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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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This Issue in Brief

Health-benefit programs under collective bargaining

During recent years labor unions in increasing number are seeking to have health-benefit plans included in the terms of their agreements with employers. Most of such plans now in effect are financed entirely by the employer, although some unions favor the policy of having employees contribute toward the payment of premiums. In a majority of cases the health-benefit programs are underwritten by private insurance companies. A description of the plans provided in employer-union agreements covering more than 600,000 workers is given on page 191.

National budget and full employment

Cooperation between opposing schools of thought should be possible as long as it is agreed that full employment should be definitely assured. The policies required consist of (a) basic policies to minimize long-run deflationary tendencies, and hence budget deficits, and (b) compensatory fiscal policies to "close gaps." Assuming existence of the latter policies, the problem is to reduce the need to rely upon them by systematically developing basic policies. The full-employment national budget invites attention to the specific points at which the effects of a given basic policy would be felt and to the probable or possible order of magnitude of such effects. It thus provides a method whereby desirable basic policies may be more easily identified. Since quantitative precision presumably is out of the question even under the "laboratory" conditions suggested, compensatory fiscal policies must still be available if full employment is not to be left to take its chances. Page 210.

Wartime productivity changes in the airframe industry

Airframe output per man-hour tripled during the 3 years following entry of the United States into the war. Most of the increase occurred in 1943, after effects of many factors which impeded advance during 1942 had been reduced or eliminated. In 1944, a decline in productivity followed recessions in both employment and production. Specialization of labor, machinery, and tools characterized the wartime expansion of the industry. In individual plants, man-hours required per pound of airframe for given models declined on the average about 30 percent with each successive doubling of cumulative production. When the huge production of standardized models stops at the end of the war, productivity is expected to decline from the wartime peak but remain above prewar levels. The industry will undoubtedly provide more employment after the war than before, but since a large part of postwar output will be light civilian aircraft, for which unit labor requirements are much lower than for combat planes, it will probably be many years before employment regains the wartime level. Page 215.

Wartime employment in cotton-duck manufacture

The movement in employment among the cotton-duck mills late in 1944 and the first 3 months of 1945 suggests that mill labor forces may be fairly well stabilized after more than 2 years of steady decline. The shift in the war's emphasis to the Pacific, however, will tend to increase rather than reduce military requirements for cotton duck. Current estimates indicate that production for the first three quarters of 1945 will fall 25 percent below stated requirements. Insufficient manpower continues to be the major obstacle despite various expedients. Page 226.

Wartime expansion in the labor force

The increase in the labor force during the war has exceeded normal peacetime expectations by approximately 7,300,000 persons. Teen-age boys and girls have been the largest single source of additional wartime labor supply. Most of

the increased labor-market participation among adult women occurred in the group over 35 years of age, as the rise in marriage and birth rates exerted a strong downward pull on the labor-market activity of young women. Young service wives, however, have contributed a substantial number of extra wartime workers. Among adult men, extra workers have been recruited from persons past normal retirement age, occasional workers, and men on the borderline of employability. Page 234.

Migrant Labor Act of New Jersey

The New Jersey Legislature recently passed an act the purpose of which is to improve the working and living conditions of migratory workers in that State. The resources of the various State agencies are to be coordinated to insure to these workers improved living accommodations, health service, protection of State labor legislation, education facilities for their children, and various welfare aids. Page 236.

Full-employment policy of Australia

The Australian Government has responsibility for providing a general framework of a full-employment economy within which private operations of both companies and individuals may be carried on. In the White Paper on full employment it was stated that, in peacetime, full employment is to be a fundamental aim of the State. Improved nutrition, rural amenities, social services, more housing, factories, and other capital equipment, and higher standards of living are objectives that are generally agreed upon and toward which all governments may strive to the limits of their resources. No place exists in the Australian full-employment program for made work. Both Commonwealth and State governments should act when private spending is insufficient to sustain full employment. Page 257.

Work injuries in breweries during 1944

That accidents constitute a major problem in the manufacture of beer is indicated by an analysis of work injuries in the industry by the Bureau of Labor Statistics. For 1944 the injury-frequency rate in the industry was 46.2 per million hours worked, as compared with a rate of 18.8 for all manufacturing industries combined. About 1 employee of every 10 workers employed in the brewery industry sustained a disabling injury in 1944. Page 264.

State legislation on compensation for second injuries

Considerable progress was made, during the 1945 sessions of the State legislatures, in the establishment of second-injury funds in connection with workmen's compensation legislation. These funds relieve the employer of part of the compensation cost when an employee, who has previously sustained the loss of a specific member of his body, incurs another injury resulting in permanent total disability. Thus, under most of these laws, the employer is liable only for the second injury, and the fund compensates the worker for the balance due for permanent total disability. As a result of legislation enacted this year, 32 States now have second-injury funds. Page 284.

Wartime developments in workers' education

Increases in the labor force and in labor-union membership since the beginning of the war have posed new problems in workers' education for labor organizations. Such organizations have broadened their programs and objectives in order to assimilate and educate the new members and to improve the training of union leaders. Many educational mediums have been utilized for these purposes. Some of these developments are given in the article on page 301.

Earnings and wage practices in municipal governments, 1944

An experimental study of earnings and wage practices was undertaken by the Bureau of Labor Statistics in 15 cities, covering municipal employees in 74 occupations. Of these cities 12 had job-classification systems, and all but 3 had civil service systems. Considerable variation in earnings was found, not only between cities but between occupations in the same city. Page 319.

Current Statistics of Labor Interest in Selected Periods [1]

[Available in reprint form]

Item	Unit or base period	1945			1944	1939: average for year
		June	May	April	June	
Employment and unemployment						
Civilian labor force (BC): Total	Thousands	53,070	52,030	51,930	54,220	[2] 54,230
Male	do	34,350	33,790	33,840	35,540	[2] 40,950
Female	do	18,720	18,240	18,090	18,680	[2] 13,280
Employed [3]	do	51,990	51,300	51,160	53,220	[2] 46,930
Male	do	33,770	33,360	33,410	35,040	[2] 35,600
Female	do	18,220	17,940	17,750	18,180	[2] 11,330
Nonagricultural	do	42,900	43,350	43,410	43,660	[2] 37,430
Agricultural	do	9,090	7,950	7,750	9,560	[2] 9,500
Unemployed	do	1,080	730	770	1,000	[2] 7,300
Civilian employment in nonagricultural establishments: Total. [3]	do	37,495	37,632	37,797	38,846	30,353
Manufacturing	do	14,573	14,810	15,102	16,093	10,078
Mining	do	791	728	761	844	845
Construction [4]	do	810	769	699	691	1,753
Transportation and public utilities	do	3,840	3,800	3,792	3,803	2,912
Trade	do	6,968	7,023	6,996	6,977	6,618
Finance, service, and miscellaneous	do	4,560	4,496	4,444	4,542	4,160
Federal, State, and local government, excluding Federal force-account construction.	do	5,953	6,006	6,003	5,896	3,988
Military personnel	do	12,300	12,200	12,100	11,400	362
Production-worker employment: [5]						
Manufacturing	do	12,201	12,405	12,678	13,610	8,192
Bituminous-coal mining	do	330	329	305	356	371
Class I steam railroads, including salaried employees (ICC).	do	1,454	1,427	1,421	1,447	988
Hired farm workers (BAE)	do	2,357	1,864	1,660	2,440	[6] 3,099
Hours and earnings						
Average weekly hours:						
Manufacturing	Hours		44.1	45.1	[7] 45.3	37.7
Bituminous-coal mining	do		41.7	36.6	[7] 44.0	27.1
Retail trade	do		39.4	39.8	[7] 39.9	43.0
Building construction (private)	do	40.7	39.3	40.0	40.2	32.4
Average weekly earnings:						
Manufacturing			$46.03	$47.12	[7] $46.02	$23.86
Bituminous-coal mining			$53.32	$43.44	[7] $51.66	$23.88
Retail trade			$27.56	$27.69	[7] $26.29	$21.17
Building construction (private)		$54.10	$53.64	$54.42	$52.21	$30.24
Average hourly earnings:						
Manufacturing			$1.043	$1.044	[7] $1.017	$0.633
Bituminous-coal mining			$1.265	$1.183	[7] $1.175	$0.886
Retail trade			$0.764	$0.764	[7] $0.729	$0.536
Building construction (private)		$1.330	$1.366	$1.361	$1.300	$0.933
Average straight-time hourly earnings in manufacturing, using—						
Current employment by industry			$0.977	$0.971	[7] $0.944	$0.622
Employment by industry as of January 1939.			$0.908	$0.899	[7] $0.867	$0.622
Quarterly farm wage rate, per day without board (BAE).		[8] $4.48		$4.12	[8] $4.06	[8] $1.59
Industrial injuries and labor turn-over						
Industrial injuries in manufacturing, per million man-hours worked.				[9] 17.0	[9] 19.3	15.4
Labor turn-over per 100 employees in manufacturing:						
Total separations			6.9	6.6	[7] 7.1	[7] 3.5
Quits			4.7	4.8	[7] 5.3	[7] 0.7
Lay-offs			1.2	0.8	[7] 0.5	[7] 2.7
Total accessions			4.9	4.7	[7] 6.4	[7] 3.3
Strikes and lock-outs						
Strikes and lock-outs beginning in month:						
Number		485	425	450	441	218
Number of workers involved	Thousands	292	310	285	145	98
All strikes and lock-outs during month:						
Number of man-days idle	do	1,725	2,025	1,330	727	1,484
Man-days idle as percent of available working time.		0.23	0.26	0.18	0.09	0.28

See footnotes at end of table.

Current Statistics of Labor Interest in Selected Periods [1]—Continued

Item	Unit or base period	1945			1944	1939: average for year
		June	May	April	June	
Cost of living and prices						
Cost-of-living index (wage earners in large cities): All items.[10]	1935–39=100	129.0	128.1	127.1	125.4	99.4
Food	1935–39=100	141.1	138.8	136.6	135.7	95.2
Clothing	1935–39=100	145.4	144.6	144.1	138.0	100.5
Rent	1935–39=100	108.3			108.1	104.3
Fuel, electricity, and ice	1935–39=100	110.0	110.0	109.8	109.6	99.0
Housefurnishings	1935–39=100	145.8	145.4	144.9	138.4	101.3
Miscellaneous	1935–39=100	124.0	123.9	123.8	121.7	100.7
Retail food price index (large cities): All foods.	1935–39=100	141.1	138.8	136.6	135.7	95.2
Cereals and bakery products	1935–39=100	109.1	109.0	108.9	108.4	94.5
Meats	1935–39=100	131.6	131.7	130.8	129.8	96.6
Dairy products	1935–39=100	133.4	133.5	133.5	133.5	95.9
Eggs	1935–39=100	145.1	140.7	139.9	129.1	91.0
Fruits and vegetables	1935–39=100	192.6	182.5	173.3	174.0	94.5
Beverages	1935–39=100	124.6	124.6	124.6	124.3	95.5
Fats and oils	1935–39=100	123.9	123.9	123.8	123.1	87.7
Sugar and sweets	1935–39=100	126.4	126.5	126.4	126.5	100.6
Wholesale price index: All commodities	1926=100	106.1	106.0	105.7	104.3	77.1
All commodities other than farm products.	1926=100	100.7	100.6	100.5	99.6	79.5
All commodities other than farm products and foods.	1926=100	99.6	99.4	99.3	98.5	81.3
Farm products	1926=100	130.4	129.9	129.0	125.0	65.3
Foods	1926=100	107.5	107.0	105.8	106.5	70.4
National income and expenditures						
National income payments (BFDC)	Millions	$14,340	$12,835	$13,194	$13,573	[6] $6,024
Consumer expenditures for goods and services (BFDC).	do	[11] $24,510			[11] $24,045	[11] $15,406
Retail sales	do	$6,037	$5,880	$5,460	$5,710	[6] $3,574
Production						
Industrial production index, unadjusted (FR): Total.	1935–39=100	222	226	229	236	109
Manufacturing	1935–39=100	236	241	245	252	109
Minerals	1935–39=100	148	141	140	146	106
Bituminous coal (BM)	Thousands of short tons.	51,590	49,520	43,155	52,712	32,905
Carloadings index, unadjusted (FR)	1935–39=100	145	142	139	144	101
Electric energy (FPC): Total	Millions of kw.-hrs.	22,999	23,686	22,823	22,823	[12]
Utilities (production for public use)	do	18,832	19,409	18,640	18,595	[6] 10,329
Industrial establishments	do	4,167	4,277	4,183	4,228	[12]
Construction						
Construction expenditures	Millions	$492	$467	$423	$406	[6] $660
Value of urban building construction started.	do	$144	$135	$119	$116	[12]
New nonfarm family-dwelling units		20,100	19,900	19,000	17,500	[6] 45,900

[1] Source: Bureau of Labor Statistics unless otherwise indicated. Abbreviations used: BC (Bureau of the Census); ICC (Interstate Commerce Commission); BAE (Bureau of Agricultural Economics); BFDC (Bureau of Foreign and Domestic Commerce); FR (Federal Reserve); BM (Bureau of Mines); FPC (Federal Power Commission). Most of the current figures are preliminary.

[2] 10-month average—March to December 1940.

[3] Excludes employees on public emergency work, these being included in unemployed civilian labor force. Civilian employment in nonagricultural establishments differs from employment in civilian labor force mainly because of exclusion of such groups as self-employed and domestic and casual workers.

[4] Includes workers employed by construction contractors and Federal force-account workers (nonmaintenance construction workers employed directly by the Federal Government). Other force-account nonmaintenance construction employment is included under manufacturing and the other groups.

[5] Reports in manufacturing and mining now relate to "production workers" instead of "wage earners" but with no appreciable effect on the employment estimates.

[6] June.

[7] May.

[8] July.

[9] March.

[10] For the coverage of this index, see p. 342.

[11] Second quarter.

[12] Not available.

MONTHLY LABOR REVIEW

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Health-Benefit Programs Established Through Collective Bargaining[1]

PROVISION for health-benefit programs as a part of the contractual relationship between employers and unions was almost unknown a few years ago. Although a number of companies had provided within-plant medical service to their employees for many years and a few had established group health-insurance programs, these were administered by the employer and were subject to alteration or discontinuance at his will. Many were started as a part of a general welfare program designed to win employee loyalty and discourage union organization. Organized labor, having no voice in their administration and suspecting the motives for which they were established, has never wholeheartedly endorsed company benefit plans.

In response to their members' need for protection against total loss of income during sickness, a number of unions have established benefit programs of their own which are financed through membership dues or special assessments.[2] Many of these, however, cover permanent disability and old age rather than short periods of illness.

During recent years an increasing number of unions have succeeded in having health-benefit plans included in the terms of their agreements with employers, and several international unions have established special facilities for helping their locals negotiate such plans. Although a number of the provisions in current agreements signify the substitution of contractual arrangements for already established employer-administered or union-administered benefit plans,[3] many of them are new; some of the latter have been negotiated in lieu of wage increases which could not be obtained under the wartime wage stabilization program.

To strengthen their case for employee participation in administration, some unions favor the policy of having employees contribute toward the payment of premiums. On the other hand, some unions have obtained virtual control of administration of programs which are financed entirely by employers. In a majority of cases the health-benefit programs are underwritten by private insurance companies; such group policies usually include, in addition to the sick-benefit provisions, accidental-death and dismemberment benefits, which are not described in this report.

[1] Prepared in the Bureau's Industrial Relations Division by Florence Peterson, Everett Kassalow, and Jean Nelson.

[2] Some of these were described in Bureau of Labor Statistics Bulletin No. 465: Beneficial Activities of American Trade-Unions.

[3] Recently an employer proceeded to install a group-insurance program after rejecting the union's request to include such a plan in the union agreement. The union objected, and the case was appealed to an arbitrator, who upheld the union's position; thereupon the company agreed to cancel the policy. Another local of the same union is pressing charges of unfair labor practices against a company which is trying to establish an insurance plan outside the union contract.

General Characteristics of Health-Benefit Programs

The health-benefit plans described in the following pages cover more than 600,000 workers employed under agreements negotiated by unions in various industries. This coverage figure, however, is not all-inclusive, being based on agreements and other material on file in the Bureau of Labor Statistics. No attempt has been made to determine statistically the extent of such provisions in union agreements. The purpose of this report is, rather, to present a brief description of some of the more representative types of health-benefit plans established recently by employer-union contracts.

Most of the plans described in this report have been negotiated by the following unions: International Ladies' Garment Workers' Union (A. F. of L.), Amalgamated Clothing Workers of America (C. I. O.), United Hatters, Cap, and Millinery Workers International Union (A. F. of L.), Textile Workers Union of America (C. I. O.), United Textile Workers of America (A. F. of L.), International Fur and Leather Workers Union of America (C. I. O.), United Electrical, Radio, and Machine Workers of America (C. I. O.), Upholsterers International Union of North America (A. F. of L.), United Furniture Workers of America (C. I. O.), Industrial Union of Marine and Shipbuilding Workers of America (C. I. O.), Hotel and Restaurant Employees' International Alliance and Bartenders' International League of America (A. F. of L.), Paper Workers Organizing Committee (C. I. O.), United Retail, Wholesale and Department Store Employees of America (C. I. O.), and the Amalgamated Association of Street, Electric Railway, and Motor Coach Employees of America (A. F. of L.). The Trade Union Agency, a New York consultant firm, acts as representative for several of these unions in their health-insurance negotiations.

ADMINISTRATION OF PROGRAMS

Health-benefit programs provided by collective-bargaining agreements may be divided into three types, according to their method of administration: (1) Those administered solely by the union, (2) those administered jointly by the union and employer, and (3) those administered by a private insurance company which undertakes the responsibility for determining eligibility claims and payment of benefits. Under the third type of plan, the employer may pay the premium directly to the insurance company, or he may make payment to a special union fund from which premium payments are made to an insurance company. Even when the plan is underwritten by a private insurance company, the union and employer frequently share in the responsibility of administration. For example, a joint committee of union and company representatives may review all claims and, when necessary, jointly sign drafts on the insurance company. Under some insurance-company plans all claims are filed through the union.

A little more than a third of the employees covered by health-benefit programs included in this report are under plans which are jointly administered by the union and employer. Another third are covered by programs for which insurance companies assume the major administrative responsibility; and somewhat less than a third are under those administered solely by the union.

FINANCING OF PLANS

Most of the health-benefit plans included in this report are financed entirely by the employer. This is true of all the union-administered plans, almost all the jointly administered programs, and more than half of those administered by insurance companies. Only a few of the jointly administered plans and less than half of those administered by the insurance company require both employees and the employer to contribute to the financing of the health program.

Most agreements stipulate that the employer shall contribute a specified percentage of his pay roll (usually 2 or 3 percent) to meet his obligations under the benefit plan, although in some cases no exact amount is specified.[4] Under the latter arrangement the employer either defrays all the expenses on a current basis, or supplements regular employee contributions with such money as may be required from time to time.

BENEFITS PROVIDED

In the main, health-benefit plans provided under union agreements include weekly cash benefits during periods of illness and of disability caused by nonoccupational accidents, hospital and surgical expenses, and, in some cases, payment of doctor bills. As might be expected, benefits tend to be higher under plans negotiated in industries having relatively high wage scales. Dental care and medical preventive work, such as periodic examinations, are not commonly provided under these plans, although many large companies maintain these types of service.

An important exception among benefit programs established under collective bargaining is found in the programs conducted by the International Ladies' Garment Workers Union, which include medical services and preventive medical work, such as X-ray examinations, in addition to weekly cash-benefit payments. This work is carried on through the union's health centers in New York City, Philadelphia, and Fall River.

Recently the St. Louis Joint Council of the United Retail, Wholesale and Department Store Employees negotiated a health-benefit plan under which a health institute, designed to offer extensive medical services to employees and their dependents, will be established.

With the important exception of programs in the men's and women's clothing industries (see pp. 204 and 207), most of the plans include weekly disability benefits ranging from about 50 to 60 percent of an employee's regular earnings, or, where fixed benefits are stipulated, from $10.50 to $20 per week. The maximum time allowed for receiving benefits usually ranges fron 13 to 26 weeks (6 weeks in case of pregnancy) for any one continuous disability, although several plans allow continuous coverage for 52 weeks. Under almost all the plans the payment of benefits commences on the eighth day of disability in case of illness, and on the first day in accident cases.

Payments for hospital services ranging from $4 to $5 per day for 31 days, are usually allowed for any one continuous disability, but are limited to 12 or 14 days in maternity cases or cases involving any

[4] The cost of the life insurance or accidental-death and dismemberment benefits, where provided, absorbs a substantial share of the employer's contribution, but, as indicated previously, these features are not discussed in this report.

condition resulting from pregnancy. Frequently an additional $25 is allowed for special hospital expenses. Payment for medical service is not commonly provided, although a few plans allow specified payments for doctors' services up to a maximum of 50 visits for any one disability, which usually begins with the first treatment in case of accident, and the fourth in case of illness. Maximum surgical benefits under most of the plans range from $100 to $175, and these plans frequently furnish a schedule of surgical allowances for different types of operations. Hospitalization coverage for dependents is provided in some plans, but it sometimes entails additional contributions by the employee.

Many of the programs do not provide a fixed daily hospital payment, but instead provide a service benefit through the Blue Cross Associated Hospital Service. This service generally furnishes semiprivate hospital accommodations, plus unlimited use of operating rooms, X-ray, anesthetics, special medications such as penicillin, etc., for 21 days in any year; thereafter half of the regular hospital expenses are paid for an additional 180 days. Usual maternity hospital benefits under the Blue Cross plan are $6 per day for 10 days, but in specified types of cases the regular hospitalization benefits are paid.

ELIGIBILITY REQUIREMENTS

Disability caused by occupational accidents which are covered by workmen's compensation are excluded from coverage in virtually all of the health-benefit plans.

Almost none of the health-benefit programs provided through collective bargaining require the medical examination of covered employees, although pre-employment medical examinations may be in operation in some of the plants. Except that disability payments are frequently limited to 13 weeks for any single disability for persons over 60 years of age, there are no age limitations.

Under the Blue Cross plan, no hospital benefits are allowed for communicable diseases, pulmonary tuberculosis, and mental or nervous disorders; also, in most cases the Blue Cross plan does not cover maternity or preexisting physical conditions during the first 11 months after enrollment, although in some areas this provision can be waived where a specified number (50 or 75 percent) of those eligible participate in the plan.

Temporary employees usually are not covered; the group health-insurance plans underwritten by private insurance companies ordinarily provide that new employees participate after having been continuously employed for a definite period of time, ranging from 1 to 6 months. Union membership in good standing is generally required in all plans administered by the union alone or jointly with the employer, whereas membership is not required in most insurance-company programs, unless the agreement empowers the union itself to contract with an insurance company.

The question of how long an employee should be covered during periods of temporary lay-off, seasonal slack periods, and leaves of absence is usually the subject of considerable negotiation in establishing a benefit plan. Although it is during such periods that need for protection is often greatest, employers and insurance companies frequently oppose the covering of any employees who are not on the

active pay roll. Very few of the health-benefit plans established under collective bargaining specifically include the length of time during which coverage continues after lay-off, but there is increasing recognition of this problem. Some unions contend that as long as the laid-off employee has a "reasonable expectancy" of returning to the job, he should be protected by the benefit program. The majority of plans underwritten by private insurance companies simply state that the insurance continues in force until the end of the policy month in which the lay-off commences, provided the premiums are paid during this time. Some insurance-company plans provide that, in event of temporary lay-off or leave of absence, health and hospital benefits continue for 1 or 2 months. Under one jointly administered plan, group accident and health insurance continues for 4 months after lay-off.

Under union-administered plans, protection of laid-off employees is, to a considerable extent, a problem for the union alone to decide. In practice, employees usually are eligible for benefits during slack seasons and lay-offs if they maintain their union membership. One union-administered plan provides that "unemployed members behind in dues payments may be declared eligible by the benefit fund committee."

TRANSFER AND CONVERSION OF POLICIES

The privilege of conversion to individual insurance policies upon termination of employment or upon transfer to another job (either in the same or another industry) is of considerable importance to the individual worker. The industry-wide programs, such as exist in various branches of the furniture, fur, textile, and women's apparel industries as well as in the New York hotel plan, permit transfer of coverage from plant to plant, sometimes with a probationary requirement with the new employer, during which time the original employer continues the payment of premiums. Some group-hospitalization plans, such as the Blue Cross, may be transferred upon termination of employment to an individual plan, with a slight increase in cost.

SURPLUS FUNDS AND LIQUIDATION OF PLANS

Union-administered or joint plans, not underwritten by an outside insurance company, usually provide for the conversion of surplus funds into increased benefits; some of those jointly financed specify that contributions required from participating employees be decreased. A few of the group-insurance plans which are jointly financed include provisions for the sharing of dividends. Several such plans in operation in some of the large shipyards provide that any declared dividends shall be payable to the company, and that the employees' proportionate shares shall be used for the workers as a group, to reduce or waive contributions.

Several of the jointly administered and jointly financed benefit programs provide for the distribution of remaining funds in the event of termination of the program. Generally, any money on hand is to be distributed to the general funds of the local union and the company, in proportion to their respective contributions. One jointly administered, employer-financed plan states: "If the parties hereto

fail to renew this agreement at the expiration date, the board of trustees created herein shall continue to function and carry out the purposes of said fund until all monies will be exhausted."

ENFORCEMENT OF PROVISIONS

Under some plans, particularly those administered by insurance companies, benefits would be automatically discontinued if the employer failed to pay the necessary monthly premiums. To insure continued coverage, one agreement covering a group of employers provides a series of penalties against employers who default in the payment of premiums; if, after notice, the employer fails to correct such default, the union may demand a bond equivalent to one-fourth of the annual premiums; and, furthermore, any employer who fails to provide proper insurance coverage for an employee is personally liable for the same benefits the worker would have received from the insurance company. The agreement further provides that the union may call a strike on 5 days' notice if the employer fails to live up to his health-insurance obligations.

Another agreement negotiated with an employers' association states that in the event any employer fails to meet his financial obligations under the health-benefit plan, the union may take "appropriate action to enforce such payment," notwithstanding the no-strike clause in the agreement. This same agreement also authorizes the union to examine the employer's records and papers, in order to ascertain whether he is complying with the provisions of the health plan. Another agreement with an employers' association states that failure to make proper remittances to the union's health fund "shall be deemed a violation of this agreement, for which a member of the association shall forfeit all rights and privileges hereunder."

In anticipation of Government-sponsored health-insurance legislation which might involve duplication of costs to employers, some agreements include "escape clauses." For example, one agreement provides that if either the State or the Federal Government enacts health legislation whose benefits parallel any of those established by the collective-bargaining agreement, the latter become "inoperative and canceled in the policy," and the employer is "relieved of the cost thereof, in order to avoid duplication of costs."

Plans Administered by Insurance Companies

About a third of the employees covered by health-benefit programs included in this report are employed under plans underwritten and administered by insurance companies. Such arrangements occur most frequently in the textile, street-and-electric-railway, shipbuilding, furniture, and electrical-machinery agreements. Some are also in effect in the rubber, paper, public-utilities, fur and leather-tanning industries, nonferrous-metal mining, retail trade, and hotel and restaurant agreements.

Once the benefits and coverage have been determined through collective bargaining, the employer is free under some agreements to contract for such insurance coverage with any company he chooses. Other agreements specify that he pay his contribution directly to the

union, which in turn contracts for the insurance. Under some plans the union and employer jointly select the insurance company.

Financing.—Most of the workers covered by programs included in this report which are administered by the insurance company are not required to pay any of the costs. Employer-financed plans are provided in all the agreements studied in the rubber, upholstery, and leather-tanning industries and in most of the textile and electrical-machinery agreements. Provisions for sharing of costs by employer and employees are prevalent in the shipbuilding, street-and-electric-railway, and utilities agreements.

The size of the premiums under the systems financed exclusively by the employer ranges from 1 to 5 percent of the weekly pay roll, although some agreements merely state that the employer agrees to bear all costs of the plan, without giving any indication of the amount. In plans the cost of which is borne jointly, the employer's share is usually from 50 to 70 percent of the total premiums. In most instances the employee's share of the premium ranges from 30 to 50 cents weekly, but if benefits are graduated according to earnings, employees who are entitled to weekly disability allowances of $35 or $40 contribute as much as $1.57 per week.

Administration.—Although the insurance company establishes the rules and regulations and finally passes on the eligibility of claims, it is quite common for unions to have a voice in the day-to-day administration of health-benefit programs underwritten by insurance companies. This is especially true in the filing of claims, adjustment of complaints, and elimination of possible misunderstandings among employees concerning benefit payments, coverage, and eligibility.

Agreements in the shipbuilding and electrical-machinery industries frequently stipulate that the union is to have an equal voice with the management in the administration of the insurance programs as well as in the installation of new benefits. The American Federation of Hosiery Workers has appointed shop committees in those companies with which it has negotiated health-insurance programs, to adjust individual complaints and grievances, prevent malingering, and see that the employer is paying the necessary premiums to the insurance company. In some industries the union locals have established special insurance departments to assist members in filing claims. In some companies the personnel office is authorized to draw drafts for the payment of benefits; in other cases, employees file claims directly with an insurance adjuster's office.

Upon proper evidence, usually in the form of a doctor's certificate, the insurance company authorizes the employer, or the employer and the union jointly, to issue drafts to employees to cover the benefits provided by the policy. In cases in which the Blue Cross hospitalization plan is in effect, an official card is presented to the hospital at the time of admission, and the Blue Cross pays the hospital directly. If the employee is allowed a fixed daily benefit, he pays the hospital bill himself and is later reimbursed by insurance company or union.

TEXTILE WORKERS UNION OF AMERICA (C. I. O.)

According to statements made by the Textile Workers Union of America (C. I. O.), agreements including health-insurance plans have been negotiated for more than 100,000 members in the various

branches of the textile industry. The agreements specify the benefits which are to be provided, provisions for coverage during periods of lay-off, eligibility requirements, and methods of enforcement. With certain exceptions (including the plan of the American Federation of Hosiery Workers, see p. 199), the employer is free to select the insurance company as long as the benefits provided in the policies adhere to the agreement provisions; the union reserves the right to reject the policy if it does not correspond to the general plan for the industry. Generally all claims are handled by the employer, who transmits them to the insurance company.

Practically all the T. W. U. A. plans are employer-financed. With slight variation in the benefits afforded, the insurance covers death, sickness, and nonoccupational accidents, besides providing allowances for surgical aid, hospitalization, and maternity care; under a few agreements hospitalization coverage is extended to workers' dependents. This union also has negotiated a few plans, jointly financed and administered, in the rayon-manufacturing industry, but benefits under these plans are limited to payments for sickness and nonoccupational accidents, with no provision for hospitalization.

