----	26.3	26.2	26.3	-----	37.3	37.5	37.7
Oranges	do	-----	34.5	41.2	38.1	-----	44.2	50.8	49.9	-----	44.5	46.5	46.8

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

Cities on Specified Dates

for December 15, 1913 and 1926, and for November 15 and December dates with the exception of December, 1913, as these cities were not

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES

particularly meats and vegetables, owing to differences in trade practices]

Boston, Mass.				Bridgeport, Conn.			Buffalo, N. Y.				Butte, Mont.			Charleston, S. C.			
Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov 15,' 1927	Dec. 15, 1927
1913	1926						1913	1926						1913	1926		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
[1] 33.0	[1] 64.3	[1] 71.1	[1] 74.4	49.2	54.6	55.4	21.6	39.6	42.5	43.2	29.6	33.0	33.2	22.5	32.7	32.7	32.5
34.3	49.5	55.6	55.3	41.9	47.6	47.8	18.8	34.2	36.3	36.9	26.4	30.3	29.8	21.0	30.0	30.3	29.7
23.7	37.8	41.3	41.6	36.1	40.9	41.8	16.4	30.5	31.8	32.7	26.5	28.0	27.9	20.0	25.0	27.0	26.3
16.2	28.5	30.7	32.0	27.5	31.1	32.1	15.0	23.9	25.3	26.0	19.0	20.3	20.4	15.0	19.4	20.3	20.3
------	19.0	21.9	21.8	11.9	12.9	13.6	11.8	14.7	15.6	16.3	12.5	13.6	13.8	12.5	14.2	14.2	14.6
21.9	39.8	39.6	34.6	39.9	38.4	33.9	17.6	39.3	38.5	34.3	36.5	37.1	32.7	25.0	35.6	33.2	32.0
24.3	49.1	45.8	44.8	54.3	49.9	49.7	20.6	45.9	41.2	40.3	56.9	52.5	51.7	27.0	44.0	39.5	37.9
30.7	61.8	58.9	57.9	61.9	57.0	55.7	26.3	56.3	49.0	48.2	61.3	58.8	57.9	27.5	51.7	47.4	46.1
20.2	38.9	39.3	38.1	38.3	38.1	37.8	15.4	32.6	32.7	33.1	36.3	36.3	35.7	24.0	40.0	38.8	39.4
24.0	40.6	39.1	38.9	41.1	40.2	39.8	19.8	38.4	36.6	37.5	32.4	32.9	31.5	21.8	38.4	35.5	35.5
------	33.0	33.9	34.5	32.8	33.3	32.3	-----	32.5	33.1	34.1	31.9	32.7	32.7	-----	29.6	33.1	33.4
8.9	15.3	15.5	16.5	16.0	16.0	16.0	8.0	13.0	13.0	13.0	14.3	14.0	14.0	12.0	19.0	19.0	19.0
------	12.2	12.1	12.1	11.6	11.6	11.6	-----	11.2	11.3	11.3	11.1	10.9	11.1	-----	11.9	11.8	11.8
37.9	57.8	47.1	58.6	57.4	56.0	57.6	39.1	62.8	57.7	59.9	53.0	53.2	55.6	39.0	56.5	53.0	53.9
------	29.2	27.9	28.3	29.4	26.8	26.8	-----	29.8	27.8	28.1	------	------	------	-----	31.7	29.5	29.2
23.4	38.3	39.1	40.6	39.3	41.6	42.9	21.5	37.6	38.7	39.2	35.7	37.5	37.5	21.0	35.0	36.4	37.1
15.8	20.2	19.4	19.0	19 7	18.7	18.4	14.2	19.8	19.0	18.6	24.7	23.0	23.2	15.0	20.9	21.3	20.7
------	24.5	25.4	25.3	25.9	25.4	25.4	-----	26.2	25.7	25.8	29.3	30.6	30.3	-----	23.5	22.1	21.9
57.5	85.0	85.1	81.7	87.3	83.2	80.3	47.6	69.3	67.8	63.8	66.3	59.6	61.9	46.7	66.7	57.0	57.3
36.0	54.3	49.3	50.6	51.4	48.6	46.4	31.4	45.5	43.6	43.4	45.5	38.1	36.7	35.2	44.3	39.6	39.2
5.9	9.1	8.5	8.6	8.8	8.8	8.8	5.6	8.8	8.7	8.7	9.8	9.8	9.8	6.4	10.2	10.9	10.9
3.6	6.0	5.9	5.9	5.8	5.6	5.6	3.0	5.1	4.8	4.8	5.4	5.3	5.3	3.7	7.1	6.9	6.8
3.6	6.2	6.4	6.7	7.7	7.9	7.7	2.6	5.1	5.1	5.2	5.9	6.1	6.3	2.6	3.9	3.9	3.9
------	9.3	9.1	9.0	8.6	8.5	8.4	-----	8.7	8.8	8.8	7.3	7.6	7.6	-----	9.6	9.4	9.5
------	10.7	9.9	9.8	10.4	9.6	9.6	-----	10.2	9.3	9.4	12.2	10.5	10.5	-----	12.0	9.9	9.9
------	24.7	25.1	24.9	24.7	24.7	24.6	-----	24.6	24.8	24.8	28.3	28.5	28.5	-----	26.2	25.7	25.7
------	22.5	21.9	22.3	22.7	22.6	22.5	-----	21.5	21.5	21.5	19.6	19.7	19.7	-----	18.6	18.7	18.9
9.4	11.5	12.1	12.1	10.9	11.3	11.1	9.3	11.2	10.0	9.9	11.7	11.0	11.0	5.6	8.4	7.1	6.9
------	9.9	10.2	10.3	9.7	9.6	9.5	-----	9.2	9.4	9.3	10.4	9.9	9.9	-----	9.8	10.1	10.1
1.7	4.0	3.0	3.0	3.8	3.0	3.0	1.7	4.1	2.9	2.8	3.0	1.5	1.6	2.2	4.4	3.4	3.4
------	5.1	4.7	4.6	5.0	4.9	5.2	-----	5.9	5.6	5.4	4.5	3.9	4.2	-----	5.5	5.6	5.3
------	5.2	4.5	4.4	4.5	4.6	3.9	-----	3.0	2.8	3.0	4.8	3.4	4.1	-----	4.2	4.1	4.1
------	12.9	13.3	13.3	11.3	11.5	11.7	-----	10.0	10.0	10.0	14.1	13.5	13.4	-----	9.8	10.0	9.9
------	18.8	18.0	17.6	19.1	19.0	19.2	-----	16.3	15.8	16.0	16.0	14.6	14.6	-----	15.0	14.3	14.2
------	20.3	20.0	19.9	21.5	20.5	20.9	-----	16.2	16.0	16.2	15.2	13.8	13.5	-----	17.5	16.4	16.4
------	12.4	11.3	11.3	13.1	13.4	13.1	-----	13.9	13.3	13.1	13.3	12.8	12.8	-----	10.2	9.9	9.8
5.3	7.3	7.2	7.1	7.0	7.1	7.0	5.1	7.1	6.8	6.8	8.5	8.6	8.6	5.0	6.9	6.7	6.7
58.6	74.9	73.5	72.4	59.5	60.9	60.9	45.0	69.8	68.5	69.0	83.3	82.2	83.1	50.0	73.9	82.4	82.4
33.0	55.3	51.5	52.8	48.6	46.6	47.5	29.3	48.7	45.5	45.7	56.6	54.1	54.1	26.8	46.5	43.2	43.8
------	15.0	14.2	13.7	15.8	15.2	15.3	-----	15.9	13.7	13.5	18.4	14.5	14.8	-----	14.7	12.2	10.7
------	13.0	13.0	12.7	14.8	13.8	14.0	-----	13.8	13.4	13.0	15.2	14.6	14.6	-----	14.1	14.0	12.8
------	46.3	46.7	47.0	34.2	36.5	37.1	-----	42.6	41.6	43.3	[2] 14.5	[2] 13.0	[2] 12.8	-----	30.7	25.0	27.5
------	49.9	60.8	56.1	50.7	66.8	61.7	-----	55.7	58.4	59.0	54.5	60.7	58.8	-----	29.4	31.5	31.3

[2] Per pound.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Chicago, Ill.				Cincinnati, Ohio				Cleveland, Ohio			
		Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
		1913	1926			1913	1926			1913	1926		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	24.1	45.2	47.8	49.1	23.0	36.4	39.3	40.2	24.6	37.3	41.6	42.7
Round steak	do	21.2	36.8	38.8	39.1	20.7	33.4	35.7	36.6	21.7	31.3	35.5	36.3
Rib roast	do	19.7	36.3	36.5	37.4	19.5	30.2	31.7	32.6	18.6	27.1	28.8	29.7
Chuck roast	do	15.7	25.9	27.9	28.3	15.3	21.6	23.4	24.0	17.0	23.1	25.1	25.9
Plate beef	do	11.8	15.1	16.0	16.3	11.8	15.2	16.3	17.4	12.5	13.4	15.0	16.1
Pork chops	do	17.9	36.5	35.9	31.1	18.9	32.2	32.5	26.9	19.4	35.6	35.7	31.4
Bacon, sliced	do	32.0	55.0	50.7	49.4	22.6	44.4	40.1	39.1	27.9	50.3	44.6	43.7
Ham, sliced	do	31.8	58.7	53.7	53.4	27.8	56.8	52.0	50.2	36.3	58.3	52.5	51.8
Lamb, leg of	do	19.4	38.4	37.7	37.7	17.5	35.1	35.6	35.4	18.0	34.9	35.8	35.2
Hens	do	17.7	37.6	36.0	36.1	22.7	36.1	35.0	36.8	19.3	36.5	35.0	35.3
Salmon, canned, red	do	-----	37.4	36.1	35.3	-----	30.9	36.4	35.6	-----	33.8	34.8	35.0
Milk, fresh	Quart	8.0	14.0	14.0	14.0	8.0	14.0	13.3	13.3	8.0	14.3	14.0	14.0
Milk, evaporated	15–16 oz. can	-----	11.2	11.3	11.3	-----	10.8	11.2	11.3	-----	11.3	11.4	11.4
Butter	Pound	38.3	60.6	56.2	58.8	39.3	59.2	55.6	58.7	42.2	64.7	59.8	63.0
Oleomargarine (all butter substitutes).	do	-----	27.6	27.5	27.2	-----	28.6	28.7	28.7	-----	31.9	28.9	28.6
Cheese	do	25.3	42.4	43.4	43.8	21.4	36.8	40.4	40.6	24.0	38.1	39.8	39.6
Lard	do	15.0	20.9	19.8	19.6	13.9	18.5	18.0	16.8	16.4	21.8	21.0	20.9
Vegetable lard substitute	do	-----	26.7	26.5	26.6	-----	25.6	26.1	26.1	-----	27.8	26.9	27.1
Eggs, strictly fresh	Dozen	40.0	66.8	59.6	61.2	38.0	63.8	64.8	60.6	48.0	70.1	66.4	65.0
Eggs, storage	do	32.0	50.3	44.8	45.6	30.6	43.1	41.3	41.4	34.3	48.8	41.5	41.9
Bread	Pound	6.1	9.8	9.9	9.9	4.8	9.0	8.7	8.6	5.6	7.9	7.7	7.7
Flour	do	2.9	5.3	4.9	4.9	3.3	5.8	5.6	5.5	3.1	5.7	5.5	5.5
Corn meal	do	2.9	6.6	6.7	6.8	2.8	3.9	4.4	4.4	2.9	5.3	5.5	5.4
Rolled oats	do	-----	8.6	8.6	8.6	-----	8.6	8.9	8.9	-----	9.4	9.3	9.4
Corn flakes	8-oz. pkg.	-----	10.1	9.5	9.4	-----	10.4	9.6	9.6	-----	11.2	9.9	9.9
Wheat cereal	28-oz. pkg.	-----	25.4	25.5	25.6	-----	24.4	25.1	25.1	-----	25.3	25.4	25.5
Macaroni	Pound	-----	19.7	19.0	18.9	-----	18.8	18.6	18.5	-----	21.9	21.9	22.1
Rice	do	9.0	11.8	10.6	10.6	8.8	10.8	10.0	9.8	9.0	11.9	10.7	10.7
Beans, navy	do	-----	9.6	9.6	9.7	-----	8.0	8.8	8.4	-----	8.5	8.7	8.8
Potatoes	do	1.7	3.9	2.8	2.9	1.8	4.1	3.0	3.0	2.0	4.3	3.1	3.1
Onions	do	-----	5.4	5.0	4.9	-----	4.4	4.6	4.7	-----	4.7	4.3	4.1
Cabbage	do	-----	4.8	4.0	4.5	-----	4.2	3.4	3.3	-----	4.3	3.6	3.7
Beans, baked	No. 2 can	-----	12.9	12.6	12.6	-----	10.9	10.5	10.4	-----	12.8	12.8	12.8
Corn, canned	do	-----	17.3	15.9	15.8	-----	14.7	15.2	15.2	-----	17.0	16.7	16.5
Peas, canned	do	-----	17.5	16.0	16.2	-----	16.8	17.1	17.1	-----	17.6	17.6	17.8
Tomatoes, canned	do	-----	14.2	13.8	13.8	-----	11.9	11.9	11.7	-----	14.0	14.0	14.1
Sugar, granulated	Pound	5.1	7.0	6.9	6.8	5.2	7.4	7.4	7.3	5.4	7.6	7.6	7.5
Tea	do	55.0	74.3	71.8	71.4	60.0	76.4	79.1	79.1	50.0	79.4	81.2	81.2
Coffee	do	30.7	50.9	46.7	47.0	25.6	45.4	44.1	44.7	26.5	54.5	51.4	51.7
Prunes	do	-----	18.9	15.6	15.6	-----	16.7	13.7	13.7	-----	16.2	13.9	13.4
Raisins	do	-----	15.4	14.4	14.4	-----	14.7	14.0	14.1	-----	14.5	13.7	13.5
Bananas	Dozen	-----	40.8	39.3	40.9	-----	37.5	38.3	38.9	-----	[2] 10.8	[2] 10.5	[2] 11.3
Oranges	do	-----	58.9	61.4	61.5	-----	40.2	47.8	47.2	-----	53.5	55.6	57.7

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

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Columbus, Ohio			Dallas, Tex.				Denver, Colo.				Detroit, Mich.				Fall River, Mass.			
Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
			1913	1926			1913	1926			1913	1926			1913	1926		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
39.7	41.5	41.8	23.6	36.2	37.8	37.5	22.9	32.3	34.4	35.2	24.8	41.4	43.9	45.0	[1] 34.3	[1] 60.5	[1] 65.4	[1] 67.9
34.9	36.7	37.4	21.3	32.9	34.0	34.0	20.7	29.6	31.4	32.3	20.4	33.6	36.6	37.1	27.3	46.0	50.0	51.2
30.8	31.9	32.3	20.6	27.6	29.2	28.8	16.7	23.9	25.5	26.5	20.2	30.9	32.3	33.5	23.3	31.2	33.8	35.4
24.7	26.4	26.6	16.4	22.9	24.0	24.3	15.0	18.7	20.1	21.1	15.4	22.9	25.3	25.8	18.3	22.6	25.5	25.8
16.0	17.0	17.3	13.6	17.8	19.0	19.0	9.9	11.0	12.5	13.2	11.7	14.7	15.1	16.2	-----	13.6	15.0	15.7
35.6	35.8	32.8	21.6	35.2	36.5	36.5	20.0	34.0	35.1	30.7	18.2	38.3	37.1	32.1	20.2	38.5	37.1	34.6
51.2	48.5	47.7	37.5	44.2	48.9	48.9	28.0	50.6	45.4	44.7	22.3	51.8	47.4	45.3	25.4	45.7	42.9	42.3
58.7	53.3	53.1	31.6	59.3	55.0	54.0	30.0	58.4	52.1	52.8	28.0	61.5	54.6	54.6	30.4	56.9	52.7	53.2
43.7	42.5	43.3	22.5	43.4	43.3	44.2	15.6	35.6	36.2	35.8	16.0	38.9	38.0	37.9	19.0	41.8	40.6	40.9
37.4	35.9	37.4	19.3	32.7	32.1	32.9	19.9	31.3	28.5	28.4	18.6	37.6	37.4	37.0	24.6	43.6	43.6	42.4
37.1	36.9	37.1	-----	36.5	38.9	39.7	-----	33.5	36.5	37.4	-----	35.3	35.9	35.9	-----	36.8	35.4	35.5
12.0	12.0	12.0	10.8	13.0	13.0	13.0	8.3	12.0	12.0	12.0	9.0	14.0	14.0	14.0	9.0	14.9	15.0	15.0
11.5	11.7	11.6	-----	13.0	13.5	13.5	-----	10.4	10.7	10.7	-----	11.3	11.2	11.4	-----	12.7	12.7	12.7
60.9	55.6	60.6	41.3	57.8	56.7	57.5	37.9	52.8	51.2	54.3	38.9	60.9	57.1	59.8	36.4	54.9	53.8	54.6
29.7	28.5	27.9	-----	33.0	30.4	31.2	-----	26.5	24.6	24.7	-----	28.6	27.3	26.9	-----	30.0	28.8	28.8
37.0	37.8	38.0	20.0	37.0	38.8	38.7	26.1	37.6	39.4	40.1	22.7	39.0	40.9	41.2	23.6	38.5	40.2	40.6
18.5	17.3	17.1	17.2	24.6	22.9	23.2	16.1	20.8	19.8	19.3	16.0	20.6	19.3	19.2	15.3	19.3	18.7	18.4
26.5	26.3	26.4	-----	22.2	24.5	24.6	-----	23.4	22.5	22.7	-----	27.2	26.8	26.8	-----	26.9	26.7	26.3
62.7	55.1	57.6	45.0	56.0	48.8	56.4	47.1	64.6	57.7	56.5	45.3	66.5	63.3	62.8	55.8	88.9	85.9	88.1
47.3	41.3	42.8	37.5	44.0	40.0	-----	36.0	45.8	41.0	41.5	33.5	44.9	41.6	43.2	36.0	50.0	45.6	46.8
8.1	7.7	7.7	5.4	9.5	9.5	9.5	5.6	8.3	8.0	8.0	5.6	8.4	8.3	8.2	6.3	9.2	9.0	9.0
5.5	5.1	4.9	3.3	5.5	5.5	5.5	2.6	4.5	4.3	4.3	3.1	5.5	5.1	5.3	3.3	6.0	5.5	5.6
3.7	4.1	4.1	3.5	4.2	4.5	4.6	2.5	4.1	4.5	4.5	2.8	5.8	5.8	5.6	3.6	6.7	6.7	6.8
9.3	9.0	9.2	-----	10.2	10.7	10.4	-----	8.1	7.7	7.6	-----	9.4	9.6	9.6	-----	9.4	9.7	9.7
10.9	9.9	9.7	-----	11.4	10.5	10.5	-----	11.0	9.5	9.5	-----	10.6	9.8	9.9	-----	11.3	10.0	10.0
25.2	26.2	26.2	-----	27.6	27.8	27.8	-----	24.5	24.5	24.5	-----	26.0	25.8	25.6	-----	25.3	24.6	25.0
20.4	21.0	20.4	-----	21.4	21.5	21.7	-----	19.8	19.3	19.3	-----	21.9	22.3	21.7	-----	23.7	23.5	24.0
12.7	12.1	12.0	9.3	12.5	12.0	11.8	8.6	10.1	9.5	9.5	8.4	12.8	11.4	11.2	10.0	11.5	10.6	10.7
8.3	8.8	8.9	-----	10.8	11.3	11.3	-----	9.6	9.5	9.4	-----	8.5	8.8	8.7	-----	10.2	10.4	10.2
3.9	2.7	2.7	2.4	5.1	4.9	5.0	1.6	3.7	2.1	2.1	1.6	3.3	2.5	2.5	1.8	3.9	3.0	3.1
5.1	4.6	4.6	-----	6.5	7.0	6.7	-----	3.5	3.9	3.8	-----	4.5	4.0	4.1	-----	5.1	5.0	5.0
4.3	4.3	4.0	-----	5.4	5.7	5.5	-----	3.0	2.7	3.0	-----	4.1	3.2	3.4	-----	4.4	4.9	4.8
12.0	12.6	12.0	-----	13.4	13.1	12.7	-----	11.2	10.9	10.9	-----	11.6	11.3	11.2	-----	12.2	12.4	11.6
14.4	14.3	14.4	-----	17.9	18.9	18.8	-----	14.3	13.9	14.1	-----	16.2	16.2	16.0	-----	17.1	16.4	16.1
15.1	14.8	14.8	-----	21.7	22.2	22.1	-----	15.5	15.1	15.3	-----	17.0	17.1	16.8	-----	18.5	17.9	17.5
12.5	13.3	12.8	-----	12.5	13.2	13.2	-----	12.5	12.1	11.9	-----	12.6	12.7	12.5	-----	12.1	12.4	12.4
7.7	7.8	7.8	5.6	8.1	8.1	8.0	5.2	8.0	7.7	7.5	5.1	7.5	7.4	7.4	5.3	7.4	7.2	7.1
89.5	89.3	88.8	66.7	105.8	107.8	107.5	52.8	68.5	69.6	67.2	43.3	73.4	73.0	72.7	44.2	60.4	63.7	63.2
51.3	48.2	48.4	36.7	59.8	57.1	57.8	29.4	51.5	48.4	49.4	29.3	51.6	48.3	48.5	33.0	52.3	48.8	48.9
17.1	15.8	14.5	-----	20.9	18.9	19.8	-----	17.5	14.5	14.3	-----	17.9	14.9	15.0	-----	15.6	14.1	14.1
14.6	14.2	13.8	-----	16.5	15.8	15.6	-----	14.5	13.6	13.6	-----	14.8	13.9	13.8	-----	14.6	13.5	13.8
39.4	38.6	38.6	-----	33.8	35.0	35.0	-----	[2] 12.1	[2] 11.9	[2] 11.2	-----	36.9	34.7	36.1	-----	[2] 10.2	[2] 10.3	[2] 10.3
52.3	52.9	52.2	-----	53.5	54.3	51.6	-----	51.0	51.9	55.8	-----	55.2	64.2	58.0	-----	45.9	56.7	50.5

[2] Per pound.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Houston, Tex.			Indianapolis, Ind.				Jacksonville, Fla.			
		Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
					1913	1926			1913	1926		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	34.9	35.0	36.0	25.5	38.3	42.9	40.2	25.5	36.7	35.4	35.0
Round steak	do	33.1	34.5	35.0	24.2	36.6	38.7	38.7	21.0	32.0	31.6	30.9
Rib roast	do	27.5	27.5	28.0	17.8	29.1	29.2	29.4	21.3	27.5	27.1	26.9
Chuck roast	do	20.2	22.0	22.5	16.3	24.3	25.4	25.4	14.1	20.3	20.8	20.6
Plate beef	do	17.9	19.2	19.7	12.5	15.7	16.4	16.2	10.6	12.8	13.4	13.4
Pork chops	do	36.4	35.6	35.2	20.7	33.9	33.8	30.5	22.5	36.5	32.4	31.4
Bacon, sliced	do	51.1	45.0	44.5	29.7	46.8	44.1	42.1	30.1	47.9	40.5	39.5
Ham, sliced	do	56.8	50.9	50.0	30.3	57.1	51.5	51.2	29.3	56.1	49.2	45.8
Lamb, leg of	do	35.0	32.0	32.0	19.0	40.0	39.0	39.0	20.6	38.3	38.5	38.4
Hens	do	35.6	32.5	31.8	20.8	37.8	34.8	34.8	24.2	38.9	33.7	33.9
Salmon, canned, red	do	32.5	33.8	33.5	-----	34.1	34.2	34.2	-----	34.0	34.1	35.0
Milk, fresh	Quart	15.8	15.6	15.6	8.0	12.0	12.0	12.0	12.3	22.3	20.3	20.3
Milk, evaporated	15–16 oz. can	11.5	11.6	11.7	-----	10.8	10.7	10.8	-----	11.9	11.9	11.7
Butter	Pound	58.1	55.7	56.2	38.3	61.4	55.9	58.9	39.6	58.9	54.2	55.7
Oleomargarine (all butter substitutes).	do	29.9	27.3	27.4	-----	31.6	29.2	29.3	-----	31.4	30.1	29.9
Cheese	do	34.1	35.1	35.5	21.8	37.2	38.9	39.1	22.5	35.2	36.8	37.2
Lard	do	21.5	20.4	20.4	14.6	18.2	17.5	17.4	15.3	22.6	22.0	21.3
Vegetable lard substitute	do	17.1	18.0	18.1	-----	27.1	27.4	27.4	-----	23.1	21.5	21.6
Eggs, strictly fresh	Dozen	52.3	42.9	50.2	38.5	60.5	56.8	58.1	50.0	65.4	62.3	59.8
Eggs, storage	do	42.4	38.8	39.8	32.8	46.0	45.8	46.0	40.0	44.7	41.3	39.7
Bread	Pound	8.8	8.5	8.5	5.1	8.1	8.1	8.1	6.1	11.0	10.9	11.0
Flour	do	5.6	5.1	5.2	3.1	5.5	5.6	5.5	3.7	6.6	6.4	6.7
Corn meal	do	4.2	4.2	4.3	2.6	4.2	4.2	4.2	2.8	4.2	4.2	4.2
Rolled oats	do	9.0	8.9	8.8	-----	8.3	8.5	8.5	-----	9.5	9.1	9.2
Corn flakes	8-oz. pkg	11.6	9.1	9.1	-----	10.2	9.4	9.4	-----	11.1	9.8	9.9
Wheat cereal	28-oz. pkg	25.4	25.0	25.2	-----	25.1	26.0	26.8	-----	24.8	24.6	24.8
Macaroni	Pound	18.7	18.0	18.1	-----	19.2	19.2	19.2	-----	19.8	19.2	19.2
Rice	do	9.0	8.1	7.6	9.2	11.5	10.8	10.5	6.8	10.4	9.2	8.3
Beans, navy	do	9.3	9.8	9.7	-----	8.5	8.6	8.6	-----	9.8	9.8	9.6
Potatoes	do	5.0	4.3	4.2	1.7	3.8	2.7	2.7	2.5	5.0	3.7	3.5
Onions	do	5.6	4.9	4.8	-----	5.0	5.6	5.6	-----	6.9	5.4	5.7
Cabbage	do	5.2	5.1	5.0	-----	4.4	4.0	4.0	-----	5.3	4.2	3.6
Beans, baked	No. 2 can	11.2	10.7	10.9	-----	10.3	10.8	10.3	-----	11.0	10.3	10.5
Corn, canned	do	14.1	13.5	13.4	-----	14.4	14.0	14.0	-----	18.8	18.1	18.0
Peas, canned	do	14.0	13.0	13.0	-----	14.4	13.8	14.3	-----	18.6	17.9	18.1
Tomatoes, canned	do	11.5	9.7	9.7	-----	12.7	12.9	12.9	-----	11.1	9.8	9.7
Sugar, granulated	Pound	7.0	6.8	6.8	5.8	7.7	7.5	7.4	5.9	7.6	7.1	7.2
Tea	do	82.7	84.2	84.1	60.0	86.7	85.7	87.3	60.0	98.5	98.9	98.7
Coffee	do	44.6	41.5	42.0	30.0	51.5	47.8	47.6	34.5	50.3	46.4	46.4
Prunes	do	15.7	13.0	12.7	-----	19.6	16.4	15.9	-----	16.9	14.9	14.9
Raisins	do	14.1	12.9	12.3	-----	15.4	15.2	14.9	-----	15.9	14.8	14.9
Bananas	Dozen	29.2	27.2	26.3	-----	31.4	30.5	31.5	-----	25.0	29.3	27.9
Oranges	do	50.2	41.8	40.1	-----	43.6	53.8	50.4	-----	28.0	33.6	33.1

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

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Kansas City, Mo.				Little Rock, Ark.				Los Angeles, Calif.				Louisville, Ky.				Manchester, N. H.			
Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
1913	1926			1913	1926			1913	1926			1913	1926			1913	1926		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
24.6	37.7	39.8	39.9	25.0	35.2	37.1	36.7	23.1	36.5	39.0	39.8	23.0	35.4	37.2	37.6	[1]34.5	[1]54.9	[1]59.8	[1]61.0
22.1	33.0	34.7	34.7	20.0	31.9	35.0	34.6	21.3	30.2	32.0	33.6	20.0	31.5	34.1	34.6	28.8	43.9	46.5	47.2
18.1	26.4	27.7	27.6	20.0	27.0	30.0	29.1	19.4	30.2	30.7	31.3	18.1	26.8	27.5	27.5	20.8	27.2	30.0	30.8
15.6	19.6	21.6	21.7	16.3	21.8	23.0	22.5	16.1	20.5	22.1	23.2	15.5	20.3	21.6	21.6	17.3	22.9	25.5	25.5
12.2	13.3	15.6	15.7	12.5	16.8	17.3	17.3	13.4	15.1	15.1	16.4	13.1	16.8	17.8	17.7	----	16.3	16.9	17.1
19.6	33.1	32.5	26.6	20.0	34.8	32.7	29.5	25.3	45.2	42.6	38.7	19.0	32.2	32.7	28.1	19.3	38.4	36.6	32.3
30.3	48.4	45.9	44.0	36.7	51.7	46.5	45.8	33.5	57.3	53.6	53.9	27.0	50.0	47.7	45.8	24.0	41.6	39.0	38.9
28.8	55.9	49.9	49.0	27.5	56.5	50.0	50.4	34.5	68.4	68.0	66.3	28.5	54.2	47.7	46.5	27.5	45.0	44.0	42.7
18.7	33.8	35.3	35.2	18.8	40.6	38.1	38.1	19.1	36.6	36.9	37.4	18.2	38.8	38.6	38.6	20.0	36.9	36.7	36.0
16.4	32.2	32.0	31.0	20.0	29.4	29.8	28.7	27.9	44.9	42.9	42.8	21.6	36.4	33.4	34.4	24.5	43.1	41.7	41.8
----	36.4	36.1	36.2	----	35.1	34.3	35.3	----	32.2	34.2	35.4	----	34.6	33.4	34.3	----	33.9	34.9	35.4
9.3	13.0	13.0	13.0	10.5	15.0	15.0	15.0	10.0	15.0	15.0	15.0	8.6	13.0	13.0	13.0	8.0	14.0	15.0	15.0
----	11.7	11.7	11.7	----	11.8	12.2	12.1	----	10.2	10.2	10.1	----	11.7	11.9	11.9	----	12.7	12.9	12.9
40.3	56.5	54.2	56.0	45.0	57.5	54.8	55.8	39.7	56.7	56.9	57.3	41.3	62.3	56.4	59.8	41.4	57.6	56.1	56.8
----	27.0	25.4	26.1	----	30.2	27.6	27.6	----	30.7	26.0	25.8	----	27.3	27.3	26.6	----	25.5	24.8	23.5
22.0	37.9	38.0	38.2	23.3	37.6	39.1	38.5	19.5	39.5	38.4	38.5	22.5	37.5	39.0	39.2	22.3	36.4	38.1	38.9
16.4	19.9	19.3	18.3	16.5	22.7	21.7	21.9	18.1	22.4	20.6	21.0	15.8	18.6	18.5	17.3	15.8	19.8	18.7	18.4
----	27.0	26.2	26.6	----	22.8	21.0	21.1	----	26.0	23.9	24.6	----	29.5	27.6	27.9	----	25.4	26.5	26.5
38.0	59.7	52.8	53.6	40.0	57.0	48.4	55.0	53.3	52.6	58.8	49.9	36.6	62.4	57.1	60.4	52.4	77.7	75.7	67.3
33.0	43.4	39.1	39.3	----	48.3	41.7	40.7	38.3	44.5	46.0	42.0	33.3	50.0	----	----	37.0	50.0	46.6	46.8
6.0	9.7	9.7	9.7	6.0	9.5	9.3	9.5	6.0	8.5	8.5	8.5	5.7	9.3	9.2	9.2	5.9	8.7	8.7	8.7
3.0	5.3	4.9	5.0	3.6	6.4	6.1	6.2	3.5	5.4	5.1	5.1	3.5	6.2	6.1	6.1	3.4	5.7	5.5	5.5
2.8	4.7	5.1	5.0	2.8	4.0	4.0	3.9	3.5	5.4	5.6	5.6	2.4	3.8	4.2	4.0	3.4	5.3	5.3	5.2
----	9.1	9.0	9.0	----	10.6	10.2	10.2	----	10.2	10.0	10.0	----	8.4	8.5	8.5	----	8.9	8.9	8.8
----	11.1	9.8	9.8	----	11.9	10.3	10.3	----	10.1	9.5	9.5	----	10.7	9.8	9.5	----	11.1	9.6	9.6
----	26.0	27.0	26.7	----	25.8	27.3	27.2	----	25.0	24.9	24.9	----	26.2	25.0	25.2	----	25.7	25.9	25.7
----	20.1	19.8	19.8	----	20.8	20.8	20.8	----	18.2	18.5	18.5	----	18.1	18.9	18.9	----	23.8	23.4	23.5
8.7	9.5	9.5	9.6	8.3	9.5	8.4	8.1	7.7	10.8	10.0	9.8	9.0	11.0	10.8	11.1	8.8	9.8	9.5	9.5
----	9.0	9.5	9.5	----	9.2	9.3	9.0	----	9.1	9.6	9.5	----	8.0	8.4	8.4	----	9.0	9.1	9.2
1.9	3.8	2.4	2.4	2.2	4.7	3.5	3.5	1.9	4.4	3.1	3.0	2.0	3.9	2.9	2.9	1.6	3.6	2.7	2.6
----	5.3	5.4	5.1	----	5.4	5.4	5.5	----	4.8	4.7	4.8	----	5.2	5.2	4.6	----	4.6	4.3	4.6
----	3.9	3.7	3.7	----	4.8	4.3	4.3	----	3.8	4.4	4.3	----	4.7	4.0	3.9	----	4.0	3.1	3.2
----	12.5	12.0	12.2	----	11.5	10.2	10.2	----	11.7	10.8	10.8	----	9.9	10.2	10.2	----	13.9	12.9	12.8
----	15.0	14.4	14.2	----	16.5	16.8	16.5	----	16.2	15.5	15.7	----	15.1	15.7	15.4	----	17.2	16.1	16.5
----	14.9	15.5	15.1	----	17.5	17.5	17.7	----	17.5	16.5	16.7	----	16.0	15.2	15.2	----	18.9	18.6	18.6
----	11.6	11.3	11.6	----	11.3	10.3	10.1	----	[2]15.4	[2]14.9	[2]14.7	----	10.5	10.6	10.5	----	12.2	12.3	12.3
5.5	7.5	7.4	7.4	5.3	7.9	7.6	7.8	5.3	7.1	6.9	6.8	5.3	7.6	7.3	7.3	5.3	7.6	7.3	7.3
54.0	88.3	92.1	94.1	50.0	106.6	103.8	101.0	54.5	76.0	74.4	73.8	65.0	89.4	90.0	89.6	47.5	62.9	65.2	65.2
27.8	53.2	50.1	50.3	30.8	55.3	52.8	52.8	36.3	53.4	51.6	51.7	27.5	50.1	46.7	47.0	32.0	52.6	48.6	49.5
----	16.8	14.3	13.7	----	17.1	15.4	14.7	----	15.3	12.7	12.7	----	15.5	14.3	14.5	----	15.2	13.3	13.7
----	14.8	14.4	14.5	----	15.7	14.5	15.0	----	12.9	11.9	11.8	----	14.4	14.0	13.7	----	13.9	13.6	13.3
----	[3]11.2	[3]10.8	[3]10.8	----	[3]9.5	[3]9.0	[3]9.5	----	[3]10.4	[3]10.0	[3]9.9	----	[3]10.2	[3]10.8	[3]10.0	----	[3]9.6	[3]9.5	[3]9.7
----	53.7	55.3	55.2	----	45.3	49.6	47.1	----	44.6	58.5	54.8	----	39.5	44.6	41.7	----	49.6	51.7	55.7

[2] No. 2½ can. [3] Per pound.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
		1913	1926			1913	1926			1913	1926		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	24.0	35.9	38.9	38.9	23.4	37.8	41.1	40.8	19.3	31.1	35.2	34.8
Round steak	do	20.0	32.7	36.4	36.4	21.6	33.2	35.9	36.0	18.0	27.9	31.2	31.2
Rib roast	do	21.0	25.9	28.8	28.9	18.8	28.0	29.5	29.4	18.7	24.4	27.8	28.0
Chuck roast	do	15.0	19.4	22.3	22.4	16.4	24.5	26.3	26.3	14.7	20.4	23.0	23.3
Plate beef	do	12.5	15.2	18.8	19.2	12.1	14.5	16.0	16.3	10.0	12.4	14.3	15.0
Pork chops	do	20.0	33.2	30.7	29.1	17.4	33.0	33.1	28.4	17.2	32.4	34.4	30.2
Bacon, sliced	do	30.0	42.7	39.2	38.9	27.4	48.8	46.8	46.1	26.7	48.8	46.4	46.7
Ham, sliced	do	29.0	55.0	51.4	50.6	27.8	51.3	47.6	46.8	28.3	52.5	50.8	48.5
Lamb, leg of	do	20.6	37.9	35.7	35.2	18.5	36.5	37.2	37.0	14.6	34.4	33.6	33.7
Hens	do	19.6	31.0	30.5	30.9	17.2	32.1	29.9	31.2	16.4	32.9	30.7	33.4
Salmon, canned, red	do	-----	34.3	30.4	30.4	-----	33.6	33.8	34.2	-----	39.0	36.0	36.1
Milk, fresh	Quart	10.0	15.0	15.0	15.0	7.0	11.0	11.0	11.0	8.0	11.0	12.0	12.0
Milk, evaporated	15-16 oz.can	-----	11.2	11.6	11.6	-----	11.0	11.3	11.3	-----	11.4	11.6	11.8
Butter	Pound	38.8	56.8	55.6	57.3	38.8	60.1	54.2	58.6	36.9	60.0	53.9	57.1
Oleomargarine (all butter substitutes).	do	-----	27.4	25.1	25.3	-----	27.2	27.1	27.1	-----	25.8	25.6	25.6
Cheese	do	22.0	33.8	37.3	38.4	22.3	35.4	37.1	38.0	21.3	35.4	36.5	37.5
Lard	do	15.0	17.6	16.4	16.2	16.0	20.4	19.5	19.6	15.4	18.9	18.5	18.5
Vegetable lard substitute	do	-----	21.2	21.8	22.8	-----	26.7	26.7	26.5	-----	27.4	27.0	27.1
Eggs, strictly fresh	Dozen	39.0	52.2	48.8	51.4	40.0	63.3	61.8	61.5	39.1	54.8	50.6	53.9
Eggs, storage	do	30.0	43.3	38.5	38.3	33.0	43.1	39.1	39.0	31.6	39.6	37.5	40.0
Bread	Pound	6.0	9.5	9.5	9.5	5.7	9.0	9.1	9.1	5.6	8.9	8.7	8.7
Flour	do	3.5	6.1	6.0	6.0	3.0	5.2	4.8	4.7	2.8	5.4	5.1	5.1
Corn meal	do	2.5	3.7	3.7	3.6	3.2	5.7	5.6	5.7	2.5	5.2	5.3	5.4
Rolled oats	do	-----	9.1	9.0	9.0	-----	8.5	8.4	8.4	-----	8.2	8.1	8.1
Corn flakes	8-oz.pkg	-----	10.9	9.8	9.8	-----	10.2	9.3	9.3	-----	10.8	9.8	9.8
Wheat cereal	28-oz.pkg	-----	25.1	25.8	25.7	-----	24.6	24.6	24.7	-----	25.3	25.5	25.6
Macaroni	Pound	-----	19.2	19.4	19.4	-----	18.0	17.4	17.8	-----	18.9	18.8	18.8
Rice	do	8.1	9.4	8.6	8.3	9.0	11.3	10.4	10.3	8.6	11.0	10.3	10.2
Beans, navy	do	-----	9.4	9.5	9.4	-----	8.5	8.6	8.7	-----	9.5	9.9	9.9
Potatoes	do	2.0	4.5	3.2	3.2	1.7	3.5	2.5	2.5	1.6	3.2	1.9	2.2
Onions	do	-----	5.1	4.6	4.7	-----	4.6	4.3	4.5	-----	5.0	4.5	4.3
Cabbage	do	-----	3.9	3.4	3.4	-----	4.0	2.8	3.3	-----	3.7	2.8	2.9
Beans, baked	No. 2 can	-----	11.6	11.0	11.0	-----	11.1	11.2	10.9	-----	12.4	12.4	11.8
Corn, canned	do	-----	15.6	14.7	14.6	-----	15.5	15.8	15.9	-----	14.3	14.0	14.2
Peas, canned	do	-----	16.9	15.0	15.0	-----	16.3	15.2	15.7	-----	14.7	14.4	14.7
Tomatoes, canned	do	-----	10.4	9.9	10.1	-----	13.4	13.2	13.4	-----	13.7	13.5	13.3
Sugar, granulated	Pound	5.3	7.1	7.1	6.9	5.5	6.9	6.8	6.8	5.0	7.3	7.3	7.3
Tea	do	63.8	99.0	98.4	98.4	50.0	71.0	70.0	70.3	45.0	60.6	60.6	60.8
Coffee	do	27.5	49.6	47.6	47.6	27.5	46.8	42.7	43.0	30.8	53.9	50.3	50.8
Prunes	do	-----	15.9	13.9	14.1	-----	16.5	14.1	14.0	-----	16.8	14.9	14.6
Raisins	do	-----	14.6	14.6	14.2	-----	14.6	13.9	14.6	-----	14.4	14.3	13.4
Bananas	Dozen	-----	[2] 9.0	[2] 9.0	[2] 9.0	-----	[2] 9.9	[2] 10.0	[2] 10.1	-----	[2] 11.8	[2] 11.3	[2] 11.5
Oranges	do	-----	37.3	42.9	42.0	-----	52.9	53.2	52.6	-----	57.6	60.4	59.4

[1] Whole.