Under the T. W. U. A. plans, a worker usually must be employed in the industry for 6 months before he is eligible for coverage, and coverage is retained by employees transferring to other plants in the same industry where the insurance program is in effect. An employee on temporary leave of absence is covered for 3 months after such leave commences. Should he obtain a job elsewhere in the industry, however, he must wait 3 weeks before he is eligible for insurance protection.

Most of the plans provide for the following benefits:

Hospitalization allowance, usually $5 per day, for a maximum of 31 days for any one illness (maternity cases 12 or 14 days). A few of the plans also provide hospitalization benefits of $4 per day for dependents of the insured worker. Extra hospital expenses up to $25 for employees ($20 for dependents, where covered) and surgical aid up to $150, depending on the type of operation performed.

Weekly benefits for sickness and nonoccupational accidents ranging from $10.50 to $17.00, up to 13 weeks (maternity benefits for a maximum of 6 weeks), following a 7-day waiting period in cases of sickness, but none for accident cases.

Federation of Dyers, Finishers, Printers, and Bleachers of America (C. I. O.)

This division of the T. W. U. A. has negotiated individual agreements, incorporating a uniform health-benefit plan, with companies employing a total of about 20,000 workers in the textile dyeing, finishing, and printing industry. The plan is on an employer-pay-all basis, and management is free to select the insurance company under which it is to be covered, as long as the benefit schedule stipulated in the collective-bargaining agreement is followed. Benefits are paid through the employer's office, but the management is required to furnish a monthly report, on a form provided by the union, to the union office. This report details the benefits paid, expenses, etc., and enables the union to evaluate the plan from time to time.

New employees are "required to pass a probationary period of 6 months" before they are eligible to participate in the program. Workers transferring from one insured shop in the industry to another are covered after a 3-week probation with the new employer. Any worker on a temporary leave of absence is covered for hospitalization

and surgical insurance for 3 months, and for sickness and accident insurance for 2 months. Hospitalization benefits are furnished to dependents, without charge to the worker.

The plan provides the following benefits:

Weekly disability benefits (commencing on the eighth day in case of illness and the first day for accidents) of $17 for 13 weeks for any one period of disability. (Employees 60 years of age and over are limited to a total of 13 weeks in any consecutive 12-month period.)

Hospital benefits of $5 per day, for 31 days for any one period of disability. An additional $25 is allowed for extra hospital charges such as X-rays, anesthetics, laboratory, and operating and delivery-room charges. Maximum surgical reimbursement is $150. In the event the policy is terminated, employees are eligible for hospitalization and surgical benefits for a period of 3 additional months in connection with a continuous disability sustained while the policy was still in effect.

In maternity or any other case due to pregnancy the weekly benefit period for the worker is limited to 6 weeks, and the hospitalization allowance is limited to 14 days. The plan provides for the payment of maternity hospital benefits for a period of 9 months after the termination of the policy.

Hospitalization expenses for dependents (defined as a wife, but not a husband, and unmarried children between 3 months and 18 years old) are reimbursed to a maximum of $4 per day for 31 days. An allowance of $20 is made for special hospital expenses. Dependents' maternity hospital benefits are $4 per day for 10 days. If the policy is terminated, hospitalization coverage for dependents is extended as in the case of the worker.

American Federation of Hosiery Workers

The health-insurance program of this branch of the T. W. U. A., covering an estimated 22,000 workers, differs somewhat from the other plans in the textile industry. For example, under the agreement entered into by this union and the American Federation of Full-Fashioned Hosiery Manufacturers of America, Inc., if the cost of the policy exceeds 2 percent of the weekly pay roll, the difference is made up by the employees.

Details of the hosiery-industry insurance plan, including the selection of the insurance company, the nature and type of insurance, coverage, and related matters, were worked out by a joint committee appointed by the manufacturers' association and the union, and policies are issued in the joint names of the manufacturers' association and the union. Although the premiums are paid directly to the insurance company by the employer, adjustments are processed, not through the employer's office, but through an insurance adjuster's office authorized by the insurance company to handle claims and extend such services as may be required. Although the insurance company has final responsibility for administration of the plan, insurance shop committees, composed of workers appointed within the local unions, check on the progress of the plan within their own shops and adjust complaints regarding the payment of claims. The union's insurance committee also investigates cases of malingering.

The group policy establishes the following benefits:

Weekly sick and accident benefits equal to 60 percent of the employee's average wages, up to a maximum of 52 weeks, after a 7-day waiting period for sickness but none for accidents. Benefits for disabilities or operations caused by diseases of the female generative organs are provided only if the employee has been continuously insured for 6 months previous to such disability.

Payment of doctor bills of $3 per visit if such service is rendered at home, $2 if at office, up to 50 visits for any one disability, but limited to 3 in any 1 week. Payments begin with the first treatment in accident cases, the fourth in sickness cases.

Hospital expenses up to $5 a day, for a period not exceeding 50 days, and surgical benefits ranging from $5 to $175, depending upon the nature of the operation. Maternity benefits up to 6 weeks, at 60 percent of the average weekly salary, with hospital expenses up to 12 days, provided the employee has been continuously insured for a minimum of 9 months.

UNITED ELECTRICAL, RADIO, AND MACHINE WORKERS OF AMERICA (C. I. O.)

Group health-insurance programs are being negotiated by the U. E. R. M. W. A. in increasing numbers in various branches of the industry,[5] and at present, according to the union, they cover about 75,000 employees. The majority of them call for the assumption of the entire cost by the employer, although joint union-management reviews of employees' claims are frequently provided. Booklets announcing the plan, as well as the insurance policies, contain the name of the union and the employer. In some instances, special arrangements have been made to extend the group-health benefits for a maximum of 30 to 60 days during periods of lay-off. Plans of the U. E. R. M. W. A. generally make provision for the conversion of some of the benefits, like hospitalization, to an individual basis if the employee should leave the shop where he is insured. In those instances in which the employer and the employees share in the cost, the agreements stipulate that there shall be a division of dividends, in proportion to the amount of the premium each pays.

Payments for any one period of disability are usually limited to 13 weeks, but in a few cases they are extended to 26 weeks. Weekly disability benefits for maternity are included in all agreements, but are limited to 6 weeks. The amount of sickness and accident benefits under most of these plans depends upon the employee's regular (40-hour week) earnings. For example, two typical plans in effect in two electrical-machinery plants include the following schedules of sickness and accident benefits, payable for 13 weeks:

Plant A	
Weekly earnings:	*Weekly benefit*
Under $30	$15
$30 to $45	20
$45 to $55	30
$55 and over	35

Plant B	
Weekly earnings:	*Weekly benefit*
Under $25	$10
$25 and under $35	15
$35 and under $50	20
$50 and under $65	25
$65 and under $75	35
$75 and over	40

Under most of the plans surgical reimbursement is allowed up to $150. Nearly all of the plans provide hospitalization benefits underwritten by the Blue Cross but several establish a flat hospitalization benefit, usually $5 per day. Some of the union's plans extend hospitalization benefits to the insured employee's dependents, but these plans generally require the employee to contribute, in addition to the premiums paid by the employer. While doctors' bills are usually not included among the benefits, one agreement provides for reimbursement for medical service beginning with the doctor's second visit at home, in the hospital, or at his office.

INTERNATIONAL FUR AND LEATHER WORKERS UNION (C. I. O.)

Group-insurance programs of the I. F. L. W. U. are now in effect in a number of cities, but most of the employees covered are in New

[5] The international office has issued a bulletin of instructions (UE Guide to Group Insurance) which has been of great assistance to its locals.

York and New Jersey. According to the union, I. F. L. W. U. agreements covering approximately 15,000 employees include health-benefit programs.

Most of the plans are employer-financed, through 2- or 3-percent pay-roll contributions. This money is turned over to the local union, which in turn contracts with a private insurance company—in most cases, with the Blue Cross.

The plans in various locals of the union vary, depending upon the amount of employer contribution in each instance. A typical plan establishes a range in benefits from $16.50 to $25, depending upon the employee's regular earnings, for 13 weeks for any one period of disability, with maternity benefits limited to 6 weeks. This plan also provides daily hospital benefits of $5, payable for 31 days for each period of disability, and a maximum allowance of $25 for miscellaneous hospital expenses. Surgical reimbursement up to $150 is provided. The agreement with the New York Joint Board of Fur Dressers and Dyers, covering about 4,000 workers, has a similar plan, except that hospital benefits are provided through the Blue Cross.

UPHOLSTERERS INTERNATIONAL UNION (A. F. OF L.)

The Upholsterers International Union has negotiated health-insurance plans for more than 8,000 workers in a number of the larger cities in the country. The employers finance these programs by contributing 2 percent of their gross pay roll to the international union which, in turn, purchases policies from an insurance company. Claims are processed through the union.

Benefits are as follows:

Weekly allowances, amounting to 60 percent of the employee's average weekly wage, for as long as the disability continues up to 52 weeks, with payment beginning on the eighth day in case of illness and on the first day for accidents; hospital expenses up to $4 a day for a period not exceeding 50 days; doctor bills up to $3 per visit at home and $2 at the doctor's office, to a total of 50 visits for any disability, but limited to 3 visits per week, with payments beginning for the first treatment in case of accident, and the fourth in case of illness; surgical allowance up to $175. In case of maternity, weekly disability payments are limited to 6 weeks, and hospital benefits are allowed only for 12 days.

UNITED TEXTILE WORKERS OF AMERICA (A. F. OF L.)

The United Textile Workers of America, through its woolen and worsted department, has negotiated several health-insurance plans covering workers in the New England area. The cost of these plans is borne in shares of two-thirds for the employer and one-third for the workers,[6] with the workers sharing in the dividends in the same ratio. The plan provides benefits of $14 per week for a maximum of 13 weeks for any one continuous disability resulting from nonoccupational accident or illness, hospitalization at $4 per day for 31 days (14 days in maternity cases), surgical expenses up to $100, and $20 for special hospital expenses.

This union also has negotiated health-insurance plans in other branches of the textile industry in the New England and Middle Atlantic area which are financed entirely by the employer. Surgical

[6] The union "insisted on contributing toward the premium in this health program * * * thereby making it part of their union contract and giving the union voice in the application of same." Officers Report to the Eighth Biennial Convention of United Textile Workers of America (1944).

and hospital benefits are similar to those furnished to the woolen and worsted workers, but weekly disability benefits are only $10. However, allowance is made for physicians' calls at the rate of $3 for each house or hospital call and $2 for each office visit, with a maximum of 3 calls per week and 30 calls for each separate disability period.

UNITED FURNITURE WORKERS OF AMERICA (C. I. O.)

Several thousand workers are covered by a uniform health-insurance plan negotiated by the United Furniture Workers of America. To date, it covers employees in the New York and New Jersey area only; however, the union is seeking to extend the program to other sections of the country, and also expects to obtain coverage for nonunion employees when the plans are extended to shops which are not covered by closed- or union-shop contracts.

The plan is financed entirely by the employers, who pay 3 percent of their weekly pay rolls into the union's insurance trust fund, which is governed by five trustees—all members of the union's national executive board. The union contracts with a private company for the weekly accident and sickness benefits, surgical benefits, dismemberment benefits, and life insurance, and with the Blue Cross for the hospitalization benefits. All claims are submitted through the local union offices.

Weekly benefits for nonoccupational illnesses range from $10 to $27.50 per week, based on the employee's earnings. The maximum for any one period of disability is 13 weeks, except that disability benefits during maternity leave are limited to 6 weeks. Surgical reimbursement is limited to $150. When the program was initially instituted by the union on October 1, 1944, it provided hospitalization benefits under the Blue Cross plan only for employees, but recently the union extended the plan to provide hospitalization benefits for the employees' families as well. The costs of the family-hospitalization coverage, as well as all the other benefits of the program, are being paid for by the employers' contributions.

AMALGAMATED ASSOCIATION OF STREET AND ELECTRIC RAILWAY EMPLOYEES (A. F. OF L.)

A substantial number of agreements negotiated by this union contain group-insurance plans. Most of these are underwritten and administered by private insurance companies and financed jointly by the employer and employees, but several are financed entirely by the employers.

Flat weekly benefits are provided in the various plans, ranging from $10 to $30, generally for a maximum of 13 weeks for each different period of disability, although some provide payments up to 26 weeks. Hospitalization allowances are usually $4 or $4.50 daily, for 30 to 90 days. In some plans an additional sum, usually about $20, is allowed for special hospital expenses. Several plans provide hospitalization protection for the employee's dependents, although not of the same amounts nor generally for so long a period as for the employee. In plans which include surgical benefits, the maximum allowance is commonly $150.

INDUSTRIAL UNION OF MARINE AND SHIPBUILDING WORKERS (C. I. O.)

Health-insurance plans are included in some of the agreements negotiated by the Marine and Shipbuilding Workers. Most of them are jointly financed, with employees paying half of the cost. The majority of the plans adjust weekly benefits to the employee's regular straight-time weekly earnings, and under this arrangement benefits may vary from $10 to $40. Several, however, particularly those negotiated during the past year, establish a flat weekly sickness and accident benefit for all employees. One agreement, for example, provides a flat weekly disability benefit of $21.

Benefits for nonoccupational accidents generally commence with the first day of disability; sickness payments start on the eighth day under some plans and on the fourth day in others. Daily hospital benefits are usually $5 (a few plans allow $6) for a maximum of 31 days (70 days in one plan) for any one continuous disability. Most of the plans allow an additional $25 or $30 for any special hospital charges, such as X-ray, anesthetic, delivery room, etc. According to a few plans, if an employee's insurance ceases for any reason, his hospitalization coverage continues for 3 months. Maximum surgical benefits are $150.

HOTEL AND RESTAURANT EMPLOYEES' INTERNATIONAL ALLIANCE (A. F. OF L.)

The Hotel and Restaurant Alliance has not adopted a uniform policy of obtaining health benefits in its collective-bargaining agreements, but a few of the important sections of this union have secured such benefits for their members. One of the most recently negotiated plans is that with the Hotel Association of New York by the New York Hotel Trades Council (A. F. of L.), of which the New York locals of the Hotel and Restaurant Employees' Alliance are members. This program, which covers about 25,000 workers in 134 unionized hotels and is financed entirely by the employers, was made part of the city-wide hotel agreement, following the unanimous award of an impartial three-man commission appointed to study the problem.

During the first 6 months of the plan's operation employers were required to contribute 6 percent of their weekly pay roll; at the end of that period this was reduced to 3 percent. The contributions are made to an insurance fund, which is administered by a board of trustees composed of the executive board members of the Trades Council, with an advisory committee consisting of the board of governors of the Hotel Association. Benefit payments began on March 1, 1945, after contracts were signed with a regular insurance company to furnish disability benefits, and with the Blue Cross to provide hospitalization.

Hospitalization benefits are provided for employees and their dependents, in accordance with the Blue Cross plan. All benefit checks are signed by a representative of the trustees.

To be eligible for the insurance benefits, the employee must be a member of the union for 6 months and an employee of union-contract hotels for 4 months. However, returning veterans who are honorably discharged are insured immediately without a waiting period. Weekly sickness benefits under the plan are $10 per week for female members and $12 per week for male members, with a maximum of 26 weeks'

benefits for any one period of disability, except that benefits for maternity cases are limited to 6 weeks, and those for members over 60 years of age to 26 weeks in any one year.

PAPER WORKERS ORGANIZING COMMITTEE (C. I. O.)

A number of agreements negotiated by the Paper Workers Organizing Committee establish employer-financed health-insurance plans. These plans commonly provide daily hospital benefits of $5 for 31 days, up to $150 for surgical expenses, and $25 for additional hospital fees. Weekly disability benefits, commencing on the first day in case of accidents and on the eighth day in case of sickness, vary according to the workers' earnings as follows:

Weekly earnings:	*Weekly benefit*
Under $22.50	$10
$22.50 to $29.99	15
$30.00 to $39.99	20
$40.00 and over	25

Union-Administered Benefit Plans

Of the health-benefit plans described in this report, those covering somewhat less than a third of the workers require that the union assume all, or the major share, of the responsibility for administering the program.[7] Plans of this type are found principally in the women's apparel industry, although more than 20,000 laundry workers in New York City and a few fur and millinery shops are also covered by union-administered benefit provisions.

These union-administered plans are financed entirely by the employer or a group of employers who agree to pay a stipulated amount, usually a percentage of the weekly pay roll, to a benefit fund established within the union. Rules and conditions under which benefits are to be paid are adopted by the union, although usually subject to the approval of the employers. In several agreements the employer and union jointly determine the amount of benefits and the rules and regulations which are ultimately to be administered by the union. According to the New York laundry workers' agreement, the employers' association is permitted to examine the books of the insurance fund, and some of the ladies' garment workers' health plans require the union to submit periodic financial reports to contributing employers. Others, however, specify that "neither the association nor any of its employers shall have any right, title, or interest in and to said fund or the administration thereof."

INTERNATIONAL LADIES' GARMENT WORKERS' UNION (A. F. OF L.)

The benefit programs currently in effect for members of the International Ladies' Garment Workers' Union are an outgrowth of the union's welfare and health programs formerly financed entirely by the members. They now cover, according to the union, about 150,000 employees in the women's apparel industry. With few exceptions, they are financed entirely by employer contributions. These plans

[7] All plans which are administered through insurance companies are covered in the preceding section, including those in which the employers' contributions are turned over to the unions which, in turn, take out group policies with private insurance companies.

include vacation payments in addition to sick-benefit payments and medical services; some also include retirement provisions, but none provide death benefits. The employer usually contributes from 3 to 4 percent of his gross pay roll, but only part (from a third to a half) of this amount is allocated for health benefits, the rest being used to finance the vacation and retirement provisions (not discussed here).

Failure to pay the required contributions to the benefit fund, or falsification of forms, or failure to file necessary forms is considered a violation of the collective bargaining contract.

Employers' contributions are turned over to the appropriate joint boards of the union which are responsible for the administration of the programs. According to several of the more important plans, the amount of benefit, as well as the rules and regulations under which claims are paid, is determined by a committee of employer and union representatives. In other instances the determination of benefits and other rules is entirely in the hands of the union. Under all the programs the actual payment of claims, as well as appeals from decisions of the benefit committee, is handled through the union's office.

Union health centers.—The I. L. G. W. U. programs stress medical care, and the union has established health centers in most of the important clothing areas. The health center in New York City has been in operation since 1912, the one in Philadelphia was established in 1943, and that in Fall River was opened in 1944. Until 1943, the New York center was financed by local union contributions, any deficits being met by the international. Since then, a large part of this center's financial support has been derived from funds paid to the union under health-insurance programs included in union agreements. The health center's services have been expanded considerably during the past year, and it now acts as an agency for the certification of benefit claims, its physicians making recommendations approving or disapproving cash-benefit payments under the insurance program. The Philadelphia health center is an outgrowth of a collective-bargaining agreement between the union and the women's apparel manufacturers' association which also established health benefits. The Fall River center, also established under the terms of a collective agreement, provides medical services to some 4,000 members in that city and the surrounding New England area, including Providence, New Bedford, West Warwick, Pawtucket, Warren, and Taunton.

Each member of the I. L. G. W. U. living or working in the vicinity of New York, Philadelphia, or Fall River is entitled to free annual medical examinations, as well as free X-ray, electrocardiographs, and other medical services furnished at the centers. Members in the New York dress industry also receive free optical examinations every 3 years, under a recently negotiated plan, and treatment or glasses, when necessary, furnished without cost, at the union's health center.

Health benefits provided.—To be eligible for benefits, the worker usually must have been a member of the union in good standing for at least 6 months (in some cases 9 months), with not more than 4 weeks' dues unpaid.

Although some of the agreements recently negotiated do not contain detailed provisions as to the amount of benefits, the usual allowances range from $6 to $15 weekly, for from 10 to 13 weeks in any year, with payments beginning on the eighth day of illness. Hospitalization benefits are $2 to $5 a day for 21 days, with some plans limiting

hospitalization benefits to 12 days. Neither weekly disability nor hospital benefits are paid in pregnancy cases, but one plan provides a $25 cash benefit for postnatal care. In tubercular cases, the workers are given the choice of a cash benefit payment of $200 to $250, or treatment in a sanitorium for the entire period of illness.

NEW YORK CITY LAUNDRY WORKERS (C. I. O.)

The New York City Laundry Workers Division of the Amalgamated Clothing Workers of America and three laundry employers' associations have negotiated a benefit plan which is financed by employers, who contribute 1 percent of their weekly pay rolls. These funds are administered by a seven-man union board, known as the "benefit fund committee," and sickness, nonoccupational accident, and death benefits are provided. A benefit fund and claims office, patterned after a regular insurance company office, has been established by the union to take charge of the day-to-day administration of the program; but appeals from decisions of the claims office may be made to the benefit fund committee.

Weekly sickness and accident benefits of $8 per week are payable after the first week of disability, up to a maximum of 12 weeks in any year. In addition to the cash payments, visiting nurses are sent to members' homes when necessary, but hospitalization benefits are not provided. Unemployed members are eligible for benefits upon special arrangements with the benefit fund committee.

UNITED HATTERS, CAP, AND MILLINERY WORKERS (A. F. OF L.)

Cap and men's hat locals of the United Hatters, Cap and Millinery Workers in several cities, including New York, Chicago, St. Louis, and Philadelphia, have recently negotiated union-administered health benefit agreements. The employers contribute 2 percent of their weekly pay roll to the local's health benefit fund, which is administered by a board of trustees. In some locals the board is chosen by the membership only; in others the employers are also represented.

Under the New York cap makers' plan, disability benefits amount to 50 percent of the members' average weekly earnings, up to a maximum of $30 per week for 20 weeks during any year, with benefits starting on the first day in accident cases and on the eighth day in sickness cases. Hospitalization benefits are $4 daily for a maximum of 30 days during any 1 year; surgical benefits are not to exceed $50 for any operation.

Jointly Administered Plans

There are two principal types of jointly administered health-benefit plans provided in current union agreements—those which are confined to a single company, and those which are negotiated on an industry- or area-wide basis. Under the single-company plans included in this report, a fund is built up by employees' dues or pay-roll deductions, with the employer either matching the employees' payment, or, at least paying the costs of administration. A committee of union and company representatives is usually designated to administer the program. Unlike group-insurance plans underwritten by

private insurance companies, in which profits, if any, are returned to policyholders in the form of dividends, the surplus in these plans is used for increasing benefit payments or for reducing contributions. Individual-company plans of this type are not very common, although a few are in effect in the chemical industry.

Jointly administered plans which cover an entire industry or area are more common and include more than a third of all the workers under benefit plans included in this report. The largest single group of employees covered by any benefit program established through collective bargaining is the group covered by the jointly administered program negotiated by the Amalgamated Clothing Workers with the Men's and Boys' Clothing Manufacturers' Association. Plans of this type also exist in some branches of the women's apparel industry, in the millinery industry, and in a recently negotiated agreement covering retail and wholesale clerks in St. Louis.

Although these benefit programs are jointly controlled, day-to-day administration is actually in union hands. The employers participate in establishing the general terms and policies and also exercise veto power over proposals to modify existing benefit arrangements. Most of the plans, including all those negotiated by the Amalgamated Clothing Workers of America, place the entire cost upon the employer.

AMALGAMATED CLOTHING WORKERS OF AMERICA INSURANCE PROGRAM

More than 200,000 workers are covered by the jointly administered health-insurance programs negotiated by the Amalgamated Clothing Workers of America (C. I. O.), about 125,000 of whom are employed by companies under the Men's and Boys' Clothing Manufacturers Association agreement. This latter plan is an outgrowth of negotiations which were initiated by the A. C. W. A. in 1941, at which time the association and the union agreed to conduct a study of the possibility of establishing a health and insurance fund on a national basis. In February 1942 the parties agreed on a plan, and a standard form was drawn up, to be used as a supplement to the individual collective-bargaining agreements negotiated with all employers belonging to the association. Contributions to the fund began at that time, but payment of benefits did not begin until February 1, 1944, by which time sufficient reserves had been accumulated. This program now operates in 17 States, covering most of the important organized men's clothing markets. An additional 15,000 workers are covered under a separate but similar insurance program in effect in Chicago.[8]

The A. C. W. A. national insurance plan is financed entirely by manufacturers and contractors, who contribute 2 percent of their weekly pay rolls into the Amalgamated Insurance Fund, which is administered by a board of trustees composed of 12 members of the executive board of the union. Before the trustees can "enter into any insurance contract, or purchase any insurance policy, or make any change in any outstanding policy * * *" they must obtain the consent of an advisory committee, composed of 11 members of the association representing the employers. The resources of the Amalgamated Insurance Fund are employed to operate the Amalgamated Life

[8] In Chicago, in 1940, the clothing manufacturers and contractors and the A. C. W. A. agreed to convert a previously existing unemployment-benefit fund, made up by employer's contributions, into a health and benefit plan. This benefit plan, the first of its kind in the industry, was instituted after the passage of the Federal Social Security Act had made this private unemployment-insurance program obsolete.

Insurance Co., a capital-stock insurance company chartered under the laws of New York State, with a board of directors composed of union and employer representatives. This company issues policies to eligible members of the A. C. W. A. employed by contributing employers and pays the benefits.

All workers in the men's clothing industry (including learners and clerks, as well as production workers) who have been members in the A. C. W. A. for at least 6 months, and who have worked for an employer at least a day in each of 6 different months, of which 1 month must have been within the last 4 months, are automatically insured. Employees in closely connected branches of the clothing industry, such as single-pants shop workers, sportswear, and sheepplining and leather workers are also covered by the A. C. W. A. insurance program. Employees are covered as long as they are employed in any shop included in the plan, and for 4 months after lay-off from the industry, but insurance terminates upon withdrawal, suspension, or expulsion from the union. If a worker is disabled and eligible for weekly benefits on the day insurance terminates, the insurance continues until the end of the period for which benefits are payable.

Weekly benefits for sickness and nonoccupational accidents are $12 for men and $8 for women, for a maximum of 13 weeks in any 12 consecutive months (rather than for any continuous disability). For accidents resulting in disability of 7 days or more, payment of benefits begins from the first day of such disability. In the case of illness resulting in disability for 14 days or more, payment of benefits begins on the eighth day of disability. Confinement to bed or at home is unnecessary, but the member must be under a doctor's care and unable to work, and must have notified the office not later than 20 days after the first day of his disability. The plan includes hospitalization benefits of $5 per day for 31 days in any one year, and $25 for additional expenses. No regular weekly or hospital benefits are paid for disability resulting from pregnancy, but a flat $50 maternity benefit is furnished.

UNITED RETAIL, WHOLESALE AND DEPARTMENT STORE EMPLOYEES OF AMERICA (C. I. O.)

The St. Louis Council of the United Retail, Wholesale and Department Store Employees of America and a number of employers recently completed a plan to establish a health institute to be financed by the employers, who will contribute at the rate of 3½ percent of their total pay roll, for all workers covered by the agreement.

The Labor Health Institute, as it is called, will be administered by a board of trustees composed of 18 members of the union, 6 employer representatives, and 3 representatives of community interests. An advisory council, composed of a representative from each signatory firm and a union member from each such firm, will advise on policy and act as the connecting link between the trustees and the employees in each plant. A medical director, empowered to select other professional personnel, will be selected by the trustees, who are also empowered to appoint a manager who will be responsible for the administration of the institute.

The program does not provide cash weekly benefits, but offers the following services, the details of which have not yet been formulated:

Hospitalization; periodic health examinations; general practitioners' and specialists' care in the office, home, and hospital; maternity care; surgery and deliveries; routine laboratory tests; X-rays, fluoroscopic studies, and unusual laboratory tests; physiotherapy (sun lamp, diathermy); injections (except unusual medicines); periodic dental diagnosis; periodic eye diagnosis; orthopedic care; personal counseling service; industrial-health and safety consultant service; health education; health conservation (preventive measures, vaccinations, etc.); revolving fund for new projects such as day nursery, rest camps; reserve for institute functions during unemployment.

Workers who wish to do so, will be permitted to make their own private payments to the institute for the purpose of extending some of these services to their dependents. The plan specifically excludes certain services; for example, preexisting chronic diseases which are listed as exemptions when the initial examination is completed (no exemptions to be applied to members in the union when the plan goes into effect for any group), compensable accidents, and dental care.

The National Budget as an Aid in Reducing Deficits Under Assured Full Employment

By JOHN H. G. PIERSON, *U. S. Bureau of Labor Statistics*

FORMERLY, the dominant opinion was that serious and prolonged unemployment must be due to wage and price rigidities, creating structural maladjustments in the economy; or to artificially easy credit policies, generating boom and inflation inevitably followed by recession and deflation—in short, to interferences with the free and normal working of competition. In recent years the proponents of fiscal policy have gained in prominence, paying scant attention to such doctrines and gravitating toward the position that the only way to avoid unemployment is to have the Government so regulate its expenditures and revenues as to maintain an adequate volume of demand for current output. Many adherents of the earlier school remain unconvinced; in their view the new policies, not content with moderation of the admitted instability of the system, unbalance the budget continuously and evade the fundamental issues.

In view of the shortness of time, it is important that common ground be found, if possible, between these two views, so as to advance the practical work in behalf of a postwar America free from unemployment and also free from major price distortions and other disequilibrating factors (such as excessive income inequality) which interfere with a balanced use of resources and necessitate large, continuing deficits in the Federal budget. It is believed that such cooperation is possible if there is agreement that full employment should be definitely assured. The suggested meeting ground is the national budget—more specifically the full-employment national budget.[1]

The policies required for a general program to assure full employment may be divided into (a) basic policies to minimize long-run deflationary tendencies and hence the need for deficit-creating compensatory fiscal measures to maintain employment opportunity, and (b) policies to "close gaps," i. e., to compensate remaining deflationary tendencies or, on the other hand, inflationary tendencies when and if these appear. In this discussion, it has been assumed that adequate compensatory fiscal policies will be adopted.[2] They are, of course, essential. It is clear, however, that everything possible should be done to reduce our reliance upon them. This requires placing emphasis on basic policies. The urgency of the need furthermore suggests the advisability of a systematic approach such, for example, as modern industrial research has learned to employ.

[1] The "national budget," as the term is here used, is a statement summarizing for a given year the various types of expenditure for the goods and services currently produced by the economy—expenditures by business, by Federal, State, and local government, and by consumers. A full-employment national budget is one in which this total of expenditures is large enough to buy the volume of output produced when there are employment opportunities available to all persons able and wanting to work. The magnitude of this total depends, of course, on price and cost levels. It should not be so large as to induce price inflation.

[2] Policies of this type are discussed in section IV of the author's Fiscal Policy for Full Employment (National Planning Association, Planning Pamphlets No. 45, Washington, May 1945); see also his The Underwriting of Aggregate Consumer Spending as a Pillar of Full-Employment Policy, in American Economic Review, March 1944.

Organizing Effort and Pooling Information Toward Identifying Desirable Basic Policies

Drawing upon experience, especially prewar experience, it is possible to prepare, as a working tool, a picture of how the national budget might normally look in a postwar year, assuming levels of business capital expenditures, regular government expenditures, and consumer expenditures consistent with the observed historical data, and assuming that compensatory fiscal policies are applied to close any remaining gap so as to maintain full employment. A good deal of work along these lines has already been done both in and out of government. This projected normal budget will, of course, vary in accordance with assumptions as to year and price level, and also in accordance with the way in which the data on trends are interpreted and applied to the imagined postwar situation. The margin of uncertainty thus introduced is not, however, of importance for present purposes. Certainty would be needed only if it were a question of trying to fill exactly a gap whose size was accurately known in advance. That, of course, is not the situation. It is impossible to foresee the size of the gap precisely, and the necessary instrument for final adjustment when a measureable gap actually opens up is compensatory fiscal action and not policies of the basic type. A so-called "normal" estimate is therefore supposed to supply only a scaffolding of reasonably adequate dimensions to which a variety of anticipated "abnormal" developments and possible policy measures can be attached experimentally, in the mind's eye, for purposes of a rather systematic appraisal of their potential effects.

It is immediately apparent that any normal economic picture will be modified in a favorable way, during the early postwar period, by several unusual factors arising out of the war situation, notably accumulated war savings and deferred demands both at home and abroad. These effects will follow more or less automatically, assuming that general confidence and prosperity are maintained. On the other hand, other and more permanent favorable effects will wait on the adoption of new policies with respect to taxation, competition and monopoly, wages, social security, foreign investment, etc. Assurances that employment, national income, and the total market for the output of industry and agriculture will be sustained should also be mentioned among these policies, since such commitments could in themselves have a powerful effect in increasing private expenditures and reducing the necessity for deficit financing. Thus, consideration needs to be given to the following subjects, among others:

War savings and deferred demand:
- Abnormal consumer demand.
- War-caused deficiencies in plant, equipment, and inventories.
- Foreign demand for relief and reconstruction.
- Deferred public improvements.

Taxation.
Banking and currency.
Competition and monopoly:
- Antitrust action.
- Patents.
- Monopoly regulation.
- Cartels.
- Special aids to new and small business (finance, research, etc.).

Wages:
  Higher wage-price ratios.
  Minimum wage.
  Annual wage.
Agriculture:
  Commodity-support programs.
  Miscellaneous aids.
Social security:
  Broader provisions.
  Pay-as-you-go financing.
Foreign policy:
  Foreign investment.
  Commercial policy, etc.
Housing and urban redevelopment.
Health program.
Education program.
Conservation and regional development.
Employment service, etc.
General assurances:
    Insured full employment.
    Insured full employment plus insured consumer market.
Capital budget.

This list is, of course, merely illustrative and also incomplete in other respects. The broad categories shown simply indicate certain convenient points of departure. Clearly, before the effects of a policy not yet adopted can even be guessed at, the content of the policy must be specified in some detail.

Once specification is supplied, the main questions are: (1) Just how—i. e., at what point—would each of these various developments or policies be likely to affect the national budget as previously described, and about how large an effect would it be reasonable to expect from each? (2) As far as any given change in policy is concerned, would it require new legislation, an Executive order under existing legislation, or merely a campaign of education and publicity?

Illustration of Analytical Procedure

How the first of these questions may be attacked is illustrated in the accompanying table, which presents a hypothetical example of how the national budget might react to the adoption of new policies designed to promote competition and limit the restrictive effects of monopoly. It must be emphasized that this illustration is purely hypothetical, in that the indicated quantitative effects of the assumed new policies A, B, C, etc.,[3] have been arbitrarily chosen and do not represent an attempt at actual evaluation or probabilities. The so-called estimated situation under present policies (column 1) represents a rough blocking in of magnitudes that might be reasonable under certain assumptions but are here intended as illustrative only.

Other examples might equally well have been chosen. For instance, it is evident that certain types of tax policy would increase the relative share of disposable income in the hands of families and individuals with small incomes, thereby increasing consumer expenditure and reducing the tendency to save. Other forms of taxation might especially encourage private capital expenditures; still others might reduce undistributed corporate profit, etc. Anything that increased the percentage of income going to wages would also tend

[3] Content not specified; as is well known, we are still a long way from agreement on any such policies.

HYPOTHETICAL EFFECT OF HYPOTHETICAL COMPETITION AND MONOPOLY POLICIES ON "FULL-EMPLOYMENT NATIONAL BUDGET" [1]

[Amounts in Billions of Dollars]

Item	Estimated Situation Under Present Policies	Situation Under Assumed New Policies
Gross national product assuming full employment	185.0	183.0
(a) Private gross capital expenditures [2]	25.0	26.5
(b) Government expense for goods and services	25.0	24.5
(c) Consumer expenditures:		
1. assumed gross national product	185.0	183.0
2. deduct: business taxes	16.0	15.7
3. deduct: depreciation etc.	10.0	10.0
4. equals: net national income	159.0	157.3
5. deduct: corp. undiv. profit	3.0	3.0
6. deduct: social security taxes	5.6	5.6
7a. add: social security benefits	1.6	1.6
7b. add: other transfer payments	2.8	2.8
8. equals: income payments	154.8	153.1
9. deduct: personal taxes	11.8	11.6
10. equals: disposable income	143.0	141.5
11. deduct: individual saving [3]	15.6	14.5
12. equals: consumer expenditures	127.4	127.0
Total expenditures, (a) + (b) + (c) 12	177.4	178.0
Deflationary gap (cf. line 1)	7.6	5.0
Government deficit required to close gap	[4] 7.6+	[4] 5.0+
Savings and investment:		
Savings:		
Private (3 + 5 + 11)	28.6	27.5
Government (6 - 7a)	4.0	4.0
Total	32.6	31.5
Private investment (item (a))	25.0	26.5
Savings-investment gap	7.6	5.0
Government revenues and expenditures:		
Taxes (2 + 6 + 9)	33.4	32.9
Government expense ((b) + 7a + 7b + (6 - 7a)) [5] (excluding deficit operations to close gap)	33.4	32.9

Shows effect [6] of policies A and B, which stimulate new investment by facilitating freedom of entry, use of patents, etc.

Shows effect [6] of policies C, D, and E, which reduce the prices of "monopoly" products, hence also the volume of expenditure needed to buy a full-employment output, and the amount of tax revenue needed to cover regular expenditures of government (as well as, incidentally, the tax base in so far as dependent on profit). [7]

Shows effect [6] of policies A-E, which reduce monopoly profit, increase the relative share of total income going to low-income groups, and thus reduce saving by increasing the "aggregate propensity to consume." [7]

[1] The year might be 1948, assuming 1944 prices except that "monopoly" prices are by hypotheses reduced in column 2; see footnotes 2 and 3 for assumed deviations from "normal" tendencies.

[2] Includes 15 billion dollars in plant and equipment and 2 billion dollars in inventory accumulation on account of deferred demand, and 2 billion dollars in net exports which assumes moderate Government encouragement.

[3] Assumes 3 billion dollars less saving than "normal" on account of accumulated war savings.

[4] Will exceed size of gap (see previous line of table) by amount of (a) reduction in private capital expenditures if gap is closed through supplementary public investment, or (b) additions to saving if gap is closed through tax reductions or transfer payments that increase consumer incomes.

[5] Additions to social-insurance reserves (6-7a) are included with Government expenditures to indicate the level of total taxes required to balance the budget under present accounting methods.

[6] Amount of effect is arbitrarily assumed; no actual evaluation intended.

[7] Part of the reduction of individual saving might by attributed to smaller disposable income resulting from policies C, D, and E (i.e., the same formula applied to disposable income yields slightly smaller saving in column 2 than in column 1); for simplicity this effect is not shown separately but is combined with the effect by way of relative reduction of the income share going to profit.

to increase consumer expenditure in relation to consumer saving and would therefore reduce the need for deficits to sustain total demand unless the measures in question cut into profit to the point where private production was curtailed as a result. Pay-as-you-go financing applied to the social-security system would expand total income payments, and hence consumer spending, by reducing social-security taxes without changing the established scale of benefits. A public hospital-construction program would tend to narrow the deflationary gap somewhat if financed through tax increases that chiefly affected savings, unless private investment reacted adversely to the higher taxes, and it would clearly increase disposable income and consumer expenditure if a capital budget were set up so that only interest and amortization were treated as current costs to be covered by taxation. Similar or related considerations apply to any other item on the list.

Naturally, in studying the problems in this field, it is not always necessary to begin by taking a given policy and trying to determine its several main effects (if there are several) upon the national budget. There may sometimes be advantages in taking a given section of the budget—such as, for example, the gap between national income and income payments—and reviewing the several policies by which this particular relationship might be improved.

Implications for Action

The purpose of the table here given, with its purely illustrative quantities, is to show that it ought to be possible to narrow down arguments over policies that are thought to have an effect on employment, by indicating *how* or *where* these effects are supposed to appear in the national budget. *How much* then becomes the next question. Many exact answers should not be expected, and some persons will be tempted to assert that even the roughest approximations are out of the question. This need not be granted offhand, however, especially in view of the practical importance of achieving a better understanding than now exists of the relative quantitative significance of some of the measures most widely advocated as means of promoting expansion of private enterprise and limiting the tasks of government.

In summary, the full-employment national budget, because of its stability, provides the nearest thing to laboratory conditions the appraiser of economic stimuli is likely to see. Doubtless it may be impossible to show, in terms of this budget, that the assured or minimum effect of the basic policies proposed and certain to be adopted exceeds the maximum deficiency of expenditure and, finally, of employment, to be expected without them. This will not detract from the necessity of framing and securing enactment of basic measures that will at least greatly improve the self-activating power of our economy. On the other hand, it will also demonstrate that those who object to providing for the use of compensatory fiscal measures in a supporting role are satisfied to let full employment take its chances.

Wartime Productivity Changes in the Airframe Industry[1]

Summary

THE phenomenal expansion of the aircraft industry after Pearl Harbor was accompanied by a 200-percent increase in output per man-hour in airframe plants. The initial rise during 1942 was relatively modest. In that year the advance of production and productivity was impeded by many factors, including the entry into production of several new and, at the outset, relatively inefficient plants, imperfect balance with suppliers, the necessity for training large numbers of new and inexperienced employees and integrating them into plant work forces, and problems of organizing mass production of new models and new designs. During 1943, with many of the earlier problems settled and with new plants getting into full swing, production and man-hour output both increased rapidly. Productivity continued to increase during the first part of 1944, but late in the year a small decline followed reductions in both production and employment. Early in 1945, a rise in man-hour output accompanied an upturn in production.

The rise in productivity was made possible by a concentration of effort on standard designs produced in large volume. Conversion of the industry to a mass-production basis was characterized by minute specialization of labor, machinery, and hand tools, and by the subcontracting of an appreciable part of the work. Line-production methods were applied to varying degrees in the different plants. New plants were designed for large-scale production of specified models.

Productivity data relating to individual plants and types of aircraft suggest that unit labor requirements in all plants tended to decline at fairly similar rates with increasing production experience. For selected types of planes, labor requirements dropped by amounts ranging from 27 to 35 percent with every doubling of cumulative output. The absolute level of man-hours required per pound of airframe was somewhat higher for fighter planes than for standard 4-engine bombers, but in general varied over a similar range for all combat types and heavy transports. At comparable levels of production experience, plants producing training, liaison, and light transport planes reported unit labor requirements roughly a third as high as the plants producing combat planes.

Immediately after the war, a sharp decline in aircraft production is expected. A decline in productivity is also probable, since the industry will lose some of the advantages of standardized production in huge volume when output is reduced. On the other hand, productivity should remain well above prewar levels, because of the substantial technical advances in manufacturing methods achieved during the war. A gradual rise in productivity may commence after facilities have been adjusted to the peacetime volume and type of production, but for any given type of plane the wartime level may not be reached for a considerable period. Liberal estimates suggest that after 10 years the industry may again approach the wartime level of

[1] Prepared in the Bureau's Productivity and Technological Development Division by Kenneth A. Middleton.

production in terms of numbers of planes. This can occur only if a large part of the output is light private aircraft, for which labor requirements are lower than for combat planes. The aggregate employment supported by the industry would thus fall short of the wartime figure. It is generally agreed, however, that the industry will provide employment for many more persons than were required before the war.

Significance and Scope of Study

During the past 4 years, aircraft manufacture has grown from comparative unimportance to a position in the very first rank of the Nation's manufacturing industries.[2] Figures on the production of military and large commercial aircraft indicate the extent of the increase (table 1).

TABLE 1.—*Production of Military and Large Commercial Aircraft, 1940–44* [1]

Year	Number of airplanes	Total airframe weight—	
		Excluding spare parts (in millions of pounds)	Including spare parts (in millions of pounds)
1940	6,019	23.1	
1941	19,433	81.4	90.5
1942	47,653	275.8	314.7
1943	85,405	654.2	758.3
1944	95,237	961.1	1,099.7

[1] This table includes the relatively small production of Canadian plants in the United States military aircraft program. Canadian production and employment are excluded from table 2.

The introduction of mass-production methods has had far-reaching effects on the relation of output to labor-input, as reflected in the indexes and other data presented in this article. Records compiled during the war provide the basis for conclusions concerning trends in labor requirements for different types of plane as output rises. This information is useful in preparing industry-wide production measures, and it is also of value in forecasting future employment.

The present discussion refers to the airframe industry and subcontractors only, excluding the production of gliders, aero-engines, propellers, and certain other equipment. The airframe industry proper is engaged in the assembly of complete airplanes and in the manufacture of component parts for the airframe portion of the planes. Airframe-assembly plants during the war have commonly subcontracted a part of the work to other concerns, including other airframe-assembly plants. Complete wing or tail units, for example, may be made off site and shipped to the prime-contracting plant. Employment and hours data presented here have been adjusted to include estimates for subcontractors. Employment in subcontracting for airframe plants is estimated to have increased from about 10 percent in 1941 to more than 20 percent in 1944, expressed as a percentage of total employment in both prime and subcontracting plants. The manufacture of engines, propellers, tires and tubes, radios, auxiliary power plants, batteries, armament, and other parts not generally manufactured in airframe plants is excluded.

[2] See Wartime Development of the Aircraft Industry, in Monthly Labor Review, November 1944 (p. 909).

Industry-Wide Measures

Output of airframe per man-hour approximately tripled during the 3 years following the attack on Pearl Harbor. The greater part of this increase occurred during the year 1943. Production declined somewhat during the last half of 1944; employment diminished steadily during the entire year 1944; and productivity also declined during the latter part of that year, accompanying the general contraction in the industry. Early in 1945, when an upturn in production occurred, productivity also increased.

TABLE 2.—*Indexes of Production, Employment, Man-Hours, and Productivity in the Airframe Industry, January 1942–May 1945*

Month	Indexes (January 1942=100) of—				
	Production	Gross total employment	Man-hours	Output per employee	Output per man-hour
1942: January	100.0	100.0	100.0	100.0	100.0
February	120.0	109.0	105.9	110.1	113.3
March	148.1	115.4	112.3	128.3	131.9
April	146.5	123.5	119.7	118.6	122.4
May	172.1	131.3	125.4	131.1	137.2
June	185.2	142.5	134.4	130.0	137.8
July	208.3	152.9	142.6	136.2	146.1
August	215.0	169.4	159.3	126.9	135.0
September	239.9	182.8	171.2	131.2	140.1
October	234.4	199.2	186.2	117.7	125.9
November	262.6	216.3	203.9	121.4	128.8
December	304.8	234.9	222.9	129.8	136.7
1943: January	277.7	251.0	237.7	110.6	116.8
February	333.6	260.7	244.7	128.0	136.3
March	389.6	267.1	251.8	145.9	154.7
April	426.1	273.4	263.3	155.9	161.8
May	474.2	279.0	266.4	170.0	178.0
June	484.0	287.0	284.0	168.6	170.4
July	514.1	293.3	272.3	175.3	188.8
August	553.5	295.4	275.5	187.4	200.9
September	554.9	301.3	286.5	184.2	193.7
October	604.2	303.4	289.2	199.1	208.9
November	663.4	305.1	290.7	217.4	228.2
December	687.8	300.5	280.3	228.9	245.4
1944: January	746.8	297.5	289.6	251.0	257.9
February	769.7	292.8	283.2	262.9	271.8
March	842.3	285.2	273.0	295.3	308.5
April	786.9	279.0	265.9	282.0	295.9
May	841.1	273.6	261.9	307.4	321.2
June	791.3	264.4	253.6	299.3	312.0
July	754.1	259.7	246.9	290.4	305.4
August	739.0	250.5	239.7	295.0	308.3
September	730.9	241.4	225.6	302.8	324.0
October	700.8	235.0	223.5	298.2	313.6
November	666.3	233.0	223.9	286.0	297.6
December	664.1	232.4	224.8	285.8	295.4
1945: January	668.7	235.7	231.8	283.7	288.5
February	685.1	234.5	225.9	292.2	303.3
March	716.0	229.3	220.4	312.3	324.9
April	672.3	221.0	211.6	304.2	317.7
May	667.0	202.5	193.8	329.4	344.2

The indexes of production, employment, man-hours, and productivity for the airframe industry as a whole are presented in table 2. The production measure is derived from airframe weight of complete planes and spare parts accepted, divided into two categories: (1) Combat planes and heavy transports and (2) trainers, liaison planes, and light transports. The two groups were weighted by approximate average man-hours required per pound of airframe in each category.

The employment index represents gross total on-site employment plus estimated employment on subcontracted production. The man-hours series was derived from the employment series and average weekly hours of wage earners in prime contracting airframe plants. This average-weekly-hours series is not strictly comparable with the employment series, since it refers only to wage earners rather than to all employees, and does not include subcontracting. However, an alternate series which does include many manufacturers of aircraft parts and equipment but excludes plants converting to the production of aircraft and parts since 1939 shows only minor deviations from the series used here, and the latter is deemed accurate enough for the present purpose of indicating general trend over the period. The sources of the basic data used in the computations were the Army Air Forces, the Aircraft Production Board of the War Department, and the Bureau of Labor Statistics.

In these indexes, airframe weight accepted during a given month is associated with the employment and man-hours data for the same month. As a matter of fact, the labor involved in the acceptances of a given month was actually performed only partly during the month and partly during several preceding months. Various methods of allowing for this lag are available, but it is clear from experimental computations that such refinements do not alter the general impression given by the accompanying indexes as summarized above. The main result is to attribute a small part of the indicated rise in productivity to a slightly earlier period. The indexes are intended to indicate only the general direction and extent of changes during the period, and their month-to-month fluctuations are of little significance.

Factors Affecting Productivity

The tripling of output per man-hour which has accompanied the wartime expansion of the aircraft industry is not surprisingly large, since similar records have been shown by other industries in which production has been greatly increased and mass-production methods introduced. It is the rapidity with which such developments have occurred in aircraft that is remarkable.

The indexes show that a relatively small part of the rise in productivity occurred during the year 1942. During that year new plants and additions to old plants were entering production and acquiring staffs but in general had not attained optimum levels of production. The entry of these new plants, reporting a fairly complete working force but achieving only a small volume of output during their early months, tended to depress industry-wide productivity.

The plants which ranked highest in volume of production during 1942 had generally not been designed for mass production of their wartime product. Expansions and adjunct facilities had to be fitted in as well as possible with the older part of these plants. The aircraft models themselves were comparatively new, and production techniques and plant arrangements were being evolved. During 1942 and 1943, subcontracting was gradually extended; scheduling of subcontracted and other parts was smoothed; and the total volume of off-site production was increased. In the earlier part of the period, however, production was sometimes delayed because essential components were not on hand when needed. Design changes had to be

made in existing models to improve their effectiveness in operation or to simplify construction, temporarily impeding the development of smooth production routines. Work on experimental types diverted some labor from the main production models. Design changes and experimental work were both probably more important, relative to aggregate production, during the early stages of American participation in the war. During this difficult period, however, aircraft manufacturers cooperated effectively, both informally and through regional associations. Scarce materials were shared, production information disseminated, and research tasks parceled out to ensure competence and avoid duplication.

In anticipation of labor shortages, the industry tended to hire new employees as rapidly as possible, sometimes before they could be set to work efficiently on production. A considerable amount of time had to be spent by experienced employees in the training of the new recruits. Both these factors worked against rapid rises in productivity.

During the year 1943, the effect of many of the productivity-depressing conditions was either eliminated or greatly reduced. The major new plants had gotten under way during the year and in most cases were rapidly approaching scheduled maximum output. These plants had been designed for mass-production methods, often with a specific plane model in mind, and were capable of achieving notably high productivity levels. The models produced in the new plants were in most cases identical with models already in production at older establishments, where many special tools and techniques had already been devised and difficulties overcome, paving the way for rapid progress.

These mass-production techniques, so largely responsible for doubling airframe output per man-hour between early 1942 and late 1943, are characterized by specialization of labor, machines, and hand tools. The division of production into relatively simple jobs would have been necessary to allow rapid training of a greatly enlarged labor force, if for no other reason. Most prewar aircraft manufacture was in small lots, and greater versatility of labor was therefore necessary. The more minute division of labor was rendered practicable during the war through the placing of large Government orders for a standardized product. For similar reasons, a large capital investment in highly specialized machinery became feasible. Specialized machines for working with the light aircraft metals, complex contrivances for riveting automatically large structural sections, subassembly lines for making installations separately in four quarters of a bomber nose—all became economical as a result of the demand for quantity output of standardized models. Hand tools and gages were designed for particular highly specialized uses. For example, at one plant small tools were developed to install rubber insulation grommets over fittings at the ends of cables. At another, a power-driven filing tool was devised specially for smoothing the surface of the hood cowling, an operation previously done by hand. These are random examples of literally hundreds of developments.[3]

[3] Brief accounts of many technical innovations affecting the airframe industry have been brought together in a recent monograph prepared by the Bureau of Labor Statistics for the U. S. Senate Subcommittee on War Mobilization of the Committee on Military Affairs (79th Cong., 1st sess.), Monograph No. 2: Wartime Technological Developments (pp. 49–78).

Division of labor and specialization of machinery do not necessarily imply line production with mechanical conveyors to move the work through the plant. As a matter of fact, line assembly has been employed to varying degrees in different plants, even in plants making the same model. In one plant, much of the work may be done on a single line, successive additions and installations being made to the skeleton of the plane. In another plant producing identical planes, a series of subassemblies may be built first, not being joined to form a complete plane until rather late in the procedure. Man-hour output may, nevertheless, be similar in the two plants. The production technique actually adopted may depend on the nature of existing buildings and equipment or the traditional methods of the company. Critical surveys of procedures in older plants may suggest worthwhile changes when production of similar planes is undertaken elsewhere.

Toward the end of 1944, a decline in productivity occurred. This was preceded by a reduction in employment commencing at the end of 1943 and a decline in production which started about the middle of 1944. As production is reduced but not completely halted in an appreciable number of plants, efficiency cannot be maintained and the situation is reflected in industry-wide measures of productivity. When plants are entirely eliminated from the industry, however, the change in industry-wide productivity depends upon the plant's efficiency relative to that of other plants as well as upon its relative importance in total production. Early in 1945, an increase in productivity accompanied a rise in production.

Measures for Specific Types of Aircraft

In the preparation of the industry-wide measures noted above it was necessary to consult individual plant reports and compare the levels of labor requirements for different types of planes. The results, besides being helpful in constructing the industry-wide production index, are of interest in themselves. In the first place, it was found that every time a plant's cumulative production of a given model doubled, man-hours required per pound of airframe tended to decline by a constant percentage. More specifically, after producing a million airframe pounds of a given model, a plant might require 6 man-hours per pound; by the time it had produced twice as much, or 2 million pounds, the labor requirements per pound of airframe might drop 30 percent to 4.2 man-hours. As cumulative production again doubled, reaching 4 million pounds, unit labor requirements were likely to decline by another 30 percent, to about 2.9 man-hours per pound.

Furthermore, the rate of decline in unit labor requirements was found to be fairly uniform throughout the industry, the average for different major classes of aircraft ranging from 27 to 35 percent. Lines representing the course of unit labor requirements for these major classes as production increases are shown in chart 1. Each line represents the composite experience of several selected plants producing the same class of plane. Charts 2, 3, and 4 illustrate the use of individual plant data in arriving at the average lines. All of the charts are on ratio scales, and a constant percentage decline in unit labor requirements with successive doublings of cumulative output appears as a straight line.

In chart 2 the plotted data and fitted lines are shown for a 1-engine fighter plant and a 4-engine bomber plant. The plotted points are based on monthly reports for each plant. For every point, the horizontal scale indicates the total airframe weight of the model produced in the plant up to the date of report, including spare parts. The vertical scale measures the man-hours required per pound of airframe at that time, including an allowance for subcontracted parts. Space limitations prohibit the showing of similar data for all plants, but straight lines on the ratio scales were adequate representations in all cases. In fact, the regularity and parallelism of the declines in unit labor requirements, as production experience was gained in the various plants, was remarkable. With each successive doubling of cumulative production, man-hour requirements per pound of airframe fell at a fairly constant rate, averaging about 30 percent.

The derivation of average lines for standard 4-engine bombers and for single-engine fighters is presented in charts 3 and 4. For each class, several plants are represented by lines obtained in a manner similar to that indicated in chart 2. An average line for each of the two classes of aircraft is shown on the charts. Each point on this line represents an average of the corresponding points on the component lines, and the slope of the average line is also an average of the slopes of the other lines. Similar composite lines were obtained for other major types of aircraft.

In compiling information for individual plants, labor-requirement data reported before December 1942 were excluded because of doubtful comparability with subsequent figures. Some plants were excluded from the averages because rough checks by means of supplementary information cast doubt on the accuracy of reported figures; others were excluded because at the time of the study they had not produced enough planes to warrant comparison with other plants. Still others were rejected because the scheduling of two or more similar models made it difficult to ascertain what cumulative production figure represented experience attributable to either one alone.

Lines representing the course of unit labor requirements as total volume of output increases are a familiar device in the aircraft industry, where they are commonly called "learning curves." A general tendency for unit labor requirements to decline by a constant percentage every time a plant doubles its cumulative production has often been noted. However, it appears that earlier judgments of the rapidity of this decline were unduly conservative. Some credence had been given to a standard 20-percent reduction in unit labor requirements with each successive doubling of output. The present study indicates that a rate of about 30 percent would be a more representative average.

In comparing levels of unit labor requirements, as distinguished from the rate of change, it is necessary to choose some point which places all plants as nearly as possible on the same footing with regard to production experience. The standard here used has been the cumulative airframe weight produced, as that is a better indicator of the physical volume of work performed than is number of planes. It should be emphasized that somewhat different results would be obtained if the latter were used. A plant which has produced 500 4-engine bombers has produced about 12 million pounds of airframe; but a plant which has produced 500 light liaison planes has turned

REDUCTIONS IN UNIT LABOR REQUIREMENTS WITH INCREASING PRODUCTION, AIRFRAME PLANTS

CHART 1

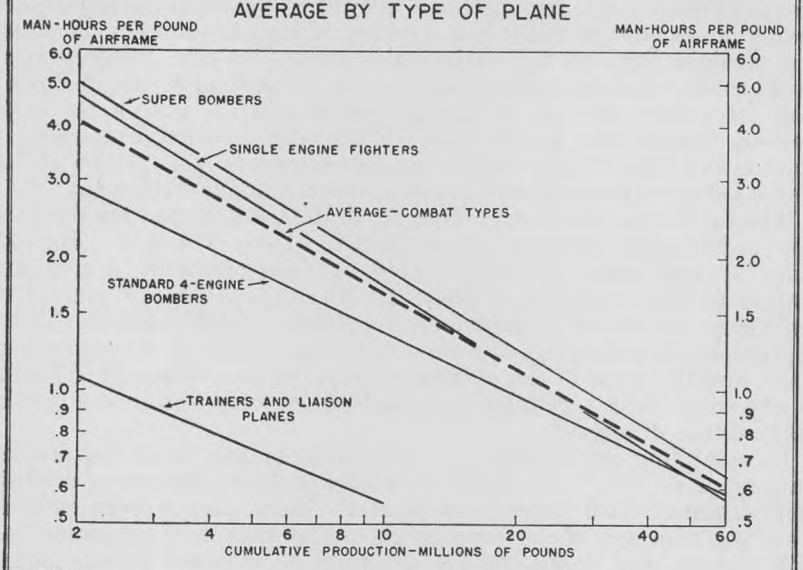
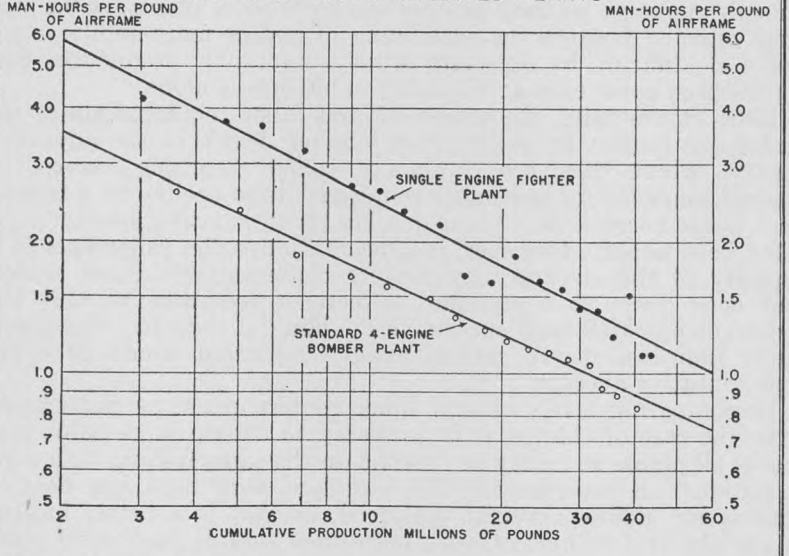


CHART 2



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REDUCTIONS IN UNIT LABOR REQUIREMENTS WITH INCREASING PRODUCTION, AIRFRAME PLANTS

CHART 3

SELECTED PLANTS PRODUCING STANDARD 4-ENGINE BOMBERS

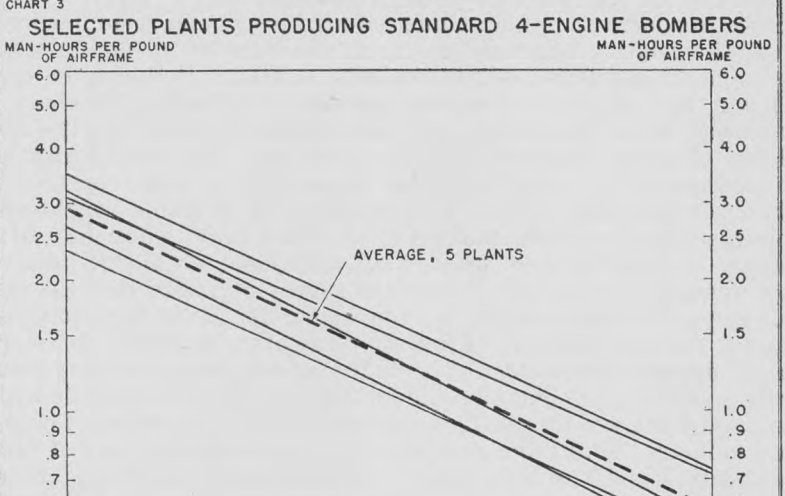
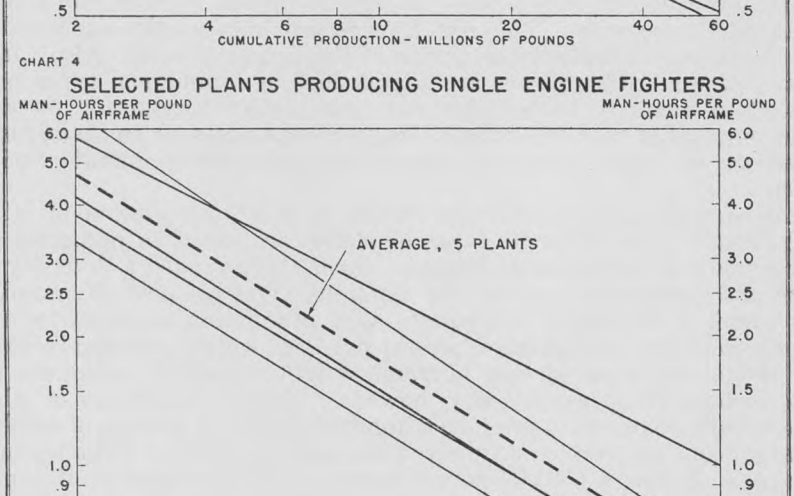


CHART 4

SELECTED PLANTS PRODUCING SINGLE ENGINE FIGHTERS



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out less than 400,000 pounds. In order to reach 12 million pounds of airframe, the latter plant would have to make some 16,000 airplanes. Available information indicates, however, that it is possible to continue reducing unit labor requirements for small planes over a range of output which is, in terms of airframe weight, comparable to that attained in the manufacture of large planes.