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Mobile, Ala.			Newark, N. J.				New Haven, Conn.				New Orleans, La.				New York, N. Y.			
Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
			1913	1926			1913	1926			1913	1926			1913	1926		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
34.5	35.9	35.9	27.2	44.5	48.7	49.0	30.8	53.5	58.7	58.7	21.5	34.9	36.3	37.0	25.7	44.1	50.3	50.6
33.6	35.0	35.5	26.5	42.7	46.4	46.9	28.4	43.7	47.3	47.6	19.1	31.0	32.5	33.3	25.3	43.0	47.1	47.1
28.2	29.5	29.1	21.0	35.4	37.8	40.0	22.8	35.9	38.9	39.2	18.5	29.6	30.8	31.0	21.3	38.8	42.6	43.0
22.3	23.6	23.8	17.3	24.8	28.6	29.2	18.8	26.8	29.2	30.0	15.4	20.9	21.7	22.5	15.8	24.6	28.4	29.5
17.3	18.4	18.4	12.4	13.0	16.0	17.2	-----	15.5	16.2	16.4	12.0	18.2	18.6	19.4	14.5	20.2	22.6	23.6
39.1	37.7	37.3	21.0	37.2	36.4	33.6	19.6	38.2	38.3	33.8	24.0	36.9	35.7	32.7	18.4	41.5	40.6	36.9
51.2	44.8	42.8	25.3	48.4	45.0	43.9	28.2	49.7	46.2	45.9	30.4	51.4	46.9	44.5	25.5	50.1	49.2	47.8
54.3	52.7	49.6	19.8	56.2	55.2	52.0	30.8	62.9	58.7	58.5	27.0	54.0	49.3	46.8	29.0	61.3	58.0	56.5
40.7	41.4	40.7	20.0	57.3	38.5	36.9	18.7	38.8	39.3	38.5	20.5	38.6	38.8	38.5	15.4	36.9	37.0	36.3
36.8	36.3	35.0	[1]23.4	38.3	36.4	35.7	23.3	42.0	39.9	40.1	22.0	37.3	35.0	36.0	20.7	40.3	38.5	37.5
34.0	34.7	34.4	-----	32.4	32.8	32.8	-----	32.8	34.3	34.3	-----	37.4	37.0	37.0	-----	31.9	34.2	34.6
17.8	17.8	18.0	9.0	15.0	16.0	16.0	9.0	16.0	16.0	16.0	9.8	14.0	14.0	14.0	9.0	15.0	16.0	16.0
11.8	11.8	11.5	-----	11.2	11.5	11.1	-----	12.1	12.1	12.1	-----	11.1	11.1	11.2	-----	11.1	11.1	11.1
60.2	56.6	57.0	43.7	63.6	59.3	61.7	37.3	57.7	54.9	55.6	39.8	58.5	56.4	58.5	41.1	63.3	59.0	61.3
30.9	29.4	29.4	-----	30.5	30.2	30.5	-----	31.7	29.0	29.1	-----	29.9	29.5	29.4	-----	31.3	28.0	27.3
37.5	38.1	38.1	24.8	39.8	40.9	39.9	23.5	38.3	40.1	40.3	21.9	36.7	39.2	39.9	20.2	37.7	40.3	40.5
20.3	19.8	19.7	16.3	20.8	19.7	19.5	15.6	20.4	18.7	18.7	15.0	20.1	19.5	19.3	16.1	20.5	20.6	20.3
20.6	21.3	21.3	-----	25.8	25.4	25.6	-----	26.0	25.4	25.6	-----	19.7	20.0	19.6	-----	26.2	25.9	25.5
64.6	53.0	53.4	57.2	73.8	74.7	70.6	56.4	89.1	80.9	82.6	34.0	56.1	46.6	48.7	54.3	76.8	80.0	73.2
48.2	42.0	43.6	35.6	48.1	42.9	43.1	34.2	52.2	49.6	47.5	30.0	41.5	38.0	38.7	36.7	48.0	42.1	42.9
9.8	10.1	10.1	5.5	9.6	9.5	9.1	6.0	9.2	9.2	9.2	5.0	8.8	8.7	8.7	6.1	9.6	9.6	9.6
6.4	6.1	6.1	3.6	5.5	5.3	5.2	3.1	5.7	5.4	5.2	3.7	7.0	6.6	6.6	3.2	5.4	5.4	5.4
4.0	4.1	4.1	3.6	6.7	7.0	6.9	3.2	6.7	7.0	7.0	2.7	4.0	4.1	4.4	3.4	6.5	6.7	6.5
8.6	8.6	8.5	-----	8.5	8.2	8.2	-----	9.3	9.7	9.3	-----	9.0	8.8	8.9	-----	8.6	8.6	8.6
11.1	9.5	9.5	-----	10.0	9.3	9.2	-----	10.8	10.2	10.2	-----	10.3	9.7	9.6	-----	10.0	9.1	9.1
25.4	24.5	24.5	-----	24.3	24.2	24.2	-----	24.9	24.6	24.1	-----	24.6	24.6	24.6	-----	24.1	24.0	23.9
20.9	20.7	20.7	-----	21.0	21.4	21.4	-----	22.4	22.3	22.2	-----	10.0	10.6	10.7	-----	21.1	21.1	21.1
10.4	9.5	9.3	9.0	10.9	10.2	10.2	9.3	11.6	10.2	10.0	7.5	9.9	9.4	9.2	8.0	10.1	10.1	9.9
8.9	9.2	9.2	-----	9.5	10.0	10.1	-----	9.7	9.4	9.5	-----	8.5	8.7	8.9	-----	10.2	10.2	10.2
5.0	3.7	4.0	2.5	4.4	3.3	3.3	1.7	3.9	3.2	3.2	2.2	4.7	3.9	3.8	2.4	4.3	3.5	3.5
5.1	4.5	4.6	-----	5.0	5.0	4.8	-----	5.5	5.3	5.3	-----	4.3	4.5	4.4	-----	5.0	4.9	5.0
4.9	4.7	4.5	-----	4.1	4.4	4.4	-----	4.5	4.5	4.5	-----	4.1	4.5	4.1	-----	4.2	3.5	3.6
10.9	10.2	10.3	-----	10.6	10.3	10.3	-----	11.2	11.7	11.5	-----	10.7	11.1	10.6	-----	10.6	11.0	11.0
17.5	15.8	15.8	-----	16.4	15.1	15.3	-----	18.9	18.1	18.1	-----	15.4	14.4	14.7	-----	14.5	14.5	14.5
16.6	15.3	15.6	-----	17.0	17.8	17.9	-----	20.3	18.8	18.6	-----	17.5	17.6	17.6	-----	15.3	14.9	14.7
10.8	10.2	10.2	-----	11.3	10.5	10.5	-----	12.6	13.0	12.8	-----	11.8	10.5	10.3	-----	10.8	11.2	11.0
7.4	7.1	7.0	5.3	6.6	6.7	6.7	5.5	7.2	7.1	7.0	5.1	6.9	6.6	6.6	4.9	6.5	6.3	6.2
80.7	80.3	80.0	53.8	62.9	60.1	60.1	55.0	60.4	60.3	58.9	62.1	82.6	79.3	79.5	43.3	65.7	67.3	66.5
50.1	47.8	48.4	29.3	49.1	46.9	47.4	33.8	52.2	49.4	49.9	25.0	35.5	35.4	35.4	27.2	47.4	45.8	46.4
15.4	12.5	12.7	-----	14.8	14.0	13.0	-----	15.9	14.2	13.9	-----	17.8	15.4	14.3	-----	14.6	12.8	12.2
14.4	13.8	13.4	-----	14.8	14.4	14.5	-----	14.0	13.5	13.7	-----	14.2	13.1	13.2	-----	14.3	13.6	13.2
23.0	25.0	24.4	-----	38.1	38.0	38.0	-----	34.5	32.5	33.4	-----	14.6	15.8	17.5	-----	40.3	38.5	37.8
38.7	46.0	43.9	-----	50.7	57.4	57.8	-----	53.2	54.9	53.1	----	40.0	43.8	46.9	-----	58.5	67.4	62.7

[1] Per pound.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Norfolk, Va.			Omaha, Nebr.				Peoria, Ill.		
		Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927
					1913	1926					
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	40.6	41.9	42.3	26.0	37.1	39.1	38.9	34.8	35.5	34.8
Round steak	do	33.8	36.4	37.0	22.4	34.5	36.8	36.1	34.1	34.4	34.0
Rib roast	do	31.6	32.9	32.6	20.0	26.3	26.6	26.5	25.1	25.3	25.6
Chuck roast	do	22.7	23.9	24.4	16.6	22.0	23.2	23.1	22.2	22.5	22.8
Plate beef	do	16.3	15.9	17.5	11.2	12.8	13.6	14.6	15.0	15.3	15.3
Pork chops	do	34.8	34.2	32.0	19.7	36.2	34.5	30.5	34.7	32.3	31.3
Bacon, sliced	do	48.0	41.7	43.1	28.0	53.0	48.8	48.1	50.4	48.8	47.7
Ham, sliced	do	49.5	47.0	46.3	30.0	58.7	50.4	49.3	56.8	53.8	50.4
Lamb, leg of	do	38.6	39.2	40.5	16.3	36.2	37.5	37.6	40.0	40.0	39.4
Hens	do	37.1	37.1	36.5	15.6	31.2	29.5	29.8	33.3	31.7	32.2
Salmon, canned, red	do	34.0	35.9	35.7	------	36.0	35.5	35.8	35.6	34.5	35.5
Milk, fresh	Quart	17.5	18.0	18.0	8.7	11.3	11.3	11.3	12.0	13.0	13.0
Milk, evaporated	15-16 oz. can	11.2	11.8	11.8	------	11.6	11.8	11.8	11.4	11.2	11.3
Butter	Pound	59.6	58.9	60.5	37.2	53.9	52.6	53.9	57.8	53.0	55.9
Oleomargarine (all butter substitutes).	do	27.2	27.4	25.0	------	28.0	26.2	26.4	29.4	28.2	28.9
Cheese	do	34.7	36.4	37.5	23.5	36.3	38.6	38.7	37.0	37.8	38.3
Lard	do	19.1	19.4	19.1	17.6	23.4	20.3	20.2	20.4	18.8	19.2
Vegetable lard substitute	do	21.9	22.4	23.0	------	27.3	25.4	25.6	27.1	27.6	27.7
Eggs, strictly fresh	Dozen	64.7	62.2	63.0	36.0	52.1	46.1	51.1	64.7	55.7	60.2
Eggs, storage	do	48.0	45.4	47.5	31.7	43.2	35.9	40.1	45.4	39.9	40.1
Bread	Pound	9.9	9.9	9.9	5.2	10.2	9.7	9.7	10.1	10.0	10.0
Flour	do	5.8	5.5	5.5	2.8	4.7	4.5	4.5	5.6	5.2	5.2
Corn meal	do	4.5	4.6	4.6	2.5	4.9	4.7	4.6	5.0	4.8	4.9
Rolled oats	do	8.7	8.5	8.4	------	10.4	10.1	10.1	9.1	9.3	9.3
Corn flakes	8-oz. pkg	10.3	9.7	9.7	------	12.8	10.1	10.1	11.9	10.2	10.1
Wheat cereal	28-oz. pkg	23.8	24.8	24.8	------	28.0	27.8	27.8	25.2	26.3	26.1
Macaroni	Pound	19.0	19.1	19.0	------	21.2	21.3	21.3	19.4	18.6	18.6
Rice	do	12.3	11.6	11.4	8.5	11.4	10.9	11.0	11.7	11.2	11.3
Beans, navy	do	8.6	8.4	8.5	------	9.9	10.0	10.1	9.0	9.1	9.0
Potatoes	do	4.6	3.7	3.7	2.0	4.0	2.2	2.3	3.8	2.3	2.4
Onions	do	6.0	5.3	4.8	------	5.3	5.3	5.3	5.8	5.5	5.0
Cabbage	do	4.7	4.5	4.2	------	4.3	3.3	3.4	3.7	3.1	3.1
Beans, baked	No. 2 can	9.8	9.9	9.9	------	13.7	13.0	12.9	11.7	11.1	11.1
Corn, canned	do	15.4	14.6	14.8	------	15.6	15.9	16.3	16.2	15.0	15.3
Peas, canned	do	19.8	17.3	17.4	------	16.1	15.4	15.9	18.1	17.8	17.4
Tomatoes, canned	do	9.9	9.7	9.7	------	13.6	13.1	13.2	13.3	12.7	12.9
Sugar, granulated	Pound	7.0	6.8	6.8	5.7	7.6	7.4	7.3	7.7	8.4	8.3
Tea	do	89.4	96.4	96.4	56.0	78.8	78.1	77.8	70.1	70.8	70.5
Coffee	do	51.3	48.4	48.8	30.0	55.0	53.6	53.7	51.3	47.8	48.1
Prunes	do	15.0	14.1	13.3	------	16.4	14.4	14.0	18.6	18.0	17.1
Raisins	do	14.5	14.1	13.5	------	15.3	14.9	14.7	15.1	14.3	14.2
Bananas	Dozen	33.3	34.0	34.5	------	[3] 11.7	[3] 11.8	[3] 11.9	[3] 10.7	[3] 10.4	[3] 11.2
Oranges	do	43.9	50.9	51.1	------	55.1	47.1	54.4	52.1	47.6	49.7

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

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Philadelphia, Pa.				Pittsburgh, Pa.				Portland, Me.			Portland, Oreg.				Providence, R. I.			
Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
1913	1926			1913	1926						1913	1926			1913	1926		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
[1] 30.0	[1] 54.4	[1] 59.0	[1] 61.4	27.0	45.3	49.3	50.3	[1] 60.1	[1] 64.7	[1] 64.3	21.8	29.4	31.0	31.3	[1] 39.2	[1] 70.2	[1] 76.2	[1] 76.4
26.0	41.2	45.2	46.8	22.8	38.8	41.0	41.3	46.0	47.0	47.7	21.0	26.1	28.8	29.1	31.0	49.4	50.9	53.0
21.8	36.3	39.0	40.4	21.8	34.1	35.6	36.6	29.7	32.2	32.5	18.7	24.6	26.2	26.2	23.8	38.3	40.7	41.1
17.8	26.0	28.7	30.4	16.7	25.0	27.8	28.5	21.6	22.8	23.1	16.0	18.6	19.9	20.4	18.8	29.0	30.5	31.7
12.1	12.8	14.7	15.8	12.7	13.6	15.4	16.4	16.6	18.5	19.3	13.0	13.5	15.1	15.7	-----	18.0	19.1	19.3
20.6	40.9	38.8	36.3	20.8	37.6	39.2	34.6	39.5	39.6	33.1	21.4	38.1	36.4	34.6	19.6	40.0	40.1	35.5
25.0	47.5	45.1	43.9	28.8	53.5	50.7	49.3	45.5	43.1	43.6	30.3	55.0	53.4	51.7	22.8	45.9	41.9	41.2
29.1	59.7	54.8	53.3	29.0	62.4	57.3	56.7	57.9	52.0	51.0	30.8	57.4	55.4	54.8	32.7	60.4	54.8	55.0
18.8	40.2	40.8	39.8	20.7	40.0	40.1	40.4	37.5	36.9	36.2	17.1	35.8	35.9	35.4	19.0	40.2	39.8	38.2
22.6	40.9	40.0	39.8	24.8	44.1	41.6	41.2	41.3	40.2	40.1	21.0	35.0	32.2	32.2	24.2	42.5	41.0	39.6
-----	29.9	34.7	34.4	-----	32.9	33.1	33.0	33.1	35.4	35.2	-----	36.2	35.0	35.7	-----	35.3	32.9	33.9
8.0	13.0	13.0	13.0	9.2	14.7	15.0	15.0	13.8	13.8	15.0	9.7	12.0	12.0	12.0	9.0	15.2	15.7	15.7
-----	11.5	11.8	11.7	-----	11.4	11.2	11.2	12.4	12.5	12.5	-----	10.7	10.5	10.5	-----	12.2	12.2	12.2
46.6	65.3	61.9	63.7	42.0	64.0	59.4	63.2	58.9	57.4	58.8	41.5	55.6	55.9	57.8	38.8	56.6	53.9	54.1
-----	30.8	28.9	29.0	-----	32.0	31.4	31.5	28.0	26.4	26.7	-----	30.3	26.3	25.3	-----	28.9	27.4	27.5
25.0	39.3	40.8	41.0	24.5	39.7	41.3	41.4	37.9	38.7	39.5	20.8	38.2	38.6	38.3	22.0	36.8	37.4	38.3
15.2	19.2	18.3	18.1	15.6	20.9	19.7	19.9	19.1	18.6	18.6	17.3	22.8	21.0	20.6	15.8	18.9	18.7	18.4
-----	25.1	25.2	25.0	-----	27.5	27.3	27.5	25.8	26.6	26.6	-----	28.9	28.7	28.6	-----	26.6	26.6	26.2
48.3	74.0	66.5	68.5	49.2	70.6	63.4	65.4	80.3	77.9	72.4	50.8	53.5	54.9	47.1	57.3	76.5	83.1	69.4
34.7	49.3	46.7	45.2	35.1	49.1	43.8	45.2	52.4	48.1	48.8	37.5	44.0	41.0	35.0	35.6	50.4	47.0	47.5
4.8	9.5	9.4	9.4	5.4	9.2	8.4	8.6	9.9	10.3	10.2	5.5	9.5	9.2	9.2	6.1	9.2	9.1	9.0
3.1	5.4	5.1	5.0	3.2	5.3	5.1	5.0	5.6	5.3	5.3	2.9	5.2	4.8	4.7	3.4	5.9	5.5	5.6
2.8	4.7	4.9	5.0	3.0	5.9	5.7	5.9	5.1	5.0	5.0	3.6	5.5	5.5	5.6	2.9	5.0	5.1	5.1
-----	8.5	8.5	8.5	-----	9.4	9.2	9.1	8.1	7.8	7.8	-----	10.3	10.2	10.4	-----	9.2	8.9	9.0
-----	10.1	9.4	9.4	-----	10.5	9.9	9.9	11.6	9.7	9.8	-----	11.4	9.6	9.6	-----	10.8	9.5	9.5
-----	24.4	24.6	24.6	-----	25.0	24.9	25.1	25.8	25.5	25.5	-----	26.8	27.0	26.8	-----	25.4	25.1	25.1
-----	20.8	20.5	20.9	-----	23.7	23.6	23.4	24.9	24.1	24.2	-----	18.0	18.3	18.3	-----	23.7	23.0	23.1
9.8	11.8	11.2	11.1	9.2	12.5	11.1	11.2	13.5	12.2	11.9	8.6	10.4	10.1	9.7	9.3	11.8	10.8	10.8
-----	9.0	9.5	9.4	-----	8.8	8.9	9.0	9.5	9.9	9.8	-----	9.8	9.6	9.6	-----	9.9	9.9	9.9
2.3	4.7	3.5	3.6	1.9	4.0	2.9	2.9	3.6	2.8	2.8	1.2	2.6	2.4	2.2	1.7	3.7	2.9	2.9
-----	4.8	4.5	4.2	-----	5.4	4.9	4.8	4.6	4.3	4.4	-----	3.7	3.4	3.7	-----	5.0	4.5	4.6
-----	4.6	3.2	2.9	-----	5.0	3.9	3.7	3.4	2.7	2.4	-----	3.6	2.9	3.5	-----	3.9	3.7	3.9
-----	10.5	10.8	10.8	-----	12.6	12.6	12.6	15.4	14.6	14.2	-----	12.8	12.0	12.0	-----	11.4	10.9	10.8
-----	14.8	14.0	14.3	-----	16.8	16.2	16.3	16.9	13.9	14.4	-----	18.1	18.1	18.4	-----	18.1	17.1	16.8
-----	15.3	14.3	14.6	-----	17.1	17.0	17.3	18.4	17.3	17.4	-----	19.0	17.5	17.8	-----	19.5	18.4	18.7
-----	12.1	11.8	11.6	-----	12.5	11.7	11.5	12.5	12.5	12.2	-----	[2] 16.1	[2] 16.4	[2] 17.3	-----	13.4	12.8	12.9
5.0	6.7	6.7	6.6	5.5	7.4	7.4	7.3	7.5	7.2	7.1	6.0	7.3	7.2	7.0	5.1	7.1	6.9	6.9
54.0	69.4	67.9	67.8	58.0	85.1	83.0	82.8	61.9	62.2	62.2	55.0	76.6	76.7	76.4	48.3	60.8	61.1	61.1
24.5	45.9	40.2	40.4	30.0	51.3	47.2	47.6	53.7	49.1	50.1	35.0	51.9	51.9	51.9	30.0	53.6	49.2	50.0
-----	14.4	12.7	12.8	-----	17.1	15.6	14.2	15.1	13.0	13.3	-----	10.1	10.2	9.9	-----	15.2	13.5	13.0
-----	13.6	13.3	13.2	-----	14.6	14.0	13.6	13.8	13.0	13.3	-----	13.5	12.8	12.9	-----	14.3	13.7	13.6
-----	30.7	31.9	33.0	-----	40.3	41.5	42.4	[3] 10.9	[3] 11.4	[3] 11.7	-----	[3] 12.9	[3] 13.0	[3] 11.9	-----	32.5	32.5	31.4
-----	45.7	52.9	49.4	-----	47.6	51.4	52.0	52.7	64.0	56.0	-----	51.1	57.1	55.9	-----	53.0	6.04	59.3

[2] No. 2½ can.

[3] Per pound.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Richmond, Va.				Rochester, N. Y.			St. Louis, Mo.			
		Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
		1913	1926						1913	1926		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	22.2	40.1	42.2	42.2	41.0	43.9	43.8	26.6	36.7	40.5	39.7
Round steak	do	20.0	35.1	37.1	37.3	34.5	37.3	37.3	23.6	35.2	39.2	38.5
Rib roast	do	18.9	31.5	33.5	33.6	30.0	32.4	32.6	19.5	30.4	32.2	32.5
Chuck roast	do	15.9	23.3	24.2	24.5	24.8	27.6	27.7	15.9	21.7	24.0	23.3
Plate beef	do	13.2	16.1	17.3	17.6	14.0	15.6	15.7	12.8	16.0	16.8	16.2
Pork chops	do	20.8	37.9	37.3	33.6	39.2	39.8	35.3	17.8	33.0	32.5	28.8
Bacon, sliced	do	25.0	45.3	43.8	42.7	44.8	41.1	40.6	25.0	46.2	43.3	41.9
Ham, sliced	do	25.0	47.1	44.8	46.1	56.3	52.4	51.4	27.3	53.9	51.9	51.0
Lamb, leg of	do	19.3	44.1	43.8	41.5	36.8	38.4	37.9	18.3	37.8	36.4	35.7
Hens	do	19.3	35.8	34.0	34.3	39.9	38.7	39.2	17.3	33.9	31.0	31.8
Salmon, canned, red	do	-----	34.4	35.5	35.3	32.3	35.6	36.4	-----	35.5	35.8	35.3
Milk, fresh	Quart	10.0	14.0	14.0	14.0	12.5	13.5	13.5	8.8	13.0	13.0	13.0
Milk, evaporated	15–16 oz. can	-----	12.4	12.6	12.5	11.9	11.3	11.3	-----	10.3	10.9	10.9
Butter	Pound	42.2	62.9	59.6	60.6	57.5	55.8	56.2	39.6	63.6	58.9	61.3
Oleomargarine (all butter substitutes)	do	-----	31.9	30.7	30.7	30.1	29.9	29.0	-----	27.6	26.7	26.8
Cheese	do	22.3	36.6	36.7	37.1	36.3	39.6	39.9	20.7	36.3	38.7	38.6
Lard	do	15.4	19.5	19.4	19.1	19.2	18.3	18.1	12.7	16.4	15.6	15.6
Vegetable lard substitute	do	-----	25.4	25.9	25.6	24.5	26.0	25.6	-----	25.7	25.3	25.3
Eggs, strictly fresh	Dozen	38.0	60.6	59.5	58.4	72.7	68.7	64.6	40.8	57.6	51.4	54.2
Eggs, storage	do	33.2	45.6	42.2	41.7	47.4	47.2	44.9	28.8	41.7	36.1	36.8
Bread	Pound	5.3	9.3	9.4	9.3	9.0	9.0	9.0	5.6	9.8	9.9	9.9
Flour	do	3.2	5.8	5.4	5.4	5.6	5.3	5.2	2.9	5.3	5.2	5.1
Corn meal	do	2.3	4.5	4.8	4.8	5.5	6.1	6.2	2.6	4.3	4.4	4.3
Rolled oats	do	-----	8.9	8.5	8.5	9.2	9.1	9.2	-----	8.4	8.4	8.4
Corn flakes	8-oz. pkg	-----	10.9	9.7	9.7	10.6	9.6	9.5	-----	10.0	9.0	9.1
Wheat cereal	28-oz. pkg	-----	25.4	25.9	25.9	25.4	25.7	25.6	-----	24.5	24.7	24.7
Macaroni	Pound	-----	20.2	20.9	20.9	20.7	20.2	20.8	-----	20.9	20.1	20.1
Rice	do	10.0	12.7	11.6	11.4	10.2	10.5	9.9	8.2	10.7	10.1	9.9
Beans, navy	do	-----	9.3	9.5	9.5	9.1	9.4	9.3	-----	8.1	8.8	8.4
Potatoes	do	2.0	4.5	3.2	3.2	3.3	2.6	2.6	1.7	4.3	3.0	3.0
Onions	do	-----	6.8	5.7	5.0	4.8	4.4	4.3	-----	5.0	5.0	5.1
Cabbage	do	-----	4.6	3.7	3.9	3.0	2.2	2.2	-----	3.8	3.4	3.5
Beans, baked	No. 2 can	-----	9.9	10.2	10.1	10.4	10.1	10.2	-----	10.6	10.3	10.2
Corn, canned	do	-----	15.4	15.3	15.2	16.8	16.6	16.3	-----	15.8	15.6	14.7
Peas, canned	do	-----	20.0	18.4	18.5	18.4	17.7	17.5	-----	15.6	15.1	14.7
Tomatoes, canned	do	-----	10.3	10.3	10.1	13.8	13.6	13.6	-----	11.5	11.1	11.0
Sugar, granulated	Pound	5.4	7.1	7.0	7.0	6.9	6.6	6.4	5.1	7.4	7.0	6.9
Tea	do	56.0	88.9	92.2	92.2	68.7	69.6	69.0	55.0	73.8	76.1	75.7
Coffee	do	26.8	48.7	45.5	45.8	47.7	45.3	46.0	24.4	48.2	45.4	45.8
Prunes	do	-----	16.7	14.7	14.1	15.8	14.2	14.1	-----	17.9	15.2	14.8
Raisins	do	-----	13.9	13.9	12.9	13.9	14.6	13.5	-----	14.5	13.7	13.4
Bananas	Dozen	-----	37.7	39.0	39.0	37.7	36.4	38.3	-----	32.3	31.5	32.1
Oranges	do	-----	45.4	47.9	46.8	52.4	53.9	51.3	-----	48.7	50.8	50.3

[1] No. 2½ can.

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

St. Paul, Minn.				Salt Lake City, Utah				San Francisco, Calif.				Savannah, Ga.			Scranton, Pa.			
Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
1913	1926			1913	1926			1913	1926						1913	1926		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
25.0	35.1	37.6	38.7	22.6	30.4	33.2	33.8	21.0	32.0	34.2	35.8	33.6	35.4	35.4	25.5	50.5	54.5	54.7
20.8	30.2	32.1	34.1	20.0	27.7	30.5	31.8	20.0	29.4	32.6	34.0	26.8	29.2	28.8	21.5	42.5	46.1	45.3
19.6	28.3	30.3	31.8	19.0	23.9	25.6	26.5	21.7	30.0	31.9	33.7	27.3	26.3	27.9	22.8	37.6	39.8	39.6
16.0	22.9	24.6	25.9	14.5	18.5	20.4	21.9	15.0	19.1	21.4	22.7	18.2	18.4	19.0	17.6	28.1	31.0	31.2
10.3	13.3	15.1	15.5	12.5	13.2	14.6	15.2	15.0	15.7	16.9	18.7	13.7	15.7	15.2	11.3	13.3	14.3	14.6
17.4	32.7	32.2	28.5	23.4	38.0	37.3	34.4	24.2	45.0	43.8	40.5	34.5	32.5	31.1	20.8	42.7	40.5	37.3
26.0	47.6	45.3	44.6	29.0	50.8	47.4	46.9	34.4	61.8	57.3	56.8	46.9	41.7	40.7	25.8	52.1	48.6	47.1
27.0	49.7	47.2	44.7	30.0	60.0	56.2	54.2	34.0	66.2	63.8	61.4	48.8	44.2	43.8	27.7	60.6	55.5	55.0
16.3	31.8	32.1	31.9	18.0	34.6	34.7	34.5	16.6	37.0	38.6	39.6	39.0	38.0	40.0	18.7	44.3	44.1	43.5
16.8	30.6	29.1	30.2	22.6	33.3	30.3	30.5	24.5	45.1	43.1	42.6	35.7	31.8	30.8	21.8	43.9	42.7	42.4
-----	37.7	37.6	38.3	-----	36.8	35.7	34.5	-----	31.5	33.0	33.3	35.6	33.6	34.6	-----	34.2	36.1	35.9
7.8	11.0	12.0	12.0	8.7	11.3	11.0	11.0	10.0	14.0	14.0	14.0	17.0	17.0	17.0	8.8	12.0	12.0	13.0
-----	11.7	12.1	11.9	-----	10.6	10.6	10.5	-----	10.1	10.3	10.1	11.0	11.5	11.5	-----	11.8	11.9	11.9
36.9	57.3	52.0	55.1	40.0	52.4	51.8	53.4	38.6	55.8	58.7	58.5	59.2	56.7	59.1	37.8	56.4	56.4	57.2
-----	26.4	25.2	25.1	-----	29.2	27.0	26.8	-----	30.8	25.3	25.8	34.9	31.5	30.9	-----	29.2	28.4	28.4
21.0	25.5	37.6	37.9	24.2	30.2	30.7	31.0	21.0	38.9	39.7	39.8	35.6	37.6	37.5	18.3	35.9	36.6	37.3
14.8	19.8	18.8	18.7	19.7	23.2	21.5	21.4	18.0	24.5	23.3	23.3	19.3	19.4	19.6	16.5	21.2	19.9	19.7
-----	27.6	28.7	28.7	-----	29.4	29.1	28.9	-----	28.4	27.8	28.2	16.6	17.9	17.7	-----	26.8	26.1	25.7
37.6	55.4	47.9	54.6	48.3	50.1	49.2	45.4	53.3	53.3	55.6	49.4	62.9	58.8	58.2	52.5	72.7	67.0	70.9
30.8	42.4	37.1	40.8	37.0	-----	-----	-----	41.7	44.8	44.3	45.0	46.8	43.4	43.6	35.3	50.2	45.4	45.7
6.0	10.0	9.5	9.5	5.9	9.9	9.9	9.7	5.9	9.8	9.5	9.5	10.5	10.7	10.7	5.5	10.4	10.7	10.6
2.8	5.5	5.1	5.2	2.4	4.2	4.1	4.1	3.4	5.9	5.6	5.6	6.7	6.6	6.6	3.6	6.1	5.8	5.8
2.5	5.0	5.0	5.2	3.3	5.4	5.6	5.6	3.5	6.3	6.3	6.3	3.6	3.7	3.7	-----	7.7	7.6	7.5
-----	10.0	10.1	10.1	-----	8.9	8.8	8.7	-----	9.7	10.1	10.0	8.9	8.7	8.7	-----	9.9	9.8	9.8
-----	12.0	10.2	10.0	-----	12.4	10.2	10.4	-----	10.5	10.1	10.1	10.3	9.6	9.7	-----	11.0	10.1	10.1
-----	26.8	26.3	26.5	-----	25.3	25.8	25.8	-----	25.3	25.2	25.3	24.3	24.3	24.5	-----	25.5	25.2	25.3
-----	18.7	18.3	18.3	-----	20.2	19.4	19.6	-----	16.0	16.0	15.9	18.3	18.3	18.5	-----	23.0	22.9	23.2
10.0	11.9	10.6	11.0	8.2	10.4	9.1	8.6	8.5	11.9	10.6	10.7	9.9	9.6	9.8	8.5	11.7	10.7	10.4
-----	9.6	9.5	9.8	-----	9.1	8.9	8.7	-----	9.5	9.9	9.8	10.2	9.6	9.7	-----	11.3	11.0	10.9
1.4	3.2	1.8	1.8	1.4	2.6	1.9	1.8	1.9	3.9	3.0	3.0	4.6	3.8	3.7	1.9	4.1	3.0	3.0
-----	4.7	4.1	4.2	-----	2.7	2.7	2.6	-----	4.0	3.8	3.8	6.2	5.9	5.7	-----	5.4	4.8	4.6
-----	3.7	1.8	3.4	-----	3.2	2.7	2.8	-----	-----	-----	-----	4.8	4.5	4.5	-----	3.6	3.4	3.3
-----	13.9	13.7	13.7	-----	14.1	12.8	13.1	-----	13.4	12.9	12.7	12.3	12.2	12.2	-----	11.0	11.2	11.2
-----	15.0	14.4	14.6	-----	14.9	14.7	14.9	-----	18.3	18.0	18.1	15.1	14.7	14.8	-----	17.5	16.8	16.9
-----	15.6	15.4	15.5	-----	16.1	15.6	15.6	-----	18.4	17.8	17.8	16.5	16.6	16.6	-----	17.1	17.3	17.6
-----	14.3	14.0	14.0	-----	14.0	14.1	14.0	-----	[1]14.6	[1]14.9	[1]14.7	10.2	9.9	10.0	-----	12.6	12.2	12.4
5.1	7.5	7.3	7.3	5.8	8.2	8.0	8.1	5.4	7.1	6.9	6.9	7.3	6.9	6.9	5.5	7.2	7.1	7.0
45.0	68.7	65.4	63.2	65.7	87.7	87.2	87.0	50.0	69.3	72.8	72.8	81.3	81.9	82.7	52.5	67.9	71.5	71.2
30.0	52.8	52.4	51.7	35.8	56.0	54.3	54.3	32.0	53.4	52.5	52.6	47.7	45.4	45.5	31.3	52.8	49.5	49.7
-----	16.4	14.8	14.2	-----	15.6	13.4	12.9	-----	14.0	11.3	11.2	14.9	13.5	13.3	-----	16.9	15.0	14.9
-----	15.4	14.9	15.2	-----	13.6	13.1	12.9	-----	12.8	12.2	11.9	14.4	14.4	14.0	-----	14.7	14.4	13.9
-----	[2]12.0	[2]11.8	[2]12.0	-----	[2]14.2	[2]12.3	[2]12.3	-----	30.5	31.3	31.9	31.0	31.2	31.7	-----	33.0	33.0	33.3
-----	58.1	58.8	57.7	-----	45.2	54.0	51.3	-----	50.3	53.6	50.6	32.3	40.3	42.5	-----	56.3	56.8	58.1

[2] Per pound.

TABLE 7.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Article	Unit	Seattle, Wash.				Springfield, Ill.			Washington, D. C.			
		Dec. 15—		Nov. 15, 1927	Dec. 15, 1927	Dec. 15, 1926	Nov. 15, 1927	Dec. 15, 1927	Dec. 15—		Nov. 15, 1927	Dec. 15, 1927
		1913	1926						1913	1926		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	23.6	32.7	35.1	35.7	35.4	36.3	36.8	26.5	46.4	48.2	48.2
Round steak	do	20.6	29.0	31.4	32.3	35.0	35.7	35.9	22.6	39.3	41.9	41.6
Rib roast	do	20.0	27.2	28.7	29.4	23.8	24.8	25.2	21.0	34.5	35.2	34.4
Chuck roast	do	15.6	19.5	21.8	22.9	21.9	22.5	23.1	17.3	25.4	26.2	26.5
Plate beef	do	12.9	14.7	16.5	16.7	14.0	15.1	15.6	12.4	14.1	14.8	15.0
Pork chops	do	24.0	39.5	38.3	37.8	33.8	31.8	27.5	19.9	39.8	37.2	32.2
Bacon, sliced	do	33.0	56.9	56.4	55.4	48.1	45.8	44.5	24.9	48.6	44.2	43.0
Ham, sliced	do	30.0	61.5	58.1	58.2	55.4	48.8	46.8	29.0	60.3	56.8	56.5
Lamb, leg of	do	18.0	36.3	35.0	35.3	37.5	38.3	37.5	19.4	40.3	38.8	38.5
Hens	do	24.6	35.1	32.2	32.9	31.7	32.0	33.6	22.0	39.3	37.9	38.2
Salmon, canned, red	do	-----	34.8	34.8	35.3	37.9	36.0	35.7	-----	31.9	34.4	34.0
Milk, fresh	Quart	9.8	12.0	12.0	12.0	14.4	14.4	14.4	9.0	15.0	15.0	15.0
Milk, evaporated	15-16 oz. can	-----	10.7	10.5	10.5	11.8	11.8	11.8	-----	12.1	12.1	12.1
Butter	Pound	43.8	56.4	55.0	57.7	61.5	54.8	58.7	42.3	63.7	59.4	61.7
Oleomargarine (all butter substitutes).	do	-----	28.7	26.1	26.0	30.3	28.2	28.2	-----	30.6	28.4	28.5
Cheese	do	22.3	35.0	35.3	35.4	38.0	39.4	39.3	23.5	40.2	41.1	41.4
Lard	do	16.9	22.2	21.0	20.9	20.8	18.6	18.5	15.0	19.4	18.1	17.8
Vegetable lard substitute.	do	-----	28.2	27.2	26.9	28.0	27.3	27.7	-----	25.1	23.8	24.3
Eggs, strictly fresh	Dozen	54.2	51.8	54.5	47.6	65.8	58.2	59.1	42.1	72.8	65.8	65.0
Eggs, storage	do	37.0	37.5	44.0	41.5	48.3	42.1	41.4	35.0	49.8	45.2	46.5
Bread	Pound	6.6	9.8	9.8	9.7	10.1	10.3	10.3	5.5	8.9	9.1	9.1
Flour	do	2.9	5.0	4.7	4.6	5.9	5.4	5.3	3.8	6.3	5.6	5.6
Corn meal	do	3.3	5.1	5.7	5.5	4.9	4.9	4.8	2.6	5.0	5.1	5.5
Rolled oats	do	-----	9.0	8.6	8.6	10.1	10.2	10.1	-----	9.2	9.2	9.4
Corn flakes	8-oz. pkg	-----	11.4	10.1	10.2	11.8	10.2	10.2	-----	10.8	9.4	9.5
Wheat cereal	28-oz. pkg	-----	27.6	27.5	27.1	27.3	27.5	27.6	-----	24.5	24.5	24.3
Macaroni	Pound	-----	18.4	18.1	18.2	19.3	18.9	18.6	-----	23.9	22.4	22.5
Rice	do	7.7	12.2	11.0	11.1	11.2	10.9	11.0	9.4	12.4	11.6	11.2
Beans, navy	do	-----	9.8	10.4	10.2	9.4	9.5	9.3	-----	8.7	8.9	9.2
Potatoes	do	1.5	2.9	1.9	1.9	4.0	2.6	2.6	1.8	4.4	3.4	3.5
Onions	do	-----	3.8	3.2	3.5	4.6	4.2	4.4	-----	5.5	4.7	4.5
Cabbage	do	-----	4.0	3.2	3.7	4.2	3.1	3.6	-----	4.7	3.8	4.5
Beans, baked	No. 2 can	-----	12.9	11.6	11.8	10.9	10.3	10.2	-----	10.5	10.0	10.1
Corn, canned	do	-----	18.2	17.3	17.4	15.2	15.0	15.1	-----	15.7	14.7	15.5
Peas, canned	do	-----	20.1	18.0	18.4	17.1	16.3	16.1	-----	16.6	14.8	15.6
Tomatoes, canned	do	-----	[1] 17.4	[1] 16.5	[1] 16.1	13.8	13.6	14.0	-----	11.3	10.0	10.5
Sugar, granulated	Pound	6.1	7.4	7.1	7.1	8.2	7.8	7.7	5.0	7.0	6.8	6.7
Tea	do	50.0	78.1	75.2	76.0	82.1	84.6	84.2	57.5	89.5	89.1	90.4
Coffee	do	28.0	51.5	49.5	49.9	54.0	50.8	49.7	28.8	48.5	43.9	44.1
Prunes	do	-----	14.0	12.0	12.0	15.9	14.3	14.3	-----	17.8	14.4	14.5
Raisins	do	-----	14.1	13.3	13.2	15.9	14.4	14.1	-----	14.2	13.6	13.7
Bananas	Dozen	-----	[2] 13.9	[2] 12.9	[2] 13.0	[2] 11.2	[2] 10.3	[2] 10.1	-----	35.0	34.2	37.0
Oranges	do	-----	50.4	56.0	52.5	60.8	52.1	58.5	-----	50.0	48.2	51.5

[1] No 2½ can. [2] Per pound.

Changes in Retail Food Costs in 51 Cities

TABLE 8 shows for 39 cities the percentage of increase or decrease in the retail cost of food [3] in December, 1927, compared with the average cost in the year 1913, in December, 1926, and in November, 1927. For 12 other cities comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau at different dates since 1913. These percentage changes are based on actual retail prices secured each month from

[3] For list of articles see note 5, p. 167.

retail dealers and on the average family consumption of these articles in each city.[4]

TABLE 8.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN DECEMBER, 1927, COMPARED WITH THE COST IN NOVEMBER, 1927, DECEMBER, 1926, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase December, 1927, compared with 1913	Percentage decrease December, 1927, compared with December, 1926	Percentage increase December, 1927, compared with November, 1927	City	Percentage increase December, 1927, compared with 1913	Percentage decrease December, 1927, compared with December, 1926	Percentage increase December, 1927, compared with November, 1927
Atlanta	60.0	2.9	[1] 0.5	Minneapolis	53.3	2.2	1.3
Baltimore	62.3	3.9	[1] 0.6	Mobile	----	4.3	0.1
Birmingham	62.7	3.1	0.5	Newark	52.7	2.2	[1] 1.1
Boston	61.6	1.3	0.6	New Haven	59.6	3.0	0.0
Bridgeport	----	1.9	[1] 0.5	New Orleans	53.0	3.3	0.4
Buffalo	61.1	4.7	[1] 0.4	New York	64.4	1.0	[1] 1.0
Butte	----	3.0	0.9	Norfolk	----	2.0	0.1
Charleston, S. C.	55.9	4.8	[1] 0.4	Omaha	48.4	6.3	0.7
Chicago	66.6	4.3	0.5	Peoria	----	4.6	1.1
Cincinnati	56.3	4.0	[1] 0.8	Philadelphia	63.0	3.3	0.8
Cleveland	54.8	4.8	0.1	Pittsburgh	60.0	4.0	1.0
Columbus	----	4.8	0.5	Portland, Me.	----	2.1	0.1
Dallas	58.2	[2] 0.4	1.3	Portland, Oreg.	39.0	2.2	[1] 1.6
Denver	41.0	4.6	0.7	Providence	56.9	3.3	[2] 2.1
Detroit	62.4	3.8	[1] 0.2	Richmond	62.7	3.8	[1] 0.6
Fall River	59.7	1.5	0.7	Rochester	----	2.4	[1] 1.1
Houston	----	4.6	1.2	St. Louis	58.2	4.2	[1] 0.1
Indianapolis	50.9	4.3	[1] 0.3	St. Paul	----	3.6	1.8
Jacksonville	46.8	7.9	[1] 1.0	Salt Lake City	33.7	2.8	[1] 0.7
Kansas City	48.8	5.2	[1] 0.5	San Francisco	52.5	1.5	[1] 0.8
Little Rock	48.3	4.0	0.8	Savannah	----	3.2	0.0
Los Angeles	43.4	3.0	[1] 1.5	Scranton	65.3	1.6	1.1
Louisville	53.0	3.6	0.1	Seattle	43.5	2.6	[1] 0.4
Manchester	53.8	2.7	[1] 1.4	Springfield, Ill.	----	6.1	0.2
Memphis	46.7	2.5	0.4	Washington, D. C.	63.7	5.1	0.0
Milwaukee	58.5	3.5	0.2				

[1] Decrease. [2] Increase.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of December 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 37 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Birmingham, Boston, Bridgeport, Butte, Charleston, S. C., Cincinnati, Cleveland, Columbus, Dallas, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Little Rock, Louisville, Memphis, Milwaukee, Mobile, Newark, Norfolk, Omaha, Peoria, Pittsburgh, Portland, Me., Portland, Oreg., Providence, Richmond, Rochester, St. Louis, St. Paul, San Francisco, Scranton, Springfield, Ill., and Washington.