Since the decrease in man-hours required per pound is similar for all types, the relative positions are much the same at all points within the range of cumulative output common to plants producing all types of plane, that is, up to 8 million pounds of airframe (see chart 1). Somewhat more man-hours per pound are required for 1-engine fighters than for standard 4-engine bombers. The complexity and compactness of a 1-engine fighter apparently present construction difficulties that are greater in proportion to airframe weight than those associated with the making of standard heavy bombers. Manufacture of superbombers may entail additional problems, however, since available data at the time of the survey indicated that the man-hour-per-pound requirement is even higher for B–29 Superfortresses than for 1-engine fighters. From supplementary statistics, not shown here, it appears reasonable to conclude that composite learning curves for light and medium bombers and for 2-engine fighters would lie within the range demarked by the lines representing the other types of fighters and bombers. Unit labor requirements in the manufacture of heavy transports also lie in this range. Requirements per pound of airframe for trainer, liaison, and light transport planes, on the other hand, are roughly only a third as high as for the combat and heavy transport categories. This low level is probably partly attributable to the relative simplicity of design of the lighter planes. Also, since many of these light planes are adaptations of commercial types produced in quantity before the war, cumulative production on war and immediate prewar contracts may in some cases be an inadequate measure of total experience gained by the plants manufacturing them.

As already pointed out, the results of this investigation of labor requirements for different types of planes are useful in preparing an industry-wide production measure. Since there is such a diversity in size and complexity among the different types of aircraft, number of planes is obviously inadequate as a production measure for the whole industry, and airframe weight has been widely adopted instead. It cannot be assumed that airframe weight is entirely adequate for use in measuring productivity, however. More man-hours of labor are usually required to produce a hundred thousand pounds of combat planes than to produce a hundred thousand pounds of light training planes. Hence, a 100,000-pound increase in the production of bombers should be given more significance in the index than a similar increase in the production of basic trainers. In other words, a pound of airframe in a bomber or fighter may represent more of a production accomplishment than a pound of airframe in a trainer or liaison plane.

In the cumulative output range of 3 to 8 million pounds (a range within which data were tabulated for all types of planes), the average unit labor requirement per pound of airframe for combat planes and heavy transports is about three times that for the lighter types of aircraft (see chart 1). In preparing the industry-wide index, airframe weight accepted was accordingly divided into two categories, with

combat planes and heavy transports included in one, and trainers, liaison planes, and light transports in the other. The first category was given a weight three times that of the second in computing the production index. This procedure seemed adequate since unit labor requirements for the light planes deviated materially from those for the other types, which were not widely scattered. Moreover, the trainer-plane group declined considerably in relative importance during the period, and the establishment of its relative weight in the index is therefore more important. Had there been no shift in the proportion of any group in total production, the selection of weights would have been of no practical significance.

Outlook for the Industry

It is generally accepted that aviation will be much more important after the war than it was before, and that many more employees will be required in aircraft manufacture than in prewar years. The wartime expansion of the industry has been so great, however, that an immediate postwar contraction is practically inevitable. At the reduced level of output, the industry will probably lose some of the efficiency attained at the wartime peak. Productivity will almost certainly decline as plant operations fall below capacity. However, the advantages conferred by wartime advances in production methods and light-metal technology will persist, and productivity should remain above prewar levels. Later, after the industry becomes adjusted to the peacetime volume and type of construction, productivity should again move upward, but further developments in manufacturing techniques will probably be less numerous and far-reaching than those of wartime. It may be several years before productivity in the manufacture of some types of aircraft again reaches the wartime level.

The composition of peacetime production may be more relevant to the level of employment in the industry than is the course of productivity in making any one type of plane. The more optimistic forecasts suggest that at the end of the first postwar decade the industry may approach the wartime production level in terms of numbers of planes. This can be achieved in peacetime only if a very large part of the total output consists of light private planes, for which labor requirements are considerably lower than for combat types and heavy commercial transports. Therefore, even if liberal estimates of postwar aircraft demand prove correct, it is too much to expect that after 10 years the industry will support as much employment as it does at present. Nevertheless, there is every reason to believe that employment in aviation after the war will be substantially greater than before the war, and this is perhaps the more important point.

Employment Conditions

Wartime Employment in Cotton-Duck Manufacture[1]

Summary

EMPLOYMENT in mills producing cotton duck and duck substitutes began to rise as early as 1940, in response to expanded needs under the national defense program. Peak employment was achieved late in 1942, with mills more than meeting production requirements. A 15-percent cut-back in duck production in 1943, which followed Army contract cancellations early in the year, was accompanied by a significant drop in employment.

When military requirements, beginning in 1944, rose to unprecedented heights, duck mills found themselves without adequate labor forces to produce the needed volume of goods. Other war industries had expanded in the meantime to a degree that had virtually exhausted the local supply of labor, and were making inroads on duck mill forces. The lower wage levels in the duck mills intensified the situation when the mills were confronted with greater and more pressing demands and with constantly dwindling employment. The situation became so serious that soldiers were furloughed to work in the mills; prisoners of war were also utilized to some extent.

Military requirements for cotton duck will tend to be increased rather than reduced by the victory in Europe. The heaviest demand for cotton duck has always come from the Pacific, partly because the climate made the use of tents more prevalent in that theater of war than in Europe. With the transfer of greater numbers of troops to the Pacific, and the expanded needs for tents, hospital canvases and supply coverings of all kinds, even greater production of cotton duck will be required throughout 1945 than in 1944.

These developments make the supply problem even more serious because of the continued inability of the industry to attain its production goals. The output of duck and duck substitutes fell off 22 percent from 1943 to 1944. Preliminary reports show that although production during the first quarter of 1945 was almost a third greater than during the fourth quarter of 1944, the total output was 30 percent below requirements stated by the Army, Navy and other claimant agencies. Estimated production for the second and third quarters of 1945, under present conditions, will fall about 25 percent below stated requirements.

Production difficulties, which at one time arose from a shortage of cotton yarn, have more recently been attributed to a shortage of labor. Employment has dwindled as a result of such factors as Selective

[1] Prepared in the Bureau's Occupational Outlook Division by Doris M. Graham and Evelyn W. Farber under the supervision of Arthur W. Frazer.

Service withdrawals and the extensive migration of workers to other industries. To measure this trend, to help in analyzing its causes, and to provide a possible basis for remedial administrative action, the Bureau of Labor Statistics undertook the present study.

Scope of Study

Previously the manufacture of cotton duck has not been classified as a separate industry, and workers in plants engaged in this activity have customarily been included in the Bureau's estimates of employment in the cotton-manufactures industry, which produces all types of cotton goods. From among the cotton-textile mills which currently report their employment to the Bureau, the reports of the 62 mills which manufacture cotton duck were selected for analysis. In addition, 6 New York and Connecticut carpet mills, whose facilities have been converted to the production of cotton duck and blankets, were included in the study. These 68 mills produced 74 percent of the cotton-duck output of the United States in the last quarter of 1944.

The mills, in their reports to the Bureau, indicate the number of wage earners, and their total hours and earnings for a single week in each month. Although most of the mills produce other items as well as cotton duck, the employment data cannot be segregated by product, and some workers included in the study were actually engaged in other than cotton-duck production. However, the inclusion of such employees, does not particularly distort the movement of employment nor obscure the other manpower problems of the duck mills.

In the present study, reports from the 68 mills were tabulated by areas for selected months in 1942 and 1943, and for each month in 1944.[2] Data for March 1945 represent the latest report on the current situation.

National Trend of Employment in Cotton-Duck Manufacture

Duck was one of the first of the cotton textiles to go to war. The demand for this product became urgent when England declared war on the Axis and the United States began its national defense program. Production doubled from 1939 to 1941. In 1942, tent twills were added to the cotton-duck program, swelling the total output for the year to 668 million yards—over three times the output in 1939.

Employment began to rise in 1940. By the time the peak was reached late in 1942, total wage-earner employment in the 68 mills studied was up to more than 69,000 workers. Recruitment of new workers was comparatively easy. In addition, many workers within the mills were transferred from the production of other types of cotton goods to duck.

At the beginning of 1943, the Army began cancelling orders for goods with which it was adequately supplied. A large volume of orders for duck were cancelled, including principally shelter-tent duck and the 10½- and 12½-ounce duck used for pyramidal tents. The mill owners affected by contract termination rediverted their looms to the manufacture of other priority items, or to civilian goods.[3]

[2] A detailed table showing the data by months for each region, will be included in a forthcoming report.

[3] Two mills, included in the sample, returned completely to the manufacture of cotton goods other than duck. The first mill ceased manufacturing duck by October 1942; the second stopped duck production late in 1943. Employment data were adjusted accordingly.

With the slackening of demand, employment in the 68 duck mills dropped to 66,000 in July 1943. Workers who had manned the duck looms were, in many instances, transferred to work on other cotton goods to replace labor lost either through Selective Service withdrawals, which were beginning to take their toll from textile employment, or by the migration of textile workers to other industries—usually because of higher wage rates. Thus, the workers released in 1943 by the termination of contracts for cotton duck helped to relieve the growing manpower shortage in the production of other items.

In 1944, when the demand for duck became acute once more and looms were again diverted to the manufacture of duck, there was no source of labor upon which to draw. Weavers on carpet looms had been transferred to duck looms with some success, but many such employees were unsuitable as duck workers. Older workers in particular found it difficult to keep up the pace on duck production.

Declines in the number of wage earners continued unabated through the first half of 1944, averaging nearly 1,000 workers a month. During the summer months, the decline in employment slackened somewhat. In September 1944, after other sources of supply of duck (substitutions, conservation, reclamation, and salvage) had been exploited, the War Production Board issued Directive No. 2 to Limitation Order L–99. This directive sought the diversion of looms from less-essential items to duck manufacture. In further efforts to improve the situation, a system of two 10-hour shifts instead of the usual three 8-hour shifts was established in some mills. In addition, the rapid expansion in production of high-tenacity rayon for use in tire cord diverted some coarse cotton yarn, previously used for tire cord, to canvas. In response to the L–99 directive, looms in the upholstery and drapery fabrics sections of cotton mills were converted to the production of duck tent twill. Although the order has netted a substantial gain in production, it has also contributed much to the problem of depreciation of machinery at a time when parts are hard to replace. It is reported that some such looms were not suitable for conversion. Looms on which light-weight goods are customarily woven cannot be used efficiently on coarse fabrics and the hard wear, when so utilized, threatens their later serviceability.

Considerable quantities of duck were being produced by carpet manufacturers at the time of the study. From 75 to 90 percent of the mills in the carpet industry were engaged in the production of war material. It is estimated that operations on civilian merchandise had fallen to about 10 percent of normal in the carpet mills.

During the closing months of 1944, employment in mills manufacturing cotton duck showed the first general increase after October 1942, rising by about 1,800 (or 3 percent) from September to December. This increase may have been the reappearance of a seasonal fluctuation in labor supply which, before the war, was characteristic of activity in cotton mills. Total wage-earner employment in December 1944 was 59,251, a drop of approximately 10,000 workers in the 2 years from the peak in October 1942. Data for March 1945 indicate a decline of 1 percent in the number of workers from December. Since textile employment, especially that in the Southern mills, customarily shows seasonal declines during this period of the year, the drop from December to March is not alarming. In fact, the absence of a larger decline in employment may indicate that the

labor forces in duck mills are fairly well stabilized. If such a stabilization of textile employment exists, it is at levels much below that needed to meet current duck requirements.

Trend of Employment in Major Areas

The Northern mills, which employed about a fourth of the wage earners in the 68 mills studied, began losing workers earlier than those in the South, probably because of the wide variety of alternative employment opportunities which expanding war industries offered in the North. Although employment in the Southern mills increased by about 10 percent during the first 10 months of 1942, the labor force of Northern mills declined by about the same percentage. Pennsylvania mills lost many employees to the shipyards around Philadelphia, Maryland textile workers transferred to aircraft and shipbuilding, and in New England employment declined in duck mills as workers went into neighboring shipyards, munition plants, and foundries and machine shops. Both the regular duck mills and the carpet mills which had diverted their production to duck manufacture lost labor, but the regular duck mills suffered the heaviest losses.

Subsequent declines in employment have been heavier in the South. Employment in the North was fairly constant throughout 1944, but the Southern mills, between January and October, lost more than 4,000 workers and by March 1945 had been able to raise their employment only by about 1,100 above the low level reached in October.

The South became increasingly industrialized during the war. Munitions and airplane factories sprang up near textile mills, and port areas became shipbuilding centers. Workers migrated to the localities where these new industries, which offered higher rates and greater take-home pay, were situated. Not only duck mills, but all kinds of textile mills faced difficulties in retaining labor under such conditions.

To recruit additional workers and reduce the high turn-over rates, radio broadcasts and "spot" announcements before and after network shows were channeled over Southern hook-ups, and local theaters presented short films emphasizing the military needs for duck and other textiles. In 1944, the War Department furloughed soldiers to help relieve the manpower situation in cotton-duck mills, as had been done in the rubber-tire industry and in the metal mines. A survey of 77 mills throughout the South in February 1945 by the War Manpower Commission indicated that 1,125 soldiers were manning duck looms in Virginia, North and South Carolina, Georgia, Alabama, and Mississippi. Prisoners of war were also being used to some extent to relieve the manpower situation in duck mills.

Keen competition for labor developed in Georgia as wartime industrialization began to have its effect in areas which before the war either were textile centers or were principally agricultural. Tire-cord mills in Georgia have also been competing for textile labor, and average hourly earnings in the tire-cord mills have exceeded those in duck mills in the same vicinities. As a result of these and other factors, labor losses have necessitated a drop in the number of looms in operation in the 18 duck mills in Georgia. It should be noted, however, that only a little more than a fifth of all looms in operation during the fourth quarter of 1944 in the 18 duck mills in Georgia

were weaving cotton duck. Other looms were producing principally coarse grey goods and colored yarn fabrics such as denims, chambrays, and other essential goods.

South Carolina was the only State in which duck mills reported a higher level of employment in December 1944 than in January 1942. On the other hand, Texas duck mills, where employment is relatively small, sustained proportionately heavier employment losses than mills elsewhere, partly because of the competition with ordnance, munitions, and aircraft factories in textile localities.

LANETT-LA GRANGE AREA [4]

The Lanett-La Grange area, with mills in both Alabama and Georgia, is the most important producer of cotton duck in the United States, employing almost a fourth of all duck workers in the 68 mills included in this study, and having the largest manufacturers.

There has been no precipitous drop in employment in this area, but the mills have experienced persistent losses since October 1942. Nevertheless, at the beginning of 1944, wage-earner employment was still slightly above the January 1942 level. Thereafter, employment dropped slowly until November 1944, at which point there was a small increase in the number of wage earners over that reported the previous month by the 8 establishments in this area.

ATLANTA AREA

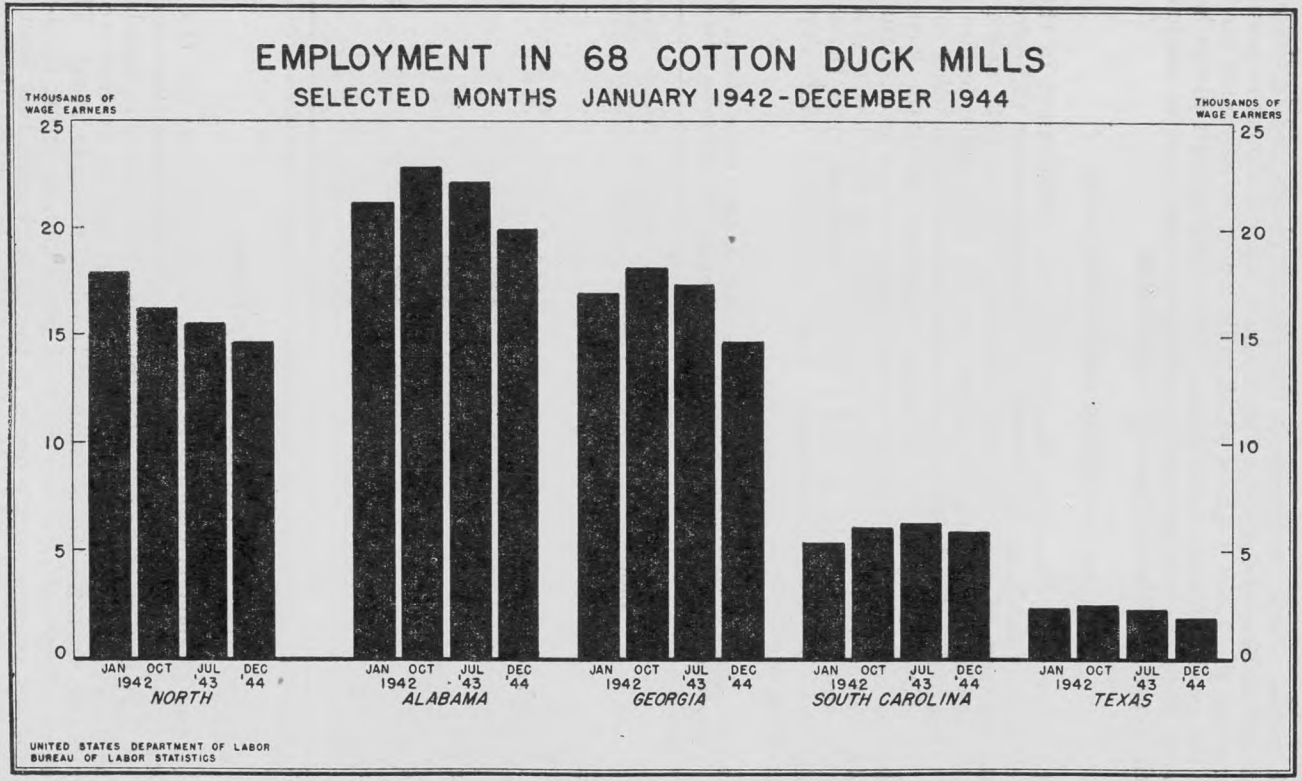
Wage-earner employment in the duck mills in the Atlanta area rose only 1.8 percent between January and October 1942, as compared with an expansion of 18.5 percent in other cotton mills in the vicinity. Beginning in October 1942, losses in employment were sustained in all cotton-textile mills in this area, but the most precipitous declines occurred in the 4 mills which did not manufacture cotton duck. During the period October 1942–December 1944, employment in the 5 duck mills had declined by 26.4 percent, whereas the loss of wage earners in the other cotton mills amounted to 40.8 percent. Hourly earnings in the duck mills were somewhat higher than in the other cotton mills.

TABLE 1.—*Employment, Hours, and Earnings in Duck and Other Cotton Mills in Atlanta Area, Selected Months January 1942–December 1944* [1]

Month	Wage-earner employment	Average weekly hours	Average weekly earnings	Average hourly earnings
				Cents
January 1942:				
Duck mills	4,316	38.2	$18.62	48.7
Other cotton mills	2,866	39.2	18.35	46.8
October 1942:				
Duck mills	4,393	40.4	22.71	56.3
Other cotton mills	3,396	40.2	21.93	54.5
July 1943:				
Duck mills	3,991	37.8	22.68	60.1
Other cotton mills	2,780	40.0	22.17	55.4
January 1944:				
Duck mills	3,854	40.1	24.13	60.1
Other cotton mills	2,368	41.5	23.42	56.5
December 1944:				
Duck mills	3,235	44.0	28.19	64.0
Other cotton mills	2,010	44.2	27.27	61.6

[1] Table based on 9 mills; 5 of these are producers principally of duck and the other 4 manufacture other cotton goods.

[4] The Lanett-La Grange area discussed in this study is not identical with the Lanett-La Grange area in the Bureau's report: Cotton Goods Industry: Employment, Hours and Earnings and Turn-over Rates by Areas, January 1942-April 1944. The geographic coverage in the present study was extended to include duck mills in the adjoining Columbus (Ga.) area.



Although duck mills fared better with regard to labor than did other cotton mills in the Atlanta area, manufacturers faced ever-mounting requirements for duck in 1944 and generally receding mill forces. Labor shortages in the aircraft plants and in the iron and steel mills in the Atlanta vicinity have made it almost impossible to recruit the 1,350 workers which mills report as currently needed for the production of cotton duck. Competing aircraft plants have offered 50 to 75 cents per hour to prospective employees as compared with 50 cents per hour offered by textile mills.

ROME-CARTERSVILLE-CEDARTOWN AREA

In contrast to events in the Atlanta area, employment in the 4 duck mills in the Rome-Cartersville-Cedartown area rose 12.7 percent from January to October 1942. Between October 1942 and July 1943, however, employment declined in the duck mills despite the fact that in the same locality employment increased in the other cotton mills. Tire-cord mills, the principal employers of textile labor in this area, continued to increase their mill forces even as late as January 1944. Since July 1943, duck mills consistently had lower average hourly and weekly earnings and a shorter workweek than the other mills, which probably explains their comparative difficulty in recruiting workers.

TABLE 2.—*Employment, Hours, and Earnings in Duck and Other Cotton Mills in Rome-Cartersville-Cedartown Area, Selected Months January 1942–December 1944* [1]

Month	Wage-earner employment	Average weekly hours	Average weekly earnings	Average hourly earnings
				Cents
January 1942:				
Duck mills	3,022	42.0	$20.13	48.0
Other cotton mills	11,032	40.7	20.28	49.8
October 1942:				
Duck mills	3,405	44.3	24.21	54.7
Other cotton mills	11,495	42.7	24.07	56.4
July 1943:				
Duck mills	3,156	42.1	22.54	53.5
Other cotton mills	11,850	44.3	25.19	56.8
January 1944:				
Duck mills	3,068	42.3	23.14	54.6
Other cotton mills	11,644	44.5	25.74	57.9
December 1944:				
Duck mills	2,953	42.0	26.15	62.2
Other cotton mills	10,818	45.6	29.39	64.4

[1] Table based on 11 mills; 4 of these are producers principally of duck and 7 manufacture other cotton goods.

Average Weekly Hours

A loss of 300,000 man-hours per week occurred between October 1942 (when employment was at its peak) and December 1944—a drop of 10.7 percent in labor input for this period. The loss in man-hours would have been even greater had not the rise in average weekly hours per employee partly balanced the drop in employment. There was an increase of 3.5 hours per week per employee during the 3-year period, as average weekly hours in the 68 duck mills rose from 39.7 in January 1942 to 43.2 in December 1944. In general, the average weekly hours in duck mills were higher than hours in mills producing other cotton goods.

Texas mills almost consistently held the lead in average hours worked per week per employee. From January 1942, when an average of 43.6 hours was worked per week, until December 1944, when the average had risen to 47.0 per week, duck mills in the Texas area led not only all of the cotton-duck segment, but also all of the cotton-goods industry. At no time since January 1942 have average weekly hours in the Texas area fallen below 44.0 hours per week. Nevertheless, disproportionately high losses in employment occurred in that area between 1942 and 1944, so that total weekly man-hours declined continually after July 1943.

Average weekly hours were next highest generally in the mills in the northern area. The carpet mills in the North reported lower weekly hours than the neighboring duck mills, except in October 1942 and April 1944.

The Alabama mills, which averaged 41.2 hours per week in December 1944, evidenced, on the whole, the lowest weekly hours in the cotton-duck sample. In the Lanett-La Grange area hours worked have continually averaged less than 40 per week.

Average Hourly and Weekly Earnings

The cotton-goods industry is characterized by a relatively low wage scale, and average hourly earnings in the duck mills are only slightly higher than the earnings received by workers in mills producing other types of cotton goods. Average hourly earnings in duck mills in the North exceeded those elsewhere, partly because of the higher prevailing wage rates in the wool-carpet mills which undertook the production of cotton duck. Earnings of employees in the converted carpet mills averaged at least 20 cents an hour higher than those in the regular duck mills (table 3).

TABLE 3.—*Average Hourly Earnings in Cotton-Goods Industry and in Cotton-Duck Sample, Selected Months, January 1942–December 1944*

Month	Average hourly earnings (in cents)					
	Cotton-goods industry	Cotton-duck mills				
		National total	South	North		
				Total	Carpet mills	Duck mills
January 1942	50.7	53.8	48.4	69.1	75.5	56.0
October 1942	57.6	60.3	53.9	79.8	85.7	66.2
July 1943	59.0	62.5	55.2	84.2	90.7	67.7
January 1944	59.7	63.9	56.7	85.3	91.1	68.9
December 1944	64.8	69.2	62.5	88.3	93.9	72.2

Average hourly earnings increased over 15 cents from January 1942 to December 1944. In January 1942, 39 of the 68 cotton-duck mills studied reported average hourly earnings ranging between 40 and 50 cents. By December 1944 employees in 28 of these 39 mills had increased their average hourly earnings to between 60 and 70 cents. In the other 11 mills earnings had increased to between 50 to 60 cents per hour.

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From among 17 of the remaining 29 mills, where employees in January 1942 averaged between 50 and 60 cents per hour, workers in 9 mills in December 1944 were averaging 60 to 70 cents; in 4, they were averaging 70 to 80 cents; and in 1, 80 cents or more. In the 3 remaining mills, increases were not large enough to take the average hourly earnings out of the original 50 to 60 cent class.

The almost continuous increase in average hourly earnings is attributable in part to a longer workweek, with resultant overtime payments, and in part to the action of the National War Labor Board in raising the minimum hourly rate.

As a result of the combined increases in average hourly earnings and average weekly hours, average weekly earnings rose from $21.33 in January 1942 to $29.85 in December 1944.

Duck mills in South Carolina had higher average hourly earnings than mills elsewhere in the South—a factor which doubtless accounts in part for the relatively minor losses in employment in those mills.

Average hourly earnings in the North rose to 88.3 cents in December 1944—an increase of over 19 cents in the three-year period. These comparatively high earnings reflected primarily the wage rates in the carpet mills included in the sample, for in addition to substantial increases during the period studied, these mills in January 1942 had a much higher rate of pay than any of the duck mills.

Wartime Expansion in the Labor Force[1]

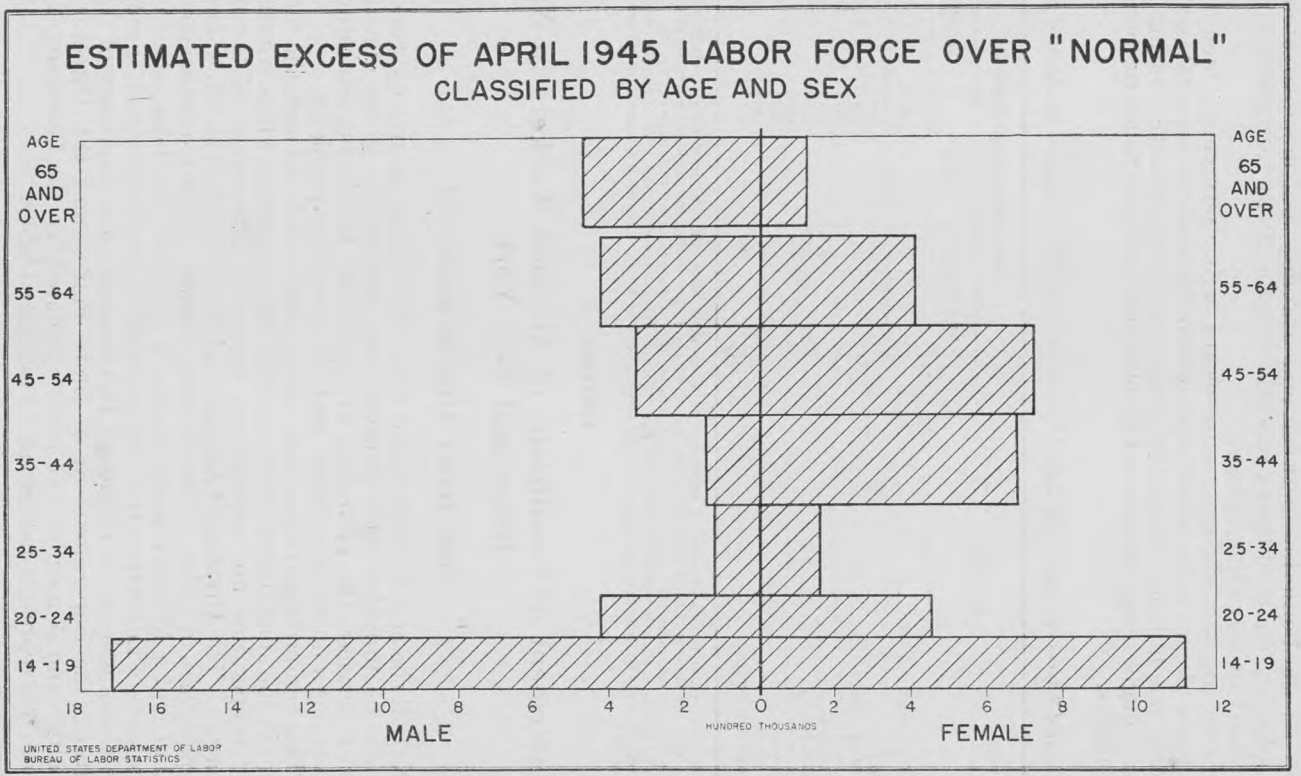
THE labor force in April 1945 exceeded by about 7,300,000 persons the normal labor force that would have been expected if peacetime trends in the growth of the labor force had continued after 1940.[2] This excess of the labor force over normal is made up of persons who, in ordinary times, would be students, housewives, retired workers, or other nonworkers.

Teen-age boys and girls have accounted for more extra wartime workers than any other population group (2,800,000). During the war unusually large numbers of youngsters have taken part-time jobs while attending school, or have left school to take civilian jobs or enter the armed forces. In addition, many young persons who would normally be out-of-school nonworkers, particularly homemakers, have entered the labor force in response to wartime labor demands.[3]

Women over 35 years of age have constituted the second largest source of additional labor supply for the war (1,900,000). These women were able to take advantage of unusual wartime job opportunities. In contrast to the case among younger women, the women over 35 years of age are not usually responsible for the care of young children, and the rise in marriage and birth rates during the war did not limit their labor-market participation.[4] Young married women whose husbands were absent in the armed forces comprised the greater part of the 600,000 extra women workers aged 20–34.

Only a small proportion of the able-bodied men aged 20–54, with the exception of those attending school, are normally outside the labor force. However, in response to a full-employment situation during the war, men aged 20–54 accounted for about 1 million of the

[1] Prepared in the Bureau's Occupational Outlook Division by Lester M. Pearlman.
[2] The labor force includes members of the armed forces as well as the civilian employed and unemployed.
[3] See Teen-Age Youth in the Wartime Labor Force, in Monthly Labor Review, January 1945.
[4] See Sources of Wartime Labor Supply, in Monthly Labor Review, August 1944.



total excess. The extra workers from this group include men who in prewar days sought work only occasionally or intermittently and men on the borderline between employability and unemployability. In addition, many of the extra workers in the 20–24 year group would normally be attending college.

Reversing the long-run trend toward earlier retirement, men over 55 years of age in the labor force exceeded peacetime expectations by nearly one million. Favorable employment opportunities during the war brought many oldsters out of retirement and postponed retirement for others.

Estimated Excess of April 1945 Labor Force Over "Normal" Classified by Age and Sex [1]

Age group	Estimated excess (in thousands)		
	Both sexes	Males	Females
Total, 14 years and over	[2] 7,280	[2] 3,620	[2] 3,660
14–19 years	2,840	1,720	1,120
14–17 years	1,850	1,140	710
18–19 years	990	580	410
20–24 years	870	420	450
25–34 years	280	120	160
35–44 years	820	140	680
45–54 years	1,050	330	720
55–64 years	830	420	410
65 years and over	590	470	120

[1] Based on comparisons between (1) estimates of actual labor force compiled from data on civilian labor force from the Bureau of the Census Monthly Report on the Labor Force plus unofficial estimates of armed forces; and (2) estimates of "normal" labor force adapted from Census Bureau release P–44, No. 12.

[2] The excess is slightly overstated, because the "normal" labor force estimates refer to the last week in March, whereas the actual estimates refer to the second week in April. There is a seasonal rise between the two weeks.

Betterment of Conditions of Migrant Workers in New Jersey and New York [1]

New Jersey Migrant Labor Act

UNDER the new Migrant Labor Act of New Jersey migratory workers are to be provided with sanitary and comfortable living quarters, health services, the protection of State labor legislation, educational advantages for their children, and aid in welfare problems.

This comprehensive program will be carried out through the inclusion, in the administrative board, of all State agencies whose resources and cooperation are required for successful functioning of the new measure. The Division of Migrant Labor is created in the New Jersey Department of Labor. This division consists of the Commissioner of Labor and a Migrant Board having 6 ex-officio members—the Commissioner of Education, the Commissioner of Institutions and Agencies, the Commissioner of Economic Development, the Secretary of Agriculture, the Superintendent of State Police, and the Director of Health—and 5 members at large appointed by the Governor, 2 of whom will represent farmers and 1 organized labor.

[1] American Child (National Child Labor Committee, New York), May 1945.

The implementation of detailed specifications for housing, sanitation, and other services is made effective through interdepartmental responsibility and cooperation. The Department of Health not only will aid in establishing sanitation standards and preventive and remedial health services, but also has the responsibility for making adequate health services available where they are needed. The Department of Agriculture will help in giving employers of migrant workers a better understanding of the new division's standards, methods, and goals; educational facilities for the children of migrant workers will be provided through the cooperation of the Department of Education; the Department of State Police will act as a protective agency; the Department of Institutions and Agencies will aid with welfare problems; and the Department of Economic Development will help to determine "the need for camps, their location, construction, and operation." The combined responsibility in addition "should make it possible to bring all migrant camps in the State up to the standards which the act seeks to establish."

An appropriation of $100,000 was made, expendable by June 30, 1945, or June 30, 1946.

New York Conference on Improving Camps for Migrants

At a recent conference in New York State, sponsored by the Consumers League and other State agencies, the matter of improving the conditions in migrant labor camps was discussed. The Round Table on Child Care Centers recommended several provisions concerning child care, recreation for children and grown-ups, and the inducement of communities to include migrants in their welfare and recreational programs.

"If serious efforts are made in New York State to enforce the 14-year age limit for employment in agriculture, some provision must be made for the care and supervision of children under this age. In the absence of such provision, children between 6 and 14 are found, not in the child-care centers, but in the fields with their parents, who naturally prefer to have them working with them than to leave them unsupervised at the camp." Recommendation was therefore made by the round table that children up to 14 years of age be covered by the provisions for care in the centers, and that two experimental centers for older children be conducted in the summer of 1945 with a view to increasing the number of centers next year if these trial ventures are successful.

Employment Conditions in Belgium in Spring of 1945 [1]

AS A stabilization measure, wages in Belgium were frozen for 3 months, by decree law of April 14, at levels 60 percent above those set by the wage agreement of May 1940. In the week of May 13–19, employment by the Allied Military Authorities in Belgium stood at some 130,000, and unemployment rose slightly, to about 128,000. The Ministry of Coal estimated that 17 days of unauthorized coal strikes

[1] Data are from reports of R. Smith Simpson, labor attaché, United States Embassy at Brussels, April 21 and 23 (enclosing translations of decrees of April 12, 13, 14, and 15), May 9, and June 4, 1945.

in May amounted to 3,200,000 man-hours. Legislation of April 12, 13, 14, and 15 provided for mobilization of certain essential industries.

Wages and Hours

Wage stabilization.—In an attempt to bring wages into line with the cost of living and at the same time avoid uncontrolled inflation, the Belgian Government, by decree law of April 14, 1945, froze all wages for 3 months at levels 60 percent above those set in the wage agreement of May 1940. Heavy fines for infractions of the wage regulation were included. During April and May seven exceptions to the wage freeze were authorized by the Minister of Labor and Social Welfare under terms of the decree. Hourly wage rates given in 3 of the excepted cases were 13.8 francs [2] for construction workers in Seraing, and 12.5 and 12.4 francs for metallurgical workers.

The Belgian Government has not maintained a system for recording wage statistics, but in 1938 the hourly wage rates of male industrial workers ranged from 5½ to 7 francs, and of unskilled workers from 4½ to 5 francs. After the wage freeze of May 1940, minimum gross rates of hourly pay for male industrial workers were set at 5 francs. The rates given in April 1945, therefore, were from two to three times as high as prewar rates.

Hours of work.—The Belgian act of 1921 which provided for a basic 8-hour day and 48-hour week in mines and quarries, industrial plants, commercial offices, public works and utilities, building and construction, shipbuilding and repair, land transport, dairies and cheese factories, and certain other types of industry, is still in force. Likewise in force is legislation of July 9 and December 22, 1936, requiring a 40-hour week in industries involving dangerous or unhealthful conditions, and 4 shifts and a 42-hour week in certain continuous operations of automatic sheet-glass works.

Since October 30, 1944, the Minister of Labor and Social Welfare has granted exceptions to the hours of work requirements of the act of 1921, subject to the required payment of overtime, to companies in specified essential industries—16 metallurgical, 1 food, 3 woodworking, 5 building and construction, 3 laundry, and all textile companies in Flanders.

Employment and Unemployment

Unemployment in Belgium, which stood at 308,953 in the week January 28 to February 3, 1945, had dropped to 125,642 by the week April 22 to 28. The return of deported workers from Germany and the closing of plants because of the coal shortage, however, reversed this trend. In the week May 13 to 19, unemployment rose to 128,095. This figure was not so high as that recorded in 1939 (195,211), but it exceeded the figure listed for 1941 (122,359).

The number of workers employed by the Allied Military Authorities in Belgium reached some 130,000 in May 1945. Records of total employment are not available, because the Government has not maintained statistics of employment. Under a reporting system being established by the Minister of Economic Affairs in the spring of

[2] Exchange rate of franc, set September 1944 and in effe ct July 1945=2.28 cents.

1945, companies in industries which are considered important to economic recovery will furnish monthly figures on employment and man-hours of work.

Industrial Relations

Statistics on industrial disputes for Belgium are not available, but the recently created Ministry of Coal estimated that the 17 days of scattered strikes in the coal industry in May (all reported to have been unauthorized strikes) resulted in a loss of 3,200,000 man-hours. During May the National Mixed Commission on Mines (the *commission paritaire*, or joint council, created by royal decree of January 14, 1920) served as the agency for negotiations among the miners, operators, and Government.

The mixed commissions or joint councils (originally voluntary in character) are the principal agencies in Belgium for the discussion of industrial problems and the negotiation of disputes between workers and employers. In legislation of 1936 and 1938, the Government provided that decisions of the mixed commissions on hours of work and holidays with pay might be enforceable by royal decree. When the crisis in the coal industry developed in the spring of 1945, this procedure of enforcement was carried farther by a decree law of April 14, under which decisions of the Mixed Commission of Mines relating to wages and working conditions could be made obligatory by decree. The decree of April 14 contained regulations which gave enforcing officers free access to places where mine workers are employed and paid, and to certain records of the mine operators. Penalties for violations of decisions and for impeding enforcement or giving false information were included.

Belgium has 180 mixed commissions or joint councils. The creation of a joint commission or council for industry in general was under discussion in the spring of 1945.

Mobilization of Labor and Industry

In an extensive program for the mobilization of the labor and industrial resources of Belgium, the Government issued a series of decrees on April 12, 13, 14, and 15, legalizing the registration of all persons over 18 years of age, naming the industries subject to mobilization, and freezing all personnel in designated industries. The legislation was made possible by a law of March 20 giving the King extraordinary powers for a limited time.

The industries designated for mobilization were coal mining (underground and surface); manufacture of compressed coal products; gas and coke plants, and enterprises distributing gas; electric-power production, transformation, and distribution; distribution of water; flour mills, bakeries, and yeast plants; and all enterprises engaged in transportation by rail, water, and road. The workers in the above-mentioned enterprises were frozen in their jobs and positions, subject to decisions of the National Placement and Unemployment Office.

Employment Conditions in Denmark, June 1945[1]

ECONOMIC conditions in Denmark were on the whole less serious than elsewhere in Europe in June 1945. A shortage of fuel, however, particularly of coal, is affecting employment, and difficulties will be encountered unless sufficient fuel is obtained to keep the Danish industries in operation.

Unemployed persons in Denmark as of June 1, 1945, numbered 72,800,[2] representing 13.0 percent of all organized workers, as compared with 50,000 persons, representing 8.6 percent of all organized workers, on May 1, 1945, and 23,300 on June 1, 1944. Most of the unemployment is among unskilled workers in the building trades, machinery manufacture, and the textile industry. Further unemployment is anticipated next winter, particularly in the building and construction industry.

The employment situation could be eased somewhat if agricultural production and processing could be increased through use of more feed and fertilizer. Farm employment gradually decreased during the German occupation by 30,000, or 10 percent of the prewar total of agricultural workers. No material changes occurred during the war in the number of fishermen gainfully occupied, but the fishing industry is much reduced because of a lack of supplies and of petroleum products and the disruption of transport facilities. Employment in local transportation, which increased during the war as a result of requirements of the German Army, has declined sharply.

Proposals made to the Government by a special commission under the Minister of Finance, intended to check the increase in unemployment, would provide for private and cooperative building projects, and for the expenditure of 600 million kroner for public works. Such a program would furnish employment for some 65,000 persons for 2 or 3 years. These projects, however, are dependent upon the import of fuel, wood, and other construction materials. If the importation of these materials cannot be increased, the program necessarily will be greatly curtailed.

Effect of War on Labor and Production in Central and Southeastern France

A SURVEY of seven industrial enterprises and one coal region of central and southeastern France, made in the spring of 1945, indicates a general reduction from prewar levels in the size of the labor force and relatively high rates of absenteeism, regardless of whether or not the plants were damaged from war activity.[3] It was evident that labor efficiency was low as compared with prewar years. The factors cited as contributing to this decline were shortages of nourishing food and the time consumed in obtaining supplies of any kind and also the lack of suitable housing and transportation facilities. Scarcity of raw materials, mainly coal, kept the volume of production small, and the obsolescence of plant equipment hampered output. The major factors in the situation are shown in the accompanying table.

[1] Data are from confidential sources.
[2] Includes persons unemployed for 7 days or less and persons over 60 years of age.
[3] Information is from report by Rifat Tirana, assistant economic advisor, United States Embassy at Paris, dated May 6, 1945 (No. 1854).

Effect of War on Labor and Production in Seven Enterprises and One Coal Region in France in Spring of 1945

Enterprise and products	War damage	Labor force		Absenteeism	Output		Causes of reduction of output	
		Prewar	1945		Total volume	Volume per worker	Age of equipment	Replacements and upkeep
Company 1 (electrical equipment).	None	.....	1,400	15 percent	Reduction not given	25 to 30 percent below prewar.	Over 50 percent 15 years old and over.	No new equipment; upkeep neglected in past 5 years.
Company 2 (trucks)	Extensive	10,000	5,200	14 percent	160 units per month	40 to 50 percent above rate during occupation.	60 percent over 20 years old.	Upkeep neglected in past 5 years.
Company 3 (chemical products).	Serious	1,400	1,200	10 percent (illness or accidents alone).	33, 50, and 90 percent of preliberation, according to product.	50 percent of prewar.	.....	No new equipment; upkeep neglected since 1938.
Company 4 (chemicals and pharmaceuticals).	None	1,857	1,300	12 percent	Low	.....	.....	.....
Company 5 (artificial textile fibers).	None	.....	Critically short; 3,000.	.....	75 percent of preliberation; 20 percent of capacity for nylon.	.....	.....	.....
Company 6 (coal mines of one region).	Degree not stated.	[1]19,200	17,600	25–30 percent	83 percent of 1939; 15 to 20 percent more workers required to reach 1940 production.	Unchanged; 740 kilograms per day in 1938 and January 1945.	.....	.....
Company 7 (steel and steel products and locomotives).	None	[1] 4,514	2,505	14 percent	30–60 percent of prewar, according to product.	.....	25 years old on the average.	.....
Company 8 (iron and steel and locomotives).	Degree not stated.	11,000	9,000	Abnormal	Mostly repairs; 6 to 7 locomotives per month (estimate for August 1945); production 300 per year in 1923.	.....	15 years old on the average.	.....

[1] 1939.

Effects on Labor

Company 2, a manufacturer of trucks, incurred more serious damage than the others, and had the largest decline in employment (as far as statistics are available), amounting to approximately 50 percent. However, the loss in workers was nearly as great (44 percent) in Company 7, an iron and steel and locomotive-manufacturing enterprise, which was damaged by neither Allied bombing nor enemy action but was acutely short of all kinds of essential materials (principally coal, pig-iron, various ingredients for the hardening of steel, electrodes, lubricants, and tires); further, the age of plant equipment averaged 25 years.

Labor shortages, particularly of highly skilled persons, were created by the deportation of workers to Germany. Many of these workers had not returned and some were not expected to do so. The French military mobilization of various classes also reduced the labor supply of the highly skilled. An equally important factor in certain plants was the exodus of labor for other occupations in different lines of production, which yielded higher pay and easier working and living conditions.

The statements on absenteeism showed rates ranging from 10 percent owing to illness and accidents alone in Company 3, a chemicals works, to a rate of 25 to 30 percent in the coal mines. Absenteeism of 14 or 15 percent was cited by three enterprises and a rate of 12 percent by the other enterprise for which such statistics were obtained.

Effects on Output

For those companies that stated the percentage reduction in volume of output or in output per worker the figures are, of course, rough approximations. The reductions from the prewar period to the spring of 1945 were not uniform; even within a single plant, differences were marked as between products. Compared with preliberation output, total volume of production was lagging in early 1945, but in Company 2, producing trucks, output per worker was stated to be 40 to 50 percent above the rate during the enemy occupation of France. The workers in the coal mines maintained their output per man-shift at 740 kilograms.

Over-age machinery and neglect of equipment in the preceding 5 years and longer reduced the effectiveness of the different plants. For Company 7, engaged in making steel and steel products, it was stated that the average age of plant equipment was 25 years and in Company 2, producing trucks, 60 percent of the machinery was over 20 years old. Officials of three enterprises referred to the unfortunate results of the neglect of equipment during the war, stating, for example, that no replacements had been made and that wear and tear were greater than under normal conditions, owing to the lack of lubricating oils.

Wartime Policies

Price Control in Canada[1]

THE Canadian economy has been profoundly affected by the economic disturbances of the war, but the dislocations have been minimized by effective Government controls. Early mobilization of the nation's resources for war caused a serious strain on the civilian economy while increased employment raised the national income and purchasing power. A Government program was instituted, therefore, for combating inflation and keeping down living costs. Compliance with regulations appears to have been generally good. At a very early date the Government enlisted the services of housewives in checking compliance. There have been some black markets, but reports indicate that the Government has received remarkably good cooperation from industry and consumers. The cost of living advanced less than 18 percent from August 1939 to the end of 1944, as compared with 66 percent during a similar period of World War I. Wholesale prices rose 42 percent between August 1939 and December 1944, compared with 116 percent between July 1914 and November 1919. Despite some criticism of the reliability of the price indexes as a measure of the wartime price increase, general opinion in Canada credits the program with remarkable success.

Many of the measures taken to assure price stability in Canada have already been described individually in earlier issues of the Monthly Labor Review. This article analyzes the program throughout the war period and indicates some of the points of similarity and dissimilarity to controls in the United States. Although wartime dislocations in Canada were on a much smaller scale than in the United States the problems raised were fundamentally very similar. The methods of control devised to solve them were also much alike in the two countries.

Basic authority for control of prices was provided in Canada even before the outbreak of war. During the first 2 years of the war, however, when the country was able to expand business activity without decreased production of consumer goods, the Government efforts were directed chiefly toward relieving the basic pressures for higher prices by increasing supplies whenever shortages threatened. Foreign trade was regulated to conserve domestic supplies and provide essential imports. Industry was notified promptly of national requirements. At the same time civilian demand was moderated by a sharp increase in taxes. These measures were supplemented by wide use of informal agreements with the trade to restrain prices. Very few formal price controls were instituted.

In the fall of 1941, however, the outlook for continued success of selective price controls and indirect methods was unpromising. The

[1] Prepared in the Bureau's General Price Research Division by Doris P. Rothwell.

economic pressures toward inflation had become very powerful and were already bringing sharper and more widespread price advances. Consequently, in October 1941, the plan for a general price and wage ceiling was announced by Prime Minister Mackenzie King.

The general price ceiling, similar to the General Maximum Price Regulation in the United States a few months later, froze prices for most goods and services at the highest prices charged in the period from September 15 to October 11, 1941. Wages and rents were similarly frozen at levels prevailing in the fall of 1941 or earlier, except that in the case of wages provisions were made for upward adjustments in line with future increases in the cost-of living index.

Naturally many problems arose under the ceiling, the most serious of which was that of the distribution squeeze arising from the pressure of costs against ceilings. Various methods were used to reduce this pressure and Government subsidies were used freely to keep down the cost of living. However, it was not possible always to hold retail prices to the levels of the basic period, and some adjustments were made. Late in 1943 the stabilization program was seriously threatened by pressure for general wage increases. This crisis was averted, however, when cost-of-living bonuses were incorporated into the wage scale; at the same time provisions for mandatory "cost-of-living bonuses," in effect since the fall of 1941, were eliminated.

Early Controls

Statutory authority for wartime price control existed in Canada, even before the country entered the war, in the War Measures Act of 1914. Although provisions for extensive controls were made at a very early date under this authority, informal and selective controls were sufficient to maintain reasonable price stability during the first 2 years of hostilities.

CONTROL MACHINERY

The Wartime Prices and Trade Board is now the supreme authority on prices in Canada. Prior to August 1941, however, responsibility for the direct control of prices, together with the control of supply, was divided among several agencies. In principle, the Wartime Prices and Trade Board had jurisdiction over raw materials or end products chiefly required for civilian use while the Wartime Industries Control Board had control over those chiefly required for war purposes. A number of other agencies also exercised controls over restricted commodity fields during the first 2 years of the war.

The Wartime Prices and Trade Board was originally established on September 3, 1939, by Order in Council PC–2516, to control the supply and prices of "necessaries of life." The Board was empowered "to provide safeguards under war conditions against any undue enhancement in the prices of food, fuel, and other necessaries of life, and to ensure an adequate supply and equitable distribution of such commodities." Later,[2] it was authorized to investigate costs, prices, and profits; to fix maximum prices and mark-ups; to issue licenses and otherwise regulate sale and distribution of necessaries of life; to buy and sell goods and withhold stocks; and to recommend embargoes on exports. Penalties of fine or imprisonment were authorized for

[2] Order in Council PC–3998, December 5, 1939.

infraction of the regulations. In September 1940,[3] the Board was also given the power to control rentals of housing accommodations.

Meanwhile, responsibility for the control of munitions and essential war materials was vested in the Department of Munitions and Supply, organized in April 1940.[4] The Department assumed the duties of an earlier organization, the War Supply Board, which had been established in September 1939 [5] with broad powers to mobilize the nation's resources for war. Beginning in June 1940 several controllers were appointed, with virtually unlimited powers of control over their respective commodity fields. At the same time the Wartime Industries Control Board was organized to coordinate their activities.[6]

In August 1941, the Wartime Prices and Trade Board became the final authority on prices, including those set by Controllers of the Wartime Industries Control Board. New orders in council [7] gave the Board jurisdiction over prices of "goods and services" rather than merely "necessaries of life." It was also given jurisdiction over consumer credit and installment buying. Although the Canadian organization is one of highly integrated control, by commodities, there has been some jurisdictional overlapping between civilian and military goods. Consequently, close cooperation between the Wartime Prices and Trade Board and the Wartime Industries Control Board has been provided for by means of an interlocking membership.

CONTROL OF SUPPLY

Unlike the United States, control of supply was deemed the proper responsibility of the agencies concerned with price control. Major emphasis during the first 2 years of the war was directed toward relieving the pressure for higher prices by increasing the flow of supplies rather than by direct price control. Great reliance was placed upon voluntary cooperation and formal price controls were employed in only a few cases.

Methods of supply control varied greatly—from simple publicizing of estimates of national requirements to allocation and priority controls and outright Government purchase. Exports were restricted when necessary to conserve domestic supplies, and essential imports were encouraged. Whenever shortages threatened to cause a serious price rise, the Government actively sought and usually received the cooperation of industry in maintaining existing prices, while efforts were made to increase supply. Thus, the price of sugar was maintained at its prewar level, despite the consumer buying wave at the outbreak of war and the rapid rise in the world price. Later the Government purchased Canada's total requirements at cost from the British Government.

Foreign trade, which is of paramount importance in Canada's total economy, was brought under the control of a Government agency, the Foreign Exchange Control Board, immediately upon the outbreak of war. Normally, Canada exported large quantities of farm products and imported industrial articles. Although the war caused the loss of some European markets, demands from Great Britain, at first for foods and later for munitions, were greatly increased.

[3] Order in Council PC-4616, September 11, 1940.
[4] Order in Council PC-1435.
[5] Order in Council PC-2629, September 15, 1939.
[6] Order in Council PC-2715, June 24, 1940.
[7] Orders in Council, PC-6834 and 6835, August 28, 1941.

The new munitions program necessitated much heavier imports of raw materials from the United States. However, Canada had a serious shortage of dollar exchange and a surplus of sterling. Consequently, it was necessary to reduce imports of nonessential goods from the United States and other non-Empire countries and encourage imports from sterling areas. In June 1940 a 10-percent tax was levied on all imports from non-Empire countries. The War Exchange Conservation Act in December 1940 banned or reduced the importation of many nonessential consumer goods from non-Empire countries. In addition, tariff adjustments were made to facilitate importation from the United Kingdom.

Informal controls exercised by Controllers of the War Industries Board or Administrators of the Wartime Prices and Trade Board were successful, in part because there were relatively few firms in many of the industries affected by the initial impact of the war. Thus the prices of nonferrous metals, in great demand for munitions production, were kept virtually unchanged between June 1940 and December 1941 without any formal price control. Among other commodities for which informal actions were taken to prevent price increases were gasoline, iron and steel products, hides, millfeeds, and men's clothing.

SELECTIVE PRICE CONTROL

The only formal price regulations up to December 1941 for consumer goods and services were those issued for wool, bread, butter, and rentals. Those for wool, bread, and butter were temporary regulations, issued to meet emergency conditions, and were revoked after short periods. The first specific order was issued on November 23, 1939, for raw wool; this was necessitated by a temporary scarcity of crossbred wool, urgently needed for military uniforms. It was revoked in mid-January when new supplies were received from New Zealand. The maximum price order for bread and flour was in effect only 1 month—from August 6, 1940, to September 6, 1940. The order for butter was in force from December 27, 1940, to May 1, 1941.

The first maximum rent order was issued on October 1, 1940. Rents of housing accommodations were frozen in 15 congested localities at the rates in effect on January 2, 1940. Many other areas were brought under control by subsequent specific orders which remained in effect even after the general rent order was issued.

During this period there were also few formal maximum price orders by the Controllers of the War Industries Board for producers' goods. An order on rubber was issued in November 1940, on iron and steel scrap in February 1941, on lumber in April 1941, on silk in August 1941, and on petroleum products in October 1941. In the case of lumber, for example, maximum retail prices were frozen at the level of April 1, 1941, and manufacturers' and wholesalers' prices at the level of prevailing industry price lists.

Situation in the Fall of 1941

In the fall of 1941 it became apparent that serious price inflation threatened and that selective price controls would no longer suffice to restrain prices. Economic activity had expanded greatly. The slack in labor reserves and industrial capacity, with which the country had

entered the war, had largely disappeared. Wages and money incomes had advanced much more rapidly than the supply of goods. The nation was approaching full employment and it was expected that 40 percent of the national income would soon be devoted to war purposes.

Significantly, prices were advancing much more rapidly than during the previous 2 years, and the advances were more widespread. The cost of living, as measured by the official index, rose 15 percent between August 1939 and October 1941, but the advance in the 7 months from March to October 1941 was almost as great as in the preceding 19 months. The wholesale-price index rose 30 percent between August 1939 and October 1941. A third of this advance occurred in the 6 months between April and October 1941.

In a radio broadcast on October 18, 1941, announcing the adoption of a general price freeze, Prime Minister Mackenzie King stated:

> It is estimated that at no stage in the last war was more than 10 percent of our national income devoted to war purposes; we expect, this year, to be devoting some 40 percent of the national income to the prosecution of the war. Most goods and services are becoming increasingly scarce and will become scarcer still. We have entered the period of full employment. The upward trend of prices has become too widespread and powerful to be checked adequately by controlling the prices of a few commodities. To continue to attempt to control the rise in prices, piecemeal, might only serve to augment the very evil it is desired to avoid by occasioning, through fear of the future, a precipitate rise in the prices of those commodities which are not already controlled. The problem is a general problem, and it calls for general treatment.

General Price Ceiling

The setting of the general price ceiling in Canada was not an isolated measure but part of a broader anti-inflation program, which included curtailment of public spending by taxation and by the flotation of Government loans in small denominations to individuals, control of supply including priorities, allocations, and rationing, wage and salary control, and manpower control. Subsidies to increase agricultural income and to cover higher costs without raising the cost of living were resorted to on a broad scale, as an aid in the anti-inflation program.

The general price ceiling became effective on December 1, 1941, by Orders in Council PC–8527 (the Maximum Prices Regulations) and PC–8528 (The Wartime Prices and Trade Regulations), dated November 1, 1941. Maximum prices were established at the highest prices in the "basic period"—September 15 to October 11, 1941—at all levels of distribution. The regulations applied to all goods, with certain exceptions, and to a wide range of services. The following types of transactions were exempted: Sale of goods for export; sale to the Department of Munitions and Supply; sale of personal or household effects; sale of goods or services by any person not in the business of selling such goods or services; bills of exchange, securities, title deeds, etc.; and sales at auction. Certain other exemptions were made by subsequent orders, but even when prices were exempted, sales were prohibited above "reasonable or just" prices.[8] Some of the more important later exemptions were as follows:

1. Sales, by the primary producer to manufacturer or dealer, of livestock, poultry, fish, eggs, dairy products and honey. (Maximum prices of manufacturers and distributors were not exempted.)

[8] PC–8528, section 7 (1), November 1, 1941.

2. Sales by any person of fresh fruit and vegetables and greenhouse products. (Ceilings were later reimposed on onions, potatoes, bananas, and oranges.)
3. Sales of fur skins and garments made wholly of fur.
4. Newspapers, magazines, and periodicals.
5. Books and other printed matter, philatelic specimens, paintings, and other works of art.

The following services were covered by the original regulation: Electricity, gas, steam heat, and water; telegraph, wireless, and telephone services; transportation of goods and persons, and provision of dock facilities; warehousing and storage; undertaking; laundry, tailoring, and dressmaking; beauty-parlor services; plumbing, heating, painting, decorating, cleaning, and renovating; repairs of all kinds; supplying of meals or refreshments; and motion pictures. Other services added later were manufacturing processes performed on a custom or commission basis, services of optometrists or opticians, carpet laying, and developing and printing.

General Rent Ceiling

After announcement of the general price ceiling, the power of the Wartime Prices and Trade Board to control rentals of housing accommodations, was extended to cover all real property except farm land—commercial as well as residential.[9] The same general pattern of control as in the earlier orders of the Board was continued. Maximum rental for any commercial or residential accommodation (except housing rentals already under control at other basic dates), was established at the rate in effect on October 11, 1941.[10] Landlords were permitted to request increases in rentals under four conditions: Substantial increases in taxes on the property, added services not previously furnished, substantial structural alterations, or lower rent than generally prevailing.