[4] The consumption figures used from January, 1913, to December, 1920, for each article in each city were given in the November, 1918, issue, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, were given in the March, 1921, issue, p. 26.

The following summary shows the promptness with which the merchants responded in December, 1927:

RETAIL PRICE REPORTS RECEIVED FOR DECEMBER, 1927

Item	United States	Geographic division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received	99.0	98.0	99.4	99.0	99.4	97.0
Number of cities in each section from which every report was received	37	9	7	11	7	3

Retail Prices of Coal in the United States [a]

THE following table shows the average retail prices of coal on January 15 and July 15, 1913, December 15, 1926, and November 15 and December 15, 1927, for the United States and for each of the cities from which retail food prices have been obtained. 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.

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

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, DECEMBER 15, 1926, AND NOVEMBER 15 AND DECEMBER 15, 1927

City, and kind of coal	1913		1926, Dec. 15	1927	
	Jan. 15	July 15		Nov. 15	Dec. 15
United States:					
Pennsylvania anthracite—					
Stove—					
Average price	**$7.99**	**$7.46**	**$15.66**	**$15.44**	**$15.45**
Index (1913=100)	**103.4**	**96.6**	**202.7**	**199.9**	**199.9**
Chestnut—					
Average price	**$8.15**	**$7.68**	**$15.44**	**$15.07**	**$15.08**
Index (1913=100)	**103.0**	**97.0**	**195.0**	**190.5**	**190.6**
Bituminous—					
Average price	**$5.48**	**$5.39**	**$10.15**	**$9.32**	**$9.31**
Index (1913=100)	**100.8**	**99.2**	**186.8**	**171.5**	**171.3**
Atlanta, Ga.:					
Bituminous	$5.88	$4.83	$9.10	$8.37	$8.37
Baltimore, Md.:					
Pennsylvania anthracite—					
Stove	[1] 7.70	[1] 7.24	[1] 16.00	[1] 16.00	[1] 16.00
Chestnut	[1] 7.93	[1] 7.49	[1] 15.50	[1] 15.25	[1] 15.25
Bituminous			8.38	8.11	8.14
Birmingham, Ala.:					
Bituminous	4.22	4.01	8.09	7.81	7.79

[1] Per ton of 2,240 pounds.

[a] Prices of coal were formerly secured semiannually and published in the March and September issues. Since July, 1920, these prices have been secured and published monthly.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, DECEMBER 15, 1926, AND NOVEMBER 15, AND DECEMBER 15, 1927—Continued

City, and kind of coal	1913		1926, Dec. 15	1927	
	Jan. 15	July 15		Nov. 15	Dec. 15
Boston, Mass.:					
Pennsylvania anthracite—					
Stove	$8.25	$7.50	$16.50	$16.25	$16.25
Chestnut	8.25	7.75	16.25	16.00	16.00
Bridgeport, Conn.:					
Pennsylvania anthracite—					
Stove			16.00	15.00	15.00
Chestnut			16.00	15.00	15.00
Buffalo, N. Y.:					
Pennsylvania anthracite					
Stove	6.75	6.54	13.76	13.97	13.97
Chestnut	6.99	6.80	13.39	13.57	13.57
Butte, Mont.:					
Bituminous			11.04	11.03	10.95
Charleston, S. C.:					
Bituminous	[1] 6.75	[1] 6.75	11.00	11.00	11.00
Chicago, Ill.:					
Pennsylvania anthracite—					
Stove	8.00	7.80	17.00	16.95	16.95
Chestnut	8.25	8.05	16.80	16.46	16.46
Bituminous	4.97	4.65	10.34	9.29	9.17
Cincinnati, Ohio:					
Bituminous	3.50	3.38	8.90	7.10	7.08
Cleveland, Ohio:					
Pennsylvania anthracite—					
Stove	7.50	7.25	15.40	15.20	15.20
Chestnut	7.75	7.50	15.00	14.70	14.80
Bituminous	4.14	4.14	10.38	9.03	9.01
Columbus, Ohio:					
Bituminous			8.29	7.24	7.24
Dallas, Tex.:					
Arkansas anthracite—					
Egg			16.00	15.50	15.50
Bituminous	8.25	7.21	13.22	12.70	12.70
Denver, Colo.:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	8.88	9.00	16.00	16.10	16.10
Stove, 3 and 5 mixed	8.50	8.50	16.50	16.10	16.10
Bituminous	5.25	4.88	10.71	10.61	10.58
Detroit, Mich.:					
Pennsylvania anthracite—					
Stove	8.00	7.45	16.17	16.00	16.00
Chestnut	8.25	7.65	15.83	15.50	15.50
Bituminous	5.20	5.20	11.05	9.35	9.31
Fall River, Mass.:					
Pennsylvania anthracite—					
Stove	8.25	7.43	16.75	16.75	16.75
Chestnut	8.25	7.61	16.25	16.25	16.25
Houston, Tex.:					
Bituminous			13.50	12.20	12.80
Indianapolis, Ind.:					
Bituminous	3.81	3.70	7.94	7.35	7.28
Jacksonville, Fla.:					
Bituminous	7.50	7.00	14.00	14.00	14.00
Kansas City, Mo.:					
Arkansas anthracite—					
Furnace			14.50	14.10	14.20
Stove No. 4			15.83	15.33	15.33
Bituminous	4.39	3.94	7.93	7.81	7.50
Little Rock, Ark.:					
Arkansas anthracite—					
Egg			14.00	13.50	13.50
Bituminous	6.00	5.33	10.83	10.43	10.55
Los Angeles, Calif.:					
Bituminous	13.52	12.50	16.50	16.50	16.50
Louisville, Ky.:					
Bituminous	4.20	4.00	8.40	7.50	7.50
Manchester, N. H.:					
Pennsylvania anthracite—					
Stove	10.00	8.50	17.50	17.50	17.50
Chestnut	10.00	8.50	17.50	17.25	17.25
Memphis, Tenn.:					
Bituminous	[2] 4.34	[2] 4.22	8.78	8.30	8.30

[1] Per ton of 2,240 pounds.

[2] Per 10-barrel lot (1,800 pounds).

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, DECEMBER 15, 1926, AND NOVEMBER 15 AND DECEMBER 15, 1927—Continued

City, and kind of coal	1913		1926, Dec. 15	1927	
	Jan. 15	July 15		Nov. 15	Dec. 15
Milwaukee, Wis.:					
Pennsylvania, anthracite—					
Stove	$8.00	$7.85	$16.80	$16.65	$16.65
Chestnut	8.25	8.10	16.65	16.20	16.20
Bituminous	6.25	5.71	11.40	9.51	9.48
Minneapolis, Minn.:					
Pennsylvania anthracite—					
Stove	9.25	9.05	18.10	18.15	18.15
Chestnut	9.50	9.30	17.95	17.70	17.70
Bituminous	5.89	5.79	11.83	11.81	11.72
Mobile, Ala.:					
Bituminous	----	----	10.12	9.46	9.71
Newark, N. J.:					
Pennsylvania anthracite—					
Stove	6.50	6.25	14.00	14.00	14.00
Chestnut	6.75	6.50	13.50	13.50	13.50
New Haven, Conn.:					
Pennsylvania anthracite—					
Stove	7.50	6.25	15.30	15.10	15.10
Chestnut	7.50	6.25	15.30	15.10	15.10
New Orleans, La.:					
Bituminous	[2] 6.06	[2] 6.06	11.21	10.29	11.29
New York, N. Y.:					
Pennsylvania anthracite—					
Stove	7.07	6.66	14.75	14.75	14.75
Chestnut	7.14	6.80	14.50	14.46	14.42
Norfolk, Va.:					
Pennsylvania anthracite—					
Stove	----	----	16.00	15.00	15.00
Chestnut	----	----	16.00	15.00	15.00
Bituminous	----	----	10.25	9.07	9.07
Omaha, Nebr.:					
Bituminous	6.63	6.13	10.32	10.21	10.21
Peoria, Ill.:					
Bituminous	----	----	7.45	7.16	7.12
Philadelphia, Pa.:					
Pennsylvania anthracite—					
Stove	[1] 7.16	[1] 6.89	[1] 15.79	[1] 15.04	[1] 15.04
Chestnut	[1] 7.38	[1] 7.14	[1] 15.61	[1] 14.54	[1] 14.54
Pittsburgh, Pa.:					
Pennsylvania anthracite—					
Chestnut	[1] 8.00	[1] 7.44	15.50	14.88	14.88
Bituminous	[3] 3.16	[3] 3.18	6.49	5.69	5.69
Portland, Me.:					
Pennsylvania anthracite—					
Stove	----	----	16.80	16.80	16.80
Chestnut	----	----	16.80	16.68	16.80
Portland, Oreg.:					
Bituminous	9.79	9.66	13.46	13.52	13.39
Providence, R. I.:					
Pennsylvania anthracite—					
Stove	[4] 8.25	[4] 7.50	[4] 16.50	[4] 16.25	[4] 16.25
Chestnut	[4] 8.25	[4] 7.75	[4] 16.50	[4] 15.94	[4] 16.00
Richmond, Va.:					
Pennsylvania anthracite—					
Stove	8.00	7.25	16.50	15.50	15.67
Chestnut	8.00	7.25	16.50	15.50	15.50
Bituminous	5.50	4.94	11.84	9.68	9.75
Rochester, N. Y.:					
Pennsylvania anthracite—					
Stove	----	----	14.60	14.60	14.60
Chestnut	----	----	14.15	14.15	14.15
St. Louis, Mo.:					
Pennsylvania anthracite—					
Stove	8.44	7.74	17.45	16.90	16.90
Chestnut	8.68	7.99	17.20	16.45	16.45
Bituminous	3.36	3.04	7.50	7.29	7.14
St. Paul, Minn.:					
Pennsylvania anthracite—					
Stove	9.20	9.05	18.10	18.15	18.15
Chestnut	9.45	9.30	17.95	17.70	17.70
Bituminous	6.07	6.04	12.16	11.98	11.98

[1] Per ton of 2,240 pounds.
[2] Per 10-barrel lot (1,800 pounds).
[3] Per 25-bushel lot (1,900 pounds).
[4] The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, DECEMBER 15, 1926, AND NOVEMBER 15 AND DECEMBER 15, 1927—Continued

City, and kind of coal	1913		1926, Dec. 15	1927	
	Jan. 15	July 15		Nov. 15	Dec. 15
Salt Lake City, Utah:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	$11.00	$11.50	$18.00	$18.00	$18.00
Stove, 3 and 5 mixed	11.00	11.50	18.00	18.00	18.00
Bituminous	5.64	5.46	8.46	8.34	8.32
San Francisco, Calif.:					
New Mexico anthracite—					
Cerillos egg	17.00	17.00	26.50	25.50	26.50
Colorado anthracite—					
Egg	17.00	17.00	25.75	25.00	25.75
Bituminous	12.00	12.00	17.11	16.63	17.25
Savannah, Ga.:					
Bituminous			[5] 13.50	[5] 11.25	[5] 11.13
Scranton, Pa.:					
Pennsylvania anthracite—					
Stove	4.25	4.31	11.00	10.75	10.75
Chestnut	4.50	4.56	10.67	10.50	10.50
Seattle, Wash.:					
Bituminous	7.63	7.70	10.44	10.06	10.06
Springfield, Ill.:					
Bituminous			4.38	4.44	4.44
Washington, D. C.:					
Pennsylvania anthracite—					
Stove	[1] 7.50	[1] 7.38	[1] 15.91	[1] 15.51	[1] 15.51
Chestnut	[1] 7.65	[1] 7.53	[1] 15.59	[1] 14.99	[1] 15.01
Bituminous—					
Prepared sizes, low volatile			[1] 12.00	[1] 11.08	[1] 11.00
Prepared sizes, high volatile			[1] 9.75	[1] 9.00	[1] 8.75
Run of mine, mixed			[1] 8.94	[1] 7.88	[1] 7.88

[1] Per ton of 2,240 pounds.
[5] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

The following table shows for the United States both average and relative retail prices of Pennsylvania white ash anthracite coal, stove and chestnut sizes, and of bituminous coal in January and July, 1913 to 1925, and for each month of 1926 and 1927. An average price for the year 1913 has been made from the averages for January and July of that year. The average price for each month has been divided by this average price for the year 1913 to obtain the relative price.

TABLE 2.—AVERAGE AND RELATIVE PRICES OF COAL FOR THE UNITED STATES ON SPECIFIED DATES FROM JANUARY, 1913, TO DECEMBER, 1927

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	100.0	$7.91	100.0	$5.43	100.0
January	7.99	103.4	8.15	103.0	5.48	100.8
July	7.46	96.6	7.68	97.0	5.39	99.2
1914—						
January	7.80	100.9	8.00	101.0	5.97	109.9
July	7.60	98.3	7.78	98.3	5.46	100.6
1915—						
January	7.83	101.4	7.99	101.0	5.71	105.2
July	7.54	97.6	7.73	97.7	5.44	100.1

TABLE 2.—AVERAGE AND RELATIVE PRICES OF COAL FOR THE UNITED STATES ON SPECIFIED DATES FROM JANUARY, 1913, TO DECEMBER, 1927—Continued

Year and month	Pennsylvania anthracite, white ash				Bituminous	
	Stove		Chestnut			
	Average price	Relative price	Average price	Relative price	Average price	Relative price
1916						
January	$7.93	$102.7	$8.13	$102.7	$5.69	$104.8
July	8.12	105.2	8.28	104.6	5.52	101.6
1917—						
January	9.29	120.2	9.40	118.8	6.96	128.1
July	9.08	117.5	9.16	115.7	7.21	132.7
1918—						
January	9.88	127.9	10.03	126.7	7.68	141.3
July	9.96	128.9	10.07	127.3	7.92	145.8
1919—						
January	11.51	149.0	11.61	146.7	7.90	145.3
July	12.14	157.2	12.17	153.8	8.10	149.1
1920—						
January	12.59	162.9	12.77	161.3	8.81	162.1
July	14.28	184.9	14.33	181.1	10.55	194.1
1921—						
January	15.99	207.0	16.13	203.8	11.82	217.6
July	14.90	192.8	14.95	188.9	10.47	192.7
1922—						
January	14.98	193.9	15.02	189.8	9.89	182.0
July	14.87	192.4	14.92	188.5	9.49	174.6
1923—						
January	15.43	199.7	15.46	195.3	11.18	205.7
July	15.10	195.5	15.05	190.1	10.04	184.7
1924—						
January	15.77	204.1	15.76	199.1	9.75	179.5
July	15.24	197.2	15.10	190.7	8.94	164.5
1925—						
January	15.45	200.0	15.37	194.2	9.24	170.0
July	15.14	196.0	14.93	188.6	8.61	158.5
1926—						
January	(1)	(1)	(1)	(1)	9.74	179.3
February	(1)	(1)	(1)	(1)	9.72	178.8
March	16.12	208.6	15.91	201.1	9.25	170.2
April	15.54	201.2	15.37	194.2	9.11	167.6
May	15.41	199.5	15.18	191.8	8.76	161.2
June	15.40	199.3	15.18	191.8	8.67	159.5
July	15.43	199.7	15.19	191.9	8.70	160.1
August	15.49	200.4	15.23	192.5	8.81	162.1
September	15.55	201.3	15.30	193.4	9.25	170.3
October	15.56	201.4	15.31	193.5	9.59	176.5
November	15.64	202.4	15.41	194.7	10.24	188.4
December	15.66	202.7	15.44	195.0	10.15	186.8
1927—						
January	15.66	202.7	15.42	194.8	9.96	183.3
February	15.65	202.6	15.44	195.0	9.86	181.4
March	15.60	201.9	15.36	194.0	9.74	179.3
April	14.94	193.4	14.61	184.6	8.95	164.7
May	14.88	192.6	14.53	183.6	8.88	163.4
June	15.06	194.9	14.70	185.7	8.89	163.6
July	15.15	196.1	14.81	187.1	8.91	163.9
August	15.15	196.1	14.80	187.0	8.99	165.4
September	15.38	199.1	15.03	189.9	9.20	169.3
October	15.42	199.6	15.07	190.4	9.33	171.7
November	15.44	199.9	15.07	190.5	9.32	171.5
December	15.45	199.9	15.08	190.6	9.31	171.3

[1] Insufficient data.

Retail Prices of Gas in the United States

THE net price per 1,000 cubic feet of gas for household use in each of 51 cities is shown in the following table. In Table 1 the average family consumption of manufactured gas is assumed to be 3,000 cubic feet per month. In cities where a service charge or a sliding scale is in operation, families using less than 3,000 cubic feet per month pay a somewhat higher rate than here shown, while those consuming more than this amount pay a lower rate. The figures here given are believed to represent quite closely the actual monthly cost of gas per 1,000 cubic feet to the average wage-earner's family. Prices for natural gas and for manufactured and natural mixed gas are shown in Table 2 for those cities where it is in general use. These prices are based on an estimated average family consumption of 5,000 cubic feet per month.

TABLE 1.—NET PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS BASED ON A FAMILY CONSUMPTION OF 3,000 CUBIC FEET, IN SPECIFIED MONTHS FROM APRIL, 1913, TO DECEMBER, 1927, BY CITIES

City	Apr. 15, 1913	Apr. 15, 1914	Apr. 15, 1915	Apr. 15, 1916	Apr. 15, 1917	Apr. 15, 1918	Apr. 15, 1919	Apr. 15, 1920	May 15, 1921	Mar. 15, 1922	Mar. 15, 1923	June 15, 1924	June 15, 1925	June 15, 1926	June 15, 1927	Dec 15, 1927
Atlanta	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00	$1.15	$1.15	$1.90	$1.65	$1.65	$1.55	$1.55	$1.55	$1.55	$1.55
Baltimore	.90	.80	.80	.75	.75	.75	.75	.75	.75	.92	.92	.85	.85	.85	.85	.85
Birmingham	1.00	.95	.95	.95	.95	.95	.95	.95	.88	.88	.80	.80	.80	.80	.80	.80
Boston	.81	.81	.80	.80	.80	.86	1.05	1.08	1.40	1.34	1.25	1.20	1.18	1.18	1.18	1.18
Bridgeport	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.10	1.47	1.60	1.50	1.45	1.45	1.45	1.45	1.45
Buffalo	1.00	1.00	1.00	1.00	1.00	1.00	1.45	1.45	1.45	1.45	-----	-----	-----	-----	-----	-----
Butte	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
Charleston	1.10	1.10	1.10	1.10	1.00	1.10	1.10	1.25	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
Chicago	.80	.80	.80	.80	.80	.72	.90	.87	1.20	1.07	1.07	1.02	1.02	1.02	1.02	1.02
Cleveland	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	1.25	1.25	1.25	1.25	1.25
Denver	.85	.80	.80	.80	.80	.85	.95	.95	.95	.95	.95	.95	.95	.95	.90	.90
Detroit	.75	.75	.75	.75	.75	.75	.79	.79	.85	.79	.79	.82	.82	.79	.79	.79
Fall River	.80	.80	.80	.80	.80	.95	.95	1.05	1.25	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Houston	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.09	1.09	1.09	1.05	-----	-----	-----
Indianapolis	.60	.55	.55	.55	.55	.55	.60	.60	.90	.90	1.20	1.15	1.10	1.05	1.05	.95
Jacksonville	1.20	1.20	1.15	1.15	1.15	1.25	1.25	1.50	1.75	1.75	1.65	1.97	1.97	1.97	1.92	1.92
Manchester	1.10	1.10	1.00	1.00	1.00	1.00	1.18	1.18	1.58	1.48	1.48	1.38	1.38	1.38	1.38	1.38
Memphis	1.00	1.00	1.00	1.00	.93	.93	.93	1.27	1.35	1.35	1.20	1.20	1.20	1.20	1.20	1.20
Milwaukee	.75	.75	.75	.75	.75	.75	.75	.75	.90	.90	.86	.82	.82	.82	.82	.82
Minneapolis	.85	.80	.80	.77	.77	.77	.95	.95	1.28	1.02	1.03	1.01	.95	.97	.96	.94
Mobile	1.10	1.10	1.10	1.10	1.10	1.10	1.35	1.35	1.80	1.80	1.80	1.80	1.80	1.80	1.76	1.76
Newark	1.00	.90	.90	.90	.90	.97	.97	1.15	1.40	1.40	1.25	1.20	1.20	1.20	1.20	1.20
New Haven	.90	.90	.90	.90	.90	1.00	1.10	1.10	1.27	1.27	1.18	1.18	1.13	1.13	1.13	1.13
New Orleans	1.10	1.00	1.00	1.00	1.00	1.00	1.30	1.30	1.30	1.45	1.30	1.30	1.30	1.30	1.30	1.30
New York	.84	.84	.83	.83	.83	.83	.85	.87	1.40	1.32	1.23	1.23	1.23	1.23	1.24	1.24
Norfolk	1.00	1.00	1.00	1.00	1.00	1.20	1.20	1.60	1.40	1.45	1.40	1.40	1.40	1.33	1.33	1.33
Omaha	1.15	1.15	1.15	1.00	1.00	1.15	1.15	1.15	1.47	1.27	1.18	1.18	1.08	1.08	1.08	1.00
Peoria	.90	.90	.90	.90	.85	.85	.85	.85	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Philadelphia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Pittsburgh	1.00	1.00	1.00	1.00	1.00	1.00	1.00	-----	-----	-----	-----	-----	-----	-----	-----	-----
Portland, Me	1.10	1.00	1.00	1.00	1.00	1.00	1.40	1.40	1.85	1.75	1.55	1.55	1.55	1.50	1.42	1.42
Portland, Oreg	.95	.95	.95	.95	.95	.95	.95	.95	1.38	1.25	1.16	1.16	1.16	1.19	1.17	1.17
Providence	.85	.85	.85	.85	.85	1.00	1.30	1.30	1.42	1.42	1.27	1.22	1.17	1.17	1.13	1.13
Richmond	.90	.90	.90	.80	.80	.80	1.00	1.00	1.30	1.30	1.30	1.30	1.30	1.29	1.29	1.29
Rochester	.95	.95	.95	.95	.95	.95	.95	.95	1.18	1.10	1.05	1.00	1.00	1.00	1.00	1.00
St. Louis	.80	.80	.80	.80	.75	.75	.75	.85	1.05	1.05	1.00	1.00	1.00	1.00	1.00	1.00
St. Paul	.95	.90	.90	.85	.85	.85	.85	.85	1.00	1.00	1.00	.85	.85	.90	.90	.90
Salt Lake City	.87	.87	.87	.87	.87	.87	1.15	1.35	1.57	1.57	1.57	1.57	1.54	1.53	1.52	1.52
San Francisco	.75	.85	.85	.85	.85	.85	.95	.95	1.05	1.04	.92	1.00	1.05	.95	.95	.95
Savannah	-----	-----	-----	-----	-----	-----	-----	1.25	1.60	1.60	1.45	1.45	1.45	1.45	1.45	1.45
Scranton	.95	.95	.95	.95	.95	1.15	1.30	1.30	1.70	1.70	1.60	1.50	1.50	1.50	1.40	1.40
Seattle	1.00	1.00	1.00	1.00	1.00	1.20	1.20	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Springfield, Ill	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.10	1.40	1.40	1.40	1.35	1.35	1.25	1.25	1.25
Washington, D.C.	.93	.93	.93	.93	.80	.90	.95	.95	1.25	1.10	1.05	1.00	1.00	1.00	1.00	1.00

TABLE 2.—NET PRICE PER 1,000 CUBIC FEET OF GAS BASED ON A FAMILY CONSUMPTION OF 5,000 CUBIC FEET IN SPECIFIED MONTHS FROM APRIL, 1913, TO DECEMBER, 1927, BY CITIES

Natural gas

City	Apr. 15, 1913	Apr. 15, 1914	Apr. 15, 1915	Apr. 15, 1916	Apr. 15, 1917	Apr. 15, 1918	Apr. 15, 1919	Apr. 15, 1920	May 15, 1921	Mar. 15, 1922	Mar. 15, 1923	June 15, 1924	June 15, 1925	June 15, 1926	June 15, 1927	Dec. 15, 1927
Buffalo	$0.30	$0.30	$0.30	$0.30	$0.30	$0.30	$0.35	$0.35	$0.35	$0.42	-----	-----	-----	-----	-----	-----
Cincinnati	.30	.30	.30	.30	.35	.35	.35	.35	.35	.50	$0.50	$0.50	$0.75	$0.75	$0.75	$0.75
Cleveland	.30	.30	.30	.30	.30	.30	.35	.35	.35	.40	.40	.55	.55	.60	.60	.60
Columbus	.30	.30	.30	.30	.30	.30	.30	.30	.30	.45	.45	.45	.55	.55	.48	.48
Dallas	.45	.45	.45	.45	.45	.45	.45	45	.68	.68	.68	.68	.74	.74	.79	.79
Houston	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	.75	.75	.75
Kansas City, Mo.	.27	.27	.27	.27	.30	.60	.80	.80	.90	.90	.95	.95	.95	.95	.95	.95
Little Rock	.40	.40	.40	.40	.40	.40	.45	.45	.45	.45	.45	.65	.65	.65	.65	.65
Los Angeles	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	.91	.91
Louisville	-----	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45	.45
Pittsburgh	.28	.28	.28	.28	.28	.28	.35	.35	.45	.50	.50	.53	.60	.60	.60	.60

Manufactured and natural gas mixed

Buffalo	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	$0.62	$0.62	$0.60	$0.65	$0.65	$0.65
Los Angeles	-----	-----	$0.68	$0.68	$0.68	$0.68	$0.75	$0.75	$0.75	$0.76	.68	.68	.68	.68	-----	-----

From the prices quoted on manufactured gas, average prices have been computed for all of the cities combined and are shown in the next table for April 15 of each year from 1913 to 1920, and for May 15, September 15, and December 15, 1921; March 15, June 15, September 15, and December 15, 1922, 1923, and 1924; and June 15 and December 15, 1925, 1926, and 1927. These prices are based on an estimated average family consumption of 3,000 cubic feet.

Relative prices have been computed by dividing the price of each year by the price in April, 1913.

The price in manufactured gas in December, 1927, showed an increase of 28.4 per cent since April, 1913. From June, 1927, to December, 1927, there was no change in the price of gas.

TABLE 3.—AVERAGE AND RELATIVE NET PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS, BASED ON A FAMILY CONSUMPTION OF 3,000 CUBIC FEET IN SPECIFIED MONTHS OF EACH YEAR, 1913 TO 1927

Date	Average net price	Relative price	Date	Average net price	Relative price
Apr. 15, 1913	$0.95	100.0	Mar. 15, 1923	$1.25	131.6
Apr. 15, 1914	.94	98.9	June 15, 1923	1.24	130.5
Apr. 15, 1915	.93	97.9	Sept. 15, 1923	1.24	130.5
Apr. 15, 1916	.92	96.8	Dec. 15, 1923	1.25	131.6
Apr. 15, 1917	.91	95.8	Mar. 15, 1924	1.24	130.5
Apr. 15, 1918	.95	100.0	June 15, 1924	1.24	130.5
Apr. 15, 1919	1.04	109.5	Sept. 15, 1924	1.24	130.5
Apr. 15, 1920	1.09	114.7	Dec. 15, 1924	1.24	130.5
May 15, 1921	1.32	138.9	June 15, 1925	1.23	129.5
Sept. 15, 1921	1.31	137.9	Dec. 15, 1925	1.23	129.5
Dec. 15, 1921	1.30	136.8	June 15, 1926	1.23	129.5
Mar. 15, 1922	1.29	135.8	Dec. 15, 1926	1.22	128.4
June 15, 1922	1.27	133.7	June 15, 1927	1.22	128.4
Sept. 15, 1922	1.26	132.6	Dec. 15, 1927	1.22	128.4
Dec. 15, 1922	1.25	131.6			

Retail Prices of Electricity in the United States

Explanation of Prices

THE following table shows for 51 cities the net rates per kilowatt-hour of electricity used for household purposes for specified months, in 1913, 1925, 1926, and 1927. For the cities having more than one tariff for domestic consumers the rates are shown for the schedule under which most of the residences are served.

Several cities have sliding scales based on a variable number of kilowatt-hours payable at each rate. The number of kilowatt-hours payable at each rate in these cities is determined for each customer according to the watts of installation, either in whole or in part, in the individual home. The number of watts so determined is called the customer's "demand."

In Baltimore the demand is the maximum normal rate of use of electricity in any half-hour period of time. It may be estimated or determined by the company from time to time according to the customer's normal use of electricity and may equal the total installation reduced to kilowatts.

In Buffalo the demand consists of two parts—lighting, 25 per cent of the total installation, but never less than 250 watts; and power, 2½ per cent of the capacity of any electric range, water heater, or other appliance of 1,000 watts or over and 25 per cent of the rated capacity of motors exceeding one-half horsepower but less than 1 horsepower. The installation is determined by inspection of premises.

In Chicago the equivalent in kilowatt-hours to 30 hours' use of demand has been estimated as follows: For a rated capacity of 475 to 574 watts, 11 kilowatt-hours; 575 to 674 watts, 12 kilowatt-hours; 675 to 774 watts, 13 kilowatt-hours; and 775 to 874 watts, 14 kilowatt-hours. Although the equivalent in kilowatt-hours to 30 hours' use of demand of from 1 to 1,500 watts is given on the printed tariff, the equivalent is here shown only for installations of from 475 to 874 watts, the connected load of the average home being as a rule within this range.

In Cincinnati the demand has been estimated as being 70 per cent of the connected load, excluding appliances.

In Cleveland, in December, 1913, Company A determined the demand by inspection as being 40 per cent of the connected load. From December, 1919, to the present time there has been a flat rate for all current consumed.

In Houston the demand is estimated as 50 per cent of the connected load, each socket opening being rated at 50 watts.

In New Orleans the demand in 1913 was the full connected load.

In New York the demand for Company C, when not determined by meter, has been computed at 50 per cent of total installation in residences, each standard socket being rated at 50 watts and all other outlets being rated at their actual kilowatt capacity.

In Omaha the demand in 1913 was the full connected load.

In Pittsburgh since December, 1919, the demand has been determined by inspection, the first 10 outlets being rated at 30 watts each, the next 20 outlets at 20 watts each, and each additional outlet

at 10 watts. Household utensils and appliances of not over 660 watts each have been excluded.

In Portland, Oreg., the demand for Company A has been estimated as one-third of the connected lighting load. Ranges, heating devices, and small power up to a rated capacity of 2 kilowatts are not included.

For Company B the demand, when not based on actual measurement, has been estimated at one-third of the connected load, no demand being established at less than 233 watts.

In Springfield, Ill., the demand for Company A in December, 1913, was the active load predetermined as follows: 80 per cent of the first 500 watts of connected load plus 60 per cent of that part of the connected load in excess of the first 500 watts—minimum active load, 150 watts.

In Washington, D. C., the demand is determined by inspection and consists of 100 per cent of the connected load, excluding small fans and heating and cooking appliances when not permanently connected.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN DECEMBER, 1913, DECEMBER, 1925, AND JUNE AND DECEMBER, 1926 AND 1927, FOR 51 CITIES

City	Measure of consumption, per month	December, 1913	December, 1925	June, 1926	December, 1926	June, 1927	December, 1927
		Cents	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Atlanta	First 100 kilowatt-hours	[1] 7.0	8.1	8.1	8.1	8.1	8.1
Baltimore [2]	First 20 hours' use of demand	[3] 8.5	8.0	8.0	8.0	7.0	7.0
	Next kilowatt-hours up to 800		4.0	4.0	4.0	4.0	4.0
Birmingham	First 100 kilowatt-hours	[4] 8.5	7.7	7.7	7.7	7.7	7.7
Boston:							
Company A	First 1,000 kilowatt-hours	[5] 10.0	8.5	8.5	8.5	8.5	8.5
Company B	do	[5] 10.0	8.5	8.5	8.5	8.5	8.5
Bridgeport	All current	9.0	6.5	6.5	6.5	6.5	6.0
Buffalo [2]	First 60 hours' use of demand	7.0	5.0	5.0	5.0	5.0	5.0
	Next 120 hours' use of demand	5.0	4.0	4.0	4.0	4.0	4.0
	Excess	1.5	1.5	1.5	1.5	1.5	1.5
Butte	First 25 kilowatt-hours	[6] 9.5	8.0	8.0	8.0	8.0	8.0
	Next 25 kilowatt-hours		4.0	4.0	4.0	4.0	4.0
Charleston	First 50 kilowatt-hours	[7] 10.0	10.0	10.0	10.0	10.0	10.0
	Next 50 kilowatt-hours	8.0					
Chicago [2]	First 30 hours' use of demand	10.0	8.0	8.0	8.0	8.0	8.0
	Next 30 hours' use of demand	5.0	5.0	5.0	5.0	5.0	5.0
	Excess	4.0	3.0	3.0	3.0	3.0	3.0
Cincinnati	First 30 kilowatt-hours	[8] 9.5	8.5	[8] 8.5	[8] 8.5	[8] 8.5	7.5
	Next 60 kilowatt-hours	[9] 6.7	[9] 6.5	[9] 6.5	[9] 6.5	[9] 6.5	5.0
	Excess	3.8	3.5	3.5	3.5	3.5	3.5
Cleveland:							
Company A	First 500 kilowatt-hours	[10] 10.0	[5] 5.0	5.0	5.0	5.0	5.0
	Excess	5.0					
Company B	All current	[11] 8.0	[12] 3.0	[12] 3.0	[12] 3.0	[12] 3.0	[12] 3.0
	Next 690 kilowatt-hours	5.0					
Columbus	First 75 kilowatt-hours	[5] 7.0	[5] 7.0	7.0	7.0	7.0	7.0
Dallas	First 800 kilowatt-hours	10.0	6.0	6.0	6.0	6.0	6.0
Denver	First 15 kilowatt-hours	[5] 8.0	[5] 8.0	[5] 8.0	[5] 8.0	7.0	7.0
	Next 30 kilowatt-hours					6.0	6.0
	Excess					5.0	5.0
Detroit	First 3 kilowatt-hours per active room	[13] 12.6	10.8	9.0	9.0	9.0	9.0
	Excess	3.6	3.6	3.6	3.6	3.6	3.6
Fall River	First 25 kilowatt-hours	[14] 9.5	9.0	8.5	8.5	8.5	8.5
	Next 975 kilowatt-hours		8.5	7.5	7.5	7.5	7.5
Houston [2]	First 30 hours' use of demand	[15] 12.4	7.2	7.2	7.2	7.2	7.2
	Excess	7.0	4.5	4.5	4.5	4.5	4.5
Indianapolis:							
Company A	First 50 kilowatt-hours	[16] 7.5	6.8	6.8	6.8	6.5	6.5
	Next 50 kilowatt-hours		[17] 6.3	[17] 6.3	[17] 6.3	6.0	6.0
Company B	First 50 kilowatt-hours	[14] 7.0	6.8	6.8	6.8		
	Next 150 kilowatt-hours		6.3	6.3	6.3		

For footnotes see end of table.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN DECEMBER, 1913, DECEMBER, 1925, AND JUNE AND DECEMBER, 1926 AND 1927, FOR 51 CITIES—Continued

City	Measure of consumption, per month	December, 1913	December, 1925	June, 1926	December, 1926	June, 1927	December, 1927
		Cents	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Jacksonville	All current	7.0	7.0	7.0	7.0	7.0	7.0
Kansas City	First 5 kilowatt-hours per active room (minimum, 3 rooms).	[18] 9.9	7.5	7.5	7.5	7.5	7.0
	Next 5 kilowatt-hours per room	-------	5.0	5.0	5.0	5.0	5.0
	Excess	4.5	2.5	2.5	2.5	2.5	2.5
Little Rock	First 200 kilowatt-hours	[5] 13.5	10.0	10.0	10.0	10.0	10.0
Los Angeles	First 50 kilowatt-hours	[6] 5.5	[6] 5.6	[6] 5.6	[6] 5.6	[6] 5.6	5.0
Louisville	1 to 149 kilowatt-hours	7.6	7.6	7.6	7.6	7.6	7.6
Manchester	First 25 kilowatt-hours	11.4	12.0	12.0	12.0	12.0	12.0
	Next 50 kilowatt-hours	-------	6.0	6.0	6.0	6.0	6.0
Memphis	First 6 kilowatt-hours per room	[5] 10.0	8.0	8.0	8.0	8.0	8.0
	Excess	-------	5.0	5.0	5.0	5.0	5.0
Milwaukee	First 9 kilowatt-hours for each of the first 6 active rooms.[21]	[19] 11.4	[20] 7.6	[20] 7.6	6.7	6.7	6.7
	Additional energy up to 9 kilowatt-hours for each active room.	[22] 4.8	5.7	5.7	-------	-------	-------
	Excess	3.8	3.1	3.1	2.9	2.9	2.9
Minneapolis	First 3 kilowatt-hours per active room	8.6	9.5	9.5	9.5	9.5	9.5
	Next 3 kilowatt-hours per active room	[23] 5.7	7.1	7.1	7.1	7.1	7.1
Mobile	First 50 kilowatt-hours	7.0	9.0	9.0	9.0	9.0	9.0
Newark	First 20 kilowatt-hours	[24] 10.0	9.0	9.0	9.0	9.0	9.0
	Next 30 kilowatt-hours	-------	[25] 8.0	[25] 8.0	[25] 8.0	8.0	8.0
New Haven	All current	9.0	6.5	6.5	6.5	6.5	6.0
New Orleans	First 20 kilowatt-hours	[8] 13.0	[26] 9.1	[26] 9.1	[26] 9.1	[26] 9.1	[26] 9.1
	Next 30 kilowatt-hours	[23] 6.0	[26] 7.8	[26] 7.8	[26] 7.8	[26] 7.8	[26] 7.8
New York:							
Company A	First 1,000 kilowatt-hours	[27] 10.0	[28] 7.2	[28] 7.2	[28] 7.2	[28] 7.3	[28] 7.3
Company B	All current	9.5	9.5	9.5	9.5	9.5	9.5
Company C [2]	First 60 hours' use of demand	11.0	[28] 7.8	[28] 7.8	[28] 7.8	[28] 7.3	[28] 7.3
Norfolk	First 100 kilowatt-hours	9.0	9.0	[29] 9.0	[29] 9.0	8.5	8.5
Omaha	All current	[8] 11.4	5.5	5.5	5.5	5.5	5.5
	Next 125 kilowatt-hours	[23] 5.7	-------	-------	-------	-------	-------
Peoria	First 5 kilowatt-hours for each of the first 2 rooms.[30]	[31] 9.9	9.0	9.0	9.0	9.0	9.0
	Second 5 kilowatt-hours for each of the first 2 rooms.[30]	-------	6.0	6.0	6.0	6.0	6.0
Philadelphia:							
Company A	First 12 kilowatt-hours	[5] 10.0	8.0	8.0	8.0	8.0	8.0
	Next 36 kilowatt-hours	-------	[32] 7.0	7.0	7.0	7.0	7.0
Company B	First 20 kilowatt-hours	[24] 10.0	9.0	9.0	9.0	9.0	9.0
	Next 30 kilowatt-hours	-------	[25] 8.0	[25] 8.0	[25] 8.0	8.0	8.0
Pittsburgh [2]	First 30 hours' use of demand	[5] 10.0	8.0	8.0	8.0	8.0	8.0
	Next 60 hours' use of demand	-------	5.5	5.5	5.5	5.5	5.5
Portland, Me	First 30 kilowatt-hours	[5] 9.0	[5] 8.0	[5] 8.0	[5] 8.0	[5] 8.0	8.0
	Next 70 kilowatt-hours	-------	-------	-------	-------	-------	5.0
Portland, Oreg.:							
Company A	First 9 kilowatt-hours	7.6	7.6	7.6	7.6	7.6	7.6
	Next kilowatt-hours [33]	[34] 6.7	6.7	6.7	6.7	6.7	6.7
	Next 50 kilowatt-hours	[35] 5.7	2.9	2.9	2.9	2.9	2.9
Company B	First 13 kilowatt-hours	[36] 9.0	7.3	7.3	7.3	7.3	7.3
	Next kilowatt-hours [38]	[37] 7.0	6.7	6.7	6.7	6.7	6.7
	Next 50 kilowatt-hours	[23] 4.0	2.9	2.9	2.9	2.9	2.9
Providence	All current	10.0	[39] 6.8	[39] 6.8	[39] 6.9	[39] 6.8	6.5
Richmond	First 100 kilowatt-hours	9.0	9.0	[29] 9.0	[29] 9.0	8.5	8.5
Rochester	All current	8.0	8.0	8.0	8.0	8.0	8.0
St. Louis:							
Company A	First 9 kilowatt-hours per active room	[18] 9.5	6.7	6.7	6.7	6.7	6.7
	Excess	5.7	2.4	2.4	2.4	2.4	2.4
Company B	First kilowatt-hour [40]	[41] 9.0	6.7	6.7	6.7	6.7	6.7
	Excess	5.7	2.4	2.4	2.4	2.4	2.4
St. Paul	First 3 kilowatt-hours per room	[42] 9.9	[42] 9.9	9.5	9.5	9.5	9.5
	Next 3 kilowatt-hours per room	-------	-------	7.1	7.1	7.1	7.1
	Excess	6.6	6.6	2.9	2.9	2.9	2.9
Salt Lake City	First 250 kilowatt-hours	9.0	8.1	8.1	8.1	8.1	8.1
San Francisco:							
Company A	First 50 kilowatt-hours	[6] 7.0	[11] 9.0	[11] 9.0	[11] 9.0	[11] 9.0	5.0
	Next 125 kilowatt hours	-------	[43] 6.0	[43] 6.0	[43] 6.0	[43] 6.0	2.5
Company B	First 10 kilowatt-hours	[6] 7.0	9.0	9.0	9.0	9.0	9.0
	Next 40 kilowatt-hours	-------	6.0	6.0	6.0	6.0	6.0
Savannah	First 100 kilowatt-hours	[11] 12.0	9.0	9.0	9.0	9.0	9.0
	Excess	6.0	-------	-------	-------	-------	-------
Scranton	First 150 kilowatt-hours	[5] 9.0	10.0	10.0	10.0	10.0	10.0

For footnotes see end of table.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN DECEMBER, 1913, DECEMBER, 1925, AND JUNE AND DECEMBER, 1926 AND 1927, FOR 51 CITIES—Continued

City	Measure of consumption, per month	December, 1913	December, 1925	June, 1926	December, 1926	June, 1927	December, 1927
		Cents	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Seattle:							
Company A	First 40 kilowatt-hours	[29] 6.0	5.5	5.5	5.5	5.5	5.5
	Next 200 kilowatt-hours	[23] 4.0	2.0	2.0	2.0	2.0	2.0
Company B	First 40 kilowatt-hours	[29] 6.0	5.5	5.5	5.5	5.5	5.5
	Next 200 kilowatt-hours	[23] 4.0	2.0	2.0	2.0	2.0	2.0
Springfield:							
Company A	First 30 kilowatt-hours	[8] 10.0	6.0	6.0	6.0	6.0	6.0
	Next 70 kilowatt-hours	[9] 7.0	3.0	3.0	3.0	3.0	3.0
Company B	First 30 kilowatt-hours	------	6.0	6.0	6.0	6.0	6.0
	Next 70 kilowatt-hours	------	3.0	3.0	3.0	3.0	3.0
Washington, D.C.[2]	First 120 hours' use of demand	10.0	7.5	7.0	7.0	6.3	6.3

[1] First 150 kilowatt hours.
[2] For determination of demand see explanation of prices.
[3] First 50 kilowatt-hours.
[4] The gross rate is 10 cents per kilowatt-hour with discounts of 10 per cent for a monthly consumption of 1 to 25 kilowatt-hours and 15 per cent for a monthly consumption of 25 to 150 kilowatt-hours. The average family used 25 or more kilowatt-hours per month.
[5] All current.
[6] First 100 kilowatt-hours.
[7] First 25 kilowatt-hours.
[8] First 30 hours' use of demand. For determination of demand see explanation of prices.
[9] Net 30 hours' use of demand. For determination of demand see explanation of prices.
[10] First 36 hours' use of demand. For determination of demand see explanation of prices.
[11] First 10 kilowatt-hours.
[12] Service charge 30 cents per month additional.
[13] First 2 kilowatt-hours per active room.
[14] First 200 kilowatt-hours.
[15] First 2 kilowatt-hours per 16 candlepower of installation.
[16] All current. This rate applies to a 5-year contract with a minimum charge of $1 per month. For a 1-year contract the rates per kilowatt-hour are 10 cents without a minimum charge, or 9⅜ cents with a minimum of $1 per month.
[17] Next 150 kilowatt-hours.
[18] First 3 kilowatt-hours per active room; minimum, 3 rooms.
[19] First 4 kilowatt-hours for each of the first 4 active rooms and the first 2½ kilowatt-hours for each additional active room.
[20] First 5 kilowatt-hours for each of the first 5 active rooms and the first 2½ kilowatt-hours for each additional active room.
[21] And the first 7 kilowatt-hours per month for each active room in addition to the first 6.
[22] Additional energy up to 100 kilowatt-hours.
[23] Excess.
[24] First 500 kilowatt-hours.
[25] Next 480 kilowatt-hours.
[26] Service charge, 25 cents per month additional.
[27] First 250 kilowatt-hours.
[28] Price includes a coal charge.
[29] First 60 kilowatt-hours.
[30] And 4 kilowatt-hours for each additional active room.
[31] 1 to 200 kilowatt-hours.
[32] Next 48 kilowatt-hours.
[33] The number of kilowatt-hours paid for at this rate is that in excess of the first 9 kilowatt-hours until 100 hours' use of the demand is reached. After 100 hours of demand have been consumed the lower rate can be applied. For determination of demand see explanation of prices.
[34] Next 70 kilowatt-hours.
[35] Next 100 kilowatt-hours.
[36] First 6 per cent of demand. For determination of demand see explanation of prices.
[37] Next 6 per cent of demand. For determination of demand see explanation of prices.
[38] For an installation of 600 watts or less 7 kilowatt-hours will apply. For each 30 watts of installation in excess of 600 watts 1 additional kilowatt-hour will apply.
[39] Service charge, 50 cents per month additional. Rate is 7 cents with reduction under a fuel clause.
[40] For a house of 4 rooms or less, 18 kilowatt-hours; for 5 or 6 rooms, 27 kilowatt-hours; and for 7 or 8 rooms, 36 kilowatt-hours.
[41] For a house of 6 rooms or less, 15 kilowatt-hours; for a house of 7 or 8 rooms, 20 kilowatt-hours.
[42] First 30 kilowatt-hours.
[43] Next 40 kilowatt-hours.

Index Numbers of Wholesale Prices in December, 1927

PRACTICALLY no change in the general level of wholesale prices from November to December is shown by information collected in representative markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's revised index number, computed on prices in the year 1926 as the base and including 550 commodities or price series, stands at 96.8 for December as compared with 96.7 for the month before, an increase of only one-tenth of 1 per cent. Compared with December, 1926, with an index number of 97.9, a decrease of $1\frac{1}{10}$ per cent is shown.

Farm products as a group remained at about the same price level as in November, grains advancing and beef steers, hogs, and lambs declining sharply. Cotton and potatoes also were cheaper, while poultry, eggs, and tobacco were higher.

Foods as a whole showed a slight decline, with butter above and pork products below November prices. Hides and leather products advanced sharply in price, while small increases are shown for metals and metal products, building materials, and miscellaneous commodities, slight decreases took place in the groups of textile products, fuel and lighting materials, and chemicals and drugs, with practically no change reported for house-furnishing goods.

Of the 550 commodities or price series for which comparable information for November and December was collected increases were shown in 147 instances and decreases in 139 instances. In 264 instances no change in price was reported.

Comparing prices in December with those of a year ago, as measured by changes in the index numbers, it is seen that farm products and hides and leather products were considerably higher, while textile products were slightly higher. Fuel and lighting materials, owing to large decreases in bituminous coal and coke and petroleum products, were 17 per cent cheaper than in December, 1926. Smaller decreases are shown for metals and metal products, building materials, chemicals and drugs, and miscellaneous commodities, while prices of foods and house-furnishing goods were at exactly the same level as in December of last year.

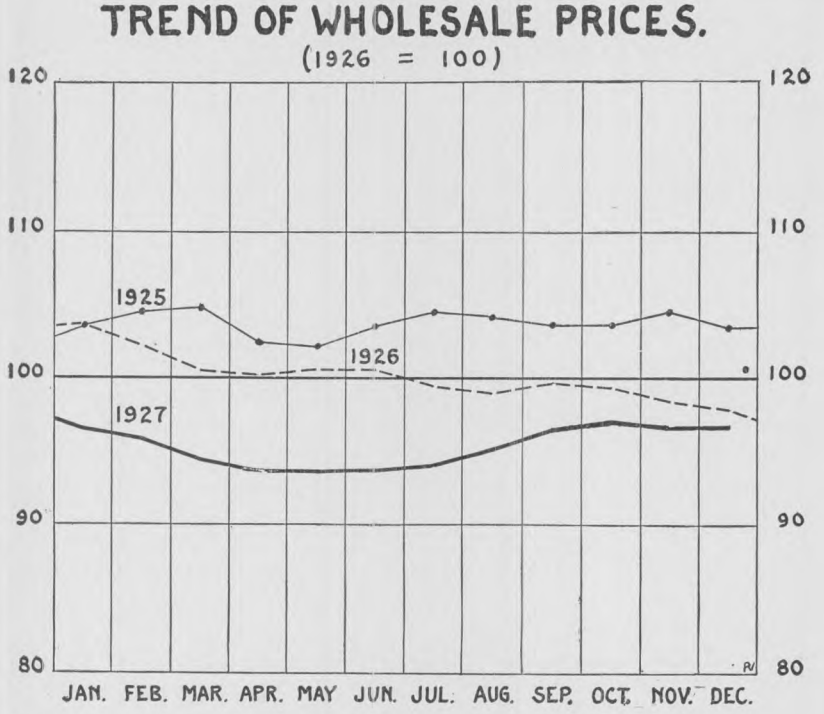
INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100]

Groups and subgroups	December, 1926	1927		
		November	December	Purchasing power of the 1926 dollar in December (cents)
Farm products	94.9	104.3	104.4	95.8
Grains	96.9	99.6	102.0	98.0
Livestock and poultry	93.5	100.8	97.9	102.1
Other farm products	95.2	108.3	109.7	91.2
Foods	100.7	101.5	100.7	99.3
Butter, cheese, and milk	107.4	108.3	110.0	90.9
Meats	98.4	100.9	99.6	100.4
Other foods	99.6	99.1	97.7	102.4
Hides and leather products	100.4	114.3	116.9	85.5
Hides and skins	103.3	131.6	136.4	73.3
Leather	99.4	117.1	122.4	81.7
Boots and shoes	99.8	106.3	107.1	93.4
Other leather products	100.0	109.2	109.4	91.4
Textile products	95.2	97.5	97.2	102.9
Cotton goods	93.3	104.6	103.3	96.8
Silk and rayon	92.4	83.6	83.2	120.2
Woolen and worsted goods	98.4	98.1	98.4	101.6
Other textile products	99.7	94.9	96.7	103.4
Fuel and lighting	99.4	82.9	82.5	121.2
Anthracite coal	98.8	96.9	96.8	103.3
Bituminous coal	107.9	97.8	97.4	102.7
Coke	103.3	92.7	91.9	108.8
Manufactured gas	98.1	97.2	96.2	104.0
Petroleum products	93.7	66.6	66.2	151.1
Metals and metal products	100.4	97.0	98.4	101.6
Iron and steel	100.0	93.5	93.7	106.7
Nonferrous metals	96.9	90.3	92.3	108.3
Agricultural implements	100.0	98.9	98.8	101.2
Automobiles	102.3	102.2	104.6	95.6
Other metal products	99.4	100.7	100.7	99.3
Building materials	99.2	90.2	90.4	110.6
Lumber	98.9	89.2	88.0	113.6
Brick	97.5	91.3	92.2	108.5
Cement	99.4	96.5	96.5	103.6
Structural steel	102.1	89.4	91.9	108.8
Paint materials	97.6	85.7	86.5	115.6
Other building materials	100.1	91.2	92.5	108.1
Chemicals and drugs	98.8	97.4	97.2	102.9
Chemicals	97.7	102.3	102.2	97.8
Drugs and pharmaceuticals	101.2	85.2	81.9	122.1
Fertilizer materials	99.3	94.9	95.0	105.3
Fertilizers	100.0	92.9	95.2	105.0
Housefurnishing goods	98.8	98.9	98.8	101.2
Furniture	99.5	97.2	97.1	103.0
Furnishings	98.3	100.0	99.8	100.2
Miscellaneous	89.9	88.3	89.0	112.4
Cattle feed	105.3	122.4	128.9	77.6
Paper and pulp	93.7	91.3	90.9	110.0
Rubber	78.1	77.8	84.2	118.8
Automobile tires	78.6	71.2	69.9	143.1
Other miscellaneous	99.7	99.1	98.6	101.4
All commodities	97.9	96.7	96.8	103.3

Average Wholesale Prices of Commodities, October to December, 1927, and Year, 1927

IN CONTINUATION of the plan of publishing each quarter in the Labor Review a detailed statement of wholesale price changes, there is presented herewith a list of the more important commodities included in the bureau's revised compilation, together with the



latest record of price changes available at the time of its preparation. For convenience of comparison, index numbers based on average prices in the year 1926 as 100 are shown in addition to the money prices wherever such information can be supplied. Index numbers for the several groups and subgroups also are included in the table. To show more minutely the fluctuation in prices, all index numbers are published to one decimal fraction. Figures are given for October, November, and December, 1927, and the year, 1927.

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
ALL COMMODITIES					**97.0**	**96.7**	**96.8**	**95.4**
GROUP I.—FARM PRODUCTS					**105.0**	**104.3**	**104.4**	**99.4**
Grains					**99.2**	**99.6**	**102.0**	**100.9**
Barley, feeding, per bushel, Chicago	$0.823	$0.842	$0.876	$0.825	118.5	121.3	126.3	118.8
Corn, per bushel, Chicago—								
Contract grades	.878	.868	.867	.882	115.7	114.4	114.3	116.2
No. 3, mixed	.862	.846	.852	.851	117.1	114.9	115.8	115.7
Oats, No. 2, white, per bushel, Chicago	.498	.512	.554	.497	115.8	119.1	128.8	115.5
Rye, No. 2, per bushel, Chicago	.999	1.056	1.088	1.046	104.8	110.7	114.0	109.6
Wheat, per bushel—								
No. 2, red winter, Chicago	1.344	1.354	1.384	1.378	87.1	87.8	89.8	89.3
No. 2, hard, Kansas City	1.339	1.349	1.363	1.372	89.5	90.1	91.1	91.7
No. 1, northern spring, Minneapolis	1.275	1.264	1.275	1.369	82.4	81.6	82.3	88.4
No. 2, dark northern spring, Minneapolis	1.343	1.341	1.375	1.405	86.3	86.2	88.4	90.3
No. 1, hard white, Portland, Oreg	1.273	1.300	1.370	1.377	88.6	90.6	95.4	95.9
No. 2, red winter, St. Louis	1.421	1.442	1.449	1.414	91.4	92.8	93.2	91.0
Livestock and poultry					**105.5**	**100.8**	**97.9**	**98.9**
Cattle, per 100 pounds, Chicago—								
Calves, good to choice, vealers	14.150	13.250	12.531	12.709	116.6	109.2	103.3	104.7
Cows—								
Fair to good	7.310	7.106	7.656	6.882	126.8	123.3	132.8	119.4
Good to choice	8.425	8.269	8.844	7.801	129.8	127.4	136.3	120.2
Steers—								
Fair to good	12.526	13.906	13.719	11.241	142.9	158.7	156.6	128.3
Good to choice	14.325	15.938	15.500	12.688	150.3	167.3	162.7	133.2
Hogs, per 100 pounds, Chicago—								
Fair to choice, heavy butchers	11.055	9.469	8.575	10.137	89.6	76.8	69.5	82.2
Fair to choice, light butchers	11.185	9.306	8.463	10.602	85.3	71.0	64.5	80.8
Sheep, per 100 pounds, Chicago—								
Ewes, native, all grades, fair to best	5.250	5.469	5.625	6.097	79.6	83.0	85.3	92.5
Lambs, western, fair to good	13.865	13.581	13.013	13.860	101.2	99.1	95.0	101.2
Wethers, fed, poor to best	7.000	7.000	7.125	7.721	85.6	85.6	87.1	94.4
Poultry, live fowls, per pound—								
Chicago	.186	.191	.204	.225	74.1	75.9	81.3	89.6
New York	.233	.225	.241	.268	78.1	75.6	81.0	89.9
Other farm products					**106.7**	**108.3**	**109.7**	**99.2**
Beans, medium, per 100 pounds, New York	6.519	6.395	6.406	6.102	119.8	117.5	117.7	112.1
Cotton, middling, per pound—								
Galveston	.209	.202	.193	.173	122.5	118.6	113.6	101.8
New Orleans	.208	.202	.192	.172	123.8	120.0	114.1	102.4
New York	.211	.203	.196	.176	120.3	115.9	111.6	100.2
Eggs, fresh, per dozen—								
Western, Boston	.393	.438	.442	.319	110.1	122.8	124.0	89.5
Firsts, Chicago	.369	.423	.426	.300	110.2	126.4	127.3	89.7
Extra firsts, Cincinnati	.465	.546	.515	.338	130.7	153.5	144.7	94.9
Candled, New Orleans	.298	.335	.374	.264	87.8	98.7	110.3	77.9
Firsts, New York	.395	.436	.453	.320	111.1	122.6	127.5	89.9
Extra firsts, Philadelphia	.485	.550	.500	.362	122.7	139.2	126.5	91.5
No. 1, extras, San Francisco	.346	.368	.329	.264	116.3	123.4	110.5	88.8
Fruit—								
Apples fresh—								
Baldwins, per barrel—								
Chicago	[1]	[1]	7.000	4.522	------	------	170.7	110.2
New York	3.719	6.050	6.625	4.408	92.2	150.0	164.3	109.3
Winesaps, medium grade, per box, Portland, Oreg	1.675	2.075	2.375	2.179	78.5	97.3	111.4	102.2

[1] No quotation.

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP I.—FARM PRODUCTS—Continued								
Other farm products—Con.								
Fruit—Continued.								
Lemons, choice or fancy, California, per box, Chicago	$11.969	$11.400	$9.125	$7.826	214.9	204.6	163.8	140.5
Oranges, choice, California, per box, Chicago	8.938	9.600	7.594	7.094	150.0	161.2	127.5	119.1
Hay, per ton—								
Alfalfa, Kansas City	18.800	18.625	20.050	18.594	89.4	88.5	95.3	88.4
Clover, mixed, No. 1, Cincinnati	15.875	14.600	15.500	17.899	71.5	65.7	69.8	80.6
Timothy, No. 1, Chicago	18.000	18.250	17.938	19.447	76.6	77.7	76.4	82.8
Hops, prime to choice, Pacific, per pound, Portland, Oreg	.251	.238	.214	.220	104.0	98.8	88.8	91.3
Milk, fluid, per 100 pounds—								
Chicago	2.994	2.994	2.994	2.975	101.9	101.9	101.9	101.2
New York	3.936	3.981	3.981	3.679	109.9	111.2	111.2	102.7
San Francisco	3.140	3.140	3.140	3.140	100.3	100.3	100.3	100.3
Peanuts, per pound, Norfolk	.063	.048	.061	.055	126.3	97.2	122.2	110.5
Seeds—								
Alfalfa, per 100 pounds, Kansas City	13.000	17.550	17.000	16.380	78.9	106.5	103.2	99.4
Clover, per 100 pounds, Chicago	26.360	28.292	28.933	31.440	82.8	88.9	90.9	98.8
Flaxseed, per bushel, Minneapolis	2.103	2.105	2.104	2.202	90.3	90.4	90.4	94.6
Timothy, per 100 pounds, Chicago	3.140	3.500	3.500	4.164	51.4	57.3	57.3	68.1
Tobacco, leaf, average warehouse sales, per 100 pounds, Kentucky	11.331	9.812	20.220	11.276	133.7	115.8	238.7	133.1
Vegetables, fresh—								
Onions, per 100 pounds, Chicago	1.906	1.575	1.875	3.020	77.9	64.4	76.6	123.4
Potatoes, white, per 100 pounds—								
Boston	1.906	2.050	1.945	2.347	54.1	58.2	55.2	66.6
Chicago	1.756	1.765	1.675	2.309	58.3	58.6	55.6	76.6
New York	2.240	2.156	2.052	2.673	59.3	57.1	54.3	70.8
Portland, Oreg	1.825	1.380	1.550	2.949	63.5	48.0	53.9	102.6
Potatoes, sweet, per 5/8-bushel, Philadelphia	.630	.744	.860	.879	41.2	48.6	56.2	57.4
Wool, per pound, Boston—								
Ohio, grease basis—								
Fine clothing	.390	.390	.390	.386	97.1	97.1	97.1	96.0
Fine delaine	.460	.470	.470	.455	98.6	100.7	100.7	97.5
Half blood	.460	.470	.470	.451	99.6	101.8	101.8	97.6
Medium grades	.470	.480	.480	.447	102.9	105.1	105.1	97.8
Territory, scoured—								
Staple, fine and fine medium	1.131	1.135	1.135	1.107	98.2	98.6	98.6	96.1
Half blood	1.033	1.040	1.039	1.015	98.7	99.3	99.2	97.0
Foreign—								
Argentine crossbreds, quarter blood, grease basis	.322	.325	.325	.300	113.6	114.7	114.7	105.7
Australian, Geelong 56's, scoured basis	.666	.690	.690	.674	98.2	101.7	101.7	99.4
Montevideo, one-fourth blood, 50's, grease basis	.394	.405	.417	.372	106.8	109.8	113.1	100.7
GROUP II.—FOODS					**100.0**	**101.5**	**100.7**	**96.5**
Butter, cheese, and milk					**107.2**	**108.3**	**110.0**	**104.0**
Butter, creamery, per pound—								
Boston—								
Extra	.474	.478	.498	.469	107.9	108.8	113.4	106.8
Firsts	.438	.444	.453	.446	104.0	105.3	107.4	105.7
Seconds	.401	.409	.416	.417	102.6	104.5	106.3	106.6
Chicago—								
Extra	.464	.483	.507	.458	108.1	112.5	118.2	106.9
Extra firsts	.442	.454	.479	.443	106.7	109.7	115.5	106.9
Firsts	.404	.413	.427	.415	103.5	105.8	109.4	106.5

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP II.—FOODS—Con.								
Butter, cheese, and milk—Con.								
Butter, creamery, per pound—Continued.								
Cincinnati, as to score	$0.413	$0.430	$0.455	$0.425	104.5	108.9	115.3	107.7
New Orleans—								
Fancy	.484	.482	.525	.493	101.7	101.3	110.3	103.5
Choice	.430	.448	.470	.457	93.8	97.8	102.6	99.7
New York—								
Extra	.484	.498	.519	.473	109.1	112.3	117.0	106.6
Firsts	.446	.452	.466	.446	106.4	107.7	111.2	106.3
Seconds	.406	.406	.411	.416	104.6	104.7	105.9	107.1
Philadelphia—								
Extra	.494	.506	.529	.480	108.6	111.4	116.4	105.6
Extra firsts	.475	.485	.504	.467	107.2	109.5	113.8	105.4
Firsts	.424	.424	.437	.431	104.2	104.2	107.5	105.9
St. Louis, extra	.480	.500	.523	.474	109.0	113.6	118.7	107.8
San Francisco—								
Extra	.485	.490	.486	.454	111.3	112.4	111.5	104.1
Firsts	.446	.453	.471	.436	106.8	108.3	112.7	104.3
Cheese, whole milk, per pound—								
Chicago	.268	.254	.267	.241	123.5	117.2	123.0	111.2
New York	.273	.275	.281	.249	120.3	121.1	123.6	109.4
San Francisco	.233	.250	.246	.225	101.6	109.3	107.5	98.3
Milk, condensed, per case, New York	6.000	6.020	6.000	5.870	102.4	102.8	102.4	100.2
Milk, evaporated, per case, New York	4.575	4.585	4.569	4.564	104.1	104.4	104.0	103.9
Milk, fluid. (See Farm product.)								
Meats					**100.0**	**100.9**	**99.6**	**92.7**
Beef, fresh, carcass, steers, per pound—								
Chicago	.210	.215	.223	.186	127.9	130.9	135.8	113.3
New York	.225	.234	.238	.201	131.8	137.0	139.4	117.5
Beef, cured, family, per barrel (200 pounds), New York	25.500	28.000	30.875	22.750	108.6	119.2	131.4	96.8
Lamb, fresh, per pound, Chicago	.245	.240	.234	.262	93.7	91.7	89.4	100.2
Mutton, fresh, dressed, per pound, New York	.115	.123	.130	.141	79.8	85.3	90.2	97.9
Pork, cured—								
Bacon, per pound, Chicago	.279	.285	.251	.272	91.7	93.8	82.6	89.6
Hams, per pound, Chicago	.233	.220	.214	.246	75.6	71.3	69.5	79.9
Mess, per barrel (200 pounds), New York	33.375	34.500	34.000	34.500	89.1	92.1	90.8	92.1
Sides, clear, per pound, Chicago	.184	.177	.169	.187	91.6	88.1	84.1	93.2
Sides, rough, per pound, Chicago	.164	.161	.156	.179	82.6	81.0	78.8	90.1
Pork, fresh, dressed hogs, per pound, Chicago	.213	.218	.210	.190	85.4	87.1	84.1	76.2
Poultry, per pound, dressed—								
Chicago	.224	.224	.211	.232	82.7	82.8	78.1	85.8
New York	.279	.264	.270	.286	88.8	84.1	86.0	91.0
Veal, fresh, good, per pound, Chicago	.225	.188	.182	.197	120.3	100.2	97.3	105.5
Other foods					**97.2**	**99.1**	**97.7**	**96.2**
Beans. (See farm products.)								
Bread, loaf (per pound before baking)—								
Chicago	.075	.075	.075	.075	100.0	100.0	100.0	100.0
Cincinnati	.070	.070	.070	.070	98.9	98.9	98.9	99.2
New Orleans	.070	.070	.070	.069	97.8	97.8	97.8	96.2
New York	.070	.070	.070	.070	100.0	100.0	100.0	100.0
San Francisco	.069	.069	.069	.069	89.8	89.8	89.8	89.8
Cocoa beans, Arriba, per pound, New York	.179	.185	.173	.196	99.2	102.3	95.7	108.8

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP II.—FOODS—Con.								
Other foods—Continued.								
Coffee, Brazilian grades, per pound, New York—								
Rio, No. 7	$0.147	$0.145	$0.142	$0.148	80.7	79.7	78.0	81.3
Santos, No. 4	.209	.222	.217	.187	93.6	99.3	97.1	83.9
Copra, South Sea, per pound, New York	.052	.053	.054	.052	90.3	91.0	92.8	89.7
Crackers, soda, per pound, New York	.140	.140	.140	.140	100.0	100.0	100.0	100.0
Eggs. (See Farm products.)								
Fish—								
Cod, pickled, cured, per 100 pounds, Gloucester, Mass	7.250	7.500	7.500	6.821	99.9	103.3	103.3	94.0
Herring, pickled, per pound, New York	.170	.175	.160	.158	128.7	132.5	121.1	119.2
Mackerel, salt, per pound, New York	.110	.120	.120	.107	110.0	120.0	120.0	106.7
Salmon, canned, Alaska, red, per dozen cans, factory	3.175	3.200	3.200	2.868	95.5	96.2	96.2	86.2
Salmon, smoked, Alaska, per pound, New York	.400	.420	.420	.432	104.4	109.6	109.6	112.6
Flour, rye, white, per barrel, Minneapolis	5.244	5.550	5.700	5.666	93.6	99.1	101.8	101.2
Flour, wheat, per barrel—								
Standard patents, hard, winter, Buffalo	7.270	7.294	7.213	7.724	83.7	83.9	83.0	88.9
First clears, Buffalo	6.575	6.606	6.625	7.011	78.5	78.9	79.1	83.7
Short patents, winter, Kansas City	7.225	7.188	7.250	7.388	89.9	89.4	90.2	91.9
Straights, winter, Kansas City	6.535	6.575	6.563	6.686	90.1	90.7	90.5	92.2
Standard patents, Minneapolis	7.231	7.145	7.100	7.433	85.8	84.8	84.3	88.2
Second patents, Minneapolis	6.950	6.840	6.856	7.157	85.3	83.9	84.1	87.8
Patents, Portland, Oreg	7.042	6.913	7.371	7.475	88.2	86.6	92.3	93.6
Short patents, soft, winter, St. Louis	6.570	6.631	6.800	6.814	83.9	84.7	86.8	87.0
Straights, soft, winter, St. Louis	5.690	5.963	5.938	5.991	80.1	83.9	83.5	84.3
Standard patents, soft, winter, Toledo	6.320	6.356	6.344	6.481	82.9	83.4	83.2	85.0
Fruit, canned, per dozen, New York—								
Peaches, 2½'s	1.775	1.775	1.775	1.888	91.0	91.0	91.0	96.8
Pineapples, 2½'s	2.250	2.250	2.250	2.223	104.7	104.7	104.7	103.4
Fruit, dried, per pound, New York—								
Apples, evaporated	.131	.148	.164	.116	111.2	125.6	138.7	98.4
Currants, cleaned	.115	.128	.135	.114	127.6	142.1	149.8	126.2
Prunes, California, 60–70	.061	.059	.058	.067	78.3	75.6	73.7	85.5
Raisins, coast, seeded	.069	.069	.069	.074	75.1	75.1	75.1	80.5
Fruit, fresh—								
Apples. (See Farm products.)								
Bananas, Jamaicas, per bunch, New York	2.500	2.500	2.500	2.202	102.0	102.0	102.0	89.8
Lemons. (See Farm products.)								
Oranges. (See Farm products.)								
Glucose, 42° mixing, per 100 pounds, New York	3.160	3.160	3.160	3.261	91.9	91.9	91.9	94.8
Hominy grits, white, per 100 pounds, mill	1.653	1.555	1.628	1.731	106.1	99.8	104.5	111.1
Lard, prime, contract, per pound, New York	.130	.125	.120	.129	86.7	83.5	80.1	85.6
Meal, corn, per 100 pounds—								
White, mill	1.653	1.555	1.628	1.731	106.1	99.8	104.5	111.1
Yellow, fancy, Philadelphia	2.838	2.750	2.550	2.764	106.5	103.3	95.7	103.8
Molasses, New Orleans, fancy, per gallon, New York	.650	.650	.650	.650	123.1	123.1	123.1	123.1

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP II.—FOODS—Con.								
Other foods—Continued.								
Oatmeal, in 90-pound sacks, per 100 pounds, New York	$3.403	$3.494	$3.722	$3.504	110.7	113.7	121.1	114.0
Oleomargarine, standard, uncolored, per pound, Chicago	.245	.235	.235	.223	107.4	103.0	103.0	97.8
Oleo oil, extra, per pound, Chicago	.158	.170	.178	.134	130.8	141.4	147.4	111.3
Pepper, black, per pound, New York	.368	.379	.366	.318	143.6	147.9	143.1	124.4
Rice, head, clean, per pound, New Orleans—								
Blue Rose, medium to good	.039	.038	.037	.041	63.2	61.4	60.4	66.9
Honduras, medium to choice	.051	.051	.051	.059	70.0	69.7	69.3	80.2
Salt, Chicago—								
American, medium, per barrel (280 pounds)	2.195	2.195	2.195	2.195	100.0	100.0	100.0	100.0
Granulated, per ton	6.600	6.600	6.600	6.754	87.9	87.9	87.9	89.9
Sugar, per pound, New York—								
Granulated	.057	.056	.056	.058	104.2	102.0	101.3	106.2
Raw, 96°	.047	.047	.046	.047	107.8	107.1	105.5	109.0
Tallow, edible, per pound, Chicago	.106	.102	.094	.089	110.7	106.8	98.3	92.8
Tea, Formosa, fine, per pound, New York	.345	.329	.325	.342	97.3	92.8	91.7	96.4
Vegetables, canned, per dozen—								
String beans, New York	1.025	1.025	1.025	1.097	114.3	114.8	114.8	122.8
Corn, factory	1.013	1.075	1.075	.991	112.4	119.4	119.4	110.1
Peas, New York	1.075	1.225	1.225	1.208	81.7	93.1	93.1	91.8
Tomatoes, New York	1.400	1.400	1.400	1.492	97.7	97.7	97.7	104.1
Vegetables, fresh—								
Onions. (See Farm products.)								
Potatoes. (See Farm products.)								
Vegetable oil—								
Coconut, per pound, New York	.098	.098	.098	.097	92.4	92.2	91.9	91.0
Corn, per pound, New York	.118	.120	.120	.108	97.6	99.7	99.7	90.0
Cottonseed, per pound, New York	.109	.106	.100	.097	92.4	89.3	84.1	81.8
Olive, per gallon, New York	2.150	2.040	1.900	2.125	112.5	106.8	99.4	111.2
Peanut, per pound, mill	.114	.105	.096	.113	101.2	93.3	85.3	100.5
Soya bean, per pound, New York	.120	.122	.123	.120	95.2	96.4	97.2	95.6
Vinegar, cider, per gallon, New York	.215	.215	.220	.193	115.7	115.7	118.4	103.8
GROUP III.—HIDES AND LEATHER PRODUCTS					**113.0**	**114.3**	**116.9**	**107.9**
Hides and skins					**128.0**	**131.6**	**136.4**	**120.4**
Hides, per pound, Chicago—								
Country cows	.174	.181	.191	.150	180.7	187.1	198.2	155.1
Packers'—								
Heavy, native steers	.233	.242	.250	.195	165.7	172.1	178.2	139.0
Heavy, Texas steers	.218	.231	.242	.184	162.9	172.7	181.2	137.7
Skins, per pound—								
Calf, No. 1, country, Chicago	.218	.228	.250	.197	125.4	131.5	144.2	113.6
Goat, Brazil, first selection, New York	.775	.756	.754	.751	105.8	103.2	102.9	102.6
Kip, No. 1, country, Chicago	.220	.220	.225	.191	141.8	141.8	145.0	122.9
Sheep, packers', per pelt, Chicago	1.375	1.375	1.375	1.976	63.4	63.4	63.4	91.1
Leather					**116.5**	**117.1**	**122.4**	**109.2**
Chrome calf, B grade, per square foot, Boston	.510	.510	.535	.489	112.5	112.5	118.0	107.8
Galzed kid, top grade, per square foot, Boston	.675	.675	.700	.677	100.0	100.0	103.7	103.3
Harness, California oak, per pound, general market	.495	.505	.527	.468	113.3	115.6	120.7	107.0

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP III.—HIDES AND LEATHER PRODUCTS—Con.								
Leather—Continued.								
Side, black, chrome, tanned, B grade, per square foot, Boston	$0.370	$0.370	$0.390	$0.320	146.1	146.1	154.0	126.3
Sole, oak, per pound, Boston—								
In sides	.425	.425	.440	.384	120.3	120.3	124.5	108.7
Scoured backs	.550	.550	.590	.493	125.5	125.5	134.6	112.5
Sole, union backs, steers, per pound, New York	.540	.556	.575	.488	126.0	129.8	134.2	113.8
Boots and shoes, factory					**105.6**	**106.3**	**107.1**	**102.5**
Children's, per pair—								
Child's, gun metal	1.615	1.615	1.615	1.425	121.4	121.4	121.4	107.1
Little boy's, tan calf, blucher	1.663	1.663	1.663	1.536	112.9	112.9	112.9	104.3
Misses', gun metal	1.900	1.900	1.900	1.678	121.2	121.2	121.2	107.1
Youths', tan calf, blucher	1.853	1.853	1.853	1.726	111.4	111.4	111.4	103.8
Men's, per pair—								
Black, calf, bal	5.000	5.000	5.000	4.929	101.6	101.6	101.6	100.1
Black, calf, blucher	6.500	6.500	6.500	6.433	101.6	101.6	101.6	100.5
Black, dress, welt, side leather	3.400	3.400	3.400	3.268	106.3	106.3	106.3	102.2
Black, vici kid	6.250	6.250	6.250	6.081	104.2	104.2	104.2	101.3
Chocolate, elk, blucher	2.028	2.070	2.115	1.897	117.7	120.1	122.7	110.1
Dress, medium grade	3.550	3.550	3.750	3.475	106.0	106.0	111.9	103.7
Gun metal, blucher	4.750	4.750	4.750	4.675	103.3	103.3	103.3	101.6
Mahogany, chrome, bal	3.650	3.650	3.650	3.625	101.4	101.4	101.4	100.7
Tan, dress, welt, calf	5.000	5.000	5.000	4.929	101.6	101.6	101.6	100.1
Tan, dress, welt, side leather	3.600	3.600	3.600	3.464	106.7	106.7	106.7	102.6
Work, medium grade	2.250	2.350	2.450	2.183	109.8	114.6	119.5	106.5
Women's, per pair—								
Black, kid, dress	4.000	4.000	4.000	4.000	98.2	98.2	98.2	98.2
Black, kid, McKay sewed	3.650	3.650	3.650	3.625	101.4	101.4	101.4	100.7
Medium grade	2.200	2.300	2.129	2.192	110.0	115.0	117.5	106.5
Better grade	3.050	3.050	3.150	2.967	107.0	107.0	110.5	104.1
Colored calf	4.250	4.250	4.250	4.200	102.4	102.4	102.4	101.2
Patent-leather pump	3.750	3.750	3.750	3.675	104.2	104.2	104.2	102.1
Other leather products					**108.9**	**109.2**	**109.4**	**104.1**
Gloves, per dozen pairs, factory—								
Men's	33.840	33.840	33.840	33.840	100.0	100.0	100.0	100.0
Women's	22.560	22.560	22.560	22.560	106.7	106.7	106.7	106.7
Harness (composite price), per set	50.008	50.342	50.627	47.157	111.2	111.9	112.6	104.9
Suit cases (composite price), each	9.543	9.543	9.543	8.561	120.8	120.8	120.8	108.3
Traveling bags (composite price), each	6.894	6.843	6.843	6.679	105.8	105.1	105.1	102.5
GROUP IV.—TEXTILE PRODUCTS					**98.4**	**97.5**	**97.2**	**95.7**
Cotton goods					**106.0**	**104.6**	**103.3**	**97.9**
Blankets, colored, per pair, Boston	1.150	1.150	1.150	1.065	93.1	93.1	93.1	86.3
Denims, Massachusetts, 28-inch, per yard, mill	.201	.201	.196	.170	118.8	118.8	115.9	100.5
Drillings, brown, per yard, mill—								
Massachusetts, 30-inch	.142	.139	.129	.124	107.8	105.3	97.6	93.9
Pepperell, 29-inch	.145	.139	.132	.120	114.0	109.0	103.9	94.4
Duck, per yard, mill—								
8-ounce, army	.229	.219	.207	.192	116.1	111.0	105.1	97.5
Wide, 36-inch	.447	.417	.399	.395	107.0	99.9	95.6	94.4
Flannel, per yard, mill—								
Colored, 27-inch	.123	.123	.123	.112	97.3	97.3	97.3	89.0
Unbleached, 33-inch	.220	.220	.217	.178	125.1	125.1	123.5	101.1
Gingham, per yard, mill—								
Amoskeag, 27-inch	.105	.105	.105	.095	116.7	116.7	116.7	105.7
Security, 32-inch	.140	.140	.140	.128	114.6	114.6	114.6	104.2
Hosiery, per dozen pairs, mill—								
Men's, combed yarn	1.600	1.600	1.600	1.592	98.5	98.5	98.5	98.0
Women's, mercerized	2.275	2.275	2.275	2.275	97.7	97.7	97.7	97.7

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP IV.—TEXTILE PRODUCTS—Continued								
Cotton goods—Continued.								
Muslin, bleached, per yard, mill—								
Fruit of the Loom	$0.166	$0.166	$0.166	$0.161	99.5	99.5	99.5	96.3
Lonsdale	.147	.147	.140	.140	97.5	97.5	92.8	92.9
Rough Rider	.158	.155	.153	.151	110.3	108.3	106.9	105.6
Nainsook, Wamsutta	.252	.252	.252	.232	110.6	110.6	110.6	101.7
Percale, Scouts, 38½-inch, per yard, mill	.145	.145	.145	.133	111.9	111.9	111.9	103.0
Print cloth, per yard, mill—								
27-inch	.063	.060	.057	.055	120.7	115.5	109.8	105.4
38½-inch	.087	.083	.080	.076	114.9	109.4	105.4	101.1
Sheeting, bleached, per yard, mill—								
10/4, Pepperell	.404	.418	.411	.385	97.0	100.5	98.8	92.6
10/4, Wamsutta	1.140	1.140	1.140	1.140	100.0	100.0	100.0	100.0
Sheeting, brown, per yard, mill—								
Indian Head, 36-inch	.145	.145	.142	.120	118.4	118.4	116.2	97.8
4/4, Pepperell	.140	.135	.135	.121	114.2	110.1	110.1	98.3
4/4, Trion	.111	.110	.105	.093	119.8	118.7	113.1	99.6
Thread, 6-cord, 100 yards, per spool, mill	.036	.036	.036	.036	100.0	100.0	100.0	100.0
Ticking, Amoskeag, 32-inch, per yard, mill	.250	.250	.245	.219	122.2	122.2	119.7	106.8
Underwear, mill—								
Men's shirts and drawers, per dozen garments	6.709	6.683	6.683	6.234	98.1	97.7	97.7	91.2
Women's union suits, per dozen	9.500	9.500	9.500	8.864	96.2	96.2	96.2	89.8
Yarn, per pound, mill—								
Carded, white, northern, 10/1, cones	.353	.333	.324	.306	109.0	102.8	99.9	94.4
Carded, white, northern, 22/1, cones	.402	.383	.371	.351	112.1	106.8	103.5	98.0
Carded, single warp, 40/1's, southern spinning	.546	.530	.522	.491	107.4	104.3	102.7	96.6
Twisted, 20/2, carded, weaving	.369	.355	.350	.319	114.0	109.5	108.2	98.4
Twisted, 40/2, carded, weaving	.495	.476	.467	.453	104.9	100.8	98.9	96.0
Silk and rayon					85.4	83.6	83.2	88.1
Rayon, per pound, New York—								
150 A denier	1.500	1.500	1.500	1.489	82.9	82.9	82.9	82.3
150 B denier	1.450	1.450	1.450	1.439	85.7	85.7	85.7	85.0
300 A denier	1.300	1.300	1.300	1.289	81.1	81.1	81.1	80.4
300 B denier	1.280	1.280	1.280	1.265	84.9	84.9	84.9	83.9
Silk, raw, per pound, New York—								
China, steam filature, third category	5.196	4.987	4.841	5.559	81.9	78.6	76.3	87.6
Canton, double extra A-crack	3.965	3.866	3.876	4.007	85.2	83.1	83.3	86.1
Japan, double extra cracks	5.110	4.925	4.940	5.358	84.5	81.5	81.7	88.6
Japan, 13–15	5.145	4.802	4.998	5.443	83.1	77.5	80.7	87.9
Silk, spun, per pound, New York—								
Domestic, 60/1	3.724	3.675	3.626	4.022	79.4	78.3	77.3	85.7
Domestic, 60/2	4.704	4.655	4.606	4.954	78.8	78.0	77.2	83.0
Imported, 200/2, first quality	4.508	4.508	4.508	4.817	77.9	77.9	77.9	83.3
Hosiery, per dozen pairs, mill—								
Women's, pure silk	10.780	10.780	10.516	11.003	88.6	88.6	86.4	90.4
Women's, artificial silk	2.450	2.450	2.450	2.496	87.8	87.8	87.8	89.4
Men's, silk, mercerized top, heel, and toe	4.250	4.250	4.250	4.250	88.6	88.6	88.6	88.6
Woolen and worsted goods					98.0	98.1	98.4	97.6
Blankets, all wool, 4 to 5 pounds, per pound, mill	1.313	1.313	1.313	1.313	97.3	97.3	97.3	97.3
Flannel, No. 6400, 54-inch, per yard, mill	1.715	1.715	1.715	1.715	102.2	102.2	102.2	102.2