Wage and Salary Control

The feature of Canadian control of wages and salaries which makes it of especial interest is the link between wage stabilization and price stabilization by means of a cost-of-living bonus. Prior to the general ceiling, control of wages in Canada was not particularly effective. Wage rates on the average rose about 3 percent during 1940 and 10 percent during 1941.[11] The only Government control was an order in December 1940, for the guidance of conciliation boards. Wage rates prevailing from 1926 to 1929 or any higher rates attained up to December 16, 1940, were judged generally fair and reasonable.[12] However, this early order provided for upward adjustments of wages in these industries by means of a cost-of-living bonus independent of fixed basic wage rates.

As part of the general anti-inflation program in the fall of 1941, increases in existing basic wage rates were prohibited, except by permission of the National War Labor Board for persons whose wages were low in comparison with those paid for similar work. Not covered were agriculture and fishing, government, hospitals, and non-

[9] PC–9029, The Wartime Leasehold Regulations, November 21, 1941.
[10] PC–8965, The Maximum Rentals Regulations, November 21, 1941.
[11] The Price Control and Subsidy Program in Canada, by Jules Backman (The Brookings Institution 1943).
[12] PC–7440, December 16, 1940.

profit religious, charitable, or educational associations.[13] Payment of a cost-of-living bonus was made mandatory for increases in the cost of living subsequent to October 1, 1941. Adjustments were to be made quarterly on the basis of the official cost-of-living index in January, April, July, and October of each year. The amount of the bonus to be paid was 1 percent of the basic weekly wage rates, but not more than 25 cents per week, for each rise of 1 point in the cost of living. Workers earning $3,000 or more annually were not entitled to a bonus.

The first bonus adjustment under the new regulations amounted to 60 cents or 2.4 percent per week. It was made as of August 1, 1942, for a rise of 2.4 points in the cost-of-living index between October 1941 and July 1942. An additional bonus which would have been required by the rise in the index to December 1942 was avoided by a deliberate reduction in the price of certain foods through use of subsidies. A second and final bonus of 35 cents per week was required in November 1943 because of an increase of over 1 point in the cost of living between July 1942 and October 1943.

About this time there was very strong pressure by labor for a general upward revision of wages, but a new order in council of December 9, 1943,[14] reaffirmed the Government wage-stabilization policy. The cost-of-living bonus was abolished, effective February 15, 1944, and prevailing bonuses were added to existing wage rates to form a new basic wage structure. No further wage increases were to be permitted for the duration of the war except to eliminate gross injustice. It was hoped there would be no further increase in living costs but it was provided that if the cost of living did rise more than 3 percent and remain at this level for 2 consecutive months, the whole price- and wage-stabilization program would be reviewed. No such review has been required, however, because the official index remained slightly below the level of December 1943 during all of 1944.

Experience Under the Ceiling

PROBLEMS ENCOUNTERED

Many of the problems which confronted Canada under the general ceiling are the same as those with which the U. S. Office of Price Administration had to deal under the General Maximum Price Regulation. The most serious of these has been the problem of the distribution "squeeze" which arises from the pressure of higher costs against fixed ceilings. This problem existed in part at the time the general order was issued and it has been amplified by increasing costs since then. In a rising market, such as prevailed in the fall of 1941, retail prices usually lag behind wholesale prices. Therefore the general order, in freezing prices, froze price inequities as well. Some retailers' base period prices were abnormally low in relation to those of their competitors. The freeze took no account of seasonal price movements for agricultural products. Still higher costs have arisen since October 1941 from higher shipping costs, higher wages and labor turn-over, and higher unit costs of operation resulting from reduced volume of business in certain consumer-goods industries, irregularity in the flow of supplies, and other difficulties. There were also the

[13] PC-8253, The Wartime Wages and Cost of Living Bonus Order, October 24, 1941.
[14] PC-9384, Wartime Wages Control Order, December 9, 1943.

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administrative problems of enforcing base-period ceilings which were indefinite and which varied between sellers, and of establishing maximum prices for goods not sold in the base period.

Policies pursued in Canada in solving these problems were not unlike those followed in this country. The underlying principle was to hold retail prices to the level prevailing in the fall of 1941. Increases in consumer prices were granted infrequently. Nevertheless some modifications were necessary. These may be classified as (1) exemptions (for some nonessential items, seasonal goods, and others for which problems of administration were excessive), (2) seasonal adjustments, (3) adjustments in cases of hardship or inequity, (4) formulas for goods not sold in the base period, (5) substitution of uniform maximum or formula prices for the base-period freeze, and (6) adjustments to meet increased costs. Most of the inequities which existed at the time of the freeze were largely corrected during the first year of operations. Many base-period ceilings were replaced by fixed prices for original suppliers with fixed mark-ups for distributors, but the problems of rising costs and of new goods or higher-cost substitute goods not sold in the basic period have become increasingly important.

Since the basic principle of price control was to prevent increases in retail ceiling prices, major emphasis was placed upon reducing the pressure of higher costs. This was done in three ways: (1) Simplification, standardization, and other measures of cost reduction; (2) "sharing the squeeze" between manufacturers and distributors; and (3) Government financial aid to assure supplies or to cover higher costs. The primary purpose of the simplification and conservation program in Canada was to minimize the resources required for production of the total supply, but by elimination of frills and concentration of production on fewer types it also reduced costs.

The second method, that of "sharing the squeeze," was widely used, particularly during the first 12 to 15 months of the general ceiling. This method attempted, by voluntary agreement or by Government order, to divide the burden of increased costs among manufacturers, wholesalers, and retailers, without increasing retail ceilings. However, the pressure of higher costs became more and more severe and "a saturation point" was reached "in an increasing number of cases" in the latter part of 1943.[15]

After all means of reducing costs or sharing the squeeze are exhausted, consideration can be given to raising the ceiling (as on luxury items) or giving Government financial aid (on essential consumer goods), by reduction or remission of duties and taxes, by payment of subsidies, and by bulk purchasing.

REDUCTION OR REMISSION OF DUTIES

Because of rising costs abroad and Canada's dependence upon foreign sources for many products, it was recognized that aid in the form of subsidies or other means would have to be given to Canadian importers in order to maintain the price ceiling. For some imported products, costs were reduced by decreasing or eliminating duties and the war exchange tax or by changing the basis for assessment of duties. Such adjustments were made upon the recommendation of the Wartime Prices and Trade Board. "Dumping" duties were

[15] Report of Wartime Prices and Trade Board, April 1, 1943, to December 31, 1943.

suspended in December 1941 on all imports except fruits and vegetables. Regular tariff duties, and in some cases the war exchange tax and special excise tax, have been reduced or eliminated in many cases, among them coal, sugar, pine lumber, oranges, dried fruits, raw cotton, crude rubber, and many other products. In other cases subsidies were employed.

GOVERNMENT SUBSIDIES

Subsidies and bulk purchases have been handled chiefly by a Crown company, the Commodity Prices Stabilization Corporation Limited, organized in December 1941 under the direction of the Wartime Prices and Trade Board. However, certain important subsidies to primary producers, such as those on milk and butterfat, have been handled by the Department of Agriculture since May 1, 1943.

From the start it was recognized that "the payment of subsidies is an integral part of the general policy of price and income stabilization." Nevertheless, subsidies were restricted to essential consumer goods. It was stated officially: "We are prepared to permit some nonessential supplies to disappear from the Canadian market rather than permit either their prices to be increased above the ceiling or to subsidize what are really nonessentials." [16]

Subsidies were resorted to on a small scale at first, but increasingly as labor and material costs continued to rise. During the first 6 months after December 1941 they amounted to 4 million dollars. In the next 6 months they were at an annual rate of 52 million dollars and from December 1, 1942, to March 31, 1943, at a rate of 114 million dollars. In the last-named period, subsidies amounted to 2 to 3 percent of war expenditures [11]—proportionately larger than in the United States—and they were even higher in 1944. The War Appropriation Bill for the fiscal year ending March 31, 1945, provided 141 million dollars for the Commodity Prices Stabilization Corporation and allied agencies, 47.6 million dollars for the Agricultural Food Board for subsidies to producers, and 8 million dollars for the Agricultural Supplies Board for a subsidy on western wheat used exclusively as feed for livestock. These subsidy estimates amounted to nearly 6 percent of the total appropriation requested.[17]

In December 1942, subsidies amounting to about 40 million dollars annually and reduction of the war exchange tax and import duties were used expressly to affect a reduction in the cost of living to about the level of July 1, 1942, and to avoid the payment of a cost-of-living wage bonus which would have increased the pressure on all prices. The commodities on which prices were reduced were milk, oranges, tea, and coffee. Prices of these foods had not advanced the most but they are widely used and constitute a significant part of the cost-of-living index.

Subsidies have been employed for both imported and domestic products. Subsidies on imports have been paid on a great variety of goods to relieve the squeeze arising from higher costs in the country of origin or higher shipping costs. They have been utilized for many foods, such as tea, rice, and oranges, for coal, petroleum and its prod-

[11] The Price Control and Subsidy Program in Canada, by Jules Backman.
[16] Subsidies and Price Control, by Hon. J. L. Ilsley. (Speech delivered in the House of Commons, April 23, 1942.)
[17] House of Commons Debates, February 11, 1944.

ucts, fertilizers and chemicals, raw cotton and wool and their products, raw hides and skins and their products, and many other articles. Subsidies on domestic goods have been paid on the following list of commodities.[18]

Butter.
Chicken brooders, electric.
Coal and coke.
Cork for milk-cooling tanks.
Corn meal.
Cotton yarns and cotton underwear.
Eggs, frozen.
Fertilizers, eastern Canada.
Fishmeal.
Footwear.
Fruits and vegetables, canned.
Fruits, fresh (strawberries, peaches, other tree fruits).
Fruits, processed (strawberries).
Furniture.
Groceries.
Jams and jellies.
Leather.
Lime.
Lumber.
Maple products.
Meat.
Milk.
Oils and fats.
Paper products (scribblers and counter checks, waste paper).
Rubber, synthetic and crude, and scrap tires.
Rye.
Tea and coffee inventories (December 7, 1942).
Vegetables (beans and potatoes).
Woodenware.
Wood fuel.
Wool, raw, and worsted yarns and fabrics.

BULK PURCHASING

The bulk-purchasing program also served to maintain price ceilings in the face of rising costs, although its primary purpose was to facilitate the purchase of essential imports. For a number of key commodities, such as wool and sugar, Canada was dependent upon other countries of the British Empire for the greater part of its supply. For some imported commodities, Government purchase was the only possible means of obtaining supplies under war conditions. This was true for both sugar and wool, which were purchased from the British Government. Other commodities, such as fats and oils, tea, and dried fruits, were allocated under international agreements which required purchase through a central agency, preferably for government account. Commodities purchased by the Corporation were resold at prices appropriate to the ceilings and any trading losses were assumed by the Corporation. Losses on trading operations of the Commodity Prices Stabilization Corporation, and associated companies, amounted to nearly a million dollars per month in the latter part of 1943 and one and a quarter million per month in 1944. Some of the other items purchased were coffee, cocoa beans, bristles, spices, fertilizers, horsehair, and certain types of cotton fabrics.

COMPLIANCE RECORD

Compliance with regulations appears to have been fairly good in Canada. Between April 1 and December 31, 1943, for example, there were only 4,258 prosecutions, of which 3,003 were for alleged infractions of regulations of the Wartime Prices and Trade Board and 1,255 for infractions of Controller's orders.[15] Of the 3,003 prosecutions under the Board's regulations, 1,543 related to prices, 433 to rentals, 591 to rationing, and the remainder to other miscellaneous orders. On the basis of these figures, according to the Board, "it seems to be a reasonable assumption that the great majority of the

[15] Report of Wartime Prices and Trade Board, April 1, 1943, to December 31, 1943.
[18] Report of Wartime Prices and Trade Board, January 1, 1944, to December 31, 1944.

people is in sympathy with these regulations and that the restrictions and controls are regarded as a wartime necessity." There have been few black markets on a serious scale.[19] Those which have occurred have been vigorously prosecuted by the Board with the assistance of the Royal Canadian Mounted Police and Provincial police.[15]

Enforcement has been easier than in the United States. The population is less than 10 percent as large. The country is much less highly industrialized and it is dependent upon imports of many industrial articles and some foods (especially fresh fruits and vegetables). Subsidies have been more widely used in support of price ceilings. For many industries, there is a high degree of concentration in a few large firms and in a few key cities. Compliance policy, moreover, differs in several respects in the two countries. The practice of posting ceiling prices has not been employed in Canada, despite its apparent success in the United States. In general, the texts of Canadian regulations are less detailed. The original ceiling order for example, was much briefer than its counterpart in this country, the General Maximum Price Regulation. Standards used in the regulations are not always carefully defined. As an illustration, the phrase "reasonable or just" prices in the Wartime Prices and Trade Regulations is not elaborated in any way.

Canadian officials have attributed the effectiveness of price control in large part to insistence upon simplicity in the regulations established. According to the Chairman of the Wartime Prices and Trade Board, Canada has "refused to be drawn into any complicated pricing formulas. * * * We have preferred simplicity to the theoretical perfection because we are convinced that no regulation can be effective unless it can be expressed in terms that are readily understandable." [20] In addition, Canada has relied to a very great extent upon public opinion and voluntary cooperation from industry and consumers. Prosecutions were avoided, except as a last resort. The trade was freely consulted in the preparation of regulations, and women's organizations were formed as early as December 1941 to assist in enforcement. Members were urged to make reports of evasions. Public support of the Government's program appears to have been very good, at least during the first 2 years of the general ceiling.

PRICE MOVEMENTS

Based upon Canada's official indexes, price increases during World War II have been moderate both at wholesale and retail in comparison with World War I experience. During the entire period from August 1939 to December 1944, the cost of living rose 17.6 percent and wholesale prices 42 percent. During the same length of time from 1914 to 1919, the cost of living increased 66 percent and wholesale prices 116 percent.

Moreover, most of the price advance occurred prior to imposition of the general freeze. The cost of living has increased only 2.6 percent and wholesale prices 9.2 percent since October 1941. Per-

[15] Report of Wartime Prices and Trade Board, April 1, 1943, to December 31, 1943.
[19] Canada's War against Inflation, by B. S. Keirstead, in Economic Record (National Industrial Conference Board, New York), March 1944.
[20] The Planning of Wartime Controls in Canada, by Donald Gordon.

centage changes in the cost of living and in wholesale prices are given in the accompanying table.

Percent of Change in Retail and Wholesale Prices in Canada, in Specified Periods

Item	Percent of change—		
	August 1939 to October 1941	October 1941 to December 1944	August 1939 to December 1944
Cost of living, total	+14.6	+2.6	+17.6
Foods	+24.1	+5.7	+31.2
Fuel and lighting	+13.2	−3.6	+9.2
Rent	+7.1	+.7	+7.9
Clothing	+19.5	+1.7	+21.5
Housefurnishings and services	+16.3	+.9	+17.3
Miscellaneous	+5.3	+2.1	+7.5
Wholesale prices, total	+29.9	+9.2	+41.8
Farm products	+26.9	+39.4	+76.9

Even though there have been complaints in Canada that the cost-of-living index does not measure the wartime inflation of living costs and that subsidies have been paid on heavily weighted commodities in the index, price control is generally considered to have done a creditable job. In an address on October 19, 1944, before the Canadian Congress of Labor, Donald Gordon, Chairman of the Wartime Prices and Trade Board, stated, "when you look at all previous experience with prices in wartime, I think it must be admitted that price control, with all its defects in detail, has worked and worked well in this country." Polls of the Canadian Institute of Public Opinion show that a majority of the people believe that the price and wage ceilings have been effective.[19] The most serious criticism has come from labor, with respect to the wage ceiling and the reliability of the cost-of-living index. However, both trade-unions and the Cooperative Commonwealth Federation (farmer-labor party) have publicly supported the anti-inflation program in principle.

Extraordinary War Measures Act of Japan[20]

BY THE Extraordinary War Measures Act and a related enforcement decree, effective June 23, 1945, the Japanese Government assumed complete control over labor and industrial plant and production in Japan proper and in Korea and Formosa. The legislation gave the Government virtual power to rule by decree.

Under the act and the enforcement regulation, cabinet ministers, regional superintendents general, and the governors general of Korea and Formosa were vested with powers to issue orders and make dispositions in 10 specified fields of national life, with all speed and irrespective of former stipulations of law. According to the radio report of the legislation, the specified fields included the management, establishment, and abolition of business bodies, and the adjustment and expropriation of labor supplies and control of employment. Also

[19] Canada's War Against Inflation, by B. S. Keirstead.
[20] Data are from Office of War Information, Foreign News Bureau, Items from the Wire File, June 21 and 22, 1945.

ncluded were the incorporation, merger, or dissolution of juridical persons, the movements and domicile of persons, and contracts on prices and wages.

Increased Flexibility of New Zealand Stabilization Regulations[1]

UNDER amendment No. 5 to the New Zealand Economic Stabilization Emergency Regulations, the Court of Arbitration may authorize wage increases for the adjustment of inequalities in the wage structure. The Prime Minister announced the order on February 13, 1945, and stated that wage disparities had arisen because some groups had received pay increases while others had not. Therefore, the Court of Arbitration, in considering any applications for wage increase, was to take into account not only the general purpose of the stabilization regulations, as already provided,[2] but also "the desirability of so fixing rates of remuneration as to restore or preserve a proper relationship with the rates of remuneration of other workers or classes of workers." To permit increases on this basis, the Court might also amend awards, agreements, or other wage-fixing measures (including those affecting apprentices) already in existence on February 13; such changes could be made retroactive to any date which the Court designated.

Amendment No. 5 also authorized the Court of Arbitration to issue a "pronouncement" from time to time, specifying standard rates of wages [3] for skilled, semiskilled, and unskilled workers, as a basis for action under this order. Pronouncements might be made either on the Court's own motion or on application by any organization of workers or employers. According to the Prime Minister, "This will enable the Court, for its own purposes and as a guide to other parties when they come before it on wages matters, to lay down principles rather than leave the principles to be deduced from awards as they are issued. Such pronouncements by the Court will also serve as a useful guide in other negotiations on wages." Unions would be enabled to apply to the Court for a review of the wages portions of awards, even during their currency, on the ground of disparity with other workers, using a pronouncement of standards as a guide. In addition, standard-wage pronouncements would be useful to the wages commissioners in adjusting wages of workers not under the Court's jurisdiction. (The wages commissioners were empowered to approve increases on the same basis as the Court—that of removing disparity.)

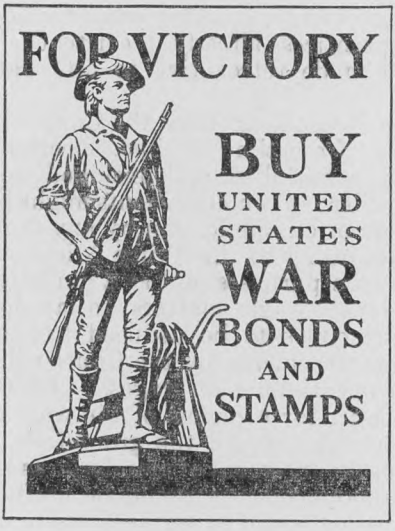
Following the announcement of the amendment, the President of the Court of Arbitration stated that no further awards or industrial agreements would be approved for purposes of stabilization regulations until a wages pronouncement had been made. Awards or agreements made after the February 13 order could not be amended by the Court.

[1] Data are from the Standard (official organ of the New Zealand Labor Movement, Wellington), February 22, 1945, report from J. Jefferson Jones III, third secretary, United States Legation, Wellington (No. 105, May 17, 1945); and restricted sources.

[2] For details of earlier amendments to the stabilization regulations, see Monthly Labor Review, November 1944 (p. 970).

[3] Such "standard rates" pronouncements do not of themselves increase or reduce wages, but merely serve as a guide to the Court's intentions; formerly they had no legal basis, and were issued to expedite settlement of wage questions out of court.

The President's action was taken to insure that any parties making application would be able to take advantage of a standard-wage pronouncement. Hearings on the question of rates to be fixed in the wage pronouncement began March 5. The Federation of Labor and the Employers' Federation were invited to present the case for the workers and the employers, respectively. On March 19, the Court announced that standard wage rates for adult male workers would be 3s.½d. per hour for skilled workers, 2s.8½d. to 2s.11d. per hour for semiskilled workers, and 2s.7½d. per hour for unskilled workers. The Court stated that it did not intend to make any pronouncement relating to standard rates for female workers or juniors. Both employers and workers accepted the Court's decision without a great deal of criticism.



Postwar Reconstruction

Australian Full Employment Policy[1]

FULL employment is a fundamental aim of the Australian Government, according to a White Paper issued in May 1945, which also states that, in peacetime, it is the State's responsibility to provide a general framework of a full-employment economy within which private operations of both firms and individuals may be carried on. Objectives agreed upon by all are improved nutrition, rural amenities, social services, more houses, factories, and other capital equipment, and higher standards of living. Achievement of these objectives can be promoted by governments to the limit set by their resources. No place exists in the Australian full-employment policy for made work, but the White Paper endorses a program whereby the Commonwealth and State governments would stimulate spending on goods and services to the extent necessary to sustain full employment.

Benefits for Community

The prevention of waste in resources resulting from unemployment is stressed as of prime importance in raising living standards. A second contributing factor is efficient production. If these objectives are fulfilled, all sections of the community will benefit; the demand for goods will be so great that the tendency will be toward a shortage of men and not of jobs. From the pursuance of a domestic policy of full employment in Australia, other countries also will be benefited.

In the international field, the Australian Government has proposed an employment agreement whereby each country would undertake to do its utmost to maintain employment within its territory. In addition, Commonwealth representatives are participating in discussions of other forms of cooperation to expand world trade and to mitigate fluctuations in prices of raw materials and foodstuffs.

Capital Expenditure

The amount of available employment depends on the volume of production, which, in turn, depends on the demand for goods and services. Therefore, full employment can be maintained only while total expenditure is sufficient to provide a market for all goods and services turned out by Australians working with the available equipment and materials.

Private capital.—Instability in private-capital expenditure and in expenditure from overseas (i. e., expenditure on exportable Australian goods and services) constitutes the chief threat to the Government's

[1] Information is from Australian News Release, May 30, 1945. Australian News and Information Bureau, New York.

full-employment policy. In securing the maximum possible stability in private-capital expenditure, the Government believes that the greatest single contribution will be made by assuring total spending on a high and stable level. An essential condition is that public expenditure should be sufficiently high to stimulate private spending, so that, together, private and public spending will provide a demand for the total output of which the Commonwealth economy is capable.

Special plans were being made, it was stated, to create opportunities for private-capital expenditure. These are exemplified in plans for house building, which is to be expanded as soon as the war permits. The Commonwealth Bank, being the controller of the banking system, will be in a position to insure the flow of capital required to promote stability, and must prevent the banking system from initiating a general contraction of credit or from contributing to unemployment through a decline in expenditure. These and other proposals are expected to provide a firm basis for a steady expansion of private-capital expenditure, and to confine the fluctuations of such expenditures within a manageable range.

Changes in export values having been one major cause of fluctuations in the total spending and employment of the country, the Government outlined a correctional program. It is based on (1) international agreements to maintain domestic employment, thereby increasing the demand for internationally traded goods; (2) participation in other forms of international collaboration to expand world trade and minimize price fluctuations; (3) preparation for development and diversification of Australian export markets; and (4) stabilization of incomes and hence expenditure of Australian export producers to offset short-term fluctuations in demand for Australian export; and (5) stabilization of total expenditures and employment (by public-capital expenditure and other means) to offset any expected reduction in spending from overseas on Australian goods and services.

Public capital.—Use of public-capital expenditure is the principal means of readily offsetting other declines. It may be employed in improving the collective capital equipment of the community. Ample scope exists for such expenditure in many industries and many parts of the country. To maintain and develop public-capital assets, the level of expenditure must be substantially higher than before the war. Among the important objects of this expenditure are housing, slum clearance, community centers, hospitals, libraries, roads, railways, bridges, harbors, airfields, power, irrigation, afforestation, water conservation, and reclamation. When declines in spending threaten to leave resources idle, the Government must be prepared to accelerate such work, and when private spending expands, the public-capital expenditures should be reduced somewhat.

Aids to Maintenance of Expenditure

Administration of public expenditure to provide employment when spending and employment tend to decline will require care and skill. A full-employment economy must be responsive to changing wants and technical progress. Workers who wish to change their jobs should have means of discovering opportunities, and employers should be able to get in touch with additional workers. For these reasons

the Government is proceeding to establish a nation-wide employment service on the general lines proposed by the International Labor Conference in May 1944. It is up to businessmen chiefly to avoid loss in enterprise and efficiency. Workers who need to leave positions when demand for goods they have been producing declines should be furnished with employment-service training and financial help to aid them in changing occupations. Trade-unions can help substantially by cooperating with the Government in removing impediments to labor mobility. Tariff protection is a privilege which must be paid for by maintenance of the highest efficiency; it should not be utilized to protect inefficiency in methods or the utilization of obsolete equipment.

Taxation for Public Expenditure

Wages in a full-employment economy must be adjusted so that real wages rise and workers receive their fair share of the increases in productivity. One section should not exert pressure for wage advances that will bring about a spiral of wages and prices without any benefit to the workers. Taxation is the main instrument of Government for bringing about a more equitable distribution of incomes without creating an interest-bearing debt. Although the extent of taxation on incomes has limits, the White Paper states that, when the economy is fully employed, the yield can at least cover all public expenditure on current items and make some contribution toward public-capital expenditure. Financing by the Commonwealth Bank, if carried beyond the limit of available men and resources, would result in such unstable conditions that full employment could not be maintained.

Imports and Exports and Balances

An increased demand for imports is involved in the full-employment policy, but the amount Australia can spend on imports will be limited by the yield from exports and the funds available overseas. Therefore, the Government is taking measures to expand and stabilize postwar export markets. Means under consideration include export credit guaranty facilities and the negotiation of trade treaties.

Some fluctuation must be expected in the balance of overseas payments. As in the past, minor declines may be compensated for in good years. However, if a deficit in the balance of payments is caused by a permanent alteration in overseas demand for Australian products that cannot be made up by a shift in productive resources, positive action will be necessary. The exchange rate might be altered or, if the fall in export income is prolonged and severe but not permanent, the quantity of imports might be restricted.

Australia's maximum contribution to world trade, according to the White Paper, is to maintain full employment at home and allow the resultant high level of expenditure to become effective in her demand for imports, to the limit of available overseas funds.

Plans for Transition Period

It is estimated that approximately a million men and women in the armed services and in war industries will seek employment in the transition from war to peace. Much of the peacetime employment

will not be available until production plans are prepared, machinery is adapted, and skilled labor is located or retrained. The change-over is not to interfere with prosecution of the war against Japan. Taking into account these limitations, proposals for the transition period are (1) a national housing program, to be carried out jointly by the Commonwealth and the States; (2) a land-settlement plan for ex-service personnel; (3) advance planning of public works; (4) wide training of ex-service personnel; (5) establishment of an employment service; (6) restoration or expansion of key industries which the war particularly hampered; and (7) supply of materials and enforcement of price controls. The highest priority is to be given to the housing program. Direction of labor is not to be continued into the peace years.

National Economic Planning Commission for Brazil[1]

THE National Economic Planning Commission, which was formally installed in Brazil on October 3, 1944, is to have primary official responsibility for planning the nation's postwar economy. The Commission was created by decree No. 6476 of May 8, 1944, as a part of the Council of National Security, and before June 8 the President had named 20 of its members, from leaders in Government, the army, industry, and commerce.

According to regulations approved on September 29, 1944, the Commission is to coordinate the planning activities of State and municipal departments, commissions, and public councils, with those of Federal organizations (including the National Council of Industrial and Commercial Policy, the Federal Foreign Trade Council, and other commissions), and to review all proposed economic legislation and projects submitted by the President. The subjects of work outlined are all-inclusive, embracing problems in "agriculture, industry, domestic and foreign trade, * * * transportation, currency, credit, and taxation," as well as economic problems connected with defense.

Purpose and duties.—The basic principles drawn up for the Commission's guidance explain that the economic plan for the nation (1) is founded on the combination of efforts between the State and individuals, "it being the duty of the State to create * * * conditions indispensable to the development of private enterprise, complementing it where it shows deficiency," (2) is to indicate the useful employment of natural resources, workmanship, capital, and technical capacity in such a way as to increase national production and improve the standard of living; (3) is to include factors designed to stimulate private economic initiative; (4) is to have for its main purpose (in recommending measures) the equilibrium between production for consumption and production for investment; and (5) is to give consideration (when examining projects requiring investments) to the cost of production and to the consumption capacity of home and foreign markets.

[1] Data are from report of Ivan B. White, second secretary, United States Embassy, Rio de Janeiro, October 5, 1944 (No. 908), enclosing translation of decree No. 16683, September 29, 1944, and Regulations of the Economic Planning Commission; and from Boletim do Ministério do Trabalho, Indústria, e Comércio (Rio de Janeiro), June 1944.

The duties set forth for the Commission are to develop the purposes mentioned above and are to include, in addition, collection of the economic data necessary to guide the Commission's action; preparation of definite plans for the progressive development of Brazil's economic resources; examination of projects submitted by the President; and (when not detrimental to national security) the publicizing of preliminary projects of interest to the nation.

Organization and administration.—As provided in the decree of May 8, 1944, the Secretary General of the Council of National Security acts as president of the Commission. He is also authorized to create special sections of the Commission and enter into contracts with technicians or with national or foreign institutions, for the promotion of studies, projects, or services necessary to the work of the Commission.

The membership of the Commission is unrestricted as to number. Its component parts are a deliberative council of all the members, an executive secretariat, and special departments for military and general subjects. The council, which is to meet weekly, will be the policy-making body and its members will serve as heads of the special departments.

Discharged Soldiers

Aid to Veterans Returning to Farms

AGENCIES in the U. S. Department of Agriculture are taking steps to assist the veteran who wishes to make agriculture a career. Recently, those agencies have made available to the returning servicemen loans for the purchase of farms. At the same time, veterans have been given preference in the purchase of new farm machinery.

Loans for returning servicemen.[1]—Congress authorized the Farm Security Administration of the Department of Agriculture to lend $25,000,000 within 12 months to returning servicemen who wish to buy family-size farms; the FSA started making such loans on July 2, 1945, through more than 2,000 county offices. Part of an additional $25,000,000, not restricted to the use of veterans, also may be used to make loans to discharged servicemen.

The loans, made under terms of the Bankhead-Jones Farm Tenant Act of 1937, can cover the full purchase price of a farm and allow up to 40 years for repayment. They bear interest at 3 percent on the unpaid balance. Applicants must find for themselves the farms they wish to purchase. Each farm is appraised, and a loan is made only when the purchase price is in line with the farm's actual value, based on its long-range earning capacity.

FSA has received applications from more than 2,000 discharged veterans wanting to buy farms, and 60 have been financed in farm purchases. Some veterans are becoming tenant farmers because they cannot find farms they can buy at reasonable prices. Others are renting farms because they feel they lack sufficient experience to embark upon ownership, because they do not know where they want to settle permanently, or for other reasons. Despite the discouraging land situation, FSA reports that veterans in large numbers continue to apply for tenant purchase loans, and many others who would apply, do not do so after investigating the land situation. Both with its tenant purchase and its rehabilitation programs, FSA provides retraining and on-the-farm vocational guidance. This combination of credit and guidance has proved particularly suited to the needs of returning war veterans and industrial workers who have been away from farming for some time. More than 2,500 veterans have obtained rehabilitation loans to finance the purchase of machinery, livestock, feed, and seed so they could resume farming, most of them on rented land. All are being given assistance in carrying out sound farming operations through FSA's local offices which serve every agricultural county.

Preference in purchase of new farm machinery.—Returning servicemen of World War II are given preference over nearly all other prospective purchasers of new farm machinery. By an order effective June 25, 1945, the War Food Administration ruled that veterans who can show both the need for, and the inability to obtain, farm machinery to establish or reestablish themselves in farming may obtain preference certificates that require dealers to give priority to the veterans' needs.

[1] U. S. Department of Agriculture, War Food Administration, Press releases of June 19, 1945 (USDA 1122-45) and June 22, 1945 (USDA 1138-45).

British Unemployment Insurance Fund in 1944[1]

BETWEEN December 31, 1943, and the close of 1944, the balance in the British unemployment-insurance fund increased by 31 percent for the general account and 18 percent for the agricultural fund. In the general account, receipts were lower in 1944 than in 1943, owing to a withdrawal of men and women from industry into the armed forces, to normal wastage, and to the substitution of uninsured part-time workers for insured full-time employees more than offsetting the influx of persons who had not previously worked. The rise in total receipts in the agricultural account accrued from an increased return on investments, employer and worker contributions having remained practically the same during both years. The effect of the increase in benefit payments under the terms of the Unemployment Insurance (Increase of Benefit) Act of 1944 was to raise the total of expenditures from the general account. The rate of agricultural unemployment was, however, sufficiently low to reduce total expenditures from that fund in 1944, in spite of the adoption of a higher benefit rate.

Financial operations in 1943 and 1944 are shown in the accompanying table, for both accounts.

Receipts and Expenditures of British Unemployment Insurance Fund, 1943 and 1944

Item	General account		Agricultural account	
	1943	1944	1943	1944
Total receipts	£77,782,284	£75,917,433	£1,608,888	£1,624,795
Contributions from—				
Employers and workers	49,023,428	47,063,692	960,249	967,736
Exchequer	24,510,952	23,531,121	480,113	483,865
Interest on investments	4,246,073	[1] 5,320,765	168,460	[1] 173,158
Miscellaneous receipts	1,831	1,855	66	36
Total expenditures	5,306,435	5,645,772	269,095	248,485
Unemployment benefit	2,709,000	2,889,000	86,000	64,000
Refund on contributions for noninsurable employment	1,524	1,449	23	6
Grants toward authorized courses of instruction	241,000	255,000	3,000	3,000
Grants toward traveling expenses of insured persons seeking employment	14,970	14,970	30	30
Administrative expenses	2,339,941	2,485,353	180,042	181,449
Excess of receipts over payments	72,475,849	70,271,661	1,339,793	1,376,310
Balance on January 1	152,265,545	224,741,394	6,137,968	7,477,761
Balance on December 31	224,741,394	295,013,055	7,477,761	8,854,071

[1] No allowance was made for interest accrued but not received as of December 31, 1944.

[1] Information is from Twelfth Report on the Financial Condition of the Unemployment Fund (General Account), and Ninth Report of the Financial Condition of the Unemployment Fund (Agricultural Account) as at December 31, 1944. London, Unemployment Insurance Statutory Committee, 1945.

Industrial Injuries

Work Injuries in Breweries During 1944[1]

Summary

INDUSTRIAL injury-frequency rates for breweries, as compiled by the Bureau of Labor Statistics, indicate that accidents constitute a major problem in this industry. In the year 1942, brewery workers experienced an average of 38.2 disabling injuries in the course of every million employee-hours worked, which was nearly double the average of 19.9 for all manufacturing activities. Similarly, in 1943, the average injury-frequency rate for the brewing industry was 35.3 as compared with an average rate of 20.0 for all manufacturing. In 1944 the divergence became even more pronounced, as the volume of recorded disabling injuries in the brewing industry climbed to an average of 46.2 per million employee-hours worked, whereas preliminary reports indicated a decline in the all-manufacturing average to about 18.8.

The significance of the 1944 frequency rate becomes more apparent when it is realized that it indicates the occurrence of about 1 disabling injury for every 10 workers in the brewing industry during the year. In actual numbers it is estimated that approximately 8,100 employees of breweries experienced such injuries during 1944. About 15 of these were fatal and approximately 660 resulted in some form of permanent physical impairment; the remainder, or about 7,425 cases, were temporary disabilities.

Without any allowance for the continuing loss in production and earning power arising from the deaths and permanent impairments, it is estimated that the actual employment losses resulting from the injuries experienced by brewery workers amounted to at least 162,000 man-days during 1944. On the basis of standard time charges for deaths and permanent impairments, it is estimated that the future economic loss accruing from the more serious injuries will eventually amount to at least 900,000 man-days. The total employment loss arising from the injuries which occurred in the course of brewery operations during 1944, therefore, will be equivalent to over 1,000,000 man-days of work.

Broad industry figures, such as the foregoing, amply demonstrate the existence of a safety problem in the brewery industry and, in a general way, serve to indicate the magnitude of that problem. The successful development of a safety program, however, requires much more detailed information as to where, how, and why the accidents occur. This survey was designed to supply some of those details.

[1] Prepared in the Industrial Hazards Division by Frank S. McElroy and George R. McCormack. A subsequent report will summarize the causes of accidents in breweries.

In response to the Bureau's request, 321 breweries submitted summary reports showing for each of their operating departments the number of workers employed, the number of employee-hours worked, and the number and types of injuries experienced by their employees during 1944. From these data it was possible to make a number of comparisons which indicate more specifically where the major hazards of the industry are concentrated and thereby to point out the most effective line of approach to the achievement of greater safety.

On the basis of the 1944 record there is an apparent need for greater attention to safety in each of the major operating departments of the industry. The necessity for immediate attention is most apparent, however, in the delivery departments. The delivery departments had an average of 64.1 disabling injuries for every million employee-hours worked, the bottling departments had an average of 52.5, and the brewhouse departments had an average of 50.8. The most hazardous type of delivery work was that of handling draught beer. The workers in this particular operation had the extremely high average frequency rate of 93.1. Pasteurizing, with an average frequency rate of 59, was the most hazardous operation in the bottling department, and loading, with an average frequency rate of 76.6, was the most hazardous of the specific operations reported in the brewhouse departments.

Comparisons based upon the volume of employment in the reporting plants indicated that, on the average, breweries employing fewer than 100 workers and those employing over 500 workers had better safety records than the medium-size plants in which employment ranged from 100 to 500. It is noteworthy, however, that the proportion of serious injuries (that is, cases resulting in permanent impairments) was greater among the plants employing 1,000 or more workers than among those of any other size group. Generally speaking, this pattern corresponds with the conditions found in other industries, and reflects the greater attention devoted to safety by management in the smaller plants and the existence of safety departments in the larger plants.

The injury records of the participating breweries varied extensively. About 17 percent of the plants reported that none of their employees had experienced a disabling injury during the year. However, most of these plants were quite small and none had over 150 employees. In contrast there were 4 plants with injury-frequency rates of over 200. One brewery with an average employment of about 240 workers reported 169 disabling injuries, which gave it a frequency rate of 289.6.

Regional comparisons indicated that, in general, brewery operations were conducted most safely in the southeastern part of the country and that the relative volume of accidents was greatest in the northeastern area. Regional average frequency rates ranged from 31.4 in the East South Central to 67.9 in the New England region. In the areas which contain the greatest number of breweries the regional averages were 46.0 for the East North Central and 52.6 for the Middle Atlantic region. Among the 19 States for which separate average frequency rates were computed, Florida had the lowest (13.9) and Indiana had the highest (69.8). Both the highest and the lowest of the 16 city averages were for Pennsylvania cities; in Wilkes-Barre the reporting breweries had an average frequency rate

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of 23.3, and those in Pittsburgh had an average of 128.0. Various factors enter into these regional, State, and city differences: State safety laws and the extent to which they are enforced, the general size of the plants in an area, and the general interest in safety as evidenced by the safety activities of local associations.

Departmental Differences

The extent to which details were available concerning the experience of workers engaged in particular operations varied greatly among the reporting breweries. In many of the small plants there was very little departmentalization, and most employees whose time could not be broken down on the basis of specific operations were reported as general workers. Practically all of the plants, however, were able to report their experience in broad categories such as brewhouse work, bottling operations, and delivery operations. Such break-downs help to direct safety activities to the general divisions of the plants in which injuries are most common. Most suited for the development of an organized safety program, however, are those data which detail the experience of workers in specific activities within the broad operating divisions. About half of the reporting plants were able to furnish detailed records of the latter type.

BREWHOUSE OPERATIONS

Brewhouse operations as a group had an average frequency rate of 50.8 disabling injuries for every million employee-hours worked. Although this average is very high in comparison with the frequency rates prevailing in most other manufacturing industries, it was lower than the averages for the bottling and delivery departments of the brewing industry. Temporary injuries in this division, as measured by the average amount of time lost, were generally more severe than those of the other major divisions. This was balanced, however, by the fact that there were proportionately fewer cases of permanent impairments reported in the brewhouse units than were reported in either the bottling or the delivery divisions.

The frequency rates of the individual departments of the brewhouse division were sharply divided into a "very high" rate group and a "high" rate group. The group with the more favorable average frequency rates was composed of the brewing, fermenting, and filtering departments, while the higher rate group included the racking, washing, and loading departments. It is significant that the operations in which injuries were less common were those in which the work involves comparatively little manual handling of heavy materials. The filtering departments' average frequency rate of 23.9 was the lowest in the group. The brewing and fermenting departments had nearly identical frequency rates, 32.4 and 32.8, respectively. All three of these rates were higher than the average injury-frequency rate for all manufacturing, but they were each substantially lower than the rates for the washing, racking, and loading departments.

Loading operations, which involve the intraplant transportation and storage of filled barrels and kegs, had an average frequency rate of 76.6—the highest for any of the brewhouse departments. In many of the loading departments much of the lifting and handling of

the heavy barrels is performed manually, and as a result strains and sprains are relatively common. Permanent injuries, however, were less common in these departments than in many of the other operating units.

Washing operations constituted the second most hazardous activity in the brewhouse division. In these units disabling injuries were reported to have occurred at the average rate of 58.3 per million employee-hours worked. In washing operations, empty barrels are usually placed by hand upon an automatic washing machine. On the machine, the barrels are mechanically rotated to place the bunghole in line with a water nozzle and are then lowered over the nozzle. Water is alternately sprayed into and drained out of the barrels several times, after which they are removed for inspection. If the coating of pitch on the interior of a barrel is found to be thin or broken, the barrel is placed on a second machine which operates similarly to the washer except that it sprays hot pitch into the barrel instead of water. The barrel is then rotated to insure that all inner surfaces are coated, and the excess pitch is drained out. The proportion of injuries resulting in permanent impairments was comparatively low in the washing departments. The average amount of time lost for each temporary disability, on the other hand, was very high.

In racking operations the empty barrel is placed, bunghole up, under the nozzle of the beer pump. The nozzle is lowered into the barrel and the beer is pumped in. When the barrel is full the bung is placed by hand and driven in with a hammer. Then the filled barrels are rolled from the rack to the loaders. The racking departments also had a very high frequency rate, their average being 51.8 disabling injuries per million employee-hours worked. The proportion of injuries resulting in permanent impairments was comparatively high, but the average time lost per case of temporary disability was identical with the industry average.

BOTTLING OPERATIONS

The average frequency rate for the departments comprising the bottling division was slightly higher than that of the brewhouse division, but was substantially lower than that of the delivery departments. As a group, the bottling departments had an average of 52.5 disabling injuries in every million employee-hours worked. One in every 14 of these injuries was a permanent impairment, as compared with averages of about 1 in 18 in the brewhouse group and about 1 in 8 in the delivery departments. Although there were 2 fatalities among the 1,031 disabling injuries reported for the brewhouse units, and 4 among the 1,172 injuries reported for the delivery departments, there were no deaths among the 2,423 disabling cases reported in the bottling departments. Temporary disabilities in the bottling departments, on the average, required 14 days for recovery. This time loss was identical with the corresponding average in the delivery departments, but was substantially lower than the average of 18 days of lost time per temporary disability in the brewhouse units.

Bottling operations, other than casing and loading, are generally highly mechanized and involve comparatively little physical exertion. Consequently, these operations are now largely performed by women.

Empty bottles are loaded by hand into an automatic washing machine from which they pass onto a conveyor on which they generally remain until delivered to the casers. As they leave the washing machine they are given their first inspection by a worker who sits at the side of the conveyor and looks through each bottle as it passes. At this stage the inspection involves little hazard. At the later inspection points, however, there is continual danger that the filled bottles may explode and that the inspectors or other conveyor attendants may be struck by flying glass.

The conveyor carries the bottles from the washing machine successively to the filling machine, the capping machine, the pasteurizer, and the labeling machine, and then delivers them to the casers, who place them in cases or cartons. Casing is usually a manual operation, although a few breweries have installed machines to perform this function. The filled cases or cartons are then taken by the loaders to be stored or shipped out of the plant.

Bottle explosions are quite common at all stages of the bottling operations after the beer has been placed in the bottles. These explosions present a double hazard in that the flying glass may strike anyone in the vicinity, and the workers may receive hand cuts as they remove the broken glass from the machines, the conveyor, or the floor.

Inquiries addressed to a number of brewery safety engineers elicited various reasons for the occurrence of these explosions. The pressure used to speed the filling operations frequently is great enough to burst weak or defective bottles. In the pasteurizer the beer is heated and the gas contained in the liquid expands, thus increasing the internal pressure which may then burst the bottles. Most of the safety engineers were in agreement that the tendency for bottles to explode is increased when they are roughly handled. Worn machinery and conveyors, which cannot now be replaced because of wartime restrictions, add greatly to this hazard by causing the bottles to be bumped and shaken as they pass along the line. The safety engineers also agreed that the larger-size bottles are more likely to explode than are the bottles of standard size.

A few breweries have placed wire-mesh guards over the conveyor lines and have installed metal shields around the filling machines. At the inspection points the mesh guards are replaced by panels of shatter-proof glass. Most of the conveyor guards are constructed in sections which may be raised to permit the removal of rejected or broken bottles from the line. The use of such guards, however, is far from universal. Instead of guards, some breweries provide impact goggles for all bottling-department workers. These goggles prevent eye injuries, but do not eliminate other cuts caused by the broken glass.

At the present time very little beer is put in cans, because of the wartime shortage of metal. It is pertinent to note, however, that from a safety point of view the use of cans has a distinct advantage in that it automatically eliminates all the hazards of bursting bottles.

Pasteurizing was the most hazardous operation in the bottling division. These units had an average of 59 disabling injuries for every million employee-hours worked. Casing operations, which had an average frequency rate of 55.1, were only slightly less hazardous. Loading operations in the bottling division had a frequency

rate of 47.9, which is high by most safety standards; nevertheless, it was much lower than the average of 76.6 for the brewhouse loading departments. Bottle washing (with the lowest frequency rate in the bottling division) and the filling and capping units had average frequency rates of 43.4 and 45.4, respectively.

In comparison with the average time loss for each temporary disability in the other divisions, the recovery time for temporary injuries in the bottling units was generally low. The proportion of injuries resulting in permanent impairments, however, was unusually high in some of the bottling operations, ranging as high as 20 percent in the filling and capping units.

DELIVERY OPERATIONS

In large measure the very high frequency rates of the delivery departments reflect the considerable volume of heavy manual work performed in these departments. The extremely high average frequency rate of 93.1 for the units delivering draught beer is seldom equaled in any of the operations of other industries. Similarly, the high proportion of serious injuries, represented by 2 deaths and 73 permanent impairments out of a total of 403 disabling injuries reported for this operation, is unusually high.

Although the units engaged in delivering bottle beer had a much better record than those handling draught beer, their experience nevertheless was considerably less favorable than that of most other industrial activities. This operation had an average of 56.5 disabling injuries per million employee-hours worked and, similarly, had a very high proportion of deaths and permanent impairments among the reported injuries.

MISCELLANEOUS OPERATIONS

Relatively few of the participating breweries reported any malting operations. The few reports received, however, showed an average frequency rate of 81.9, indicating a high degree of hazard in this operation. The maintenance departments had a fairly high average frequency rate of 41.0, and the garage units had a relatively high average of 32.9. The reporting power-plant units had an average frequency rate of 28.1, and the refrigeration units had an average rate of 22.0. The sales and the administrative and clerical units had average rates of 4.2 and 1.9, respectively, which are comparable with the experience of similar departments in other industries.

Regional, State, and City Differences

As brewery operations are largely standardized and follow much the same pattern regardless of the geographic location of the various plants, it is unlikely that the considerable variations in the average injury-frequency rates for different areas represent differences in inherent hazards. Primarily, the frequency-rate differences reflect variations in safety activities. Many factors contribute to these differences, and in particular instances it may be very difficult to specify which is the controlling factor. Differences in State safety requirements and in the degree to which the requirements are enforced have a very direct influence upon the frequency-rate levels in

different States. Similarly, safety activities, or the lack of such activities, on the part of trade associations or other organizations may have considerable effect upon the general accident record of an area. The average size of the plants in different areas and the availability or lack of experienced personnel are also factors which may influence the injury-frequency rate levels.

The 321 breweries participating in the survey were distributed among 35 States. As there were a number of States from which only one or two plants reported, representative State averages could be computed for only 19 States. The totals were combined, however, to provide averages for each of the nine geographic areas corresponding to the regions used in the tabulations of the United States Bureau of the Census.[2] In addition, it was possible to compute average frequency rates for 16 cities.

The highest of the regional average frequency rates was that of the 10 breweries reporting from the New England States. These plants reported an average of 67.9 disabling injuries for every million employee-hours worked. As 8 of the 10 plants were located in Massachusetts this rate primarily reflects the experience of that State. The Massachusetts average frequency rate of 65.4 was exceeded only by the averages for Indiana and Colorado.

The East South Central region, with an average frequency rate of 31.4 based upon the experience of 6 plants, had the lowest of the regional averages. The Kentucky average of 37.4, computed from the reports of 4 of these breweries, was well below the national average. There were, however, 5 other States among the 19 for which averages were computed, which had lower rates.

In the Middle Atlantic region reports were received from 78 breweries. These plants had the high average frequency rate of 52.6, which was exceeded only by the average of the New England region. Within this region it was possible to compute separate averages for New Jersey, New York, and Pennsylvania. The New Jersey frequency rate of 27.6, based upon the records of 6 plants, was among the lowest of the State averages, and the Pennsylvania and New York averages (52.9 and 63.5, respectively), were among the highest. Separate city averages were computed for three cities in Pennsylvania and for two in New York. In Pennsylvania the 3 breweries reporting from Pittsburgh had an average frequency rate of 128.0, the highest of all the city averages. In the same State, three breweries in Wilkes-Barre had an average rate of 23.3, which was lower than the average for any other city. The Philadelphia average of 38.9, based upon the records of 8 plants, was somewhat better than the industry average. The 7 breweries reporting from New York City had a very high average, 70.2, which was exceeded only by the rates for Pittsburgh and Chicago. The Rochester (N. Y.) average, 40.0, covering the experience of 3 plants, was close to the median in the range of city rates.

The largest volume of reports received from any of the regions came from the East North Central States. The 136 reporting breweries in

[2] The regional groupings and the States included in each region are as follows: *New England.*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. *Middle Atlantic.*—New Jersey, New York, and Pennsylvania. *East North Central.*—Illinois, Indiana, Michigan, Ohio, and Wisconsin. *West North Central.*—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. *South Atlantic.*—Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia. *East South Central.*—Alabama, Kentucky, Mississippi, and Tennessee. *West South Central.*—Arkansas, Louisiana, Oklahoma, and Texas. *Mountain.*—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming. *Pacific.*—California, Oregon, and Washington.

this area had an average frequency rate of 46.0, which almost exactly matched the national average for the industry. Among the separate States comprising this region, Ohio had the lowest average frequency rate, 37.3. At the other extreme, Indiana had an average rate of 69.8, which was the highest State average computed. The rates of Michigan (42.4), Wisconsin (44.4), and Illinois (51.1) were all in the upper range of the State averages. Chicago had the highest city average in the region, 72.4, while Cleveland had the lowest, 33.4. Cincinnati and Columbus had average rates of 41.3 and 48.0, respectively; Milwaukee had an average rate of 47.2; and Detroit had a rate of 43.5.

The 25 breweries reporting from the West North Central States had an average injury-frequency rate of 39.2. These plants included 13 breweries in Minnesota for which the average rate was 35.6, and 9 breweries in Missouri, which had an average rate of 40.0. The 4 plants reporting from Minneapolis and St. Paul had an average frequency rate of 34.4, which was among the lowest of the city averages. The 4 breweries reporting from St. Louis had a slightly higher, but nevertheless better than average, rate of 38.9.

In the South Atlantic region the 11 reporting breweries had a relatively low average frequency rate of 33.6. The 4 Florida plants included in this group had an average rate of 13.9, which was the lowest among the entire group of State rates. The average frequency rate of 40.4 for the 3 breweries reporting from Maryland was relatively high in comparison with the Florida average, but was the median in the range of State rates.

In the West South Central region 10 breweries reported an average of 49.1 disabling injuries per million employee-hours worked. The 4 plants in Louisiana, all of which were in New Orleans, had an average rate of 51.4. The Texas average, based upon the experience of 5 plants, was 38.9.

For the Mountain States the regional average frequency rate, computed from the records of 18 breweries, was 48.1. Three of these plants (in Colorado) reported an average frequency rate of 67.1, which was the second highest State rate recorded.

Reports were received from 27 breweries in the Pacific region. As a group, these plants had an average frequency rate of 38.6, which ranked in the lower half of the regional averages. The 9 plants in the State of Washington, however, had a record substantially better than the regional average. The Washington rate (29.4) ranked third among the lowest of the State averages. In California the 14 reporting breweries had an average frequency rate of 40.3. The Los Angeles and San Francisco city averages of 37.2 and 37.4, respectively, were both in the lower half of the range of city rates.

Comparisons by Size of Plant

In many industries analysis of the accident experience of various plants has shown a direct correlation between the injury-frequency rates and the size of the plants as measured by employment. The most common findings have been that the small plants, in which the owners are in close contact with actual operations, and the large plants, which generally have safety engineers on their pay rolls, usually have the lowest average frequency rates. The medium-size plants, which are too large for intimate supervision by top management

and too small to have regularly established safety departments, commonly constitute the group which has the highest average frequency rate. In the brewery industry the same general pattern prevailed, although it did not appear to be so clear-cut as in some other industries.

Breweries employing from 100 to 499 workers had the highest general level of injury-frequency rates. For those with 100 to 249 employees the average rate was 51.3 while those with 250 to 499 employees had an average rate of 50.7. The group with the lowest average frequency rate (36.6) was composed of plants which employed from 25 to 49 employees. The plants with 50 to 99 employees and those with 500 to 999 employees, however, had only slightly higher averages, 37.7 and 38.7, respectively. The very small plants, with less than 25 employees, had an average frequency rate of 43.5, and the very large plants, with 1,000 or more employees, had an average of 48.3.

Comparisons among the various size groups revealed another interesting relationship for which no positive explanation can be offered. The disability distribution indicated that, as the size of the plants increased, the proportion of permanent impairments also tended to increase. In none of the size groups composed of plants having fewer than 250 employees was the volume of permanent impairments greater than about 4.5 percent of the total volume of injuries reported. In the larger plants this proportion increased considerably, reaching 16 percent in the group made up of plants with over 1,000 employees. A possible explanation of this may be found in the fact that the larger plants frequently have medical service available on the premises, whereas most small plants must send their injured workers out of the plant for treatment. This means that some minor injuries must be counted as disabling [3] in the small plants, because the workers lose time in going outside for treatments, while identical injuries are not counted as disabling in the large plants because treatments can be obtained without the workers' taking time off. This circumstance would not affect the volume of permanent impairment cases, but would affect the volume of injuries counted as temporary disabilities, and thereby would affect the relationship between the permanent impairments and the total number of disabling injuries reported. A plant reporting a given volume of permanent impairments, therefore, might show either a high or low proportion of such cases, depending upon whether or not medical attention was available on the premises.

[3] A disabling injury is one which results in death or permanent impairment, or causes the loss of time beyond the day of injury. Only disabling injuries are counted in computing the standard injury frequency rate.

Industrial Relations

Peruvian Agricultural-Labor Contract[1]

THE Bureau of Indian Affairs of Peru has made public the details of a labor contract between the proprietor of a farm in the highlands and his Indian tenants. The tract was said to be 10,000 feet or more above sea level and to consist of the farm proper and the pasture and tillage grounds ("colonized land") on the fringes of the landlord's estate. The contract was for the purpose of regulating "thenceforth the use of the colonized land and the performing of agricultural labor on the farm."

Under the terms of the contract, the proprietor agreed to dismiss his administrator. The farmers (*colonos*) on their part agreed to pay 5 soles [2] for each 100-kilogram [3] sack of potato seed provided and sown on land allotted by the farm. When the farm needed labor to till the fields or to do other work, the farmers' services were to be used. Working hours were to be from 7 to 11 a. m. and 1 to 5 p. m., for which the standard pay was to be 1 sol per day. The Indian farmers were not to be expected to work on Sundays, holidays, or public election days, or on May 1. Farm laborers who were dismissed were to be indemnified.

The farmers were to be free to sell their potato crop to whomever they chose, except that if the proprietor offered the market price, he should have preference.

Under the contract, children under 14 were not to perform work; minors over 14 and under 16 were to be allowed to work if they could read and write; and their pay was fixed at 0.30 sol per day plus evening meal. Persons over 16 and under 20 were to be permitted to serve as shepherds on the farm, for which their pay would also be 0.30 sol plus evening meal.

Widows holding colonized land on the farm were to pay 2 soles per sack of potato seed. If their services were needed as swineherds or potato peelers, or in the making of chuño (a native food of frozen potatoes), they were to work the 8-hour day for 0.50 sol plus evening meal.

Contracts such as that under review are said to have arisen from the question of land tenure. The Indians feel that pasture and tillage grounds, especially those bordering the estates, have never properly and justly been transferred from them or their forebears. They consider much of it as communal land, whereas the landlord may regard it as his private property.

[1] Data are from report prepared by William P. Snow, United States Embassy at Lima, Feb. 10, 1945 (No. 56).
[2] Average exchange rate of sol in 1943 and 1944=approximately 15 cents.
[3] Kilogram=2.2046 pounds.

Industrial Disputes

Strikes and Lock-outs in June 1945

PRELIMINARY estimates indicate that there were 485 strikes and lock-outs beginning in June 1945, with 292,000 workers involved, and 1,725,000 man-days idle—0.23 percent of available working time.

TABLE 1.—*Strikes and Lock-outs in June 1945, with Comparable Figures for Earlier Periods*

Month	Strikes and lock-outs beginning in month		Man-days idle in month	
	Number	Workers involved	Number	Percent of available working time
June 1945 [1]	485	292,000	1,725,000	0.23
May 1945 [1]	425	310,000	2,025,000	.26
June 1944	441	144,566	726,531	.09
June 1943	433	186,677	4,698,796	.62
June 1942	345	109,611	586,408	.09
June 1941	357	142,689	1,504,056	.24

[1] Preliminary estimates.

A relatively new development was a series of work stoppages protesting shortages of meat and lard. These scattered stoppages began in the bituminous-coal mines in late April and May, took on sizable proportions in June, and continued in July. Lack of meat sandwiches in factory lunch wagons caused a 2-day stoppage of over 5,000 workers at the Briggs Manufacturing Co. in Detroit also.

A few isolated protests over inadequate meat rations occurred among east coast fishermen early in 1945, and solution of this problem was under consideration by the OPA. When the mine stoppages occurred, eventually involving workers in Kentucky, Alabama, West Virginia, Illinois, Indiana, Missouri, and Tennessee, the Government made efforts to alleviate the situation by routing additional meat to the areas of worst shortage. Under a new OPA policy, instituted early in July, provision was made for extra red ration points for meat and fats to be distributed to certain workers doing heavy manual labor, and somewhat later in the month the Secretary of Agriculture authorized Government purchase of local meat surpluses for distribution to war-plant cafeterias.

Detroit dispute over reconversion work.—A dispute between A. F. of L. and C. I. O. workers, which threatened to interfere on a broad scale with reconversion construction work, resulted in a substantial work

stoppage in the Detroit automobile industry during June, but as a consequence the ground work was laid for the settlement, on a national basis, of this and similar disputes. The issue was as to who should perform the construction and alteration work and particularly who should install machinery in newly constructed or reconverted plants.

The A. F. of L. Building Trades Council in Detroit had demanded that when a contractor using A. F. of L. workers is called in on a reconversion job, such workers must be given the installation work also. Maintenance workers affiliated with the United Automobile Workers (C. I. O.) had countered with a demand that all available skilled C. I. O. workers in the plants must be utilized before outside contractors and A. F. of L. workers are called in for reconversion work.

Approximately 150 A. F. of L. workers stopped work on three large construction jobs for the Chrysler Corp. about the middle of June, because the company would not give assurance that A. F. of L. men would do the installation work. Shortly thereafter U. A. W. maintenance workers stopped work, protesting the employment of A. F. of L. workers at plants of the Ford Motor Co., Budd Wheel Co., and Packard Motor Car Co.; this made thousands of production workers idle also. It is estimated that, altogether, nearly 40,000 workers were idle and that idleness during the stoppage amounted to over 225,000 man-days.

As the stoppages continued and threatened to spread, representatives of the parties involved were called to Washington where A. F. of L. and C. I. O. officials, meeting with the Assistant Secretary of Labor, signed an agreement providing that in each locality where local organizations of the C. I. O. Automobile Workers and A. F. of L. Building and Construction Trades Departments exist, a joint committee should be created to adjust any disputes over reconversion work which might arise. Disputes not settled locally would be referred to a national committee composed of an equal number of representatives of the two parties with a neutral chairman, the decision of this committee to be final and binding. This agreement was submitted for ratification to the national officers of the United Automobile Workers (C. I. O.) and the A. F. of L. Building and Construction Trades Department.