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP IV.—TEXTILE PRODUCTS—Continued								
Woolen and worsted goods—Continued.								
Overcoating, per yard, mill—								
Heavy	$3.000	$3.000	$3.000	$3.063	98.6	98.6	98.6	100.7
Light	4.350	4.350	4.350	4.400	95.8	95.8	95.8	96.9
Suiting, per yard, mill—								
Serge, 116 M. B	3.848	3.848	3.938	3.855	100.8	100.8	103.1	101.0
Serge, 11-ounce, 56–58 inch	2.048	2.048	2.084	2.051	94.5	94.5	96.1	94.6
Uniform serge, fine grade, 12-ounce	2.678	2.678	2.686	2.675	97.3	97.3	97.6	97.2
Uniform serge, medium grade, 12-ounce	1.935	1.935	1.945	1.933	96.9	96.9	97.4	96.8
Unfinished worsted, 13-ounce	1.913	1.913	1.917	1.911	95.4	95.4	95.6	95.4
Trousering, 2,900 range, cotton warp, 11-ounce, per yard, mill	1.500	1.500	1.500	1.500	98.2	98.2	98.2	98.2
Underwear, men's, mill—								
Shirts and drawers, per dozen garments	28.000	28.000	28.000	28.000	93.3	93.3	93.3	93.3
Union suits, per dozen	27.440	27.440	27.440	27.603	90.3	90.3	90.3	90.9
Women's dress goods, per yard, mill—								
Broadcloth, 9½-ounce	2.325	2.441	2.441	2.292	98.5	103.5	103.5	97.1
Flannel, 12-ounce	1.900	1.900	1.900	1.896	97.7	97.7	97.7	97.5
Flannel, WFD, 54-inch	1.375	1.375	1.375	1.349	94.8	94.8	94.8	92.9
French serge, 39-inch	1.000	1.000	1.000	.987	96.7	96.7	96.7	95.4
Serge, 36-inch, cotton warp	.510	.510	.510	.508	111.3	111.3	111.3	110.9
Sicilian cloth, 54-inch, cotton warp	.800	.800	.800	.783	101.0	101.0	101.0	98.9
Yarns, per pound, mill—								
2/32's, crossbred stock, white	1.400	1.400	1.400	1.367	97.5	97.5	97.5	95.2
2/40's, half-blood, weaving	1.795	1.775	1.775	1.806	96.8	95.8	95.8	97.4
2/50's, fine, weaving	2.035	2.025	2.025	2.089	96.6	96.1	96.1	99.2
Other textile products					**95.7**	**94.9**	**96.7**	**95.4**
Binder twine, standard, per bale (50 pounds), mill	6.056	6.056	6.056	6.136	92.7	92.7	92.7	93.9
Burlap, 10½-ounce, 40-inch, per yard, mill	.104	.104	.114	.098	113.0	113.5	124.1	106.3
Hemp, manila, per pound, New York	.144	.133	.130	.142	97.3	89.7	88.2	95.8
Jute, raw, medium grades, per pound, New York	.073	.065	.070	.071	80.9	72.5	78.1	78.8
Linen, shoe thread, 10's, Barbour, per pound, New York	1.946	1.946	1.946	1.946	100.0	100.0	100.0	100.0
Rope, pure manila, ⅝-inch and larger, per pound, New York	.240	.240	.240	.244	95.5	95.5	95.5	97.1
Sisal, Mexican, per pound, York	.076	.072	.071	.076	83.4	79.4	78.7	83.8
GROUP V.—FUEL AND LIGHTING					**83.8**	**82.9**	**82.5**	**86.5**
Anthracite coal, per gross ton (composite price)					**96.9**	**96.9**	**96.8**	**96.3**
Chestnut	13.389	13.389	13.389	13.298	97.2	97.2	97.2	96.6
Egg	12.950	12.944	12.943	12.840	97.4	97.4	97.4	96.6
Pea	10.764	10.754	10.733	10.720	101.1	101.0	100.8	100.6
Bituminous coal, per net ton (composite price)					**99.6**	**97.8**	**97.4**	**100.4**
Mine run	4.199	4.160	4.144	4.264	97.3	96.4	96.0	98.8
Prepared sizes	4.932	4.800	4.759	4.820	102.9	100.1	99.3	100.5
Screenings	3.376	3.280	3.314	3.636	98.7	95.8	96.9	106.3
Coke, per net ton					**93.9**	**92.7**	**91.9**	**94.4**
Beehive—								
Alabama, foundry, oven	6.000	5.700	5.500	5.894	108.0	102.6	99.0	106.1
Connellsville, furnace, oven	2.906	2.825	2.788	3.199	70.8	68.8	67.9	77.9
By-product—								
Alabama, Birmingham	5.750	5.450	5.125	5.582	100.4	95.1	89.5	97.4
New Jersey, Newark	10.180	10.162	10.180	10.198	95.8	95.7	95.8	96.0

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP V.—FUEL AND LIGHTING—Continued								
Manufactured gas (composite price), per 1,000 cubic feet	**$1.009**	**$1.006**	**$0.995**	**$1.013**	**97.5**	**97.2**	**96.2**	**97.9**
Petroleum products					**67.5**	**66.6**	**66.2**	**72.7**
Petroleum, crude, per barrel, wells—								
California	.850	.850	0.850	0.916	77.9	77.9	77.9	83.9
Kansas-Oklahoma	1.240	1.230	1.220	1.285	65.8	65.3	64.8	68.2
Pennsylvania	2.650	2.650	2.775	2.907	75.7	75.7	79.3	83.0
Fuel oil, refinery—								
Oklahoma, per barrel	.865	.838	.800	.978	66.8	64.7	61.8	75.6
Pennsylvania, per gallon	.047	.045	.045	.051	73.0	70.7	70.2	79.9
Gasoline, per gallon, refinery—								
California	.071	.070	.070	.078	62.7	61.8	61.8	68.6
Oklahoma	.060	.060	.060	.068	58.3	58.0	57.7	65.2
Pennsylvania	.081	.080	.082	.092	63.0	62.9	64.4	71.8
North Texas	.061	.060	.060	.067	59.3	58.5	58.2	65.3
Natural, Oklahoma	.057	.054	.044	.053	63.8	60.5	49.3	58.8
Kerosene, refined, per gallon—								
Standard, New York	.073	.070	.070	.071	84.5	81.6	81.6	82.5
Water white, refinery	.073	.073	.072	.076	69.7	69.7	69.1	73.3
GROUP VI.—METALS AND METAL PRODUCTS					**97.1**	**97.0**	**98.4**	**98.2**
Iron and steel					**94.0**	**93.5**	**93.7**	**95.9**
Iron ore, Mesabi, per gross ton, lower lake ports—								
Bessemer	4.400	4.400	4.400	4.400	100.0	100.0	100.0	100.0
Non-Bessemer	4.250	4.250	4.250	4.250	100.0	100.0	100.0	100.0
Pig iron, per gross ton—								
Basic, furnace	17.000	17.000	17.000	17.697	91.7	91.7	91.7	95.4
Bessemer, Pittsburgh	19.760	19.760	19.385	20.437	92.7	92.7	90.9	95.9
Foundry, No. 2, northern, Pittsburgh	19.260	19.210	19.010	19.755	93.4	93.2	92.2	95.8
Foundry, No. 2, southern, Birmingham	17.250	16.000	16.000	17.462	81.5	75.6	75.6	82.5
Ferromanganese, furnace	90.000	90.000	100.000	94.423	94.9	94.9	105.5	99.6
Speigeleisen, furnace	31.250	30.400	30.000	34.404	92.5	90.0	88.8	101.9
Bar iron, per pound—								
Best refined, Philadelphia	.027	.026	.026	.028	90.1	86.7	86.7	94.9
Common, refined, Pittsburgh	.028	.028	.028	.028	91.7	91.7	91.7	93.0
Bars, concrete reinforcing, ¾-inch and larger, per 100 pounds, mill	1.800	1.800	1.800	1.867	90.4	90.4	90.4	93.7
Nails, wire, per 100 pounds, Pittsburgh	2.638	2.600	2.600	2.638	95.9	94.5	94.5	95.9
Pipe, cast-iron, 6-inch, per net ton, New York	37.000	36.750	37.500	43.315	72.1	71.6	73.0	84.4
Pipe, black steel, per 100 feet, Pittsburgh	4.261	4.261	4.261	4.261	100.0	100.0	100.0	100.0
Skelp, grooved, per 100 pounds, Pittsburgh	1.750	1.770	1.800	1.830	92.1	93.2	94.7	96.3
Steel billets, open-hearth, per gross ton, Pittsburgh	33.000	33.000	33.000	33.269	94.3	94.3	94.3	95.1
Steel merchant bars, per 100 pounds, Pittsburgh	1.750	1.770	1.800	1.835	87.7	88.7	90.2	91.9
Steel plates, tank, per pound, Pittsburgh	.018	.018	.018	.018	93.1	94.1	95.7	96.8
Steel rails, open-hearth, per gross ton, mill	43.000	43.000	43.000	43.000	100.0	100.0	100.0	100.0
Steel scrap, per gross ton, Chicago	11.688	11.500	12.063	12.365	86.7	85.3	89.5	91.7
Steel sheets, No. 27, box annealed, per pound, mill	.031	.030	.030	.031	96.5	93.7	93.4	96.2
Steel, structural, per 100 pounds, mill	1.800	1.750	1.800	1.854	91.9	89.4	91.9	94.7
Terne plate, No. 8, I. C. package, per 200 pounds, mill	11.400	11.400	11.400	11.556	97.4	97.4	97.4	98.8

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP VI.—METALS AND METAL PRODUCTS—Con.								
Iron and steel—Continued.								
Tin plate, domestic, standard, coke, per 100 pounds, Pittsburgh	$5.500	$5.500	$5.250	$5.481	100.0	100.0	95.5	99.7
Wire, fence—								
Barbed, galvanized, per 100 pounds, mill	3.300	3.250	3.250	3.290	97.1	95.6	95.6	96.8
Galvanized, No. 9, per 100 pounds, Pittsburgh	3.000	3.000	3.000	3.013	96.8	96.8	96.8	97.2
Plain, annealed, per 100 pounds, Pittsburgh	2.550	2.550	2.550	2.555	96.2	96.2	96.2	96.4
Woven, per 100 rods, Pittsburgh	20.030	20.030	20.030	20.030	100.0	100.0	100.0	100.0
Nonferrous metals					**89.9**	**90.3**	**92.3**	**91.8**
Aluminum, per pound, New York	.253	.248	.245	.254	93.7	92.0	91.0	94.2
Antimony, per pound, New York	.110	.109	.112	.125	69.2	68.1	70.2	78.4
Brass, sheets, per pound, mill	.183	.183	.187	.182	96.0	96.4	98.5	95.4
Copper, ingot, electrolytic, per pound, refinery	.130	.133	.138	.130	94.1	96.4	99.9	93.9
Copper, sheet, hot rolled, per pound, New York	.210	.212	.215	.208	97.2	97.9	99.5	96.3
Copper wire, bare, per pound, mill	.153	.153	.159	.152	94.2	94.3	98.0	93.6
Lead, pig, desilverized, per pound, New York	.063	.063	.068	.068	74.1	74.5	77.2	80.2
Lead pipe, per 100 pounds, New York	7.628	7.600	7.840	8.216	76.9	76.6	79.1	82.9
Nickel, ingot, per pound, New York	.350	.350	.350	.350	100.0	100.0	100.0	100.0
Quicksilver, per 76-pound flask, New York	125.700	128.125	125.329	117.099	136.7	139.3	136.3	127.3
Silver, bar, fine, per ounce, New York	.564	.578	.583	.567	90.3	92.6	93.3	90.8
Tin, pig, straits, per pound, New York	.588	.577	.585	.644	90.0	88.3	89.5	98.5
Zinc, sheet, per 100 pounds, La Salle, Ill	9.023	9.023	9.023	9.241	85.2	85.2	85.2	87.3
Zinc, pig, slab, per pound, New York	.064	.061	.061	.066	82.6	79.4	78.9	85.6
Agricultural implements, factory					**98.9**	**98.9**	**98.8**	**99.2**
Binder, grain, each	156.750	156.750	156.750	156.750	100.0	100.0	100.0	100.0
Cultivator, each	41.320	41.320	41.320	42.030	93.5	93.5	93.5	95.2
Drill, grain, each	90.720	90.720	90.720	90.720	99.0	99.0	99.0	99.0
Engine, 3-horsepower, each	76.000	76.000	76.000	76.000	100.0	100.0	100.0	100.0
Harrow, each—								
Spike, peg tooth	15.670	15.670	15.670	15.670	93.7	93.7	93.7	93.7
Spring tooth	18.050	18.050	18.050	19.120	81.9	81.9	81.9	86.8
Loader, hay, each	84.310	84.310	84.310	84.310	98.9	98.9	98.9	98.9
Mower, hay, each	59.140	59.140	59.140	59.140	100.0	100.0	100.0	100.0
Picker, corn, each	310.000	310.000	310.000	318.750	95.4	95.4	95.4	98.1
Planter, corn, each	57.710	57.710	57.710	57.710	100.0	100.0	100.0	100.0
Plow, tractor, each	104.500	104.500	104.500	104.500	100.0	100.0	100.0	100.0
Plow, walking—								
1-horse (composite price), each	7.200	7.200	7.200	7.265	99.1	99.1	99.1	99.8
2-horse (composite price), each	15.300	15.300	15.300	15.850	95.0	95.0	95.0	98.5
Rake, each—								
Self-dump	30.400	30.400	30.400	30.400	94.8	94.8	94.8	94.8
Side delivery	77.420	77.420	77.420	71.420	98.8	98.8	98.8	98.8
Separator, cream, each	61.270	61.270	61.040	61.250	103.2	103.2	102.8	103.2
Sheller, corn, each	26.600	26.600	26.600	26.600	100.0	100.0	100.0	100.0
Spreader, manure, each	114.000	114.000	114.000	114.000	100.0	100.0	100.0	100.0
Tractor, each	680.000	680.000	680.000	680.000	100.0	100.0	100.0	100.0
Wagon, 2-horse, each	103.070	103.070	103.070	103.070	100.0	100.0	100.0	100.0

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP VI.—METALS AND METAL PRODUCTS—Con.								
Automobiles (composite price), each, f. o. b. factory					**102.2**	**102.2**	**104.6**	**102.5**
Buick	$1,490.000	$1,490.000	$1,490.000	$1,492.000	101.5	101.5	101.5	101.6
Cadillac	3,837.000	3,837.000	3,837.000	3,671.000	102.8	102.8	102.8	98.4
Chevrolet	611.000	611.000	611.000	613.000	99.5	99.5	99.5	99.8
Dodge	878.000	878.000	878.000	884.000	99.3	99.3	99.3	100.0
Ford	453.000	453.000	482.000	456.000	109.8	109.8	116.7	110.5
Packard	3,263.000	3,263.000	3,263.000	3,403.000	90.7	90.7	90.7	94.5
Other metal products					**100.7**	**100.7**	**100.7**	**100.2**
Sewing machines (composite price), each—								
Electric	82.250	82.250	82.250	80.250	106.1	106.1	106.1	103.5
Treadle	51.000	51.000	51.000	50.150	103.8	103.8	103.8	102.1
Stoves, cooking (composite price), each—								
Coal	61.600	61.600	61.600	61.600	98.0	98.0	98.0	98.0
Gas	63.400	63.400	63.400	63.400	100.8	100.8	100.8	100.8
Oil	61.550	61.550	61.550	61.550	98.9	98.9	98.9	98.9
GROUP VII.—BUILDING MATERIALS					**91.6**	**90.2**	**90.4**	**93.3**
Lumber					**91.2**	**89.2**	**88.0**	**92.5**
Cypress, shop, per 1,000 feet, St. Louis	43.750	38.750	38.750	43.315	89.7	79.5	79.5	88.9
Douglas fir, per 1,000 feet, mill—								
No. 1 common sheathing	15.170	15.480	15.480	16.285	92.0	93.9	89.8	98.8
No. 2 and better drop siding	29.560	28.400	27.500	29.592	88.3	84.9	82.2	88.4
Gum, plain, sap, per 1,000 feet, St. Louis	56.000	54.000	53.000	58.761	101.2	97.6	95.8	106.2
Hemlock, northern, No. 1, per 1,000 feet, Chicago	37.750	36.000	34.000	33.750	110.7	105.5	99.7	98.9
Maple, hard, No. 1, per 1,000 feet, Chicago	50.750	52.750	55.000	52.327	91.2	94.7	98.8	94.0
Oak, plain, white, No. 1, per 1,000 feet, Cincinnati	62.000	62.000	60.500	63.635	93.9	93.9	91.6	96.4
Pine, white, No. 2, per 1,000 feet, Buffalo	45.000	44.000	44.000	46.231	89.9	87.9	87.9	92.4
Pine, yellow, flooring, per 1,000 feet, mill	37.980	36.420	35.540	38.481	84.2	80.7	78.8	85.3
Pine, yellow, timbers, per 1,000 feet, mill	24.740	(1)	24.980	25.438	88.9	-------	89.7	91.4
Poplar, No. 1, per 1,000 feet, Cincinnati	50.000	50.000	50.000	53.173	90.2	90.2	90.2	96.0
Spruce, eastern, per 1,000 feet, Boston	32.500	32.938	33.000	32.659	98.4	99.8	100.0	98.9
Lath, per M—								
Douglas fir, No. 1, Chicago	5.900	5.900	5.900	6.365	77.8	77.8	77.8	83.9
Pine, yellow, No. 1, mill	3.290	3.270	3.200	3.380	66.3	65.9	64.5	68.2
Shingles, per M, mill—								
Cedar, red	2.700	2.570	2.460	2.541	99.1	94.4	90.3	93.3
Cypress	5.750	5.750	5.750	5.833	98.7	98.7	98.7	100.1
Brick, per M					**93.3**	**91.3**	**92.2**	**93.2**
Common, building, plant (composite price)	13.996	13.950	13.907	14.021	100.6	100.3	100.0	100.8
Brick, front, New York	39.500	39.500	40.625	41.324	80.8	80.8	83.1	84.5
Brick, sand lime, plant	11.000	11.000	11.000	11.000	95.3	95.3	95.3	95.3
Paving blocks, 3½-inch, St. Louis	42.500	42.500	42.500	42.500	100.0	100.0	100.0	100.0
Cement, Portland, per barrel, plant (composite price)	**1.683**	**1.683**	**1.683**	**1.686**	**96.5**	**96.5**	**96.5**	**96.7**
Structural steel					**91.9**	**89.4**	**91.9**	**94.7**

[1] No quotation.

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP VII.—BUILDING MATERIALS—Continued								
Paint materials					**87.0**	**85.7**	**86.5**	**91.0**
Barytes, western, per ton, New York	$30.500	$30.500	$30.500	$32.349	89.7	89.7	89.7	95.1
Bone black, powdered, per pound, New York	.055	.055	.055	.055	100.0	100.0	100.0	100.0
Copal gum, manila, per pound, mill	.100	.096	.095	.099	96.3	92.8	91.5	95.6
Lampblack, velvet, per pound, New York	.120	.120	.120	.120	100.0	100.0	100.0	100.0
Linseed oil, raw, per pound, New York	.099	.099	.096	.105	88.6	88.3	86.1	93.7
Litharge, commercial, per 100 pounds, New York	8.750	8.750	9.000	9.380	77.9	77.9	80.1	83.5
Lithopone, domestic, per pound, New York	.053	.053	.053	.053	95.8	95.8	95.8	95.8
Putty, commercial, per pound, New York	.055	.055	.055	.056	137.5	137.5	137.5	139.8
Red lead, dry, per 100 pounds, New York	9.750	9.750	10.000	10.200	83.1	83.1	85.3	87.0
Rosin, B grade, per barrel, New York	9.238	8.545	8.700	10.023	74.4	68.8	70.1	80.7
Shellac, T. N., per pound, New York	.474	.488	.544	.476	138.1	142.0	158.5	138.6
Turpentine, southern, per gallon, New York	.531	.506	.544	.621	57.0	54.3	58.4	66.7
White lead, in oil, per pound, New York	.138	.135	.133	.140	90.3	88.7	87.1	92.1
Zinc oxide, leaded grades, per pound, New York	.066	.066	.066	.066	90.2	90.2	90.2	89.7
Other building materials					**91.7**	**91.2**	**92.5**	**94.1**
Asphalt, bulk, per ton, refinery	12.000	12.000	12.000	12.000	100.0	100.0	100.0	100.0
Crushed stone, 1½-inch, per cubic yard, New York	1.750	1.750	1.750	1.803	98.7	98.7	98.7	101.7
Glass, plate, per square foot, New York—								
3 to 5 square feet	.350	.320	.350	.323	80.3	80.3	87.9	81.0
5 to 10 square feet	.400	.355	.385	.395	83.6	74.2	80.5	82.6
Glass, window, per 50 square feet, works—								
Single A	3.456	3.417	3.300	3.533	88.6	87.6	84.6	90.6
Single B	2.736	2.693	2.565	2.980	88.0	86.6	82.5	95.8
Gravel, building, per ton, plant (composite price)	.898	.902	.932	.910	95.5	95.9	99.1	96.8
Hollow tile, building, per block, Chicago	.076	.076	.076	.076	97.1	97.1	97.1	97.1
Lime, building, per ton, plant (composite price)	8.933	8.959	8.817	8.825	99.4	99.7	98.1	98.2
Lime, hydrated, per ton, plant (composite price)	9.753	9.757	9.750	9.722	97.7	97.7	97.7	97.4
Sand, building, per ton, plant (composite price)	.586	.579	.608	.592	92.3	91.3	95.8	93.3
Slate, roofing, sea green, per 100 square feet, quarry	14.000	14.000	14.000	14.000	100.0	100.0	100.0	100.0
Copper, sheet. (See Metals and metal products.)								
Copper, wire. (See Metals and metal products.)								
Nails, wire. (See Metals and metal products.)								
Pipe, cast-iron. (See Metals and metal products.								
Pipe, lead. (See Metals and metal products.)								
Pipe, black steel. (See Metals and metal products.)								
Reinforcing bars. (See Metals and metal products.)								
Terneplate. (See Metals and and metal products.)								
Zinc, sheet. (See Metals and metal products.)								

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP VIII.—CHEMICALS AND DRUGS					**97.1**	**97.4**	**97.2**	**96.6**
Chemicals					**101.8**	**102.3**	**102.2**	**100.0**
Acid, New York—								
Acetic, 28 per cent, per 100 pounds	$3.375	$3.375	$3.375	$3.375	103.7	103.7	103.7	103.7
Boric, per pound	.083	.083	.083	.083	93.1	93.1	93.1	93.1
Carbonic, per pound	.060	.060	.060	.060	100.0	100.0	100.0	100.0
Muriatic, 20°, per 100 pounds, works	1.070	1.100	1.100	1.008	115.1	118.3	118.3	108.6
Nitric, 42°, per 100 pounds	6.500	6.500	6.500	6.500	101.4	101.4	101.4	101.4
Oleic, distilled, per pound	.090	.090	.090	.088	97.1	97.1	97.1	95.0
Salicylic, U. S. P., per pound	.400	.400	.400	.400	116.9	116.9	116.9	116.9
Stearic, triple-pressed, per pound	.133	.133	.133	.136	81.4	81.4	81.4	83.8
Sulphuric, 66°, per ton	15.200	15.500	15.500	15.104	104.1	106.9	106.9	104.1
Alcohol, per gallon, New York—								
Denatured	.550	.550	.550	.478	149.8	149.8	149.8	130.1
Wood, refined	.534	.480	.480	.674	84.2	75.7	75.7	106.2
Aluminum sulphate, commercial, per 100 pounds, New York	1.400	1.400	1.400	1.400	100.0	100.0	100.0	100.0
Ammonia, anhydrous, per pound, New York	.118	.120	.120	.114	89.9	91.4	91.4	87.0
Anilin oil, per pound, New York	.150	.158	.158	.151	91.4	95.9	95.9	92.1
Arsenic, white, powdered, per pound, New York	.040	.040	.040	.038	114.3	114.3	114.3	108.6
Benzine, pure, per gallon, works	.230	.210	.210	.230	95.1	86.8	86.8	95.1
Bleaching powder, per 100 pounds, works	2.000	2.000	2.000	2.000	100.0	100.0	100.0	100.0
Borax, crystals, per pound, New York	.040	.040	.040	.042	82.3	82.3	82.3	85.8
Calcium arsenate, per pound, New York	.067	.065	.065	.072	91.7	88.9	88.9	98.8
Calcium chloride, solid, 73–75 per cent, per ton, New York	21.000	21.000	21.000	21.000	100.0	100.0	100.0	100.0
Caustic potash, 88–92 per cent, per pound, New York	.075	.071	.071	.073	105.2	100.0	100.0	102.9
Coal-tar colors, per pound, New York—								
Black, direct	.400	.400	.400	.400	116.2	116.2	116.2	116.2
Brown, sulphur	.240	.240	.240	.240	113.0	113.0	113.0	113.0
Indigo, paste	.140	.140	.140	.140	100.0	100.0	100.0	100.0
Jet, nigrosine	.400	.400	.400	.400	87.8	87.8	87.8	87.8
Copper sulphate, per 100 pounds, New York	5.000	5.000	5.010	4.916	106.4	106.4	106.6	104.7
Cooperas, per ton, works	13.000	13.000	13.000	13.000	104.6	104.6	104.6	104.6
Copra. (See Foods.)								
Creosote oil, grade 1, per gallon, works	.160	.160	.162	.160	113.6	113.6	115.1	113.8
Formaldehyde, per pound, New York	.085	.085	.085	.100	88.0	88.0	88.0	103.1
Lime, acetate, per 100 pounds, New York	3.500	3.500	3.500	3.500	106.7	106.7	106.7	106.7
Naphthalene flake, per pound, New York	.047	.050	.050	.046	85.5	90.9	90.9	84.4
Sal soda, per 100 pounds, New York	.900	.900	.900	.900	89.0	89.0	89.0	89.0
Salt cake, ground, per ton, works	18.000	17.250	17.000	17.925	90.0	86.3	85.0	89.6
Soda ash, light, 58 per cent, per 100 pounds, works	1.375	1.375	1.375	1.375	96.2	96.2	96.2	96.2
Soda, bicarbonate, per 100 pounds, works	1.900	1.900	1.900	1.900	100.0	100.0	100.0	100.0
Soda, caustic, per 100 pounds, works	3.060	3.000	2.990	3.078	95.6	93.8	93.4	96.2
Sodium silicate, 40°, per 100 pounds, works	.750	.750	.750	.750	96.2	96.2	96.2	96.2
Sulphur, crude, per ton, mines	18.000	18.000	18.000	18.000	98.8	98.8	98.8	98.8
Tallow, packers' prime, per pound, Chicago	.089	.091	.089	.081	102.8	104.9	102.1	93.3

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP VIII.—CHEMICALS AND DRUGS—Continued								
Chemicals—Continued.								
Toluene, pure, per gallon, works	$0.350	$0.350	$0.350	$0.350	100.0	100.0	100.0	100.0
Vegetable oils, per pound—								
Coconut. (See Foods.)								
Corn. (See Foods.)								
Palm, niger, New York	.071	.071	.070	.071	88.6	88.5	87.4	88.1
Palm kernel, crude, New York	.092	.092	.091	.091	92.2	92.1	91.5	91.0
Soya bean. (See Foods.)								
Drugs and pharmaceuticals					**86.2**	**85.2**	**81.9**	**87.3**
Acid, New York—								
Citric, domestic, per pound, crystals	.445	.445	.445	.442	99.5	99.5	99.5	98.7
Tartaric, per pound, crystals	.368	.360	.360	.346	125.5	122.8	122.8	118.1
Alcohol, grain, per gallon, New York	3.750	3.750	3.541	3.741	77.2	77.2	72.9	77.1
Camphor, Japanese, refined, slabs, per pound, New York	.606	.610	.600	.643	81.8	82.4	81.0	86.9
Castor oil, medicinal, per pound, New York	.130	.130	.132	.132	102.9	102.9	104.5	104.3
Cream of tartar, powdered, per pound, New York	.276	.268	.268	.256	128.9	125.2	125.2	119.8
Epsom salts, U. S. P., per 100 pounds, New York	2.250	2.438	2.500	2.337	90.9	98.5	101.1	94.5
Glycerine, chemically pure, per pound, New York	.234	.220	.201	.249	85.0	79.9	73.0	90.5
Menthol imported, per pound, New York	4.060	4.013	4.100	4.299	79.6	78.7	80.4	84.3
Opium, U. S. P., per pound, New York	12.000	12.000	12.000	12.000	100.0	100.0	100.0	100.0
Peroxide of hydrogen, U. S. P., per gross 4-ounce bottles, New York	7.750	7.750	7.750	7.750	100.5	100.5	100.5	100.5
Phenol, U. S. P., per pound, New York	.170	.170	.170	.169	86.3	86.3	86.3	85.6
Quinine, sulphate, domestic, per ounce, New York	.400	.400	.400	.400	92.9	92.9	92.9	92.9
Soda phosphate, commercial, per pound, New York	.033	.033	.033	.033	100.0	100.0	100.0	100.0
Zinc chloride, granular, per pound, New York	.065	.065	.065	.064	99.7	100.5	100.5	98.9
Fertilizer materials					**94.1**	**94.9**	**95.0**	**96.2**
Acid phosphate, per ton, Baltimore	8.500	8.500	8.500	8.547	88.6	88.6	88.6	89.1
Bones, ground, per ton, Chicago	28.000	28.000	28.000	28.000	105.6	105.6	105.6	105.6
Kainit, 12.4 per cent, per ton, New York	9.000	9.000	9.000	9.000	108.5	108.5	108.5	108.5
Manure salts, 20 per cent, per ton, New York	12.400	12.400	12.400	12.400	105.2	105.2	105.2	105.2
Muriate of potash, 80–85 per cent, per ton, New York	36.400	36.400	36.400	36.400	103.6	103.6	103.6	103.6
Nitrate of soda, 95 per cent, per 100 pounds, New York	2.365	2.400	2.400	2.495	92.8	94.1	94.1	97.9
Phosphate rock, Florida land pebble, per ton, mines	3.000	3.000	3.000	3.011	95.5	95.5	95.5	95.9
Sulphate of ammonia, per 100 pounds, New York	2.430	2.450	2.450	2.427	92.5	93.2	93.2	92.4
Sulphate of potash, 90–95 per cent, per ton, New York	47.300	47.300	47.300	47.300	102.7	102.7	102.7	102.7
Tankage, per ton, Chicago	33.770	35.750	36.650	34.086	97.6	103.3	105.9	98.5
Fertilizers, mixed, per ton (composite price)					**92.5**	**92.9**	**95.2**	**93.0**
New England	38.176	38.671	43.066	37.762	98.5	99.7	111.1	97.4
Middle Atlantic	30.745	31.205	31.205	30.804	94.6	96.0	96.0	94.8
South Atlantic, 8–3–3	21.400	21.400	22.900	21.792	92.2	92.2	98.7	93.9
South Atlantic, other	26.805	26.805	26.805	26.975	89.6	89.6	89.6	90.2
South Central and Southwest	25.463	25.463	25.463	24.889	91.2	91.2	91.2	89.1
Middle West	26.017	26.017	26.017	26.544	93.5	93.5	93.5	95.4

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP IX.—HOUSE-FURNISHING GOODS					**98.5**	**98.9**	**98.8**	**98.2**
Furniture, factory (composite price) [2]					**97.0**	**97.2**	**97.1**	**97.6**
Bedroom, each—								
Beds	$30.694	$30.694	$30.694					
Chairs	7.950	7.950	7.950					
Dressers and vanities	42.299	42.322	42.322					
Rockers	7.522	7.522	7.522					
Dining room—								
Buffets, china cabinets, and servers, each	40.051	40.716	40.716					
Chairs, set of six	47.936	48.311	48.311					
Tables, each	39.385	39.723	39.723					
Kitchen—								
Cabinets, each	39.000	39.000	39.000					
Chairs, per dozen	14.675	14.175	14.175					
Refrigerators, each	17.770	17.770	17.770					
Tables, each	5.817	5.817	5.817					
Living room, each—								
Chairs	43.583	43.583	43.583					
Davenports	63.393	63.107	62.714					
Tables	22.450	22.450	22.450					
Furnishings					**99.4**	**100.0**	**99.8**	**98.6**
Blankets—								
Cotton. (See Textile products.)								
Wool. (See Textile products.)								
Carpets, per yard, factory—								
Axminster	3.120	3.120	3.120	$3.120	100.0	100.0	100.0	100.0
Brussels	2.976	2.976	2.976	2.976	97.1	97.1	97.1	97.1
Wilton	4.800	4.800	4.800	4.840	94.6	94.6	94.6	95.4
Cutlery, factory—								
Carvers, per pair	1.350	1.350	1.350	1.350	100.0	100.0	100.0	100.0
Knives and forks, per gross	12.500	12.500	12.500	12.500	100.0	100.0	100.0	100.0
Pails, galvanized iron, per gross, factory	20.488	20.075	20.075	20.732	93.5	91.7	91.7	94.7
Sheeting, 10/4—								
Pepperell. (See Textile products.)								
Wamsutta. (See Textile products.)								
Tableware, factory—								
Dinner sets, 100-piece, semi-vitreous, per set	19.860	19.860	19.072	19.794	100.0	100.0	96.0	96.7
Dinner sets, 104-piece, vitreous, per set	47.160	47.160	47.160	46.133	103.2	103.2	103.2	100.9
Nappies, glass, 4-inch, common, per dozen	.200	.200	.200	.200	100.0	100.0	100.0	100.0
Pitchers, glass, ½-gallon, common, per dozen	2.100	2.250	2.250	2.125	98.1	105.1	105.1	99.2
Tumblers, ⅓-pint, common, per dozen	.160	.180	.180	.167	87.3	98.2	98.2	90.9
Plates, white granite, per dozen	.980	.976	.930	.976	100.0	99.6	94.9	99.5
Teacups and saucers, white granite, per dozen	1.260	1.255	1.200	1.255	100.0	99.6	95.2	99.6
Ticking, Amoskeag. (See Textile products.)								
Tubs, galvanized iron, per dozen, factory	6.350	6.225	6.225	6.376	96.9	95.0	95.0	97.3
Sewing machines, factory. (See Metals and metal products.)								

[2] Prices of individual articles of furniture are only roughly comparable from month to month, owing to frequent change in patterns announced by manufacturers.

WHOLESALE PRICES OF COMMODITIES, OCTOBER, NOVEMBER, DECEMBER, AND YEAR, 1927—Continued

Commodity	Average prices				Index numbers (1926=100.0)			
	October, 1927	November, 1927	December, 1927	Year, 1927	October, 1927	November, 1927	December, 1927	Year, 1927
GROUP IX.—HOUSE-FURNISHING GOODS—Contd.								
Furnishings—Continued.								
Stoves, cooking—								
Coal. (See Metals and metal products.)								
Gas. (See Metals and metal products.)								
Oil. (See Metals and metal products.)								
GROUP X.—MISCELLANEOUS					**88.3**	**88.3**	**89.0**	**89.9**
Cattle feed					**116.7**	**122.4**	**128.9**	**117.8**
Bran, per ton, Minneapolis	$25.625	$27.800	$29.688	$26.861	111.0	120.4	128.6	116.4
Cottonseed meal, prime, per ton, Memphis	38.250	39.250	42.250	35.604	134.0	137.5	148.0	124.7
Linseed meal, per ton, New York	48.600	49.000	49.500	46.962	101.8	102.7	103.7	98.4
Middlings, standard, per ton, Minneapolis	26.875	28.550	29.563	29.127	114.7	121.9	126.2	124.3
Paper and pulp					**91.6**	**91.3**	**90.9**	**92.2**
Box board, per ton, mill—								
Chip	41.184	41.184	38.995	41.002	105.6	105.6	100.0	105.1
Manila-lined chip	51.084	51.084	51.084	51.084	104.4	104.4	104.4	104.4
85-pound test liner	64.350	64.350	64.350	64.969	105.0	105.0	105.0	106.0
Paper—								
Newsprint, rolls, contract, per 100 pounds, mills	3.250	3.250	3.250	3.250	94.2	94.2	94.2	94.2
Wrapping, manila, No. 1, jute, per 100 pounds, New York	9.250	9.150	9.130	9.230	83.9	83.0	82.8	83.7
Wood pulp—								
Mechanical, No. 1, domestic, per ton, mill	28.500	28.100	28.000	28.712	92.5	91.2	90.9	93.2
Sulphite, domestic, unbleached, news grade, per 100 pounds, New York	2.525	2.525	2.525	2.633	88.1	88.1	88.1	91.9
Rubber, crude, per pound, New York					**70.5**	**77.8**	**84.2**	**77.9**
Para, island, fine	.249	.273	.294	.268	65.5	71.8	77.3	70.6
Plantation, ribbed, smoked sheets	.344	.380	.411	.381	70.7	78.1	84.5	78.2
Automobile tires (composite price), each, factory					**74.9**	**71.2**	**69.9**	**76.3**
Balloon	13.342	12.792	12.792	13.777	73.0	69.9	69.9	75.3
Cord	10.716	9.798	9.798	10.758	76.5	69.9	69.9	76.8
Fabric	6.256	6.127	6.127	6.925	71.1	69.7	69.7	78.7
Other miscellaneous					**99.9**	**99.1**	**98.6**	**99.9**
Cylinder oil, per gallon, refinery—								
Oklahoma	.170	.170	.170	.174	94.4	94.4	94.4	96.4
Pennsylvania	.253	.245	.245	.251	95.8	92.7	92.7	95.2
Neutral oil, per gallon, refinery—								
Gulf coast	.102	.100	.100	.110	79.3	77.8	77.8	85.5
Pennsylvania	.340	.330	.320	.332	121.5	117.9	114.4	118.6
Soap, laundry, per 100 cakes—								
Cincinnati	4.180	4.180	4.180	4.176	93.5	93.5	93.5	93.4
Philadelphia	4.851	4.851	4.851	4.851	100.0	100.0	100.0	100.0
Starch, laundry, per pound, New York	.058	.058	.058	.058	98.6	98.6	98.6	98.6
Tobacco, New York—								
Plug, per pound	.696	.696	.696	.696	100.0	100.0	100.0	100.0
Smoking, 1-ounce bag, per gross	8.320	8.320	8.320	8.320	100.0	100.0	100.0	100.0

COST OF LIVING

Changes in Cost of Living in the United States

THE cost of living in the United States in December, 1927, was 0.8 per cent lower than in June preceding and 2.1 per cent less than in December, 1926, according to the data compiled by the Bureau of Labor Statistics in its semiannual survey of cost of living in various cities. These data, together with the data that have been given in previous reports, are shown in the tables following. The information is based on actual prices secured from merchants and dealers for each of the periods named. The prices of food and of fuel and light (which include coal, wood, gas, electricity, and kerosene) are furnished the bureau in accordance with arrangements made with establishments through personal visits of the bureau's agents. In each city food prices are secured from 15 to 25 merchants and dealers, and fuel and light prices from 10 to 15 firms, including public utilities. All other data are secured by special agents of the bureau who visit the various merchants, dealers, and agents and secure the figures directly from their records. Four quotations are secured in each city (except in Greater New York, where five are obtained) on each of a large number of articles of clothing, furniture, and miscellaneous items. The number of houses and apartments for which basic rental figures are shown vary in the different cities approximately in proportion to population, the number per city, in round numbers, ranging from 400 to 2,200.

In Table 1 are given index numbers, with 1913 as the base or 100, showing changes in the total cost of living in the United States from 1913 to December, 1927.

TABLE 1.—INDEX NUMBERS SHOWING CHANGES IN COST OF LIVING IN THE UNITED STATES, 1913, TO DECEMBER, 1927

Date	Index numbers	Date	Index numbers	Date	Index numbers
Average, 1913	**100.0**	May, 1921	180.4	March, 1924	170.4
		September, 1921	177.3	June, 1924	169.1
December, 1914	103.0	December, 1921	174.3	September, 1924	170.6
December, 1915	105.1	March, 1922	166.9	December, 1924	172.5
December, 1916	118.3	June, 1922	166.4	June, 1925	173.5
December, 1917	142.4	September, 1922	166.3	December, 1925	177.9
December, 1918	174.4	December, 1922	169.5	June, 1926	174.8
June, 1919	177.3	March, 1923	168.8	December, 1926	175.6
December, 1919	199.3	June, 1923	169.7	June, 1927	173.4
June, 1920	216.5	September, 1923	172.1	December, 1927	172.0
December, 1920	200.4	December, 1923	173.2		

Table 2 shows the per cent of change in cost of living from June, 1920, December, 1926, and June, 1927, respectively, to December, 1927, in 32 cities, and in the United States, as determined by a consolidation of the figures for the 32 cities.

In the period from June, 1920, which represents the peak, to December, 1927, all of the 32 cities show decreases ranging from 15.2 to 26.2 per cent, the average being 20.6 per cent.

TABLE 2.—PER CENT OF CHANGE IN COST OF LIVING IN SPECIFIED CITIES FROM JUNE, 1920, DECEMBER, 1926, AND JUNE, 1927, TO DECEMBER, 1927

City	Per cent of increase (+) or decrease (−) from—			City	Per cent of increase (+) or decrease (−) from—		
	June, 1920, to December, 1927	December, 1926, to December, 1927	June, 1927, to December, 1927		June, 1920, to December, 1927	December, 1926, to December, 1927	June, 1927, to December, 1927
Atlanta	−22.1	−2.6	−1.6	New Orleans	−15.5	−1.5	−0.3
Baltimore	−18.6	−2.3	−.5	New York	−18.3	−.5	+.2
Birmingham	−18.5	−1.8	+.8	Norfolk	−22.0	−.7	−.3
Boston	−19.6	−1.4	+.8	Philadelphia	−16.5	−2.2	+.2
Buffalo	−18.7	−1.9	+.2	Pittsburgh	−16.3	−1.9	−.5
Chicago	−18.8	−2.6	−1.6	Portland, Me	−19.6	−1.3	+.1
Cincinnati	−17.5	−2.0	−1.6	Portland, Oreg	−23.8	−1.5	−.6
Cleveland	−18.7	−1.4	−.7	Richmond	−19.1	−2.4	−.9
Denver	−22.4	−3.2	−1.5	St. Louis	−18.5	−2.5	−1.5
Detroit	−24.2	−2.8	−2.0	San Francisco	−18.0	−.6	+.1
Houston	−20.9	−1.6	+1.0	Savannah	−24.5	−1.5	−.1
Indianapolis	−20.6	−2.5	−1.8	Scranton	−15.2	−1.0	+.2
Jacksonville	−20.1	−4.6	−1.5	Seattle	−20.7	−1.3	−1.5
Kansas City	−26.2	−2.7	−1.8	Washington	−20.1	−3.1	+.2
Los Angeles	−15.4	−.9	−.5				
Memphis	−19.9	−2.2	−.7	Average, United States	−20.6	−2.1	−.8
Minneapolis	−19.5	−3.4	−1.5				
Mobile	−20.0	−1.5	+.2				

Table 3 shows the changes in each item of expenditure in 19 cities from December, 1914, to December, 1927. Figures for certain months are omitted from Tables 3 and 4 to curtail space.

In studying this and the following tables it should be borne in mind that the figures for the 19 cities in Table 3 are based on the prices prevailing in December, 1914, the figures for the 13 cities in Table 4 are based on the prices prevailing in December, 1917, while the figures for the United States, shown in Table 5, are a summarization of the figures in Tables 3 and 4, computed on a 1913 base.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1927

Baltimore, Md.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	[1] 4.1	2.7	[1] 0.2	0.5	5.6	[1] 1.4	[1] 1.4
December, 1916	20.9	24.0	.9	9.1	26.4	18.5	18.5
December, 1917	64.4	52.1	3.0	25.5	60.8	51.3	51.3
December, 1918	96.4	107.7	13.8	46.0	122.3	78.7	84.7
June, 1919	91.1	128.9	16.8	37.1	134.6	82.8	84.0
December, 1919	92.5	177.4	25.8	48.1	167.0	99.4	98.4
June, 1920	110.9	191.3	41.6	57.6	191.8	111.4	114.3
December, 1920	75.6	159.5	49.5	79.0	181.9	112.9	96.8
May, 1921	43.4	123.2	63.0	70.9	147.5	111.8	77.4
December, 1921	46.9	88.6	64.7	85.5	123.7	108.6	73.2
June, 1922	39.9	78.9	65.4	84.8	113.3	104.4	67.6
December, 1922	46.1	80.5	66.9	94.9	116.6	102.6	70.9
June, 1923	46.5	81.4	69.6	91.6	127.5	103.8	72.0
December, 1923	50.6	81.8	71.9	93.5	130.2	105.2	74.8
June, 1924	44.0	78.3	72.4	84.8	129.4	109.9	71.9
December, 1924	53.0	76.2	72.2	88.7	125.7	107.1	74.8
June, 1925	57.7	76.0	72.0	85.3	122.8	111.0	77.3
December, 1925	66.2	76.2	72.2	90.9	122.1	111.6	81.2
June, 1926	62.2	73.0	71.3	89.8	112.8	111.2	78.4
December, 1926	63.0	72.5	70.6	87.3	110.5	112.3	78.6
June, 1927	56.7	71.3	69.9	82.2	106.9	112.9	75.3
December, 1927	56.7	68.2	68.0	85.5	104.8	112.3	74.5
Boston, Mass.							
December, 1915	[1] 0.3	6.6	[1] 0.1	1.1	8.4	1.6	1.6
December, 1916	18.0	21.9	.1	10.5	26.3	15.7	15.7
December, 1917	45.8	47.5	[1] .1	29.2	58.4	38.1	38.1
December, 1918	74.9	117.5	2.8	56.6	137.6	62.0	70.6
June, 1919	67.9	137.9	5.1	55.0	153.7	64.8	72.8
December, 1919	80.8	192.4	12.2	63.2	198.7	81.1	92.3
June, 1920	105.0	211.1	16.2	83.6	233.7	91.8	110.7
December, 1920	74.4	192.7	25.8	106.0	226.4	96.6	97.4
May, 1921	41.9	150.3	29.8	97.8	171.2	96.2	74.4
December, 1921	50.4	106.3	33.8	98.5	136.9	93.0	70.2
June, 1922	32.5	96.7	34.4	92.5	124.2	89.5	59.6
December, 1922	44.9	92.0	36.7	99.9	133.6	87.8	65.1
June, 1923	39.7	93.0	40.2	88.8	150.5	89.2	63.5
December, 1923	48.8	92.6	47.0	97.0	148.2	93.0	69.4
June, 1924	37.9	91.2	50.7	90.7	136.9	88.0	63.2
December, 1924	47.8	89.1	52.4	93.7	138.1	85.9	67.3
June, 1925	44.5	88.9	52.9	90.4	136.9	86.3	65.8
December, 1925	60.6	87.8	54.0	107.2	136.7	91.0	74.7
June, 1926	51.5	85.9	53.2	94.4	133.1	91.0	69.4
December, 1926	56.6	85.3	53.5	98.7	129.6	92.3	71.9
June, 1927	50.5	82.9	53.2	92.5	125.5	91.5	68.1
December, 1927	54.4	80.2	52.4	96.5	124.4	91.3	69.5
Buffalo, N. Y.							
December, 1915	2.4	9.0	1.2	1.3	7.1	3.5	3.5
December, 1916	30.1	29.6	4.7	9.3	24.1	24.4	24.4
December, 1917	64.1	58.5	9.4	23.5	50.2	51.1	51.1
December, 1918	87.8	123.1	20.7	49.3	106.3	76.0	80.9
June, 1919	82.9	140.7	28.0	51.9	118.1	78.7	84.2
December, 1919	94.7	190.8	29.0	55.7	165.4	90.3	102.7
June, 1920	115.7	210.6	46.6	69.8	199.7	101.9	121.5
December, 1920	78.5	168.7	48.5	74.9	189.2	107.4	101.7
May, 1921	37.7	131.6	61.1	73.9	151.3	107.8	80.3
December, 1921	50.8	96.5	61.7	79.7	124.7	103.0	76.8
June, 1922	38.5	83.6	64.7	78.8	108.0	97.9	68.6
December, 1922	48.8	81.4	64.9	115.7	112.8	97.5	73.9
June, 1923	41.6	83.4	70.0	119.1	127.9	100.5	74.1
December, 1923	51.9	83.8	71.8	120.4	127.5	102.5	78.6
June, 1924	39.5	81.7	76.3	116.6	121.0	101.9	73.9
December, 1924	51.6	79.9	76.8	117.9	121.0	100.9	77.8
June, 1925	52.0	80.3	79.1	115.5	119.5	107.7	79.7
December, 1925	66.5	79.8	79.5	117.9	118.2	107.9	84.8
June, 1926	60.9	76.7	78.1	127.3	113.6	110.6	82.8
December, 1926	63.6	74.6	77.4	127.1	110.2	112.5	83.6
June, 1927	56.7	72.2	75.8	126.9	106.2	111.4	79.8
December, 1927	55.9	71.2	73.7	128.5	106.0	116.1	80.1

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1927—Continued

Chicago, Ill.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	2.7	7.5	[1] 0.1	[1] 0.9	5.9	3.0	3.0
December, 1916	25.2	24.2	.7	6.6	20.0	19.5	19.5
December, 1917	53.4	50.6	1.4	19.3	47.5	41.8	41.8
December, 1918	78.7	138.9	2.6	37.1	108.9	58.7	72.2
June, 1919	73.3	157.1	8.0	35.7	126.9	61.7	74.5
December, 1919	93.1	224.0	14.0	40.1	176.0	84.3	100.6
June, 1920	120.0	205.3	35.1	62.4	215.9	87.5	114.6
December, 1920	70.5	158.6	48.9	83.5	205.8	96.5	93.3
May, 1921	41.9	122.7	78.2	65.3	162.4	98.5	78.4
December, 1921	48.3	74.3	83.9	69.4	133.7	94.5	72.3
June, 1922	41.6	63.0	87.4	55.4	108.5	87.9	65.0
December, 1922	44.8	67.5	88.9	65.6	120.4	86.7	68.0
June, 1923	45.1	72.2	92.1	54.9	133.1	87.7	69.6
December, 1923	52.5	76.0	95.4	59.3	132.9	88.1	73.7
June, 1924	47.9	72.6	104.4	53.0	122.2	90.7	72.6
December, 1924	56.2	67.8	105.8	56.1	121.9	90.7	75.3
June, 1925	61.4	65.8	105.6	53.9	118.1	93.9	77.1
December, 1925	69.4	65.3	104.4	65.8	118.5	93.9	80.6
June, 1926	67.2	62.7	99.5	55.4	112.4	94.3	77.8
December, 1926	69.6	61.9	96.7	64.4	109.2	95.7	79.0
June, 1927	68.2	58.7	93.9	57.2	105.2	96.7	77.1
December, 1927	63.4	53.8	90.0	59.2	104.4	99.7	74.3
Cleveland, Ohio.							
December, 1915	1.4	2.0	0.1	0.3	4.7	1.4	1.4
December, 1916	26.4	18.0	.9	10.0	19.7	19.1	19.1
December, 1917	54.3	43.7	11.3	26.8	47.8	42.9	42.9
December, 1918	79.4	102.6	16.5	51.9	102.4	67.1	71.4
June, 1919	79.7	125.2	21.8	47.9	117.0	74.7	77.2
December, 1919	92.9	171.2	39.9	62.9	165.5	85.9	98.2
June, 1920	118.7	185.1	47.3	90.3	186.5	117.9	120.3
December, 1920	71.7	156.0	80.0	94.5	176.8	134.0	107.3
May, 1921	37.4	124.0	88.1	89.6	133.6	129.6	87.5
December, 1921	40.9	85.8	81.2	103.8	100.8	123.2	78.8
June, 1922	34.6	72.4	69.6	102.2	87.8	110.7	68.9
December, 1922	41.1	70.9	74.0	116.3	104.8	109.4	72.9
June, 1923	42.1	77.6	73.8	151.6	129.6	108.1	77.1
December, 1923	43.6	79.6	78.7	147.0	129.3	113.1	79.6
June, 1924	37.2	78.4	77.7	142.6	118.0	112.7	75.9
December, 1924	46.2	72.9	78.6	144.1	113.4	112.1	78.1
June, 1925	53.8	71.9	76.8	143.9	111.9	112.3	80.4
December, 1925	58.3	71.9	75.6	168.8	113.4	111.5	82.7
June, 1926	60.0	70.7	71.6	162.3	106.1	111.9	81.9
December, 1926	58.7	68.3	71.8	170.7	105.3	112.7	81.5
June, 1927	56.6	67.5	67.5	163.9	103.2	115.9	80.2
December, 1927	55.1	66.0	66.3	164.2	97.9	115.9	79.0
Detroit, Mich.							
December, 1915	4.1	2.3	2.1	1.6	8.7	3.5	3.5
December, 1916	26.5	18.9	17.5	9.9	24.5	22.3	22.3
December, 1917	59.7	46.7	32.6	30.2	50.4	49.9	49.9
December, 1918	82.5	113.8	39.0	47.6	107.3	72.6	78.0
June, 1919	86.4	125.2	45.2	47.6	129.3	80.3	84.4
December, 1919	99.5	181.8	60.2	57.9	172.6	100.1	107.9
June, 1920	132.0	208.8	68.8	74.9	206.7	141.3	136.0
December, 1920	75.6	176.1	108.1	104.5	184.0	144.0	118.6
May, 1921	41.1	134.1	101.4	83.6	134.0	140.1	93.3
December, 1921	47.3	92.5	91.1	77.5	96.8	130.7	82.4
June, 1922	43.1	81.4	86.9	75.2	76.0	121.3	75.3
December, 1922	44.8	79.9	92.1	95.5	81.1	121.5	78.2
June, 1923	46.7	84.0	96.9	87.3	105.7	124.2	81.7
December, 1923	47.5	85.3	107.5	84.9	105.3	128.4	84.7
June, 1924	45.5	82.3	105.6	81.8	103.4	127.2	82.8
December, 1924	49.7	76.1	103.8	82.7	98.1	125.4	82.2
June, 1925	60.6	75.2	98.7	78.9	94.1	124.7	84.5
December, 1925	68.1	74.8	97.7	101.1	93.7	122.5	87.8
June, 1926	65.7	73.4	95.5	76.4	91.8	122.5	84.7
December, 1926	63.8	71.0	95.5	86.8	88.7	121.6	84.1
June, 1927	65.2	68.2	89.6	73.4	86.8	125.1	82.7
December, 1927	57.6	64.1	84.1	76.9	84.7	128.3	79.0

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1927—Continued

Houston, Tex.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	[1] 1.0	2.7	[1] 2.3	[1] 0.9	6.1	[1] 0.3	[1] 0.3
December, 1916	19.9	25.0	[1] 7.3	8.3	29.6	16.4	16.4
December, 1917	57.3	51.5	[1] 7.7	22.7	62.3	44.9	44.9
December, 1918	86.1	117.3	[1] 1.7	47.5	119.9	67.6	75.7
June, 1919	85.7	134.8	1.9	37.6	144.5	72.3	80.2
December, 1919	97.5	192.0	13.4	60.0	181.8	88.2	101.7
June, 1920	107.5	211.3	25.3	55.1	213.9	90.4	112.2
December, 1920	83.2	187.0	35.1	74.2	208.2	103.9	104.0
May, 1921	45.6	143.4	39.4	46.0	173.7	100.8	79.7
December, 1921	50.1	104.9	39.8	39.4	148.2	99.0	73.6
June, 1922	38.9	98.4	38.5	32.9	133.7	94.0	65.9
December, 1922	45.0	98.2	37.3	39.2	140.4	93.0	68.4
June, 1923	41.2	100.4	36.7	36.5	150.2	91.5	67.2
December, 1923	46.4	102.6	36.4	55.8	148.2	93.2	70.6
June, 1924	37.3	100.8	34.9	45.0	143.7	89.5	65.0
December, 1924	54.4	95.6	34.7	44.3	143.0	88.0	70.5
June, 1925	57.3	95.6	34.3	38.7	142.5	87.8	71.1
December, 1925	65.8	92.5	33.0	45.2	143.2	88.0	74.3
June, 1926	55.0	91.2	32.9	38.2	138.6	87.4	69.2
December, 1926	59.8	88.9	32.6	43.7	137.9	86.8	70.6
June, 1927	50.4	86.8	32.2	32.8	136.7	86.6	66.3
December, 1927	52.5	86.2	31.8	34.3	134.1	91.8	67.9
Jacksonville, Fla.							
December, 1915	[1] 0.3	10.5	[1] 6.9	[2]	15.1	1.3	1.3
December, 1916	17.6	33.7	[1] 18.2	2.3	43.4	14.7	14.7
December, 1917	50.8	71.9	[1] 18.7	15.1	73.7	41.6	41.6
December, 1918	76.2	130.5	5.9	55.2	126.5	60.5	71.5
June, 1919	74.2	139.8	9.7	49.2	140.0	65.9	77.5
December, 1919	80.9	217.2	22.0	64.1	186.2	80.9	101.5
June, 1920	90.1	234.0	28.9	72.6	224.2	102.8	116.5
December, 1920	65.6	209.3	34.1	92.6	222.3	105.6	106.2
May, 1921	32.6	167.5	36.5	80.7	182.7	107.5	85.8
December, 1921	40.6	117.9	38.3	68.9	134.9	99.3	75.1
June, 1922	30.6	99.9	35.3	58.9	115.3	95.5	65.7
December, 1922	34.8	99.3	35.1	65.7	127.1	94.7	67.8
June, 1923	32.0	101.1	34.3	63.6	137.9	95.3	67.7
December, 1923	39.9	104.5	33.4	75.1	139.4	96.6	71.9
June, 1924	30.2	102.7	33.3	72.1	132.9	95.0	67.3
December, 1924	40.0	94.6	33.5	72.9	132.4	99.1	70.4
June, 1925	41.8	94.0	33.5	69.3	134.0	99.3	70.9
December, 1925	58.3	93.6	55.3	87.1	135.6	105.3	81.7
June, 1926	53.4	93.4	66.6	95.3	134.7	105.5	81.8
December, 1926	53.5	90.9	69.9	91.2	128.1	105.7	81.3
June, 1927	45.0	88.0	57.2	87.8	126.0	104.5	75.7
December, 1927	41.3	85.4	51.2	84.0	124.6	104.5	73.0
Los Angeles, Calif.							
December, 1915	[1] 4.1	2.8	[1] 2.7	0.4	6.3	[1] 1.9	[1] 1.9
December, 1916	.4	14.3	[1] 2.5	2.3	23.1	7.7	7.7
December, 1917	33.4	45.0	[1] .6	10.4	56.4	28.9	28.9
December, 1918	61.8	109.1	4.4	18.3	118.5	52.0	58.0
June, 1919	60.7	123.3	8.7	18.6	134.2	59.1	65.1
December, 1919	71.0	167.6	26.8	35.3	175.5	76.9	85.3
June, 1920	90.8	184.5	42.6	53.5	202.2	86.6	101.7
December, 1920	62.7	166.6	71.4	53.5	202.2	100.6	96.7
May, 1921	33.2	127.4	85.3	52.7	156.6	96.8	78.7
December, 1921	38.4	94.3	90.1	52.7	143.2	99.6	76.4
June, 1922	30.6	81.3	95.6	39.1	128.8	103.8	72.5
December, 1922	39.4	78.0	94.8	35.6	138.1	101.2	74.5
June, 1923	36.2	82.5	97.7	33.7	153.6	100.8	75.1
December, 1923	42.1	83.0	100.9	34.1	152.0	104.2	78.8
June, 1924	35.2	81.4	99.4	33.6	136.1	105.4	75.1
December, 1924	38.8	80.4	93.3	34.4	137.7	104.2	75.4
June, 1925	44.1	79.0	83.6	34.0	133.9	108.9	76.9
December, 1925	48.7	77.7	73.7	34.4	133.7	110.6	77.4
June, 1926	39.9	75.7	67.4	34.1	126.7	104.7	71.2
December, 1926	44.7	75.2	61.7	34.8	123.8	105.7	72.2
June, 1927	40.4	74.0	59.9	61.0	120.4	108.2	71.5
December, 1927	40.4	71.6	57.7	56.8	118.6	108.0	70.6

[1] Decrease [2] No change.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1927—Continued

Mobile, Ala.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	[1] 1.0	2.0	[1] 1.9	[2]	4.1	[1] 0.4	[1] 0.4
December, 1916	19.9	9.0	[1] 4.3	8.8	15.3	13.8	13.8
December, 1917	57.3	38.8	[1] 3.6	27.1	42.8	43.2	43.2
December, 1918	80.6	86.0	11.2	57.1	108.3	72.4	71.4
June, 1919	83.6	94.0	11.9	66.6	113.9	75.3	76.6
December, 1919	98.4	123.7	29.6	75.6	153.3	87.0	94.5
June, 1920	110.5	137.4	34.6	86.3	177.9	100.3	107.0
December, 1920	73.5	122.2	53.6	122.3	175.4	100.7	93.3
May, 1921	39.1	90.6	53.3	102.1	140.7	96.9	73.8
December, 1921	42.4	57.7	49.9	98.2	116.9	94.3	63.6
June, 1922	33.2	49.7	47.7	84.4	97.8	87.5	55.6
December, 1922	39.1	50.8	43.8	96.4	97.9	91.0	58.8
June, 1923	37.7	51.8	42.5	93.3	114.0	89.8	58.6
December, 1923	44.7	55.4	42.6	98.1	114.8	91.3	62.6
June, 1924	33.4	54.3	41.4	91.4	109.3	93.7	58.0
December, 1924	49.7	53.4	40.9	90.2	107.2	94.3	63.9
June, 1925	50.3	52.0	40.1	85.6	104.3	95.5	63.9
December, 1925	59.0	49.4	40.4	89.1	103.7	102.0	68.5
June, 1926	53.1	49.5	39.7	94.6	100.8	102.2	66.2
December, 1926	58.0	48.8	40.5	97.7	96.4	102.2	68.1
June, 1927	52.0	47.6	40.4	91.8	97.2	102.4	65.3
December, 1927	51.1	47.6	41.9	93.5	97.2	104.0	65.6

New York, N. Y.

December, 1915	1.3	4.8	[1] 0.1	[1] 0.1	8.4	2.0	2.0
December, 1916	16.3	22.3	1.1	11.0	27.6	14.9	14.9
December, 1917	55.3	54.2	2.6	19.9	56.5	44.7	44.7
December, 1918	82.6	131.3	6.5	45.5	126.5	70.0	77.3
June, 1919	75.3	151.6	13.4	45.4	136.6	75.1	79.2
December, 1919	91.0	219.7	23.4	50.6	172.9	95.8	103.8
June, 1920	105.3	241.4	32.4	60.1	205.1	111.9	119.2
December, 1920	73.5	201.8	38.1	87.5	185.9	116.3	101.4
May, 1921	42.5	159.5	42.2	95.9	156.5	117.6	81.7
December, 1921	51.8	117.8	53.7	90.7	132.0	116.9	79.3
June, 1922	40.0	103.0	55.7	89.0	118.3	112.8	70.7
December, 1922	49.5	98.3	56.7	95.7	121.6	111.6	74.2
June, 1923	44.4	100.7	59.4	89.1	130.3	110.8	72.6
December, 1923	52.0	102.7	62.4	94.2	131.5	113.5	77.3
June, 1924	41.1	100.7	64.5	88.8	121.4	115.0	72.5
December, 1924	50.0	97.7	67.1	93.3	119.4	116.7	76.5
June, 1925	48.9	97.5	67.8	91.0	110.6	116.9	75.8
December, 1925	62.6	95.9	69.5	126.0	110.4	118.2	83.2
June, 1926	56.0	94.7	69.5	95.9	106.6	117.3	78.6
December, 1926	59.1	93.7	70.2	96.1	106.0	117.5	80.0
June, 1927	54.0	92.9	70.2	92.2	102.5	119.0	77.8
December, 1927	57.5	91.4	70.2	96.0	102.9	118.8	79.1

Norfolk, Va.

December, 1915	0.8	0.8	0.1	[2]	0.6	0.6	0.6
December, 1916	22.4	6.0	[1] 1.7	17.0	8.7	14.7	14.7
December, 1917	63.9	31.6	[1] 1.7	33.3	39.0	45.2	45.2
December, 1918	86.2	94.6	39.0	74.6	105.5	76.8	80.7
June, 1919	89.8	104.8	46.5	69.7	110.7	83.7	87.1
December, 1919	91.5	158.4	63.3	89.9	143.6	97.5	107.0
June, 1920	107.6	176.5	70.8	110.6	165.0	108.4	122.2
December, 1920	76.3	153.6	90.8	128.9	160.5	106.3	109.0
May, 1921	45.4	121.6	94.6	97.3	129.0	106.3	88.1
December, 1921	43.4	90.2	93.4	91.6	106.1	109.3	79.2
June, 1922	33.5	77.6	88.1	87.7	88.4	100.8	69.5
December, 1922	38.6	73.2	77.2	106.5	89.1	99.6	69.9
June, 1923	36.9	79.1	73.0	102.1	101.0	102.2	71.1
December, 1923	40.7	80.8	67.0	96.9	103.8	104.4	72.4
June, 1924	33.1	78.6	64.2	94.4	100.1	103.0	68.4
December, 1924	46.0	75.4	59.4	99.1	102.1	103.4	72.1
June, 1925	47.9	74.7	58.4	96.7	96.0	103.4	71.9
December, 1925	60.8	74.0	53.0	107.9	96.8	103.8	76.4
June, 1926	56.0	73.0	52.1	102.1	93.7	100.5	73.1
December, 1926	58.7	72.8	49.2	109.6	90.4	103.7	74.6
June, 1927	54.7	71.1	45.9	96.8	88.9	114.9	73.8
December, 1927	55.5	70.9	43.6	98.2	88.5	112.5	73.4

[1] Decrease. [2] No change.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1927—Continued

Philadelphia, Pa.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	0.3	3.6	[1] 0.3	[1] 0.8	6.9	1.2	1.2
December, 1916	18.9	16.0	[1] .7	5.4	19.9	14.7	14.7
December, 1917	54.4	51.3	2.6	21.5	49.8	43.8	43.8
December, 1918	80.7	111.2	8.0	47.9	107.7	67.5	73.9
June, 1919	75.5	135.9	11.3	43.3	117.8	71.2	76.2
December, 1919	87.2	190.3	16.7	51.3	162.8	88.6	96.5
June, 1920	101.7	219.6	28.6	66.8	187.4	102.8	113.5
December, 1920	68.1	183.5	38.0	96.0	183.4	122.3	100.7
May, 1921	37.8	144.7	44.2	85.6	135.5	119.2	79.8
December, 1921	43.9	104.6	48.1	92.0	101.6	116.2	74.3
June, 1922	38.1	89.5	49.6	85.7	90.0	112.3	68.2
December, 1922	43.4	87.6	52.9	93.0	96.9	110.7	70.7
June, 1923	42.7	87.6	58.1	89.9	110.8	112.4	72.1
December, 1923	45.1	88.2	66.9	102.2	111.6	112.0	74.7
June, 1924	39.3	85.5	72.4	91.7	102.3	110.7	71.5
December, 1924	46.4	84.4	75.3	94.8	100.5	117.6	76.1
June, 1925	51.3	83.8	76.0	87.0	98.9	117.6	77.6
December, 1925	62.0	83.6	77.1	100.5	97.9	117.6	82.6
June, 1926	56.6	82.5	77.1	98.3	93.7	120.6	80.6
December, 1926	61.2	80.3	77.3	98.5	92.3	121.5	82.3
June, 1927	53.8	79.2	75.3	89.4	88.6	120.8	78.0
December, 1927	55.9	77.4	72.1	90.5	87.7	121.2	78.3

Portland, Me.

December, 1915	[1] 2.0	2.1	0.2	0.4	6.2	[1] 0.4	[1] 0.4
December, 1916	18.6	9.7	.6	11.4	20.9	13.8	13.8
December, 1917	49.8	32.8	2.4	28.9	43.5	38.0	38.0
December, 1918	86.8	85.8	2.5	67.7	110.8	65.6	72.2
June, 1919	80.6	103.8	5.7	58.4	126.4	72.1	74.3
December, 1919	91.9	148.5	10.7	69.8	163.7	83.2	91.6
June, 1920	114.5	165.9	14.5	83.9	190.3	89.4	107.6
December, 1920	78.7	147.8	20.0	113.5	191.2	94.3	93.1
May, 1921	46.7	116.3	23.1	96.8	152.2	94.1	72.1
December, 1921	54.8	88.1	26.6	99.5	123.6	91.2	69.6
June, 1922	39.9	76.7	24.8	96.1	108.1	88.2	59.7
December, 1922	49.1	74.8	30.7	94.7	114.2	88.0	64.1
June, 1923	45.3	77.3	27.3	94.9	129.7	88.0	63.3
December, 1923	52.3	76.7	31.7	100.0	130.2	89.3	66.9
June, 1924	44.1	75.4	27.4	96.2	126.7	87.9	62.4
December, 1924	52.4	75.0	28.8	99.6	126.0	87.2	66.0
June, 1925	52.2	75.0	25.5	95.8	126.0	87.8	65.3
December, 1925	64.5	74.0	24.4	100.3	126.9	87.6	70.3
June, 1926	58.7	71.7	23.7	100.5	121.7	88.4	67.3
December, 1926	63.3	70.3	23.8	102.9	120.8	88.6	69.2
June, 1927	59.4	67.6	23.6	98.6	118.8	88.6	66.8
December, 1927	60.0	66.8	23.0	102.2	118.4	89.0	67.0

Portland, Oreg.

December, 1915	[1] 3.8	3.0	[1] 10.9	[1] 1.0	2.9	[1] 3.1	[1] 3.1
December, 1916	9.8	15.8	[1] 19.6	3.4	18.0	6.1	6.1
December, 1917	42.2	44.4	[1] 22.2	20.2	54.5	31.2	31.2
December, 1918	70.6	96.6	12.3	30.9	109.0	57.9	64.2
June, 1919	67.1	115.5	20.1	31.3	122.1	62.3	69.2
December, 1919	81.6	142.1	27.7	42.3	145.1	71.6	83.7
June, 1920	107.1	158.6	33.2	46.9	183.9	79.7	100.4
December, 1920	60.9	122.1	36.9	65.9	179.9	81.1	80.3
May, 1921	26.0	91.2	42.9	67.1	148.0	81.1	62.2
December, 1921	33.1	65.3	43.3	59.4	121.9	80.0	58.3
June, 1922	26.5	53.2	43.3	50.3	101.9	78.5	52.1
December, 1922	34.3	54.9	43.6	65.7	102.9	79.4	56.1
June, 1923	29.5	61.3	42.5	61.3	109.8	75.8	54.6
December, 1923	35.1	61.8	42.7	67.1	109.0	79.6	57.8
June, 1924	28.5	61.1	43.3	55.5	102.2	73.0	52.8
December, 1924	36.1	59.2	42.9	62.4	102.2	74.4	55.8
June, 1925	40.6	57.6	40.9	52.2	98.6	73.0	55.8
December, 1925	43.2	57.0	40.1	60.0	100.6	73.0	56.9
June, 1926	38.6	56.5	37.9	50.9	95.2	74.2	54.6
December, 1926	40.6	54.0	33.5	61.9	90.7	76.6	55.1
June, 1927	39.2	53.2	30.3	56.9	87.8	76.4	53.7
December, 1927	37.5	51.1	26.9	65.7	86.1	77.1	52.8

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1927—Continued

San Francisco and Oakland, Calif.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	[1] 4.3	2.5	[1] 0.7	[1] 0.1	6.0	[1] 1.7	[1] 1.7
December, 1916	9.6	14.5	[1] 2.5	4.6	21.7	8.3	8.3
December, 1917	35.9	43.6	[1] 4.0	14.4	48.2	28.6	28.6
December, 1918	66.2	109.0	[1] 3.9	30.1	103.4	50.5	57.8
June, 1919	63.3	134.6	[1] 3.5	28.9	116.6	61.0	65.6
December, 1919	74.2	170.4	4.7	41.3	143.8	74.7	87.8
June, 1920	93.9	191.0	9.4	47.2	180.1	79.6	96.0
December, 1920	64.9	175.9	15.0	66.3	175.6	84.8	85.1
May, 1921	33.3	140.9	21.7	63.3	143.9	84.4	66.7
December, 1921	40.4	106.3	25.8	65.3	113.9	86.8	63.6
June, 1922	31.1	90.7	29.4	59.5	104.4	83.7	56.8
December, 1922	38.8	85.4	30.0	52.5	105.4	84.2	58.8
June, 1923	34.2	92.1	33.4	42.6	116.7	79.4	57.6
December, 1923	42.3	94.4	36.0	48.8	116.9	81.2	62.1
June, 1924	35.0	91.5	38.0	49.9	113.4	73.2	57.3
December, 1924	42.1	90.5	39.4	53.5	114.7	72.7	60.1
June, 1925	47.6	90.5	40.1	54.3	115.1	72.9	62.2
December, 1925	53.3	89.7	40.0	50.8	115.7	74.6	64.7
June, 1926	44.3	88.4	39.6	48.5	105.6	75.3	60.7
December, 1926	48.3	85.6	39.5	51.0	104.6	75.3	61.7
June, 1927	45.4	83.7	38.7	47.1	103.8	77.8	60.5
December, 1927	46.1	82.4	37.3	48.6	103.4	79.2	60.7
Savannah, Ga.							
December, 1915	[1] 0.3	0.8	[1] 1.4	[1] 1.3	1.8	[1] 0.2	[1] 0.2
December, 1916	17.6	24.1	[1] 3.0	[1] 1.7	12.8	14.6	14.6
December, 1917	50.8	56.6	[1] 4.3	21.1	50.7	42.5	42.5
December, 1918	76.2	133.6	5.9	37.5	128.6	67.3	75.0
June, 1919	74.2	146.3	10.2	35.5	136.5	71.2	79.8
December, 1919	80.9	195.9	22.0	52.2	182.1	82.0	98.7
June, 1920	91.7	212.1	33.5	65.3	207.2	83.8	109.4
December, 1920	63.5	171.5	58.6	94.4	206.6	91.5	98.7
May, 1921	28.7	133.2	61.9	74.2	175.9	93.0	77.6
December, 1921	33.7	84.2	60.9	66.1	133.7	87.4	66.2
June, 1922	22.7	71.7	57.8	55.2	120.1	81.1	56.8
December, 1922	27.6	76.2	52.7	68.3	123.8	79.5	59.2
June, 1923	22.6	81.3	49.5	61.9	135.9	77.4	57.9
December, 1923	25.0	80.9	47.5	64.1	133.4	76.7	58.2
June, 1924	17.5	79.1	45.3	59.7	130.6	77.5	54.8
December, 1924	25.1	75.8	41.0	62.2	128.7	77.5	56.3
June, 1925	31.5	75.1	39.7	59.1	128.2	77.5	57.9
December, 1925	44.9	73.7	38.6	62.9	128.9	79.1	62.9
June, 1926	39.1	73.7	38.0	61.9	126.6	79.5	60.6
December, 1926	39.7	72.0	38.1	68.4	123.9	79.0	60.5
June, 1927	35.4	69.8	37.7	58.3	121.7	80.6	58.3
December, 1927	35.3	68.6	37.1	59.9	121.9	80.8	58.1
Seattle, Wash.							
December, 1915	[1] 2.8	1.2	[1] 2.4	[1] 0.2	8.5	[1] 1.0	[1] 1.0
December, 1916	8.5	11.3	[1] 5.4	2.9	27.4	7.4	7.4
December, 1917	38.7	36.4	[1] .6	23.9	52.3	31.1	31.1
December, 1918	72.5	88.0	44.3	51.8	141.5	58.5	69.9
June, 1919	69.3	110.2	51.5	51.8	154.4	71.4	76.9
December, 1919	80.9	154.5	71.5	63.8	201.0	86.8	97.7
June, 1920	102.3	173.9	74.8	65.8	221.2	90.4	110.5
December, 1920	54.1	160.5	76.7	78.7	216.4	95.5	94.1
May, 1921	27.1	128.7	74.8	78.7	177.2	105.5	80.2
December, 1921	30.5	88.7	69.2	69.0	149.9	102.6	71.5
June, 1922	30.0	78.0	64.7	64.0	137.3	97.6	67.0
December, 1922	33.9	74.2	63.1	59.6	136.1	96.4	66.7
June, 1923	31.0	76.7	62.3	58.0	143.9	96.6	66.4
December, 1923	35.8	77.6	62.9	59.1	144.2	96.6	68.5
June, 1924	33.1	76.2	64.0	56.8	140.7	94.6	66.7
December, 1924	35.8	74.4	63.7	59.6	141.1	96.4	67.8
June, 1925	43.7	74.6	64.7	57.8	141.6	96.4	70.5
December, 1925	47.3	74.8	63.7	58.1	142.1	97.0	71.7
June, 1926	42.3	74.8	62.6	49.4	139.4	97.0	69.4
December, 1926	41.6	73.1	60.3	61.2	137.5	97.6	69.1
June, 1927	43.0	71.9	59.0	59.3	136.8	98.4	69.4
December, 1927	37.9	69.5	56.9	59.8	134.7	98.2	66.9

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1927—Continued

Washington, D. C.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	0.6	3.7	[1] 1.5	([2])	6.3	0.4	1.0
December, 1916	15.7	23.2	[1] 3.7	7.3	30.5	15.3	14.6
December, 1917	61.1	60.1	[1] 3.4	24.9	72.1	44.3	47.3
December, 1918	90.9	112.6	[1] 1.5	40.9	127.4	55.9	73.8
April, 1919	84.6	109.5	[1] 1.4	41.8	126.0	57.4	71.2
November, 1919	93.3	165.9	5.4	42.8	159.3	62.7	87.6
June, 1920	108.4	184.0	15.6	53.7	196.4	68.2	101.3
December, 1920	79.0	151.1	24.7	68.0	194.0	73.9	87.8
May, 1921	47.4	115.9	28.8	57.1	149.0	72.0	67.1
December, 1921	51.1	87.1	30.4	49.9	122.4	75.8	63.0
June, 1922	44.3	77.5	31.4	44.5	108.1	73.7	57.6
December, 1922	49.2	74.8	32.6	55.1	112.6	72.0	59.5
June, 1923	48.8	78.9	33.9	51.2	129.0	72.5	60.9
December, 1923	52.3	81.2	34.3	47.0	128.8	74.9	63.2
June, 1924	43.7	78.9	35.7	42.9	124.5	75.0	59.2
December, 1924	53.6	75.8	36.7	44.9	125.2	76.5	63.1
June, 1925	57.2	75.4	37.7	39.8	119.8	76.5	64.0
December, 1925	65.6	73.5	40.3	48.7	115.0	75.4	67.3
June, 1926	63.3	73.3	38.6	41.7	112.6	75.0	65.5
December, 1926	66.3	70.9	37.4	45.7	107.5	75.0	66.0
June, 1927	55.0	69.2	36.4	39.3	104.4	73.6	60.5
December, 1927	57.9	67.0	33.8	40.3	103.2	73.8	60.8

[1] Decrease. [2] No change.

Table 4 shows the changes in the cost of living from December, 1917, to December, 1927, for 13 cities. The table is constructed in the same manner as the preceding one and differs from it only in the base period and in the length of time covered.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1927

Atlanta, Ga.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	19.0	29.1	14.0	17.0	24.9	14.8	19.7
June, 1919	18.0	40.7	14.5	17.9	30.1	21.5	23.3
December, 1919	27.9	66.9	32.6	30.8	49.9	31.7	37.9
June, 1920	34.0	80.5	40.4	61.0	65.0	34.6	46.7
December, 1920	12.8	56.5	73.1	66.8	58.4	39.7	38.5
May, 1921	[1] 8.9	35.2	78.8	56.1	38.0	40.5	25.2
December, 1921	[1] 7.2	8.3	75.4	43.7	23.0	39.7	18.7
June, 1922	[1] 10.5	.4	68.1	39.1	15.2	34.5	13.7
December, 1922	[1] 8.9	2.8	62.7	57.6	17.4	34.1	15.1
June, 1923	[1] 10.3	5.9	61.4	42.7	23.9	32.8	14.2
December, 1923	[1] 6.3	6.9	62.2	39.3	23.5	33.3	16.0
June, 1924	[1] 10.2	5.7	60.1	32.0	20.4	33.8	13.6
December, 1924	[1] 5.5	4.9	56.9	33.1	20.4	33.7	14.9
June, 1925	[1] 1.2	4.5	55.5	26.2	19.9	34.9	16.2
December, 1925	6.5	4.3	49.3	34.7	18.8	35.6	19.0
June, 1926	4.5	3.9	44.4	36.6	17.4	34.0	17.3
December, 1926	4.3	2.9	42.1	46.0	15.5	33.9	17.4
June, 1927	4.1	2.1	41.5	31.7	14.6	33.9	16.2
December, 1927	1.3	.2	39.5	38.0	15.9	31.5	14.3

[1] Decrease.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1927—Continued

Birmingham, Ala.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	17.7	23.9	8.1	22.8	19.4	13.8	17.0
June, 1919	18.3	29.8	12.8	31.9	20.2	16.3	19.8
December, 1919	26.5	57.6	34.9	39.8	45.1	26.8	34.3
June, 1920	36.4	66.4	40.3	55.3	55.6	28.7	41.9
December, 1920	11.9	45.1	68.5	74.2	48.1	30.4	33.3
May, 1921	[1] 9.1	24.8	77.4	54.3	32.0	33.8	22.1
December, 1921	[1] 8.5	[1] .4	70.9	44.1	12.0	35.5	16.2
June, 1922	[1] 13.1	[1] 6.1	67.0	25.0	3.3	30.4	10.7
December, 1922	[1] 9.9	[1] 1.7	62.3	49.9	8.9	29.6	13.2
June, 1923	[1] 9.9	1.8	63.1	40.7	17.8	28.5	13.6
December, 1923	[1] 6.6	3.8	67.9	50.2	19.7	27.2	16.0
June, 1924	[1] 12.6	3.2	68.6	40.5	14.3	27.2	13.1
December, 1924	[1] 3.1	1.6	68.6	45.7	14.9	27.3	16.8
June, 1925	[1] .9	1.5	68.3	33.8	15.5	27.2	16.9
December, 1925	4.5	[1] .3	68.0	41.4	15.5	27.8	19.2
June, 1926	1.5	[1] .9	66.5	41.0	13.5	26.9	17.5
December, 1926	1.8	[1] 1.9	65.8	51.3	12.4	26.9	17.8
June, 1927	[1] 3.1	[1] 3.1	64.5	39.6	11.2	26.4	14.8
December, 1927	[1] 1.3	[1] 4.1	61.7	45.9	14.1	28.5	15.7

Cincinnati, Ohio

December, 1918	15.3	33.8	0.2	10.0	25.7	20.4	17.3
June, 1919	18.1	48.3	.8	5.6	30.5	21.8	21.1
December, 1919	22.9	84.2	12.8	11.0	51.1	40.3	35.2
June, 1920	38.7	96.7	13.6	26.9	75.5	47.6	47.1
December, 1920	10.3	73.5	25.0	34.1	66.7	53.4	34.7
May, 1921	[1] 7.4	49.0	27.6	15.7	39.7	52.3	21.7
December, 1921	[1] 8.3	13.9	28.5	42.4	22.3	47.3	15.3
June, 1922	[1] 8.9	4.9	31.0	35.2	15.8	44.0	12.7
December, 1922	[1] 10.4	5.5	35.2	61.0	17.2	42.7	13.8
June, 1923	[1] 9.3	8.8	40.7	51.9	24.3	42.8	15.5
December, 1923	[1] 6.7	9.2	45.6	55.0	26.2	43.3	17.7
June, 1924	[1] 10.2	6.4	49.3	39.3	23.2	46.9	16.3
December, 1924	[1] 8.3	1.5	50.1	44.5	23.2	52.3	17.6
June, 1925	[1] .9	1.2	51.2	61.1	23.4	55.0	22.1
December, 1925	3.9	[1] 1.1	51.8	70.4	21.3	9.9	23.0
June, 1926	2.7	[1] 1.2	54.8	62.2	17.7	50.5	22.6
December, 1926	3.1	[1] 1.7	55.9	83.6	16.9	50.5	23.8
June, 1927	3.9	[1] 2.3	56.8	66.7	16.1	50.0	23.3
December, 1927	[1] 1.0	[1] 3.9	57.9	66.9	16.6	50.0	21.3

Denver, Colo.

December, 1918	20.0	40.1	12.8	8.1	22.6	14.8	20.7
June, 1919	20.7	53.2	21.8	8.4	31.3	17.7	25.3
December, 1919	26.0	82.1	33.5	19.6	46.3	32.3	38.2
June, 1920	41.5	96.8	51.9	22.3	60.2	35.4	50.3
December, 1920	7.9	78.3	69.8	47.1	58.9	38.8	38.7
May, 1921	[1] 13.1	53.9	76.9	37.5	42.5	42.8	26.9
December, 1921	[1] 8.8	27.7	82.6	39.7	27.9	43.1	24.5
June, 1922	[1] 14.2	15.3	84.8	32.8	20.4	38.1	18.8
December, 1922	[1] 9.0	16.6	86.9	40.7	21.2	37.6	21.6
June, 1923	[1] 11.5	16.9	85.4	30.4	26.1	37.1	19.9
December, 1923	[1] 8.7	17.9	88.9	37.2	27.0	36.8	22.1
June, 1924	[1] 13.5	16.1	84.4	19.7	23.8	35.1	17.8
December, 1924	[1] 7.8	15.1	84.0	25.4	24.2	35.6	20.2
June, 1925	[1] 5.3	14.5	82.5	27.0	24.8	35.6	21.1
December, 1925	[1] 1.3	13.1	78.5	37.4	25.2	35.6	22.5
June, 1926	[1] 3.8	12.4	71.9	25.3	24.2	35.1	19.7
December, 1926	[1] 3.0	11.8	65.5	38.1	23.5	36.6	20.4
June, 1927	[1] 2.8	10.1	61.2	20.8	22.9	36.1	18.4
December, 1927	[1] 6.9	8.9	58.3	32.9	21.2	34.2	16.6

[1] Decrease.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1927—Continued

Indianapolis, Ind.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	17.8	32.4	1.6	19.8	18.9	21.9	19.1
June, 1919	16.4	40.1	2.6	16.7	24.8	26.8	21.1
December, 1919	28.2	73.8	11.6	27.3	48.4	38.2	36.5
June, 1920	49.0	87.9	18.9	45.6	67.5	40.5	50.2
December, 1920	11.0	72.3	32.9	60.3	63.0	47.5	37.6
May, 1921	[1] 10.1	45.8	37.4	49.4	35.3	47.4	23.9
December, 1921	[1] 8.4	16.2	43.8	42.5	22.5	46.2	19.3
June, 1922	[1] 9.9	7.9	41.3	44.9	13.7	45.4	16.4
December, 1922	[1] 11.1	8.6	44.1	73.4	16.7	46.7	18.8
June, 1923	[1] 8.0	11.6	44.6	54.9	23.2	46.1	19.4
December, 1923	[1] 6.5	13.4	47.1	41.5	24.0	49.2	20.6
June, 1924	[1] 10.0	11.9	46.5	38.2	21.4	51.5	19.3
December, 1924	[1] 4.9	10.4	46.7	41.5	21.5	53.3	21.4
June, 1925	[1] 2.3	9.8	44.1	33.9	20.6	53.8	21.5
December, 1925	4.4	7.5	41.7	44.9	21.8	54.1	24.2
June, 1926	2.6	7.4	38.3	33.9	20.6	51.6	21.9
December, 1926	2.9	5.4	36.5	47.8	19.9	51.8	22.3
June, 1927	3.5	5.9	34.6	34.6	18.0	52.3	21.4
December, 1927	[1] 1.5	4.3	33.4	34.2	17.5	52.6	19.2

Kansas City, Mo.

December, 1918	17.3	40.7	5.4	18.0	31.1	15.6	19.6
June, 1919	15.1	44.8	6.7	9.6	37.9	20.8	20.6
December, 1919	24.5	89.9	26.0	27.5	61.8	31.5	38.2
June, 1920	44.9	104.5	29.4	35.2	73.0	37.1	51.0
December, 1920	10.2	76.3	63.9	55.1	68.7	40.3	39.5
May, 1921	[1] 8.3	52.3	65.0	43.3	50.0	40.4	27.3
December, 1921	[1] 6.6	24.1	69.7	42.6	26.2	37.6	22.5
June, 1922	[1] 13.5	15.9	59.4	36.3	11.6	32.3	15.0
December, 1922	[1] 12.0	14.6	61.4	40.2	12.1	33.3	16.2
June, 1923	[1] 12.5	14.5	53.7	36.1	22.5	33.8	15.3
December, 1923	[1] 10.2	15.2	56.8	36.7	22.6	36.2	17.2
June, 1924	[1] 12.7	13.3	49.5	34.5	16.8	35.3	14.3
December, 1924	[1] 7.7	12.0	46.2	32.9	16.1	34.3	15.3
June, 1925	[1] 3.9	11.4	40.6	32.8	15.6	36.4	16.3
December, 1925	2.0	9.2	39.5	32.3	14.1	36.3	18.0
June, 1926	.5	8.7	35.9	29.4	12.8	36.3	16.6
December, 1926	[1] 1.7	6.3	34.1	33.5	10.8	36.3	15.2
June, 1927	[1] 2.2	5.4	29.1	29.8	8.6	36.6	14.0
December, 1927	[1] 6.8	3.7	28.3	29.0	7.7	36.5	11.9

Memphis, Tenn.

December, 1918	20.3	27.7	[2]	26.8	25.4	16.1	18.3
June, 1919	22.7	38.3	8.2	23.4	30.7	20.9	23.3
December, 1919	28.4	66.2	23.1	34.1	53.2	28.3	35.2
June, 1920	38.8	77.5	35.9	49.7	67.1	38.8	46.4
December, 1920	7.0	59.0	66.2	105.4	53.9	43.2	39.3
May, 1921	[1] 14.2	36.1	79.7	64.5	29.9	42.9	26.7
December, 1921	[1] 11.2	15.3	77.3	67.1	14.7	42.3	23.2
June, 1922	[1] 15.1	7.3	74.8	56.3	6.8	37.8	18.2
December, 1922	[1] 14.9	6.7	72.5	68.5	12.2	37.4	18.6
June, 1923	[1] 13.9	9.8	72.3	62.8	23.2	38.1	19.9
December, 1923	[1] 11.2	11.0	72.5	65.0	23.4	37.3	21.0
June, 1924	[1] 17.1	9.5	72.4	66.2	18.6	36.3	18.2
December, 1924	[1] 9.2	6.4	68.6	66.2	20.1	37.4	20.4
June, 1925	[1] 7.1	5.9	66.4	55.7	20.1	38.5	20.5
December, 1925	[1] 2.0	4.7	60.4	71.4	20.1	37.8	22.0
June, 1926	[1] 4.1	4.0	57.0	63.3	18.2	36.7	19.9
December, 1926	[1] 5.7	3.9	53.9	80.1	17.1	37.7	19.9
June, 1927	[1] 7.2	1.9	50.2	79.4	16.0	36.6	18.1
December, 1927	[1] 8.0	1.6	47.3	76.0	16.0	36.6	17.3

[1] Decrease. [2] No change.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1927—Continued

Minneapolis, Minn.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	17.7	33.5	[1] 0.1	14.7	18.1	12.3	15.8
June, 1919	21.4	40.1	[1] 2.0	13.4	23.6	15.9	18.8
December, 1919	34.1	67.0	8.0	22.4	45.6	25.4	32.7
June, 1920	50.0	76.7	10.7	36.9	65.5	31.3	43.4
December, 1920	13.0	63.6	36.8	60.3	65.8	37.6	35.7
May, 1921	[1] 7.9	41.0	39.0	52.8	43.3	37.9	23.7
December, 1921	[1] 4.9	14.3	46.7	50.2	27.9	37.4	20.7
June, 1922	[1] 6.0	7.9	44.6	43.7	21.4	32.6	17.3
December, 1922	[1] 5.3	6.5	46.8	47.0	22.5	32.6	18.0
June, 1923	[1] 6.4	9.2	42.5	44.9	29.7	32.8	17.4
December, 1923	[1] 4.7	9.3	47.4	45.6	28.2	32.0	18.8
June, 1924	[1] 7.9	7.4	44.7	42.2	22.8	31.3	16.2
December, 1924	[1] 4.3	5.6	44.9	43.2	23.3	31.2	17.3
June, 1925	[1] .8	4.9	40.7	40.9	23.2	31.1	17.6
December, 1925	6.9	4.4	41.0	42.6	22.1	30.6	20.3
June, 1926	5.8	3.4	36.8	45.9	19.9	32.8	19.6
December, 1926	2.3	2.5	36.1	46.6	17.0	33.5	18.2
June, 1927	4.1	1.1	30.2	44.3	15.1	32.6	17.2
December, 1927	[2]	[1] 1.4	29.9	45.6	14.9	33.0	15.4

New Orleans, La.

December, 1918	16.6	36.8	[2]	19.7	23.8	15.9	17.9
June, 1919	17.4	48.8	0.1	20.8	30.0	17.5	20.7
December, 1919	21.1	83.2	10.8	24.7	57.7	35.1	33.9
June, 1920	28.6	94.9	12.9	36.3	75.9	42.8	41.9
December, 1920	10.7	69.4	39.7	41.5	63.9	57.1	36.7
May, 1921	[1] 10.7	45.0	46.7	29.2	47.7	58.2	23.8
December, 1921	[1] 9.3	24.9	57.9	40.4	28.5	60.2	22.7
June, 1922	[1] 12.8	15.6	58.5	33.4	17.9	58.6	18.9
December, 1922	[1] 10.5	16.2	54.7	38.5	26.2	51.9	18.6
June, 1923	[1] 13.2	17.8	55.5	32.9	34.8	50.1	17.7
December, 1923	[1] 8.7	19.5	57.4	37.1	33.6	50.3	20.2
June, 1924	[1] 14.6	18.6	57.1	32.9	29.2	48.7	16.8
December, 1924	[1] 5.7	17.2	57.2	36.2	30.0	48.7	20.6
June, 1925	[1] 5.7	17.0	57.0	33.7	27.0	48.3	20.2
December, 1925	.9	15.9	56.8	34.2	27.5	47.9	22.7
June, 1926	[1] 5.2	15.7	57.0	39.6	26.6	46.7	20.1
December, 1926	[1] 1.6	15.6	56.2	43.8	25.0	47.4	21.7
June, 1927	[1] 3.9	13.4	56.0	38.5	21.8	48.6	20.3
December, 1927	[1] 4.9	13.4	56.2	38.5	21.8	48.5	19.9

Pittsburgh, Pa.

December, 1918	18.8	35.9	7.6	9.2	26.3	16.3	19.8
June, 1919	16.2	45.3	13.5	9.4	34.1	16.7	21.8
December, 1919	25.1	82.8	15.5	9.8	63.1	28.3	36.2
June, 1920	36.5	91.3	34.9	31.7	77.4	41.2	49.1
December, 1920	14.3	75.4	35.0	64.4	78.1	46.3	39.3
May, 1921	[1] 8.8	50.7	55.5	59.8	58.2	48.6	27.7
December, 1921	[1] 5.6	23.6	55.3	66.2	31.6	48.0	22.8
June, 1922	[1] 12.2	17.3	56.7	66.0	20.1	43.4	17.8
December, 1922	[1] 5.4	13.1	56.7	72.8	25.1	42.8	20.1
June, 1923	[1] 5.4	14.8	60.4	68.4	29.4	44.1	21.3
December, 1923	[1] 2.1	14.9	60.7	76.9	29.0	43.1	22.9
June, 1924	[1] 7.5	13.7	71.8	74.8	29.0	45.3	22.4
December, 1924	[1] 2.4	11.2	72.1	92.2	29.8	46.6	24.9
June, 1925	[1] .2	11.1	75.2	91.2	27.7	46.7	26.0
December, 1925	6.2	10.5	75.2	89.9	28.0	46.8	28.5
June, 1926	2.6	7.8	75.4	88.0	25.3	46.1	26.2
December, 1926	5.6	5.5	75.0	91.9	24.3	46.4	27.2
June, 1927	2.2	5.2	74.7	88.8	22.6	46.3	25.4
December, 1927	1.4	3.8	74.4	88.0	21.9	46.2	24.8

[1] Decrease. [2] No change.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1927—Continued

Richmond, Va.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	20.5	33.8	1.0	11.8	26.3	9.0	17.9
June, 1919	20.6	42.3	3.6	11.4	28.6	13.5	20.6
December, 1919	23.1	78.6	9.8	18.7	55.9	24.0	32.0
June, 1920	36.1	93.6	12.5	36.1	75.4	32.4	43.8
December, 1920	11.9	69.0	25.9	62.2	70.0	36.0	33.3
May, 1921	[1] 7.4	43.8	29.4	47.1	48.8	38.7	20.2
December, 1921	[1] 2.9	21.2	34.1	46.8	33.0	38.4	18.3
June, 1922	[1] 7.8	12.9	34.5	33.4	27.6	34.7	13.2
December, 1922	[1] 6.3	10.6	35.3	54.2	29.4	33.5	14.4
June, 1923	[1] 7.2	12.5	35.7	52.7	40.0	33.9	14.9
December, 1923	[1] 4.8	12.9	39.4	61.2	40.5	35.4	17.1
June, 1924	[1] 11.3	11.9	39.5	49.1	37.8	35.8	13.5
December, 1924	[1] 3.3	8.9	41.3	47.9	38.5	35.7	16.5
June, 1925	[1] 2.4	8.6	41.4	41.2	38.2	36.0	16.7
December, 1925	4.8	8.4	40.4	53.6	39.2	39.1	20.8
June, 1926	1.6	8.1	39.6	51.0	38.1	40.8	19.7
December, 1926	.9	7.0	36.0	61.4	36.7	40.8	19.3
June, 1927	[1] 1.2	5.8	34.0	51.9	35.6	40.9	17.4
December, 1927	[1] 2.9	5.3	31.1	54.2	35.3	40.9	16.4

St. Louis, Mo.

December, 1918	18.0	32.4	2.7	4.8	21.8	14.5	16.7
June, 1919	16.1	39.3	3.8	3.7	32.5	15.7	17.9
December, 1919	26.2	78.1	16.8	8.2	52.9	30.3	34.2
June, 1920	46.2	89.7	29.8	19.6	73.1	37.6	48.9
December, 1920	8.8	70.0	42.4	42.6	70.2	43.2	35.4
May, 1921	[1] 10.1	43.8	52.5	30.9	43.5	42.1	23.1
December, 1921	[1] 11.6	17.2	63.8	33.4	19.2	40.6	18.5
June, 1922	[1] 12.1	7.9	65.7	32.3	12.8	33.2	15.1
December, 1922	[1] 9.5	6.3	68.0	48.9	14.9	33.4	17.0
June, 1923	[1] 11.5	9.0	74.6	30.8	29.8	33.4	17.7
December, 1923	[1] 7.5	9.6	79.5	32.1	30.5	35.8	20.6
June, 1924	[1] 11.4	8.6	83.4	21.6	26.2	35.7	18.8
December, 1924	[1] 6.5	7.9	83.4	24.6	27.4	35.8	20.7
June, 1925	[1] 2.5	7.4	85.2	19.5	28.0	36.6	22.4
December, 1925	3.4	6.9	85.4	26.9	27.9	37.0	25.0
June, 1926	2.8	6.8	84.7	18.3	27.1	36.6	24.1
December, 1926	2.0	7.0	83.2	38.9	22.7	36.6	24.5
June, 1927	1.2	4.4	81.0	34.0	22.3	36.5	23.2
December, 1927	[1] 2.3	3.4	78.3	34.3	23.3	36.9	21.4

Scranton, Pa.

December, 1918	21.3	34.4	0.5	24.7	27.0	21.4	21.9
June, 1919	18.1	49.6	6.2	25.7	35.6	24.9	25.0
December, 1919	26.9	82.1	2.4	31.5	48.9	34.7	37.1
June, 1920	41.4	97.7	17.2	43.5	62.8	47.9	51.5
December, 1920	17.8	76.5	18.5	67.3	62.0	50.4	39.1
May, 1921	[1] 4.0	54.3	41.5	62.8	48.6	54.6	28.2
December, 1921	4.1	29.1	44.6	67.1	30.7	52.4	26.3
June, 1922	[1] 6.7	24.2	52.8	68.0	24.2	49.9	20.9
December, 1922	[1] 2.1	20.7	53.6	68.6	28.5	49.3	22.4
June, 1923	[1] 5.1	21.7	59.0	65.2	34.7	51.4	22.4
December, 1923	.2	23.2	60.8	75.3	34.9	51.7	25.8
June, 1924	[1] 8.7	22.2	67.6	68.9	31.6	53.7	22.4
December, 1924	[1] 1.6	21.1	68.6	75.7	34.6	53.7	25.8
June, 1925	1.4	20.3	71.0	70.3	33.9	54.8	27.0
December, 1925	9.6	20.2	70.5	99.8	33.9	55.4	32.0
June, 1926	4.7	19.5	71.4	77.8	34.4	55.9	29.0
December, 1926	6.7	18.3	72.4	78.5	33.7	55.9	29.8
June, 1927	4.2	17.2	73.1	71.4	32.4	55.7	28.2
December, 1927	5.0	16.3	73.4	75.3	32.1	55.9	28.5

[1] Decrease.

The following table shows the increase in each item of expenditure in the United States from 1913 to December, 1927. These figures are a summarization of the figures for the 32 cities, the results of which appear in the preceding tables, but computed on a 1913 base.

TABLE 5.—CHANGES IN COST OF LIVING IN THE UNITED STATES, 1913, TO DECEMBER, 1927

Date	Per cent of increase over 1913 in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1914	5.0	1.0	(1)	1.0	4.0	3.0	3.0
December, 1915	5.0	4.7	1.5	1.0	10.6	7.4	5.1
December, 1916	26.0	20.0	2.3	8.4	27.8	13.3	18.3
December, 1917	57.0	49.1	.1	24.1	50.6	40.5	42.4
December, 1918	87.0	105.3	9.2	47.9	113.6	65.8	74.4
June, 1919	84.0	114.5	14.2	45.6	125.1	73.2	77.3
December, 1919	97.0	168.7	25.3	56.8	163.5	90.2	99.3
June, 1920	119.0	187.5	34.9	71.9	192.7	101.4	116.5
December, 1920	78.0	158.5	51.1	94.9	185.4	108.2	100.4
May, 1921	44.7	122.6	59.0	81.6	147.7	108.8	80.4
September, 1921	53.1	92.1	60.0	80.9	124.7	107.8	77.3
December, 1921	49.9	84.4	61.4	81.1	118.0	106.8	74.3
March, 1922	38.7	75.5	60.9	75.8	106.2	103.3	66.9
June, 1922	40.7	72.3	60.9	74.2	102.9	101.5	66.4
September, 1922	39.7	71.3	61.1	83.6	102.9	101.1	66.3
December, 1922	46.6	71.5	61.9	86.4	108.2	100.5	69.5
March, 1923	41.9	74.4	62.4	86.2	117.6	100.3	68.8
June, 1923	44.3	74.9	63.4	80.6	122.2	100.3	69.7
September, 1923	49.3	76.5	64.4	81.3	122.4	101.1	72.1
December, 1923	50.3	76.3	66.5	84.0	122.4	101.7	73.2
March, 1924	43.7	75.8	67.0	82.2	121.3	101.1	70.4
June, 1924	42.4	74.2	68.0	77.3	116.0	101.1	69.1
September, 1924	46.8	72.3	68.0	79.1	114.9	101.1	70.6
December, 1924	51.5	71.3	68.2	80.5	116.0	101.7	72.5
June, 1925	55.0	70.6	67.4	76.5	114.3	102.7	73.5
December, 1925	65.5	69.4	67.1	86.9	114.3	103.5	77.9
June, 1926	59.7	68.2	65.4	80.7	110.4	103.3	74.8
December, 1926	61.8	66.7	64.2	88.3	107.7	103.9	75.6
June, 1927	58.5	64.9	62.1	80.8	105.2	104.5	73.4
December, 1927	55.9	62.9	60.2	83.2	104.6	105.1	72.0

[1] No change.

The following table shows the per cent of decrease in the price of electricity on the dates specified as compared with the price in December, 1913. These figures are based on the average prices for household use in 32 cities and are included in the preceding tables under the item "Fuel and light."

TABLE 6.—PER CENT OF DECREASE IN THE PRICE OF ELECTRICITY AT SPECIFIED PERIODS AS COMPARED WITH DECEMBER, 1913

Date	Per cent of decrease from December, 1913	Date	Per cent of decrease from December, 1913	Date	Per cent of decrease from December, 1913
December, 1914	3.7	September, 1921	4.9	March, 1924	8.6
December, 1915	6.2	December, 1921	4.9	June, 1924	8.6
December, 1916	8.6	March, 1922	4.9	September, 1924	8.6
December, 1917	11.1	June, 1922	6.2	December, 1924	8.6
December, 1918	6.2	September, 1922	6.2	June, 1925	9.9
June, 1919	6.2	December, 1922	7.4	December, 1925	9.9
December, 1919	7.4	March, 1923	7.4	June, 1926	11.1
June, 1920	7.4	June, 1923	7.4	December, 1926	11.1
December, 1920	4.9	September, 1923	8.6	June, 1927	12.3
May, 1921	4.9	December, 1923	8.6	December, 1927	12.3

Resolution in Favor of New Cost-of-Living Survey

THE following resolution in favor of a new cost-of-living survey to be made by the United States Bureau of Labor Statistics was adopted by the American Association for Labor Legislation at its annual meeting held in December in Washington, D. C. Similar resolutions were passed by the American Economic Association and the American Statistical Association at their December meetings, also held in Washington:

Whereas the latest official cost of living study made by the United States Bureau of Labor Statistics dates from 1918–19; and

Whereas the bureau itself now feels that this study is not a true reflection of the American workers' family budget owing to obvious changes in the character of family consumption: Be it

Resolved, That the American Association for Labor Legislation feels that a new survey of the cost of living is imperatively needed to bring these statistics up to date; and be it further

Resolved, That the matter be referred to the executive committee of the association with instructions to consult with the United States Commissioner of Labor Statistics and to take any action necessary with a view to securing an appropriation from Congress for such a survey.

Increasing Consumption of Pork Products in the United States

INVESTIGATIONS of meat and animal fats by the United States Department of Agriculture continue to show the popularity of pork in the American diet. Food habits in the United States differ from those in many other countries largely in our very extensive use of pork products. This country, though possessing only about 6 per cent of the population of the world, has contained in recent years about 20 per cent of the world's swine.

An increasing control of hog cholera, swine parasites, and other losses has made the production of swine a much safer enterprise than formerly. A report just issued by the Bureau of Animal Industry of the Department of Agriculture shows an increase of more than 2,200,000 hogs slaughtered under Federal inspection during the last fiscal year as compared with the previous year. The total federally inspected hogs slaughtered last year exceeded 42,500,000 out of a total of approximately 70,000,000 food animals.

The unusual prominence of pork and its products in the American diet has also been the subject of special studies conducted by the Bureau of Animal Industry. In addition to former investigations showing the high nutritive value of pork protein and the ability of pork products to enhance the food value of cereal and vegetable products consumed at the same time, recent studies of sausage are of particular interest. A chemical examination of more than 200 samples showed pure pork sausage to have an exceptionally high fuel value, furnishing more than 2,000 calories per pound. This is approximately twice the number of calories ordinarily consumed by the average person at a meal. A careful selection from the very wide range of pork products makes possible diets containing, on the one hand, an abundant supply of fuel for hard manual labor and, on the other, by a different choice, diets containing a lesser quantity of energy and more

protein, which may be more suitable for persons leading sedentary lives. In general the winter season calls for a greater consumption of foods high in fuel value.

Previous experiments showed pork to be relatively rich in the antineuritic vitamin, as determined by feeding experiments with large numbers of pigeons. More recent tests have shown that as small a quantity as 5 per cent of dried, lean pork in the diet of the birds protected them against polyneuritis. This disease results from the same vitamin deficiency that causes beriberi in man. Other experiments, conducted to determine the value of pork as a source of the growth-promoting vitamin B, indicate that pork contains a reasonable supply of this valuable nutritive factor. These studies are of special significance since pork amounts to approximately 50 per cent of the entire meat dietary in the United States.

The large and efficient production of pork in the country likewise has made it possible for this food to reach the market at comparatively low prices. Its economy, combined with high food value, department officials believe, helps to explain the very liberal use of pork products in the American diet.

Economics of Installment Selling [1]

INSTALLMENT selling has a tendency to stabilize, regularize, increase, and speed up production, according to the findings of an intensive survey made by Prof. E. R. A. Seligman and a corps of investigators. The results of this study are embodied in two volumes covering nearly 1,000 pages. Among the important conclusions reached are the following:

Volume of Installment Selling Exaggerated

MANY of the estimates in regard to installment selling were found to be enormously exaggerated. The durable consumption goods to which the installment system is primarily applied totaled at the close of 1926 approximately $4,500,000,000 or a little less than 12 per cent of the total retail sales, which approximated $38,000,000,000. The total outstanding installment paper amounted to approximately $2,000,000,000. Less than 60 per cent of the automobiles were reported as being sold on the installment plan as compared with the common estimate of 75 to 80 per cent.

Prejudices Against Installment Credit

NEARLY all prevalent opinions concerning installment credit are declared to be the result of prejudice or prepossession and without satisfactory factual foundation or "adequate economic analysis."

A careful study of consumption and production credit has led the author to conclude that "the economic nature of installment credit must be considered in the light of the doctrine of utilization. To

[1] Seligman, Edwin R. A.: The Economics of Installment Selling. A study in consumers' credit with special reference to the automobile. New York, 1927.

object to installment selling on the ground that it is consumption credit, with the further implication that consumption credit is in some way or other less legitimate than production credit, is essentially invalid."

It is emphasized that a distinction must be drawn between using a thing and using up a thing. "True surplus is to be envisaged from the point of view of creative capacity or of finer living." Instead of defining consumption as productive or unproductive it should be classified as creative, neutral, wasteful, or destructive.

In Professor Seligman's judgment, the legitimacy of consumption credit depends upon the character of its utilization. Productive or neutral utilization makes credit legitimate. Wasteful or destructive utilization makes credit illegitimate.

Evolution of Installment Credit

THE investigator shows how new forms of credit have been evolved with every great change in economic conditions. Although these forms of credit met with opposition at first, they were later on greatly appreciated. "Installment credit represents the latest stage of credit."

The essential points of difference between installment credit and other forms of consumption credit are (1) the kind of terms on which installment credit is granted; (2) the character of the security upon which installment credit is granted.

The gravest problems, therefore, of installment credit center in the facts of defaults and delinquencies. Consequently, special attention was given to a study of repossessions, which resulted in the conclusion that "there are few undesirable factors (i. e., factors leading to delinquencies, repossessions, and losses) which may be considered as permanently inherent in installment selling; and in the further conclusion that the control of delinquencies, repossessions, and losses lies in the hands of those selling on installment."

What is a Luxury?

IN REFERRING to the common criticism of installment credit, that it stimulates the buying of luxuries, attention is called to the greater production, larger profits, and increased wages made possible by modern capitalism and the factory system and to the important influence such changes have had on standards of living. What is considered a luxury to-day may be regarded as a necessity to-morrow. "While the force of the old objections against certain forms of senseless and extravagant luxury on ethical grounds remained unimpaired, attention ought primarily to be directed to the validity of the economic argument which explains the transition from luxuries to necessities."

Discussing the automobile in particular, the writer maintains that it should not be considered either a luxury or as a form of wasteful consumption. He holds that "the advent of the automobile has marked a revolution in economic and social life which is comparable to that produced by the introduction of the railway." The benefits

of the automobile must be weighed against its resultant evils. He holds that there is "little doubt as to where the balance of advantages lies."

Effect on the Consumer

THE breaking up of payments makes it possible for the consumer of moderate means to have immediate possession of high-priced durable goods. "Installment credit must therefore be regarded primarily as making it possible for the consumers to increase that satisfaction of their wants which is rendered by certain forms of modern durable goods."

In regard to the alleged dangers in installment credit because of the irrationality of consumers it is acknowledged in the report that "consumers as a class undoubtedly do not possess the same skill in financial arrangements nor practice the same careful budgetary methods as producers or business men as a class." Yet it is pointed out that "irrationality can not well be predicated of consumers in general." It is also maintained that in many cases installment credit tends to make the consumer arrange his program of expenditures with greater intelligence.

Furthermore, the report states that installment buying has on the whole a tendency to strengthen the motives which prompt individuals to save and increases their capacity to do so. As to the economic slavery resulting among the improvident from debts through installment credit, consideration should also be given to the fact that under proper conditions the purchase of the right kind of articles through installment payments may mean liberation rather than slavery.

Reflex on Business Conditions

POINTING out that there are no boundaries to the multiplication of demands except those set by the physical and economic limits of production, Professor Seligman concludes "that at both ends of the business structure installment selling exerts a well-defined beneficial influence."

A study of the depression resulting from the coal strike several years ago in the anthracite district led to the conclusion that "the dangerous effects of installment selling on the credit structure have been exaggerated." While as yet the data available are not sufficient to constitute a basis for a definite pronouncement, "installment credit under proper conditions is probably not open to the charges so often preferred against it in this respect."

Summary

IN BRIEF, Professor Seligman concludes that installment selling, like every innovation, "is subject to the perils of novelty." It has brought forth new devices, has established a new technique, and has indisputably "come to stay." That there are certain dangers and abuses connected with the system is undeniable, but in the course of time experience will show the kinds of goods and the social strata to which installment credit is economically applicable.

By the gradual elimination of undesirable practices quite definite and generally acceptable standards may be set up for discriminating between the sound and the unsound, the real and the specious.

When these criteria are applied to installment selling "we may expect to learn that the innocuous and the salutary must not be confounded with the inappropriate and the regrettable and that, in its ultimate and refined forms, installment credit will be recognized as constituting a significant and valuable contribution to the modern economy."

Income and Living Standards of Unskilled Laborers in Chicago[1]

ONLY slightly over 50 per cent of the 467 families of able-bodied unskilled laborers included in a recent survey in Chicago were able to maintain a standard equivalent to the budget (1925 revision) proposed for the use of the charitable organizations of that city. The investigation was made under the auspices of the local community research committee of the University of Chicago, the Chicago Council of Social Agencies and several large employers of labor to ascertain whether this budget did not provide a higher standard of living than the average unskilled laborer in Chicago was able to secure for himself.

This budget had been carefully worked out with a view to adaptation to varying family circumstances; for example, the food cost (1924 prices) for a man at hard muscular work in a family where bread is bought is estimated at $14.30 per month and for a woman under the same conditions at $11.30 per month. Additional allowances are provided when members of the family need special diets. An increased estimate for clothing is considered necessary when the man's work "involves unusual exposure." A reduction of 10 to 25 per cent is made in the clothing costs for younger children when wearing apparel is handed down to them. Details from the budget are published as Appendix A to the study.

The two main lines of inquiry based upon this budget were (1) the extent to which the family income was supplemented from other sources than that of the earnings of the chief breadwinner, and (2) the sufficiency of the total family income to maintain a normal living standard.

As the line of demarcation between "unskilled" and "semiskilled" was found to be hazy, both classes were included in the survey. The earnings in both groups ranged from about $800 to $2,200 per annum, the majority being under $1,500. A comparison of the earnings of the chief breadwinner and the estimates of the budget showed that in over two-thirds of the families such earnings were not sufficient for a standard of living equivalent to that contemplated in the Chicago budget. In this connection it should be noted, the investigators point out, that the group of wage earners covered was unusually well situated, having had regular employment throughout the year 1924. Moreover, most of them had been with their employers for several years.

[1] Houghteling, Leila: The Income and Standard of Living of Unskilled Laborers in Chicago. Chicago, 1927.

In the face of these findings the significance of other sources of income was obvious. It was then ascertained that 355 families had other sources of income, which included earnings of wives and children, returns from keeping lodgers and boarders, property income, benefits, gifts from relatives and friends, and borrowed money.

The results of having recourse to some of these supplementary sources were clearly undesirable. For example, in 108 families the mothers felt it necessary to work and their jobs were especially arduous. According to the survey, this fact undoubtedly meant "a lowering of the standard of living in those families and the consequent sacrifice of the welfare of the dependent children."

It is also pointed out that the boarders and roomers in 100 families and the consequent overcrowding contributed to lower the standard of both physical and moral well-being in such families.

A study of the general living conditions of all the families and of the dietaries of a smaller number of families showed quite plainly that the families whose standard of living was lower than that contemplated by the Chicago budget were existing under conditions which failed "utterly to provide a standard of living that will make possible a high standard of physical, mental, and moral health and efficiency for adults, the full physical and mental growth and development of children, and make provision for their moral welfare."

This conclusion is given an added emphasis by the fact that 134 of these families during 1924 found they must avail themselves of the free services which the social agencies provide. As these services are rendered principally by medical agencies, the importance of such aid to both these families and to the community as a whole can readily be seen. Without this assistance the general standard of living would drop "to an extremely low level."

Among the many interesting tables presented in this study is the following statement showing the number and per cent of wage earners' families having each specified number of dependent children:

Number of dependent children [1]	Number of families	Per cent of total
None [2]	2	0. 4
1	77	16. 5
2	112	24. 0
3	103	22. 0
4	79	16. 9
5	41	8. 8
6	34	7. 3
7 or more	19	4. 1
Total	467	100. 0

[1] No age limit was set, and 40 children of 16 years or over were included because they were not contributing to the family exchequer. Also includes 35 children who contributed very small amounts.

[2] The children in these families are dependent nieces and nephews and therefore were not in this table classified with the other dependent children.

Cost of Living in Peru

IN THE Statistical Abstract of Peru for the year 1926 the Peruvian Bureau of Statistics has published a table showing the average retail prices of 15 food articles in Peru for the years 1913 to 1926, from which the following table has been prepared. The price equivalents in United States currency have been computed for 1926.

AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD IN PERU, BY YEARS

[Exchange rate of sol Dec. 29, 1926=35.7 cents; 1 kilogram=2.2 pounds; 1 liter=1.06 quarts]

Article	Unit	1913 (Sols)	1918 (Sols)	1920 (Sols)	1925 (Sols)	1926	
						Sols	U. S. currency
Beef	Kilogram	0.70	1.05	1.35	1.30	1.32	$0.47
Mutton	do	.60	.95	1.10	1.10	1.36	.49
Pork	do	.85	1.80	2.00	2.00	2.00	.71
Sweet oil	do	.65	1.06	1.28	.79	.84	.30
Rice	do	.20	.34	.51	.37	.40	.14
Sugar	do	.13	.24	.24	.28	.26	.09
Vermicelli	do	.30	.46	.61	.51	.53	.18
Kidney beans	do	.20	.26	.34	.32	.44	.16
Flour	do	.17	.34	.38	.36	.40	.14
Milk, fresh	Liter	.30	.45	.55	.52	.50	.18
Milk, condensed	Can	.25	.40	.42	.34	.38	.14
Corn	Kilogram	.09	.17	.21	.22	.24	.09
Lard	do	.61	1.48	1.64	1.32	1.40	.50
Bread	do	.12	.23	.21	.26	.21	.07
Potatoes	do	.286	.40	.625	.438	.399	.14

LABOR AWARDS AND DECISIONS

Awards and Decisions

Locomotive Firemen—Western Railroads

THE Brotherhood of Locomotive Fireman and Enginemen made a claim for increase of wages on the managements of the various western railroads, June 25, 1926, which was denied by the carriers July 8, 1927. As both sides invoked the services of the United States Board of Mediation, mediation proceedings followed. These, however, were without result, and by agreement, August 6, 1927, both sides left the question to an arbitration board consisting of Albert Phillips and S. A. Boone, representing the brotherhood; R. V. Fletcher and John W. Higgins, representing the carriers; and Judge Haslett P. Burke and Paul A. Sinsheimer, appointed by the United States Board of Mediation.

The arbitration hearings began September 29 and ended November 11, 1927. The board agreed that a decision should be made by December 20, met in executive session from November 28 to December 5, and then issued a statement that it was unable to agree upon an award. At the suggestion of the United States Board of Mediation, Judge Burke called the members of the arbitration board to meet December 17, and was later notified that, acting on advice from the Department of Justice, the United States Board of Mediation suggested that if a majority of the board appeared December 17, those present make an award according to the arbitration agreement. Following a protest of the chairman of the conference committee of managers of western railroads against convening the board, the arbitrators representing the railroads declined to attend the meeting. Four of the six members of the board met and rendered a decision, of which the following is a part:

The award was followed by statements made by the four arbitrators present, as follows:

Demand 1: Except as otherwise provided herein existing rates of pay for firemen, helpers, hostlers, and outside hostler helpers shall be increased $1 per day.

On this demand the board decides that the rates of pay for firemen in road passenger service shall be increased 30 cents per day and the rates of pay of all other employees involved shall be increased 35 cents per day.

Demand 2: In freight service on steam, electric, or other power weighing 250,000 pounds and over on drivers and on Mallet engines, existing rates of pay shall be increased $1.25 per day.

This demand the board denies, except to the extent granted in No. 1, above.

Demand 3: Gradations on locomotives, according to weights on drivers, to be extended to 550,000 pounds and over in freight service, with an additional increase of 25 cents per day to be applied for each 50,000 pounds above 250,000 pounds on drivers.

This demand the board denies.

Demand 4: The weight of all other power-driven wheels will be added to the weight on drivers of locomotives that are equipped with boosters, and the weights produced by such increased weights shall fix the rates for the respective classes of service.

This demand the board grants.

Demand 5: In all passenger service the earnings from mileage, overtime, or other rules applicable for each day service is performed shall be not less than $6.25 for firemen.

This demand the board grants to the extent of $5.55; otherwise denies.

The award was followed by statements made by the four arbitrators present, as follows:

Statement of chairman

On the meeting of the members of the board of arbitration, whose signatures are affixed to the foregoing award, at the Capitol Building in Denver, at 2 p. m., December 17, 1927, the first question for consideration was whether the said board could legally reconvene for any purpose at that time and prior to its reconvening and reorganization as a board I stated to arbitrators Sinsheimer, Boone, and Phillips that, in my opinion, no further legal meeting of said board of arbitrators could be held, but that on the opinion of the Department of Justice and the request of the Board of Mediation to the contrary, I was willing to participate therein in order that an award might, if possible, under the circumstances, be rendered and filed in the United States district court and its legality there determined by the only tribunal competent to authoritatively pass upon the question.

Statement of representatives of brotherhood

We believe it appropriate to state in connection with the foregoing award that, in our careful and considered judgment, the employees involved in this arbitration are entitled to increases in rates of pay substantially larger than those awarded. Nevertheless, we believe it our duty to join in an award which will give these men the benefit of at least a portion of the increased wages to which, in our judgment, they are entitled.

Statement of Sinsheimer, arbitrator

I believe the award herein fails to accord the full measure of wage increase justified upon the record of the case. This increase, in my opinion, should range from 35 to 45 cents in the standard wage rates now in effect and should apply in appropriate proportions to all firemen, hostlers, and hostler helpers in service on western railroads.

I have joined in the award so that some measure of increase may be made effective, even though not in the full amount I hold to be justified.

Railroads—Decisions of Train Service Boards of Adjustment

Southeastern Region

A DISPUTE between the Louisville & Nashville Railroad Co. and its engineers was settled by the Train Service Board of Adjustment for the Southeastern Region December 13, 1927, in Docket No. 280. The facts were as follows: On March 18, 1925, following a cyclone which destroyed wire communication between Louisville and Latonia, a freight engineer after attaching his engine to a train set to depart for South Louisville at 8.20 p. m., because of the impossibility of moving the train to Latonia, was instructed to return to the roundhouse, whence he was moved on an engine in charge of a hostler to Tenth Street yard, where he performed emergency work train service repairing wires, returning to South Louisville when he was relieved at 10 o'clock the next morning.

He was paid on continuous time and mileage basis at work-train rates for the entire service. He claimed, however, two days' pay, one at through-freight rate and one at work-train rate, basing his claim on the following articles in the agreement.

ARTICLE 24 (f). When crews are called for road service and not used they will be paid a minimum of three hours at regular or pro rata rates and stand first out in the class of service assigned to. If not relieved within six hours of the time they are called to report they will be paid 100 miles on the class of service for which they were called and stand last out.

ART. 6. In all road service time will be computed from 30 minutes before time set for departure of train or 30 minutes before the actual leaving time, if earlier, and end at the time and point where relieved of the engine.

If required to report for their engines earlier than 30 minutes before the leaving time of their train their time will be computed from the time they are required to report for duty.

The committee stated:

It is, therefore, our contention that when engineer B cleared the ready track switch at the roundhouse, South Louisville, coupled on to his train, received orders and started for Latonia, his destination, was stopped and instructed by proper authority to return to the roundhouse, deliver his engine and report to the caller, he had completed a day's work and was entitled to pay for 100 miles in through-freight service, and when he reported for another engine in a different class of service at Tenth Street roundhouse, which is approximately 3 miles distant from the first reporting point, and cleared the ready track switch at that point he had begun a new day and should be compensated accordingly.

The carrier objected to the claim on the following grounds:

1. That the entire service was continuous and properly paid for under section (a), article 10—two or more classes of service, which reads: "Road engineers, firemen, and helpers performing more than one class of road service in a day or trip will be paid for the entire service at the highest rate applicable to any class of service performed, with a minimum of 100 miles for the combined service. The overtime basis for the rate paid will apply for the entire trip."

2. That there is nothing in the agreement which supports the claim for 100 miles for a movement from one part of a terminal to another part of a terminal incident to a trip in road service.

3. That paragraph (f), article 24, referred to by the committee, is not applicable to the case, in that it applies only to crews who are called and not used.

4. That article 6, referred to by the committee, has no bearing on the case, as it merely provides when time will end after completing service.

Quoting article 6 of the agreement before given, the board said:

Evidence before the board shows engineer B actually performed service under the original call and was then directed to return his engine to the engine house, where he was relieved of it, the trip ending under that portion of the rule reading: "And end at the time and point where relieved of the engine." The claim is, therefore, sustained.

Western Region

Several decisions settling disputes between the Los Angeles & Salt Lake Railroad and its trainmen have been rendered recently by the Train Service Board of Adjustment for the Western Region, of which number three were as follows:

Changing rate of pay.—October 26, 1926, the wage of the engine foreman at Yermo, Calif., was reduced from $7.04 to $6.64 per day, on the ground that the latter rate was the proper rate of pay under the yardmen's agreement with the carrier, effective March 1, 1925, since the engine foreman at that point did not perform the usual duties required of footboard yardmaster receiving the higher rate.

A request for restoration of the rate was decided October 14, 1927, by Decision No. 2501.

The management held that:

When a yard foreman is also required by the company to act as yardmaster we apply the 40 cents per day to the foreman's rate, but we contend that it is a managerial question as to whether the company will require engine foremen to act as yardmasters or not. When the yardmaster's duties are assumed by supervising agent or his representative, as in this case, there is no obligation on the part of the company to pay the footboard yardmaster's rate.

POSITION OF THE COMMITTEE: Continuously since that time [1918] engine foremen at Yermo have been paid footboard yardmaster's rate of pay until on October 26, 1926, this method of payment was arbitrarily discontinued by the carrier. There has been no change in required duties of engine foremen at Yermo. It is the position of the committee that the carrier is not privileged to arbitrarily reduce the rate of pay, and request is therefore made that rate be restored and adjustments made to cover since the date it was discontinued.

DECISION: In view of the fact that there has been no change in the duties and responsibilities, claim is sustained.

Duty to place name on list.—An extra brakeman on the Los Angeles board while protecting a temporary vacancy at San Bernardino was called to attend an investigation at Los Angeles. The investigation closed at 1 p. m., but he was assigned to no duty during the afternoon. On inquiry for the reason at 7 p. m., he was informed that he had been marked "off list" for the day. He demanded pay for a day's work "on the ground that he should have been marked up on the board by the officers at the close of the investigation."

POSITION OF THE COMMITTEE: The officers who caused his name to be placed on "off list," as shown in statement of facts, should have authorized his return to the working board.

POSITION OF MANAGEMENT: When the investigation was concluded at 1 p. m. March 23 he was released and informed that his presence was no longer required. It was then up to Mr. S to report to the crew dispatcher that he was ready for service. This he did not do until 7 p. m. March 24. Accordingly, no one was to blame but brakeman S for loss of time on March 24.

DECISION: In view of circumstances and facts involved, claim is sustained.

Decision No. 2497 October 13, 1927.

Pay.—On a 21-mile branch extending from St. Thomas to Moapa, Nev., a gasoline-motor car superseded a locomotive and coach April 10, 1926. On that day the crew, on arriving at Moapa from St. Thomas, took a freight train from Moapa to Las Vegas. The brakemen were paid continuous time at the local rate of pay, from time of reporting at St. Thomas until released at Las Vegas in accordance with article 11 (c), which reads as follows:

Trainmen performing more than one class of road service in a day or trip will be paid for the entire service at the highest rate applicable to any class of service performed. The overtime basis for the rate will apply for the entire trip.

One of the brakemen, however, claimed two minimum days' pay in accordance with articles 9 (d) and 11 (a) reading as follows:

ARTICLE 9 (d). Should an assigned local freight crew be used for a short trip within its assigned territory continuous with its assigned run and prior to the arrival at its objective terminal, it will be paid continuous time or miles. An assigned crew used for any other short trip will be allowed at least a minimum day for such trip.

ART. 11 (a). In all road service, except passenger service, 100 miles or less, eight hours or less (straightaway or turn around), shall constitute a day's work. Miles in excess of 100 will be paid for at the mileage rate provided.

The decision of the board was as follows:

DECISION: In the opinion of the board, the language of article 9, section (d), sustains the claim, and so decides.
Decision No. 2491, October 13, 1927.

Signalmen—Louisville & Nashville Railroad

A Correction

IN the January issue of the Review (p. 197) certain typographical errors occurred in the wage figures taken from the arbitration award handed down November 12, 1927, in a wage dispute between the Brotherhood of Railroad Signalmen of America and the Louisville & Nashville Railroad. The correct figures are as follows:

		Old rate	New rate
Signal construction foreman	per month	$200. 61	$215. 61
Signal maintenance foreman	do	185. 20	195. 20
Assistant signal foreman	per hour	. 84	. 88
Leading signalmen, leading maintainers	do	. 79	. 83
Signalmen, signal maintainers	do	. 74	. 78
Signal linemen	do	. 70	. 74
Signal groundmen	do	. 64	. 66
Signal helpers	do	. 49	. 52

Rates of signal laborers were increased 2 cents per hour.

Assistant signalmen and assistant maintainers start at 54 cents per hour, instead of 51 cents, as before, receiving an increase of 2 cents per hour every six months for four years.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for November, 1927

By J. J. Kunna, Chief Statistician U. S. Bureau of Immigration

A TOTAL of 41,599 aliens entered the United States in November, 1927; the immigrant class, newcomers for permanent residence in this country, numbered 27,758, the remaining 13,841 being tourists or other temporary visitors. During the same month 22,757 aliens left the United States, 16,886 of whom were of the visiting class or nonemigrants, and 5,871 were emigrants leaving to make their homes abroad again. American citizens returning to and departing from the United States in November totaled 24,325 and 22,612, respectively. Compared with the previous month, there was a decrease in both the inward and outward passenger movement. In November last 65,924 persons entered the United States and 45,369 left for foreign countries as against 103,551 entering and 47,222 departing in October, 1927.

The principal races contributing immigrant aliens in November, 1927, were the German (5,823), Irish (4,095), Mexican (3,886), English (3,181), Scotch (2,123), French (1,693), Scandinavian (1,522), Italian (1,343), and Hebrew (1,010). These nine races supplied 88.9 per cent of the total.

There was a decrease in immigration from both Canada and Mexico in November as compared with the preceding month. In November last 7,055 immigrants were recorded as coming from Canada and 3,993 from Mexico, while during October last 7,641 immigrants came from Canada and 4,301 from Mexico. European immigration also decreased, 18,096 immigrants being admitted from countries on that continent in October as against 15,504 in November.

Over two-thirds, or 27,005 of the 41,599 aliens of all classes admitted during November, 1927, were born in European countries; 12,447 gave countries in the Western Hemisphere as their place of birth, principally Canada and Mexico; 1,774 are natives of Asia; 56 of Africa; and 317 of Australia and the Pacific islands.

A total of 1,723 (1,273 male and 450 female) aliens were debarred from entering the United States, only 188 having been rejected at the seaports of entry, while 1,535 were turned back at the international land border. Practically the entire number, or 96.7 per cent of the total, was refused admission for failure to present proper immigration visas under the immigration act of 1924, 1,666 aliens having been debarred for this reason. In November last 1,030 aliens were deported from the United States under warrant proceedings for various causes under the immigration laws.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT DURING JULY, AUGUST, SEPTEMBER, OCTOBER, AND NOVEMBER, 1927

Period	Inward					Aliens debarred from entering [1]	Outward					Aliens deported after landing [2]
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens departed	Total	
	Immigrant	Nonimmigrant	Total				Emigrant [2]	Nonemigrant [2]	Total [2]			
1927												
July	23,420	15,973	39,393	29,935	69,328	2,002	9,230	18,509	27,739	65,686	93,425	700
August	28,418	19,011	47,429	57,701	105,130	1,574	6,322	17,014	23,336	43,039	66,375	1,346
September	31,000	25,619	56,619	75,557	132,176	1,600	7,625	16,885	24,510	39,748	64,258	901
October	31,719	21,578	53,297	50,254	103,551	1,567	6,402	16,424	22,826	24,396	47,222	932
November	27,758	13,841	41,599	24,325	65,924	1,723	5,871	16,886	22,757	22,612	45,369	1,030
Total	142,315	96,022	238,337	237,772	476,109	8,466	35,450	85,718	121,168	195,481	316,649	4,909

[1] Not included among inward numbers, as they were not permitted to enter the United States.
[2] Deported aliens are included among the emigrant or the nonemigrant aliens.

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMGRANT ALIENS ADMITTED AND INTENDED FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, DURING NOVEMBER, 1927, AND FROM JULY 1 TO NOVEMBER 30, 1927, BY COUNTRIES

[Residence for a year or more is regarded as permanent residence]

Country	Immigrant		Emigrant	
	November, 1927	July to November, 1927	November, 1927	July to November, 1927
Albania	29	149	7	44
Austria	146	568	39	254
Belgium	53	309	45	274
Bulgaria	15	98	11	61
Czechoslavakia	400	1,428	111	882
Danzig, Free City of	23	173	----------	1
Denmark	238	1,022	16	235
Estonia	15	110	1	4
Finland	39	218	28	258
France, including Corsica	458	1,998	98	1,050
Germany	4,990	18,294	416	2,576
Great Britain and Northern Ireland:				
England	746	3,484	434	2,901
Northern Ireland	8	81	----------	1
Scotland	972	5,097	148	817
Wales	154	761	1	19
Greece	215	1,145	278	1,215
Hungary	87	410	54	403
Irish Free State	2,749	11,208	110	628
Italy, including Sicily and Sardinia	1,190	7,391	1,234	8,064
Latvia	28	119	5	19
Lithuania	48	228	10	167
Luxemburg	16	48	----------	6
Netherlands	185	767	33	259
Norway	321	2,366	192	658
Poland	880	3,947	152	1,733
Portugal, including Azores, Cape Verde, and Madeira Islands	85	315	86	514
Rumania	139	579	89	475
Russia	100	593	47	179
Spain, including Canary and Balearic Islands	30	204	102	860
Sweden	723	3,111	70	474
Switzerland	216	954	35	324
Turkey in Europe	32	170	----------	26
Yugoslavia	140	630	213	930
Other Europe	34	172	9	26
Total, Europe	15,504	68,147	4,074	26,337

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND INTENDED FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, DURING NOVEMBER, 1927, AND FROM JULY 1 TO NOVEMBER 30, 1927, BY COUNTRIES—Continued

Country	Immigrant		Emigrant	
	November, 1927	July to November, 1927	November, 1927	July to November, 1927
Armenia	1	12	2	10
China	96	740	457	2,334
India	9	53	26	99
Japan	27	265	111	529
Palestine	46	233	5	39
Persia	3	33		12
Syria	41	242	9	114
Turkey in Asia	5	30	8	40
Other Asia	31	128	6	32
Total, Asia	259	1,736	624	3,209
Canada	7,055	39,549	176	1,223
Newfoundland	200	1,160	64	324
Mexico	3,993	26,051	301	1,551
Cuba	167	1,658	173	767
Other West Indies	83	570	187	720
British Honduras	4	25	4	10
Other Central America	111	952	47	330
Brazil	107	478	13	41
Other South America	195	1,449	139	675
Other America	2	6		
Total, America	11,917	71,898	1,104	5,641
Egypt	23	114	3	7
Other Africa	10	128	13	69
Australia	31	183	42	137
New Zealand	13	88	7	43
Other Pacific Islands	1	21	4	7
Total, others	78	534	69	263
Grand total, all countries	27,758	142,315	5,871	35,450

TABLE 3.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED DURING NOVEMBER, 1927, AND FROM JULY 1 TO NOVEMBER 30, 1927, BY RACE OR PEOPLE, SEX, AND AGE PERIODS

Race or people	Immigrant		Emigrant	
	November, 1927	July to November, 1927	November, 1927	July to November, 1927
African (black)	76	458	42	254
Armenian	124	550	3	22
Bohemian and Moravian (Czech)	161	625	58	509
Bulgarian, Serbian and Montenegrin	58	288	147	733
Chinese	61	514	455	2,301
Croatian and Slovenian	80	394	71	285
Cuban	114	1,185	103	510
Dalmatian, Bosnian, and Herzogovinian	12	52	30	90
Dutch and Flemish	287	1,343	90	516
East Indian	3	22	16	62
English	3,181	17,827	742	4,263
Finnish	37	303	36	290
French	1,693	9,995	95	964
German	5,823	22,164	489	3,250
Greek	263	1,395	284	1,252
Hebrew	1,010	5,321	23	134
Irish	4,095	18,176	136	793
Italian (north)	215	1,138	68	850
Italian (south)	1,128	6,800	1,201	7,275
Japanese	23	252	114	506
Korean	2	11	1	16
Lithuanian	44	167	11	183
Magyar	100	501	57	452
Mexican	3,886	25,500	315	1,486
Pacific Islander			1	2
Polish	538	1,868	138	1,703
Portuguese	103	396	87	543
Rumanian	52	188	80	407
Russian	115	586	58	292
Ruthenian (Russniak)	42	155	2	35
Scandinavian (Norwegians, Danes, and Swedes)	1,522	7,618	296	1,479
Scotch	2,123	11,422	200	1,189
Slovak	187	1,016	54	349
Spanish	72	588	140	1,172
Spanish American	207	1,743	140	775
Syrian	38	316	7	118
Turkish	19	93	10	80
Welsh	175	850	2	46
West Indian (except Cuban)	39	250	48	172
Other peoples	50	245	21	92
Total	27,758	142,315	5,871	35,450
Male	14,675	75,006	4,436	24,706
Female	13,083	67,309	1,435	10,744
Under 16 years	4,339	23,894	279	1,667
16 to 44 years	20,839	105,266	4,142	24,831
45 years and over	2,580	13,155	1,450	8,952

TABLE 4.—ALIENS ADMITTED DURING NOVEMBER, 1927, AND FROM JULY 1 TO NOVEMBER 30, 1927, SHOWING PRINCIPAL CLASSES UNDER THE IMMIGRATION ACT OF 1924, BY PRINCIPAL PLACES OF BIRTH, AS SPECIFIED

Place of birth	Aliens admitted					
	Quota immigrant		Nonimmigrant and nonquota immigrant		Total during November, 1927	Grand total July 1 to November 30, 1927
	November, 1927	July to November, 1927	November, 1927	July to November, 1927		
Europe	15,143	63,641	11,862	82,135	27,005	145,776
Asia	100	645	1,674	8,956	1,774	9,601
Africa	19	174	37	364	56	538
Australia and Pacific Islands	23	153	294	2,448	317	2,601
Canada, Mexico, and other America	67	306	12,380	79,515	12,447	79,821
Total	15,352	64,919	26,247	173,418	41,599	238,337

TABLE 5.—ALIENS ADMITTED DURING NOVEMBER, 1927, AND FROM JULY 1 TO NOVEMBER 30, 1927, BY CLASSES UNDER THE IMMIGRATION ACT OF 1924

[The number of immigrants appearing in this table and in Table 4 is not comparable with the number of statistical immigrant aliens shown in the other tables, by ports of entry, race, or people, etc.]

Class	November, 1927	July to November, 1927
Nonimmigrants		
Government officials, their families, attendants, servants, and employees	465	3,110
Temporary visitors for business or pleasure	4,776	29,384
In continuous passage through the United States	1,808	11,304
To carry on trade under existing treaty	112	633
Total	7,161	44,431
Nonquota immigrants		
Wives and children of United States citizens [1]	2,073	11,432
Returning residents	6,787	51,827
Natives of nonquota countries [2]	9,962	63,154
Wives and children of natives of nonquota countries [1]	57	403
Ministers of religious denominations and their wives and children	90	653
Professors of colleges, academies, seminaries, or universities and their wives and children	7	137
Students	104	1,257
Veterans of the World War and their wives and children		104
Spanish subjects admitted to Porto Rico	6	20
Total	19,086	128,987
Quota immigrants (charged to quota)	15,352	64,919
Grand total admitted	41,599	238,337

[1] Wives and unmarried children under 18 years of age born in quota countries.
[2] Does not include aliens born in nonquota countries who were admitted under the act as Government officials, visitors, returning residents, etc.

International Conference of Private Associations for Protection of Migrants [1]

THE fourth session of the International Conference of Private Organizations for the Protection of Migrants was held at Geneva, September 8 and 9, 1927. Delegates were in attendance from 44 associations in various European countries and in the United States.

Among the subjects for discussion were:

(1) Separation of families of migrants in various countries.
(2) Official recognition of private organizations for the protection of migrants.
(3) Action to be taken concerning frauds committed by certain transportation agents at the expense of migrants.
(4) Report on the methods of cooperation of organizations members of the conference in the different countries.
(5) Question of returning emigrants disembarking without resources.

The following recommendations with reference to the separation of families were approved:

(1) Drawing attention to the importance of preserving the unity of the family in connection with migration.
(2) Urging the need for long notice to be given of any measures which may have to be adopted for special reasons and which may render difficult the application of the above principle.
(3) Urging the authorities and other bodies to give information to emigrants on any difficulties which may be met with in reuniting families in foreign countries.

[1] International Labor Office. Monthly Record of Migration, Geneva, October, 1927, pp. 392-395.

(4) Urging the passing of legislation to prevent individuals from emigrating unless they have a chance of being joined by their near relatives and to give priority to such relatives among those authorized to migrate.

(5) Noting the desirability of an international convention being concluded to guarantee and facilitate the carrying out of family obligations by relatives living abroad.

(6) Calling upon the private associations to do what they can to bring about the application of the above recommendations and to help migrants in every possible way.

Furthermore, a decision was reached to call public attention to serious cases of separated families and a recommendation made for a future study of the various causes of suffering among the families of migrants in relation to nationality laws, marriage, divorce, inheritances, lack of adequate representation, etc.

In connection with the situation in the United States the conference declared:

(1) That emigrants to the United States should be informed as to the meaning of the regulations of that country.

(2) That priority should be granted among emigrants to persons desirous of joining near relatives already in the United States.

(3) That the measures which had been adopted either by the Senate or the House of Representatives for the purpose of enlarging the categories of nonquota immigrants should be adopted and applied.

(4) That places be reserved either inside or outside the quota for special cases involving extreme hardship.

Although aware of the importance of the right kind of cooperation between governments and the private associations for migrant aid, the conference agreed to leave to the national organizations themselves the matter of deciding as to the most desirable form of cooperation in their respective countries. It also agreed to issue a brief memorandum based on the experience of the different organizations, explaining the present cooperative methods in use in the various countries.

The conference will continue its endeavors to secure legal recognition by official international bodies and will communicate its decision to do so to the international bodies concerned with migration problems.

In line with this program a decision was reached to present a report to the Havana conference on international migration [2] on the official recognition of private organizations for the protection of migrants. "This report should aim at facilitating and obtaining, if possible, (*a*) the effective recognition of the conference by international bodies; (*b*) the accomplishment of the tasks of all the international private associations which are concerned with the protection of migrants."

Considerable progress was reported in methods of cooperation between the member organizations of the conference in a number of countries.

[2] To be held March, 1928.

ACTIVITIES OF STATE LABOR BUREAUS

AMONG the labor activities of State bureaus, the following, reported either directly by the bureaus themselves or through the medium of their printed reports, are noted in the present issue of the Labor Review:

California.—Report on changes in number of employees and in amount of weekly pay roll in 790 industrial establishments, page 154.

Iowa.—Report on changes in volume of employment, page 156.

Maryland.—Statistics of change in volume of employment and weekly pay rolls in industries in that State, page 157.

New Jersey.—Data showing changes in the volume of employment and in weekly pay rolls in 844 industrial establishments, page 158.

New York.—Decrease in severity of industrial accidents, page 92; and report on changes in number of employees and in amount of weekly pay roll in some 1,600 factories in that State, page 160.

Pennsylvania.—Report on changes in volume of employment and pay-roll totals, page 162.

Wisconsin.—Data on changes in number of workers employed and total pay rolls in Wisconsin industries, page 163.

PUBLICATIONS RELATING TO LABOR

Official—United States

ILLINOIS.—Board for Vocational Education. *Bulletin No. 43: Annual report, July 1, 1926, to June 30, 1927. Springfield, November, 1927. 42 pp.; maps.*

In the year covered by the report, vocational courses in agriculture, industrial education, and home economics were carried on in 237 cities in Illinois. Trade and industrial education classes were conducted in 27 cities, and the pupils enrolled in such classes totaled 27,986.

KANSAS.—Public Service Commission. Coal Mine Inspection and Mine Rescue Departments. *Annual report, 1926. Topeka, 1927. 131 pp.*

With a production of 4,562,955 tons, an average working year of 144.6 days per mine, and a total of 8,130 men employed, the mines of the State were responsible for 16 fatal and 475 nonfatal accidents in 1926, an increase over 1925 of 5 fatalities and a decrease of 229 in nonfatal accidents. It should be stated, however, that these accidents included "each small and insignificant injury such as a slight scratch." Most of them caused no loss of time.

KENTUCKY.—Department of Mines. *Annual report for the year ending December, 1926. Lexington, 1927. 306 pp.*

Contains the usual production statistics, by mine, by county, and by years back to 1890; also a complete directory of mines. The extent of employment is also given by county, by mine, and by nationality. An average of 62,006 persons were employed at the mines and coke ovens during the year, the output of coal being 1,026 tons per man, which is a net increase of 72 tons per man over 1925. There were 178 fatal accidents, 9 being caused by explosions and 87 by falls of roof. A fatality rate of 2.8 per million tons of coal is indicated. Nearly 22 per cent of those killed had been working over 10 years.

MASSACHUSETTS.—Department of Education. *Bulletin, 1927, No. 10: State-aided vocational and part-time education in Massachusetts.* [*Boston*] *1927. 46 pp. (Reprint from the nineteenth annual report of the department of education.)*

Tables 1 to 8 give statistics of State-aided and vocational schools for 1925–26 and Table 9, statistics concerning the employment in 1926 of children 14 to 16 years of age.

NEW MEXICO.—Inspector of Coal Mines. *Report for the fiscal year ending October 31, 1926. Albuquerque [1926?]. 39 pp.*

Notes the occurrence of 15 fatal and 610 nonfatal accidents, the latter causing a time loss of 12,610 days. The production of coal amounted to a total of 2,792,360 tons, giving a fatality rate of 5.4 per million tons, which is an improvement of about 33 per cent over the preceding year.

PENNSYLVANIA.—Department of Labor and Industry. Bureau of Women and Children. *Special Bulletin No. 13: The personnel policies of Pennsylvania department stores. Harrisburg, 1926. 56 pp.*

This study covers the hours of work and earnings of employees in Pennsylvania department stores as well as the various personnel policies, including methods

of employment, store training, insurance provisions, and recreation and other facilities for the health and comfort of employees.

UNITED STATES.—Bureau of Efficiency. *Annual report for the period from November 1, 1926, to October 31, 1927. Washington, 1927. v, 21 pp.*

—— Department of Commerce. Bureau of Mines. *Seventeenth annual report, for the fiscal year ended June 30, 1927. Washington, 1927. v, 48 pp.; charts.*

This report contains brief statements regarding the different studies of problems of health, sanitation, and ventilation, made by the bureau during the year. The subjects covered included ventilation of metal mines; effects of poisonous petroleum vapors; poisoning from carbon monoxide, tetraethyl lead, and from lead in mining of lead ores; development of effective types of respirators and gas masks; and a study of synthetic atmospheres in caisson disease.

—— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 454: Hours and earnings in bituminous coal mining, 1922, 1924, and 1926. Washington, 1927. 66 pp.*

An advance summary of this bulletin was published in the Labor Review for July, 1927 (pp. 89–97).

—— —— —— *Bulletin No. 455; Proceedings of the fourteenth annual convention of the Association of Governmental Labor Officials of the United States and Canada, held at Paterson, N. J., May 31–June 3, 1927. Washington, 1927. 131 pp.*

A brief account of this convention was published in the Labor Review for July, 1927 (pp. 39, 40).

—— —— Employment Service. *Industrial, agricultural, and general employment prospects for 1928. Washington, 1927. iii, 20 pp.*

—— Government Printing Office. Superintendent of Documents. *Immigration, naturalization, citizenship, Chinese, Japanese, Negroes, and aliens. List of publications relating to above subjects for sale by Superintendent of Documents, Washington, D. C. Washington, September, 1927. 10 pp. Price list 67—12th ed.*

—— Interstate Commerce Commission. *Forty-first annual report [November 1, 1926, to October 31, 1927]. Washington, 1927. v, 319 pp.*

Data on accidents to employees, passengers, and others, on the steam railroads of the United States in 1926, taken from this report, are published on page 88 of this issue.

—— —— Bureau of Statistics. *Accident bulletin No. 95: Collisions, derailments, and other accidents resulting in injury to persons, equipment, or roadbed, arising from the operation of steam railways in interstate commerce, calendar year 1926. Washington, 1927. v, 116 pp.*

Some of the data included in this report, derived from the annual report of the Interstate Commerce Commission, appears in an article on page 88 of this issue.

—— Laws, Statutes, etc. *Compilation of laws relating to mediation, conciliation, and arbitration between employers and employees; laws disputes between carriers and employers and subordinate officials under Labor Board; 8-hour laws; and employers' liability laws. Compiled by Elmer A. Lewis, Superintendent Document Room, House of Representatives. Washington, 1927. 66 pp.*

—— Treasury Department. Public Health Service. *Annual report of the Surgeon General for the fiscal year 1927. Washington, 1927. vii, 355 pp.; maps, charts.*

A review of the work of the division of industrial hygiene and sanitation is given on page 94 of this issue.

Official—Foreign Countries

AUSTRALIA.—Royal Commission on National Insurance. *First progress report. Casual sickness, permanent invalidity, maternity, old age.* [*Melbourne?*] *1925. 53 pp.*

—— —— *Second progress report. Unemployment.* [*Melbourne?*] *1927. 43 pp.*

—— —— *Third progress report. Destitute allowances.* [*Melbourne?*] *1927. 11 pp.*

—— —— *Fourth and final report. Membership, finance, and administration.* [*Melbourne?*] *1927. 20 pp.*

—— (QUEENSLAND).—Insurance office. *Eleventh annual report, for the year ended June 30, 1927. Brisbane, 1927. 40 pp.*

The report shows a successful year, particularly in the departments of fire and life insurance.

"I stress the fact that the funds of the life department, which commenced business on January 1, 1918, now stand at £1,189,163, and that for the year ended December 31, 1926, on the actuary's recommendation, * * * bonuses on 'with profit' policies, of 30s. endowment assurance and endowments, and 45s. on 'whole of life' policies (an increase of 25 per cent on the bonuses declared for the preceding year) have been declared."

—— (TASMANIA).—Industrial department. *Twelfth annual report on factories, wages boards, shops, etc., 1926–27. Hobart, 1927. 26 pp.*

The number of persons employed in factories was 9,171 in 1926–27, as against 9,099 in the preceding year.

BELGIUM.—Ministére de l'Industrie du Travail et de la Prévoyance Sociale. *Compte-rendu des travaux de la commission chargée de s'enquérir des effets de la loi de 14 juin 1921 instituant la journée de huit heures et la semaine de quarante-huit heures, 1924–1926. Brussels, 1927. 467 pp.*

Reviewed on page 122 of this issue.

CANADA.—Department of Labor. *Labor legislation in Canada, 1926. Ottawa, 1927. 88 pp.*

GREAT BRITAIN.—Ministry of Labor. *Effect of the unemployment insurance bill on the number of persons drawing benefit. London, 1927. 6 pp. (Cmd. 2987.)*

An attempt to calculate how many persons will be excluded from unemployment benefit by the provisions of the bill now before Parliament. The Government estimates that, allowing for the hoped-for decrease of unemployment and other factors, the number will be reduced by 30,000.

—— National Health Insurance (International Arrangements) Board. *Report to the national health insurance joint committee and to the Irish insurance commissioners. London, 1927. 27 pp. (Cmd. 2965.)*

When the Irish Free State was established in 1922 it became necessary to separate the system of national health insurance within its area from the system in the rest of the United Kingdom. This report contains the recommendations and arrangements made by the International Arrangements Board concerning the apportionment of funds and the financial adjustments required as a result of the severance.

INDIA.—Department of Commercial Intelligence and Statistics. *Statistical abstract for British India, with statistics, where available, relating to certain Indian States, from 1916–17 to 1925–26. Calcutta, 1927. xi, 707 pp.*

Includes data on cooperative societies, emigration, wholesale and retail prices, number of persons employed in different industries, and distribution of population by occupation as obtained in the industrial census of 1921.

INTERNATIONAL LABOR OFFICE.—*Report of the director [submitted to the International Labor Conference, tenth session, Geneva, 1927]. Geneva, 1927. In two parts. 254, 145 pp.*

Part I reviews the general activities of the International Labor Organization, its internal development, external relations, and the results produced. Part II summarizes the annual reports submitted in pursuance of article 408 of the Versailles Treaty of Peace.

—— *Studies and reports, series A (industrial relations), No. 28: Freedom of Association. Vol. 1, Comparative analysis. Geneva, 1927. 140 pp.*

—— *Studies and reports, series B (economic conditions), No. 17: Scientific management in Europe, by Paul Devinat. Geneva, 1927. xv, 261 pp.*

This study was undertaken on behalf of the XXth Century Fund to furnish a basis on which to estimate the chances of success and to determine what should be the program of work of an international institution such as had been proposed for the study of questions connected with the scientific organization of production. The volume presents information on the growth and progress of the movement for scientific management in industry, the institutions which have been created to deal with the subject, application of the principles of scientific management, and opinions regarding it. A bibliography of German and French works on scientific management is appended.

Another appendix gives the constitution and rules of the International Management Institute which was founded in 1927 with Mr. Paul Devinat, the author of this work, as the director. The institute will be managed by a board of 12 members composed of 3 representatives of the XXth Century Fund, 3 representatives of the governing body of the International Labor Office (representing the governments, employers, and workers, respectively), a representative of the International Committee for Scientific Management, and 5 experts nominated by the first seven founder members of the institute.

NETHERLANDS EAST INDIES.—Departement van Landbouw, Nijverheid en Handel. Centraal Kantoor voor de Statistiek. *Mededeelingen No. 46: Prijzen, indexcijfers en wisselkoersen op Java 1913–1926. Batavia, 1927. xxxii, 173 pp.; charts.*

A report on prices, price indexes, and exchange rates in Java, 1913 to 1926.

NORWAY.—[Departementet for Sociale Saker.] Riksforsikringsanstalten. *Sykeforsikringen for året 1926. Oslo, 1927. [6], 82 pp.; chart. (Norges offisielle statistikk, VIII, 43.)*

Annual report of the State Insurance Institution of Norway on sickness insurance in that country in 1926, with some comparative data for earlier years.

PERU.—Department of Treasury and Commerce. Bureau of Statistics. *Statistical abstract of Peru, 1926. Lima, 1927. xi. 207 pp.*

Besides comparative vital, financial, agricultural, and commercial statistics, this volume contains data on wholesale and retail prices and cost of living and industrial accident statistics. Average retail prices of specified food articles and industrial accident statistics, taken from this report, are given on pages 238 and 93 of this issue.

SWEDEN.—[Socialdepartementet.] Socialstyrelsen. *Kooperativ verksamhet i Sverige, år 1925. Stockholm. 1927. [Various paging.]*

Report on the Swedish cooperative movement for the year 1925.

UNION OF SOUTH AFRICA.—Department of Labor. Chief Inspector of Factories. *Annual report for the year 1926. Pretoria, 1927. 37 pp.*

Data on factory conditions, taken from this report, appear on page 80 of this issue.

—— Office of Census and Statistics. *Fourth census of the population of the Union of South Africa, enumerated May 4, 1926. Part I—Population: Number, sex, and geographical distribution of the European population. Pretoria, 1927. xi, 85 pp.*

Unofficial

ACHINSTEIN, ASHER. *Buying power of labor and post-war cycles. New York, Columbia University Press, 1927. 164 pp.; charts. (Columbia University studies in history, economics, and public law, No. 292.)*

This study, which is confined chiefly to factory labor, contains data on cyclical fluctuations of pay rolls and of purchasing power and production in manufacturing establishments, 1919–1925, and cyclical fluctuations of pecuniary volume of production, pay rolls, and labor cost, with an analysis of the flow of purchasing power as a causal factor in the course of the post-war business cycles. Many tables and charts are included.

AMERICAN FEDERATION OF LABOR. Metal trades department. *Proceedings of the nineteenth annual convention, held at Los Angeles, Calif., September 28–30, 1927. [Washington?] 1927. 61 pp.*

The report of the president of the department to this meeting included special comment on the enormous development of the flying-machine industry, in which the workers are totally unorganized. The need for the unionization of women in the metal trades was also stressed and organized labor's position reemphasized in regard to equal pay for equal work.

—— New York branch. *Official book. Proceedings, sixty-fourth annual convention, at Syracuse, August 23–25, 1927. Albany, 1927. 219 pp.*

Among the resolutions adopted at this convention were the following, favoring: Amendments and additions to the workmen's compensation law; legislation to protect union bakeries against trusts; increased appropriations to the State employees' retiring fund; amendments to State laws so as to eliminate injunctions; the introduction of a bill to prevent women and children living on lighters, scows, and barges in the port of New York; a clause in contracts for municipal work stipulating that the materials therefor shall be made in America.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS. *Bibliography of management literature (up to February, 1927). New York, 29 West 39th Street, 1927. 67 pp.*

Includes sections on economics; fatigue (industrial); industrial relations, covering employee representation, housing, labor turnover, stabilization of employment, and unemployment; personnel; safety; and wages.

AMERICAN TRADE UNION DELEGATION TO THE SOVIET UNION. *Russia after ten years. New York, International Publishers, 1927. 96 pp.; map.*

A brief account of the findings of the American labor delegation which visited Russia in 1927. The chairman of the delegation was James H. Maurer, president of the Pennsylvania State Federation of Labor.

ATKINSON, HENRY. *Cooperative production—the Priestman-Atkinson system. London, Ernest Benn (Ltd.), 1927. 214 pp.*

BARGERON, L. *L'Orientation professionnelle: Contribution a l'étude des métiers—l'ouvrier bijoutier-joaillier. Paris, Félix Alcan, 1926. 38 pp.*

This monograph on the jewelry industry is intended for use in the vocational guidance of young persons. The working conditions in the manufacture of jewelry and the physical and mental attributes necessary for success in this trade are outlined. Information is also given as to the terms of apprenticeship in France and the opportunities for employment after apprenticeship is finished.

BAROU, N. *The cooperative movement in the U. S. S. R. and its foreign trade. London, 1927. 32 pp.*

BIMBA, ANTHONY. *The history of the American working class. New York, International Publishers, 1927. 360 pp.*

A survey of labor and the labor movement in the United States from colonial times to the present day. Emphasizes the materialist conception of historical movements and events.

BUFFALO EDUCATIONAL COUNCIL. *Adult education in a community—a survey of the facilities existing in the city of Buffalo, N. Y. New York, American Association for Adult Education, 41 E. 42d St. [1927?]. xv, 192 pp.*

Part I is a study of institutions comprising the Buffalo Educational Council. Part II is a study of the individual adult student, which is based upon data secured from the student himself.

CALIFORNIA, UNIVERSITY OF. College of Agriculture. Agricultural Experiment Station. *Economic aspects of the dairy industry, by Edwin C. Voorhies. Berkeley, 1927. 192 pp.; maps, charts. (Bulletin 437.)*

Figures showing the wages of milkers in the dairy industry in California, taken from this report, are published on page 121 of this issue.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. *Histoire économique et sociale de la guerre mondiale: Chômage et placement, par André Créhange. New Haven, Yale University Press, 1927. xii, 128 pp.*

The volume deals with the disruptive effect of the war upon agricultural and industrial employment in France and gives the results of the methods employed in meeting the situation, including the institution of national unemployment funds and organization of an employment system. The appendixes contain the text of the principal ministerial circulars and decrees issued.

—— —— *L'organization du travail dans la région envahie de la France pendant l'occupation, par Pierre Boulin. New Haven, Yale University Press, 1927. xx, 161 pp.*

The labor conditions to which the French population of the territory invaded during the World War were subjected forms the subject of this volume. An account is given of the economic importance of the invaded territory, and of the forced labor of the civilians and conditions under which they worked.

COHEN, J. L. *Mothers' allowance legislation in Canada—a legislative review and analysis with a proposed "standard" act. Toronto, 1927. 134 pp.*

Analyzes the various provisions of the mothers' allowances acts which are in force in five out of the nine Canadian Provinces.

COOPERATIVE PRODUCTIVE FEDERATION (LTD.). *Co-operators' year book 1927. Leicester, Alliance Chambers, Horsefair St., 1927. 136 pp., illustrated.*

DANE, EDMUND. *Wages and labor costs: A statement of the economic laws and theory of wages. London, Macmillan & Co. (Ltd.), 1927. ix, 194 pp.*

Discusses the rise of the modern wage system; the economic source of wages; the quantitative, qualitative, distributive, and competitive laws of wages; prices and wages; fluctuations in wages; taxation and wages; future of the wage system; the "industrial revolution"; and effects of public policy on wages.

DELPEUCH, ANDRÉ. *Le cinéma. Paris, Gaston Doin et Cie, 1927. vi, 292 pp.*

This is a general account of the development of the moving-picture industry.

DOUGLAS, PAUL H. *Wages and the family. Chicago, University of Chicago Press, 1927. xiv, 304 pp. 2d ed.*

Some slight changes in the text have been made in this new edition which also has a supplementary appendix giving various important developments in the family-allowance movement in the 18 months after the first issue was published.

EMPLOYERS' FEDERATION OF NEW SOUTH WALES. *Report of twenty-fifth annual meeting, September 29, 1927. Sydney, 1927. 45 pp.*

Among the interesting sections of this report is one on the basic wage inquiry, 1926–27, and another on the family endowment act and the basic wage act.

FÉDÉRATION NATIONALE DES COOPÉRATIVES DE CONSOMMATION. *Annuaire de la coopération (5e année), 1926–1927. Paris, 85 Rue Charlot, 1926. 639 pp., illustrated.*

Fifth yearbook of the National Federation of Consumers' Cooperative Societies of France. In three parts. Part I contains descriptions of the federation, the

regional federations, the wholesale society, the Bank of the Cooperative Societies, the Superior Council of Cooperation, and articles by well-known cooperators. Part II gives a list of consumers' societies, by locality and Department, and certain statistics concerning the societies. Part III contains the texts of the laws governing cooperative societies, describes the procedure to be followed by cooperative societies, and gives samples of by-laws, forms, etc.

FOREIGN LANGUAGE INFORMATION SERVICE. *Handbook for immigrants to the United States, by Marian Schibsby. New York, 222 Fourth Ave., 1927. 180 pp.; map.*

Issued in the hope of enabling immigrants to take their part more quickly in American life, to make the most of their opportunities, and to contribute their best to their new country.

FORSEY, EUGENE. *Economic and social aspects of the Nova Scotia coal industry. Toronto, Macmillan Co. of Canada (Ltd.) [1927?]. 126 pp. (McGill University economic studies, No. 5.)*

The problem of the coal industry in Nova Scotia is declared to be one of markets. The author thinks it quite important that the mines of the Province should not have to meet unfair competition from central Canada or the United States.

GENERAL ELECTRIC CO. *Safety rules for compressed gases and gas apparatus. Schenectady, October 1927. 117 pp.; diagrams.*

HARDY, GEORGE. *The struggle of British seamen. London, International Propaganda Committee of Transport Workers, 38 Great Ormond St., WC 1, 1927. 48 pp.*

HELEN S. TROUNSTINE FOUNDATION and YOUNG WOMEN'S CHRISTIAN ASSOCIATION OF CINCINNATI. *Wage-earning girls in Cincinnati—the wages, employment, housing, food, recreation, and education of a sample group, by Frances Ivins Rich. Cincinnati, 1927. 76, iii pp., mimeographed; charts.*

Reviewed on page 83 of this issue.

HOUGHTELING, LEILA. *The income and standard of living of unskilled laborers in Chicago. Chicago, University of Chicago Press, 1927. xvii, 224 pp.*

Reviewed on page 236 of this issue.

INDRI, GIOVANNI. *Pour la santé des ouvriers—deux ans d'activité dans le domaine de l'assistance. Rome, Caisse Nationale pour les Assurances Sociales, 1927. 278 pp., illustrated.*

An account of the work of the Italian National Social Insurance Fund in the rehabilitation of workers. A description is given of the methods of treatment and care given in the different convalescent homes.

INSTITUTE OF PACIFIC RELATIONS. *Preliminary paper prepared for second general session, July 15–29, 1927. Asiatic immigration in New Zealand, its history and legislation, by G. H. Scholefield, and T. D. H. Hall. Honolulu, 1927. 16 pp.*

—— —— *Australian immigration laws and their working, by A. H. Charteris. Honolulu, 1927. 10 pp.*

—— —— *Effect of migration on the economic condition of laborers in the lands to which migrants go. Differences in standards of living as a barrier to immigration. By G. L. Wood. Honolulu, 1927. 15 pp.*

—— —— *Legislative aspects of Asiatic migration, prepared by International Labor Office. Honolulu, 1927. 28 pp.*

INTERNATIONAL FEDERATION OF TRADE UNIONS. *Fifth yearbook, 1927. Part II. Amsterdam, 31 Tesselschadestraat, 1927. 80 pp.*

Contains brief reports on membership, activities, etc., for 1925 and 1926, from the national centers affiliated with the International Federation of Trade Unions and from the international trade secretariats.

Part I of this yearbook was noted in the June, 1927, issue of the Review.

LIEU, D. K. *China's industries and finance; being a series of studies in Chinese industrial and financial questions. Peking, Chinese Government Bureau of Economic Information, 1927. xiv, 238 pp.*

The seven sections of this volume deal, respectively, with the following subjects: (1) The industrial development of China; (2) the financial organization of China; (3) industrial and financial statistics of China; (4) the Liken system and its effects on industries and finance; (5) international administration and financial control of Chinese railways; (6) the iron and steel industry in China—its cost and production; and (7) development of Chinese silk weaving industry.

NATIONAL CIVIC FEDERATION. Woman's Department. *Study of a group of almshouses in Connecticut, New Jersey, New York, and Pennsylvania. New York, 105 W. 40th St., 1927. 95 pp.*

A report based upon visits of investigation to 20 almshouses in New York, 12 in New Jersey, 19 in Connecticut, and 24 in Pennsylvania. A brief report upon the individual institutions follows a discussion of the general situation disclosed. The conclusion reached is that the evils of the almshouse system arise from popular indifference to the matter, and that they can be easily and effectively remedied whenever the people in general so desire.

"Most earnestly it [the woman's department] pleads for general realization of the fact that the American almshouse is a social problem, and that it needs only an awakened social conscience to make it the institution it can be—a humane, decent home for those for whom society must care, and a scientific, efficient, and even more humane refuge for the chronic sick for whom society has no other place."

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Supplemental bonuses for wage earners, supervisors, and executives. New York, 247 Park Avenue, 1927. ix, 60 pp.*

The report covers the supplemental bonus plans of 107 companies employing 326,175 workers, of whom 135,228 participated in the bonus. An appendix gives a list of the firms covered.

NATIONAL LAMP WORKS. Engineering Department. *Bulletin 41–D: Illumination design data for industrial and commercial interiors, by Ward Harrison and C. E. Weitz. Cleveland, Sept. 15, 1927. 36 pp.; illustrations, diagrams.*

Intended as a handbook for lighting specialists, electrical contractors, engineers, architects, students, and instructors. Presents a method of illumination design "which has become the standard for illuminating engineering work."

—— —— *Bulletin 42–B: Factory lighting designs, by C. E. Weitz. Cleveland, Sept. 1, 1927. 48 pp.; illustrations, diagrams.*

—— —— *Bulletin 53: Farm lighting, by W. C. Brown. Cleveland, Sept. 15, 1927. 36 pp., illustrated.*

ORMSBEE, HAZEL GRANT. *The young employed girl. New York, Woman's Press, 1927. xiv, 124 pp.*

A study of the educational, industrial, and social status of young employed girls, based on interviews with 500 girls in continuation schools and on information obtained in visits to 263 homes.

PARAF, MATHILDE PIERRE. *La dentelle et la broderie. Paris, Gaston Doin et Cie., 1927. 328 pp.*

A history of the lace industry with an account of what has been done since the war in France to revive the industry and to teach the art of lace making.

PASQUET, LOUIS. *Immigration et main-d'œuvre étrangèrs en France. Paris, Les Éditions Rieder, 1927. 205 pp.*

A handbook for the use of French employers, trade-unions and labor exchanges, and foreign laborers in France. Includes regulations for the recruitment of

foreign workers and information as to their duties, rights, and other matters of interest to them.

RENARD, GEORGES. *L'Ouvrière à domicile. Paris, Éditions Radot, 1927. 188 pp.*

A law establishing a minimum wage for home workers in the clothing industry was passed in France in 1915 and subsequent amendments have included most of the industries which employ this class of labor. The author describes conditions prevailing before the enactment of the law and outlines measures which should be taken to prevent the exploitation of these workers.

ROTTLÄNDER, W. *Almanach des Deutschen Genossenschaftswesens. Berlin, Carl Heymanns, 1926. viii, 125 pp.*

Directory of German consumers' cooperative organizations, giving also year of establishment, membership, etc.

RUDHARDT, PAUL. *Importance de quelques facteurs moraux (volonté, attention, activité, etc.) dans l'orientation professionnelle. Geneva, Georg & Co., 1927. 16 pp.*

The results of tests in the telephone and clock industries, showing the importance of such factors as the will, power of application, activity, etc., for success in different kinds of employment, are given in this pamphlet.

RUTNAGUR, S. M. *Bombay industries: The cotton mills. Bombay, Indian Textile Journal (Ltd.), 1927. xvi, 744 pp., illustrated.*

A review of the cotton industry in Bombay from its inception to 1926. The volume includes a study of the operatives, an account of factory legislation and workmen's compensation, and data on the financial position of the mills since 1920, associations of employers and workers, welfare work and housing, wages in cotton, woolen, jute, and paper mills, and other details bearing on cotton-textile manufacturing.

SELIGMAN, EDWIN R. A. *The economics of installment selling: A study in consumers' credit with special reference to the automobile. New York, Harper & Bros., 1927. 2 vols. 357, 623 pp.*

Reviewed on page 233 of this issue.

SIMON, ODETTE. *L'orientation professionnelle en France et à l'etranger. Paris, Félix Alcan, 1927. xv, 178 pp.*

The author discusses the purpose of vocational guidance, its development in France and other countries, and the methods followed and the results obtained in these countries.

SOCIAL SERVICE COUNCIL OF CANADA. Industrial Life Committee. *The man out of work: A report on a study of five hundred unemployed men. January, 1927. 31 pp.*

This is a study of the unemployed as actual human beings—a collection of individual case records.

STOCKS, M. D. *The case for family endowment. London, Labor Publishing Co. (Ltd.), 1927. 95 pp.*

The author holds that the economic case for family endowment is based on the declaration that the lower wage levels can not be so established as to meet the reasonable requirements of even a "standard family" at its comparatively brief peak period of dependence. This being granted, he believes that either some machinery must be devised to amplify the income of the family during such peak period or we must perforce frankly acknowledge the position that the "persistent destitution" of a high percentage of the children of the Nation "is a necessary feature of its economic system."

TAYLOR, HAROLD. *Producers' cooperation: What workers' control has done. Leicester, Cooperative Copartnership Propaganda Committee [1927?]. 10 pp.*

Endeavors to define the purpose of the cooperative workshops, points out the distinction between these and the profit-sharing schemes, and shows that these societies are the result of protest against the insecurity of employment, the injustices, and the lack of recognition of the worker as a human being, under the present organization of industry.

TESSIER, GASTON. *La grève des employés de banque. Paris, Maison Syndicale, 1926. 23 pp.*

An account of the strike of bank employees in France during the spring and summer of 1925, by a member of the French Superior Council of Labor.

WILLIAMS, SIDNEY J. *The manual of industrial safety. Chicago and New York, A. W. Shaw Co., 1927. viii, 207 pp.*

This book is devoted chiefly to safety organization and methods rather than to mechanical safeguarding, and "attempts to set forth the essential information needed by a man who devotes all or part of his time to industrial safety." Chapters in the book deal with safety committees, the foreman, the new employee, records, safety and production, health and sanitation, and the elimination of hazards specifically noted.

ZENTRALVERBAND DEUTSCHER KONSUMVEREINE. *Jahrbuch, 1927. 3 vols. Hamburg, 1927. [Various paging.]*

Yearbook of the Central Union of German Consumers' Cooperative Societies.