The agreement further recommended that a joint committee be formed immediately in Detroit to adjust the current dispute, that striking workers return to their jobs, and that both organizations hold in abeyance their demands relative to reconversion work pending action of the joint committee.

On the basis of this agreement the stoppages were terminated and most of the idle employees resumed work June 29.

Stoppage at Goodyear Tire & Rubber Co., Akron.—The first strike in the Akron rubber industry to follow a strike vote under the Smith-Connally Act, occurred at five Akron plants of the Goodyear Tire & Rubber Co., about the middle of June 1945. It was called by officials of Goodyear Local No. 2, United Rubber Workers of America (C. I. O.) but did not have the approval of the international union officials. Approximately 16,000 production workers were affected on June 16, and on June 18 the general office workers remained away from work, making a total of about 20,000 absent for a day.

Union and company representatives had been negotiating for 2 weeks on 32 separate points in dispute. Although agreement had

been reached on certain points, no progress had been made toward settlement of the union's demand for participation in setting wage rates, a general wage increase for employees in several departments, revision of the merit system in the engineering department, and elimination of "quick shifts" to fill special orders.

The dispute was certified to the National War Labor Board after officials of the local union refused a Regional Board request to order the membership back to work. At a National Board hearing on June 24 union officials declined to recommend ending the 8-day stoppage, and when they reported to their local membership the latter voted to continue on strike. On July 3 the Board referred the dispute to the Director of Economic Stabilization and 2 days later the plants were taken over, under Presidential order, for operation by the Navy Department. Union officials immediately advised their members to end the strike, although no agreement had been reached on the issues in dispute, and within a few days operations were back to normal.

Glass workers' stoppage.—About 17,000 workers were involved and 170,000 man-days of idleness resulted from a stoppage after negotiations on a contract between the Glass, Ceramic and Silica Sand Workers of America (C. I. O.) and the Libbey-Owens-Ford Co. and Pittsburgh Plate Glass Co. broke down in June. The stoppage was preceded by a strike ballot under the War Labor Disputes Act, with workers voting 10 to 1 in favor of a strike. The points at issue as stated on the strike ballot were "breakdown in negotiations" and "inability to reach a satisfactory agreement." The union claimed that the companies had proposed an incentive-pay plan which would decrease the workers' earnings. Seniority issues were also involved.

The stoppage began at the Pittsburgh Plate Glass Co.'s plant at Creighton (Pa.) on June 14, and on June 19 workers at the Ford City (Pa.) plant went out. In an effort to prevent spread of the stoppage, the National War Labor Board assumed jurisdiction on June 20 and scheduled a hearing on the issues for July 10. In spite of this, on June 21 the strike spread to the company's plants at Crystal City (Mo.), Mt. Vernon (Ohio), Clarksburg (W. Va.), and Henryetta (Okla.). The same day Libbey-Owens-Ford workers in Toledo (Ohio), Ottawa (Ill.), Shreveport (La.), and Charleston (W. Va.) joined the stoppage.

On June 28 union officials appeared at a show-cause hearing before the NWLB, and agreed to order the men back to work, with the understanding that the expired contract would be extended pending full disposition of the issues. On July 2 all but one plant, that at Charleston (W. Va.), were in operation. Workers at the Charleston plant returned on July 5.

Stoppage at Tennessee, Coal, Iron & Railroad Co.—Ten thousand workers and over 100,000 man-days of idleness were involved in a stoppage beginning on June 1 at the Ensley Works and the Fairfield plant of the Tennessee Coal, Iron, & Railroad Co. near Birmingham, Ala. These are the two largest steel-producing plants in the South. The stoppage was attributed principally to the delay of the National War Labor Board in working out and installing an acceptable incentive-pay plan for the furnacemen. The original dispute had been certified to the Board on July 19, 1943. Two strikes had occurred over this issue in 1944. The Board's order issued in November of that year had not been satisfactory, and the question was still pending

when the strike occurred on June 1, 1945. The same day the matter was referred to the Steel Commission of the NWLB set up on March 30, 1945. Local union officials were unsuccessful in getting the men back to work, and on June 13 the international officers warned the union that maintenance of membership provisions might be withdrawn by the National War Labor Board, and the position of the union throughout the Nation jeopardized, if the strike continued. Work was resumed that night.

Strikes and Lock-outs in First Half of 1945

Idleness during strikes and lock-outs in the first 6 months of 1945 involved 0.15 percent of the available working time. There were 2,300 work stoppages during this half year, with 1,250,000 workers involved, and 6,580,000 man-days of idleness. Not all of this time was lost, however, as much of it was made up through overtime and work on holidays. It is estimated that the approximately 9 million workers in munitions industries alone, by remaining on the job on New Year's Day, Washington's Birthday, Memorial Day, and the Fourth of July, put in more than five times as many man-days of work as were lost through strikes and lock-outs during the first 6 months of this year. In fact, the time worked by munitions workers on these four holidays quantitatively exceeded the idleness during all strikes and lock-outs in the entire war period—from December 7, 1941, to June 30, 1945. Over 35,000,000 man-days were worked by munitions workers on these four holidays, as against 33,287,000 man-days of idleness during strikes and lock-outs in the period since the attack on Pearl Harbor.

The number of stoppages in the first 6 months of 1945 was smaller than in the corresponding period of 1944 although greater than in the preceding war years. The number of workers involved was greater than in any corresponding half-year period since 1941, and the amount of idleness, although greater than in 1944 and 1942, was less than in 1943 and 1941. Figures for the first 6 months of each year from 1939 to date are shown in table 2.

TABLE 2.—*Strikes and Lock-outs in the First 6 Months of Each Year, 1939–45*

First 6 months of—	Strikes and lock-outs	Workers involved	Man-days idle
1939	1,401	717,000	11,093,000
1940	1,159	210,000	2,515,000
1941	2,068	1,258,000	14,145,000
1942	1,478	387,000	2,366,000
1943	1,869	1,167,000	7,577,000
1944	2,539	1,024,000	4,393,000
1945 [1]	2,310	1,250,000	6,580,000

[1] Preliminary estimates.

During the first 6 months of 1945 the National Labor Relations Board conducted 203 strike ballots under the War Labor Disputes Act, an average of about 34 per month, compared with 317 ballots in the 12 months of 1944, or 26 per month. Up to June 30, 1945, there were 57 strikes following such ballots, compared with 69 such strikes in the year 1944. These 57 strikes comprised 2.5 percent of all strikes and

lock-outs during the period, compared with slightly more than 1 percent in 1944. The number of workers involved in these strikes in 1945 was more than 20 percent of those involved in all stoppages (as compared with 5 percent in 1944) and the idleness about 45 percent (6 percent in 1944). Eliminating the large coal-mine stoppages in April and May, which were preceded by strike ballots, the figures for the first 6 months of 1945 represent slightly more than 7 percent of the total workers involved and about 19 percent of the total idleness.

Activities of U. S. Conciliation Service, May 1945

DURING May 1945, the U. S. Conciliation Service disposed of 2,270 situations as compared with 1,921 situations in April. During May of the previous year, 2,164 situations were closed.

Of the 264 strikes and lock-outs handled, 231 were settled successfully; 33 cases were certified to the National War Labor Board in which strikes occurred during negotiations, but in 18 cases a Commissioner of Conciliation had effected a return-to-work agreement prior to certification of the case. The records indicate that 260 situations were threatened strikes and 1,453 were controversies in which the employer, employees, or other interested parties asked for the assignment of a conciliator to assist in the adjustment of disputes. During the month 487 disputes were certified to the National War Labor Board. The remaining 293 situations included 123 arbitrations, 15 technical services, 32 investigations, and 123 requests for information, consultations, and special services.

Cases Closed by U. S. Conciliation Service in May 1945, by Type of Situation and Method of Handling

Method of handling	Total	Strikes and lock-outs	Threatened strikes	Controversies	Other situations
All methods	2,270	264	260	1,453	293
Settled by conciliation	1,490	231	232	1,027	----------
Certified to National War Labor Board	487	[1] 33	28	426	----------
Decisions rendered in arbitration	123	----------	----------	----------	123
Technical services completed	15	----------	----------	----------	15
Investigations, special services	155	----------	----------	----------	155

[1] Of these, 18 were settled prior to referral.

Labor Organizations

A. F. of L. Antidiscrimination Program

THE president of the American Federation of Labor has called upon all the federation's affiliated unions and individual members to combat racial and religious bigotry and discrimination.

In the July 1945 number of the American Federationist, Mr. Green emphasized the necessity of carrying out the mandate of the 1944 A. F. of L. convention for the establishment of "industrial equality."

Organized labor's important stake in the elimination of intolerance was strongly stressed:

> When and if organized labor predicates membership in any union upon race, religion, or ancestry, it is helping to create a potential antilabor army that can be used by labor baiters to fight labor unions, weaken labor's collective-bargaining power, and destroy its effectiveness.
>
> Freedom is essential to the preservation of democracy. When we begin to limit it by insisting that it be denied to some because of racial or religious differences, the list of exceptions grows until finally freedom for all is ended.
>
> For instance, the rights of the worker, his freedom to organize into a union of his own choosing and to bargain collectively for wages and decent conditions of living, are the first to be destroyed if we seek to establish limited freedom.

Fusion of Labor Organizations in Belgium[1]

MORE than 900 delegates of four important labor movements in Belgium, who gathered at a Congress of Unity, in Brussels, April 28 and 29, 1945, voted to unite in a single General Federation of Labor (*Fédération Générale du Travail de Belgique*—F. G. T.). The congress adopted a statement of basic principles for the federation and its constituent unions, agreements on the structure and constitution of the federation and on membership dues, and a program for immediate action. In effect, the result of the union was to establish a labor movement including Socialist, Communist, and some nonparty unions. The Christian and Liberal labor unions (*Confédération des Syndicats Chrétiens* and *Confédération des Syndicats Libéraux*) retained their former organizations.

Objectives and Principles of Union

Although the free trade-unions of Belgium were dissolved by the Germans and could operate only locally and clandestinely during the occupation, within 6 months after liberation a series of meetings had prepared the way for unification of the main fragments of the prewar unions, with the exception of the Christian and the Liberal groups.

[1] Data are from reports of R. Smith Simpson, labor attaché, United States Embassy, Brussels, April 20 and 30, May 5, and June 4, 1945.

In spite of differences, both old and young leaders saw less danger for their unions in combination than in continued separation. The organizations which united to form the new federation were the Confédération Générale du Travail de Belgique, (the prewar Socialist union), the Confédération des Syndicats Uniques and the Mouvement Syndical Unifié (both formed during the occupation), and the Syndicat Général des Services Publics (union of civil servants).

The main objective of the new federation (F. G. T.) appears to be the development of industrial democracy by winning for labor the direction of the national economy. Unions in the F. G. T. must remain independent of political parties, and their officials are forbidden to hold political or party office. The fullest internal democracy, freedom of discussion, public voting and decision by majority vote, and the elimination of animosity between member groups are among the basic principles enunciated. The labor unions are not to perform social services, but, according to the statement of principles, they should cooperate in the management of social insurance [2] under the supervision of public authorities.

Structure and Constitution of the Federation

The General Federation of Labor is to consist of plant (*enterprise*) and local sections, grouped by regions according to industry—mining, civil service, etc. The F. G. T. and its component regional or plant sections may create technical commissions to study common interests and demands of their various member crafts or trades. Distinction between Walloon and Flemish is forbidden.

The organs of the federation are the general congress and the directing bodies—the bureau and the national committee. Among duties designated for the general congress (representation in which is prorated according to number of dues-paying members) are the discussion and review of reports of the secretaries and certain decisions of the national committee, the election of members of the bureau, the fixing of dues (subject to certain changes by national unions), and the distribution of funds.

The bureau consists of 21 members, 6 of whom serve as the secretariat. As chosen by the Congress of Unity, the bureau included representatives of all 3 regions of Belgium (Wallonia, Flanders, and Brabant) and of all 4 of the groups participating in the fusion. Its functions are management of the funds of the federation, preparation of agenda, and convocation of the national committee and the congress.

The national committee is to approve (by a two-thirds vote) the affiliation of organizations, delimit union jurisdiction, and select the secretary general and assistant secretary general on the advice of the bureau, and it may impose special dues to support conflicts which involve trade-union principles.

Program of the F. G. T.

The program adopted for the F. G. T. sets forth the full-employment concept in great detail. It stresses the duty of the labor movement to obtain favorable working conditions including a minimum wage based on "needs of contemporary civilization"; limitation of working hours;

[2] See Monthly Labor Review, July 1945 (p. 67).

health and safety legislation and special protection for women and youth; organization of apprenticeship with the collaboration of the unions; comprehensive social security; grants sufficient to make professional education available to all, a school-age limit of 16, technical and cultural after-school education, and retraining schools to avoid effects of technological unemployment. With unity achieved at the top, efforts were being made to unify the local unions.

Labor Union Membership in Bulgaria, May 1945

AS OF May 1945, about 350,000 trade-union members were reported for Bulgaria, representing about a third of all workers and employees in that country.[1] In 1939, some 162,000 trade-union members were reported.[2] Labor organization received a great impetus after September 9, 1944, when the government of the Patriotic Front came into power. After that date new trade-unions began to spring up in various enterprises and establishments, and helped to form the foundation for the new Bulgarian General Federation of Labor. The secretary of the Federation stated that Bulgarian industry was still in private hands as before, except for enterprises whose owners had fled to Germany or which were confiscated by court action.

Worker and Employer Organizations in Ireland, 1938-44[3]

THE total number of worker and employer organizations registered under the trade-union acts in Ireland rose from 71 in 1938 to 94 in 1943 and 96 in 1944. Membership during that period, however, declined from 121,866 in 1938 to 112,200 in 1943; statistics of membership were not available for 1944. Of the 1943 totals, 51 organizations with 104,524 members were labor unions, representing approximately 54 percent of the groups registered and 93 percent of the membership. Nearly half of the labor-union membership in that year was in the transportation and communications industry, with the unions in the distributive trades and public administration having relatively large totals also. Forty-three employer organizations were registered, these groups having 7,676 members. The number of labor and employer organizations registered at the end of each year 1938–44, and their membership, are shown below.

	Number registered	*Membership*
1938	71	121, 866
1939	77	131, 157
1940	82	127, 570
1941	83	104, 273
1942	95	113, 331
1943	94	112, 200
1944	96	(1)

[1] Not available.

[1] Data are from Pravda (Moscow), May 20, 1945 (p. 4), which presented a summary of an interview with George Tsankov, general secretary of the Bulgarian Federation of Labor.
[2] See Monthly Labor Review, October 1943 (p. 681).
[3] Data are from Report of the Registrar of Friendly Societies for the year ended December 31, 1944, Dublin, 1945.

Policy of Italian General Confederation of Labor[1]

RESOLUTIONS of the executive committee of the Italian General Confederation of Labor (C. G. I. L.) at the meeting of April 11–12, 1945, indicate that the executive committee favored (1) the adoption of a sliding scale of wages based on the cost of living, (2) equal pay for equal work for men and women, (3) labor representation on advisory committees to be established to assist various ministries of the Government, (4) proportional representation for labor in the National Consultative Assembly, the deliberative body which the Government was to establish, and (5) the continuance of the existing social security agencies until a single organization can be created. Suggestions made by the C. G. I. L. regarding the work of its affiliates stressed the development of democratic procedures, the organization of agriculturalists, and the encouragement of a large membership by the collection of small rather than large dues.

Resolutions of Executive Committee

The C. G. I. L. requested the Government to adopt a sliding wage scale as early as December 1944. It has, however, also participated in negotiations for wage increases based on fascist labor contracts. The latter action appears to have been a temporary expedient designed to provide a livelihood for workers until more stable conditions would permit basic revision of collective agreements. The resolution of April 11–12 pointed out that improvements gained by negotiated wage increases would be "cancelled out by further increases in the cost of living," which must lead to continued agitation for wage increases. Consequently it was decided to establish a committee to make concrete proposals for the adoption of a sliding wage scale tied to the cost of living. The committee was also to request the reduction of prices, suppression of speculation, better distribution of rationed foods, and greater powers for the Food Commissioner.

Women took part in the Naples convention of the C. G. I. L. (January 28 to February 1, 1945). Their continuing activity in organized labor was partially arranged for by providing that each confederal chamber of labor of the C. G. I. L. should appoint an advisory committee for women. At the April meeting of the executive committee, a resolution not only endorsed the principle of equal pay for women for equal work, but also favored "head of the family" bonuses for women who supported dependents.

The resolution of the executive committee advocating labor representation on consultative committees would require that workers take part in all administrative and technical organizations of the State which might be consulted by the Government before issuing regulations concerning labor. Such a procedure of consultation was used by the Ministries in prefascist times.

In a resolution on labor participation in the National Consultative Assembly, the executive committee of the C. G. I. L. asserted labor's right to proportional representation in the Assembly. It based the

[1] Data from Il Lavoro (Rome), April 12 and 13, 1945, L'Unità (Rome), April 13, 1945, and La Voce (Naples), April 13, 1945; and report of John Clarke Adams, labor attaché, United States Embassy, Rome, May 18, 1945, enclosing pamphlet, A tutte le camere confederali del lavoro dell'Italia liberata, alle federazioni nazionali, Confederazione Generale Italiana del Lavoro, Segreteria Generale (Rome).

right to such representation on the numerical superiority of labor over management and on labor's importance in national reconstruction. The National Consultative Assembly, as provided for by a decree of late March, was to be an advisory or consultative body, created to assist the Government and prepare the way for a National Assembly. The Consultative Assembly was to consist of a number of commissions (one to consider labor matters) and all were to be appointed by the Government on the advice of the major political parties, the trade-unions, and other organizations.

Of other resolutions of the executive committee, one favored labor representation in the social-insurance agencies and the eventual establishment of a single agency in that field; another advised that the secretariat of the C. G. I. L. interest itself in emigrant groups; and another created a commission to discuss the constitution of a regional labor organization for Sicily.

Suggestions for Affiliates

In a pamphlet of advice issued for regional, provincial, and local units,[2] the secretariat general of the C. G. I. L. urged members to assume the responsibilities of free unions and express their opinions by means of public meetings and delegations to the management or local authorities. Unions were advised to settle their problems locally and democratically rather than by appeal to bureaucracy. Elections should be conducted by secret ballot. Unions should adopt proportional representation, and give a fair share of representation to women, technicians, and clerical workers. The line was carefully drawn between the functions of factory committees (which should represent all the workers in the factory) and of the labor unions. Modification of general labor conditions was defined as the special field of the unions and in it "the factory committees should work through the unions."

Unity among workers was to be encouraged by avoiding clashes between workers of differing religious and political faiths, and by seeing that the three secretaries customarily chosen by labor chambers were placed in charge of a specific function, such as social-security assistance throughout all the unions, rather than in charge of a group of commercial or other unions.

Two types of organization were suggested for the rural working population: (1) Peasant leagues, to include sharecroppers, small renters, and small independent proprietors who did not employ more than one man, and (2) laborers' unions to include all wage earners and technicians who were not shareholders in the agricultural enterprise.

Membership in the C. G. I. L. unions was to be encouraged by bringing in autonomous unions and by keeping union dues low. Dues for women, youths, and unemployed should be within their means.

[2] For details of organization, see Monthly Labor Review, May 1945 (p. 1011).

Labor Laws and Decisions

State Legislation on Compensation for Second Injuries [1]

WAR manpower needs have served to prove the skill and productivity of physically handicapped workers. Industry's favorable experience with such workers during the war should make it much easier for returning disabled war veterans to obtain jobs in the reconversion and post-war periods.

In the past many employers hesitated to employ physically disabled persons, lest they incur subsequent injuries and thus increase workmen's compensation cost. Even before the war, however, many States had reduced this problem by establishing second-injury funds, relieving employers of at least part of the cost of total disability resulting from a second injury.

State workmen's compensation commissioners, employer and employee groups, and veterans' organizations have agreed that second-injury funds offer the best means of facilitating the employment of disabled veterans and other handicapped persons. The most practicable and workable type of law provides that if previous loss of a member of the body (such as an arm or leg) is followed by the loss of another member, the employee is entitled to compensation for permanent total disability. The employer, however, is liable only for the second injury, the remainder of the compensation being paid by the second-injury fund.

Considerable progress has been made, since the beginning of 1945, in the establishment of second-injury funds, and second-injury funds are provided for in 32 States.[2] The District of Columbia and Hawaii also have second-injury funds, and similar protection is provided by the United States Longshoremen and Harbor Workers' Act.

As of January 1, 1945, second-injury funds had been established by law in the following 16 States: Arkansas, Idaho, Illinois, Maine, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Oklahoma, Rhode Island, South Carolina, Utah, and Wisconsin. In 4 other States (North Dakota, Ohio, Washington, and West Virginia) there were "equivalent arrangements" for the payment of benefits in the case of second injuries.

During the 1945 sessions of the legislatures, the following 13 States enacted laws establishing second-injury funds: Arizona, California, Colorado, Connecticut, Delaware, Iowa, Kansas, Maryland, Oregon, Pennsylvania, Washington, and Wyoming. It will be noted that one of these States (Washington), which previously provided for second injuries by an "equivalent arrangement," has joined the group having a definite second-injury fund.

[1] Prepared in the Division of Labor Standards of the Department of Labor by Alfred Acee.

[2] At the time this article was written, second-injury legislation was pending in 2 States—Alabama, and Ohio.

The meeting of the International Association of Industrial Accident Boards and Commissions, in September 1944, recommended a draft bill relating to second injuries and the establishment of a second-injury fund. The draft bill provides that if an employee who has sustained one of certain specified losses—i. e., the loss (or loss of use) of one hand, one arm, one foot, one leg, or one eye—becomes permanently and totally incapacitated through the loss or loss of use of another member or organ, the employer shall be liable only for the compensation payable for the second injury, and the balance of the compensation shall be paid out of the second-injury fund. The fund is financed by payments of $500 by the employer in each case of death if there are no dependents.

Provisions of 1945 Legislation

NEW LEGISLATION

In certain States the second-injury fund assumes the burden of compensation for the second injury if the previous disability resulted from a specific loss, as provided in the I. A. I. A. B. C. draft bill. These States are Arizona, Colorado, Iowa, Kansas, Maryland, Oregon, Tennessee, and Wyoming. In Colorado, the benefits payable from the fund are limited to one-half of the average wage loss in case the employee obtains employment while receiving benefits. In Iowa and Kansas, the amount of benefits paid for the previously lost member or organ is deducted from the amount of compensation due for permanent total disability. In Oregon the law applies only to the actual "loss" of a member, and does not cover "loss of use." The Wyoming law applies only to extrahazardous employments, and payments previously made for a permanent partial disability, or payments which would have been made if the prior injury had occurred in an extrahazardous employment, are deducted from the award.

Financial and other provisions.—The injury-coverage provisions of these laws are somewhat similar to the draft bill, but there are differences in the methods of financing the second-injury funds. Thus, in Arizona the payments for second injuries are made out of a special fund which was previously used for rehabilitation awards and additional awards in special cases. To take care of second injuries, the amount payable in death cases where there are no dependents was increased from $850 to $1,150.

The California law provides that if an employee is permanently partially disabled by the loss of, or loss of use of, a hand, arm, foot, leg, or eye, and subsequently incurs an injury resulting in such additional permanent partial disability that the combined effect of the last injury and the previous disability is a permanent disability equal to 70 percent or more of total, he shall be compensated for permanent total disability. In such case the employer is liable only for second injury and the remainder is paid by the State treasurer. The law appropriates $200,000 for the payment of these additional benefits.

The Colorado fund is financed by payments of $500 in death cases where there are no dependents, as is proposed by the draft bill. The same method of financing is used in Wyoming, but in that State there is also provision for a State appropriation, the receipt of any sums that may be contributed, and amounts recovered from a third party

causing injury of the employee. In Kansas the employer is required to pay $500 in each case of death where there are no dependents, bu in addition $25,000 is appropriated to finance the fund, which is limited to a total of $50,000.

In Connecticut the law provides that if an employee has previously incurred, by accidental injury, disease, or congenital cause, permanent partial incapacity by means of the total loss of one hand, one arm, one foot, one leg, or one eye, and sustains an injury resulting in permanent total disability by means of the loss, or loss of use of another member or eye, he shall receive compensation for total disability. The employer is liable only for the second injury and the remainder of the compensation for total disability is paid by the second-injury fund. Such payments are also required in the case of the reduction of sight in one eye to one-tenth of the normal vision with glasses, followed by a similar loss of sight in the other eye. The second-injury fund is financed by payment of 1 percent of compensation paid by insurance carriers and self-insured employers during the preceding calendar year. Payments to the fund are suspended when it amounts to $50,000 and resumed when the fund is reduced below $50,000.

The Delaware law provides that if an employee has sustained a permanent injury from any cause and sustains a subsequent permanent injury resulting in total disability, he shall receive compensation for total disability for a period of 500 weeks. The employer is liable only for the second injury, and the remainder of the compensation for tota disability is paid by the second-injury fund. This fund is finance by a tax of one-half of 1 percent on premiums received by insuranc carriers and an equivalent charge on self-insurers. Payments to the fund are suspended when it amounts to $30,000, and are resumed when the fund is reduced below $20,000. If the employer or insurer makes payments to the employee for total disability, the second-injury fund is required to reimburse the employer or insurer semiannually.

In Iowa, finances are obtained through (1) payment of $100 by the employer or insurance carrier in death cases, (2) any sums contributed by the United States, (3) payments due but not paid to nonresident alien dependents, and (4) any sums recovered from a third party causing the injury. The fund is limited to $50,000. In Maryland the fund is financed by employer (or carrier) payments of $100 for each death resulting from injury and of $10 in each case of injury causing permanent partial disability, and by any Federal funds received. Contributions are suspended when the fund amounts to $100,000 and resumed when it is reduced to $50,000.

In Oregon the law provides for financing entirely by the Industrial Accident Fund—through the transfer of $250,000 in a lump sum and thereafter the transfer each month of 2½ percent of total receipts, up to a total limit of $200,000. The Industrial Accident Commission is authorized to pay other compensation benefits from the second-injury fund if the Accident Fund becomes exhausted. The Tennessee law provides for employer or insurance-carrier payments of $100 in each case of injury causing death, and $10 in each case of permanent partial disability.

Under the Pennsylvania law, which becomes effective September 1, 1945, if an employee who has incurred permanent partial disability through the loss or loss of use of one hand, one arm, one foot, one leg, or one eye, incurs total disability through a subsequent injury causing

loss or loss of use of another hand, arm, foot, leg, or eye, the employer is liable only for the second injury, and the remainder due is paid by the Commonwealth. The law appropriates $100,000 for the payment of these additional benefits.

The Washington law does not follow the draft bill, but instead provides that if a workman previously disabled from an injury or disease suffers a further injury or disease, and becomes totally and permanently disabled from their combined effects, the accident-cost rate of the employer at the time of the second injury shall be charged only with the accident cost which would have resulted solely from the second injury. The difference between the charge assessed to the employer and the total cost of the pension reserve is assessed against the second-injury fund. The newly established second-injury fund is financed by transfer of funds, not to exceed $500,000, from the Accident Fund to the second-injury fund. As already noted, previous to the enactment of this law payments for second injuries were taken care of by an "equivalent arrangement."

AMENDATORY LEGISLATION

In five States (Minnesota, New Jersey, New York, North Carolina, and Oklahoma) amendments to existing laws relating to second-injury funds were enacted in 1945 sessions. The Minnesota law provides that after maximum death benefits are paid to a widow with a dependent child under 18, she is entitled to receive from the second-injury fund additional compensation up to $2,500, payable at a maximum rate of $15 per week, and a minimum of $8. In New Jersey, the maximum amount in the second-injury fund was increased from $200,000 to $1,500,000.

The New York law changes the method of financing the special liability fund, by assessing insurance carriers on a basis proportionate to their share in the total compensation payments made by all carriers, instead of requiring payments only in death cases where there are no dependents. The amendment applies to employees who have suffered a total or partial loss or loss of use of one hand, one arm, one foot, one leg, or one eye, or have other permanent physical impairment not resulting from a dust disease. In such cases, if the worker incurs a subsequent disability, resulting in a permanent disability substantially greater than that which would have resulted from the subsequent injury alone, the employer or insurance carrier is required to pay all awards and medical expenses but is reimbursed from the special disability fund for such benefits subsequent to those payable for the first 104 weeks. "Permanent physical impairment" is defined to mean any permanent condition resulting from a previous accident or disease or any congenital condition which is likely to be a hindrance to employment.

The amendatory legislation adopted in North Carolina provides additional money for the second-injury fund by requiring payment of $25 in each case of loss or loss of use of a minor member, and $100 in each case of 50 percent or more loss, or loss of use, of a major member (defined as foot, leg, hand, arm, eye, or hearing). The law specifies that additional compensation for the second injury shall be paid only if the original and the increased disability each accounts for the loss of at least 20 percent of the entire member.

In Oklahoma, changes were made in connection with an injury to a "physically impaired" employee, under the provision of the workmen's compensation law establishing a special indemnity fund. If a second injury and previous injury together constitute a permanent total disability, the employee is entitled to full compensation; if they constitute only a permanent partial disability, the percentage of disability attributable to the employee's condition as a "physically impaired" employee is deducted from the award. The law appropriates $15,000 to supplement the second-injury fund.

Although Indiana did not establish a second-injury fund, the provisions of its law relating to compensation in the case of second injuries were liberalized. Under the amendment, handicapped workers are no longer permitted to waive their rights to compensation. The amendment provides that if the employee has sustained a permanent injury either in another employment (as under the former law) or "from other cause or causes than the employment in which he received a subsequent permanent injury by accident," he is entitled to compensation for the subsequent permanent injury in the same amount as if the previous injury had not occurred. If the second injury results only in aggravation of a previously sustained injury, however, the employee is entitled only to compensation for the aggravation or increase. The amendatory legislation also provides that amputation of any part of the body or loss of any or all of the vision of one or both eyes shall be considered as a permanent injury or physical condition.

Recent Decisions of Interest to Labor[1]

Important Supreme Court Decisions on Labor Questions

EMPLOYER-UNION combination in restraint of trade.—When labor unions, in order to further their own interests, aid and abet businessmen in procuring a monopoly, such unions become "copartners" in restraint of trade and are, together with the employers, subject to the Sherman Act.[2] The United States Supreme Court, in giving a brief résumé of the Sherman, Clayton, and Norris-LaGuardia Acts, said: "We think Congress never intended that unions could, consistently with the Sherman Act, aid nonlabor groups to create business monopolies and to control the marketing of goods and services." An employer and the union may lawfully agree that the employer will not buy goods manufactured by companies which did not employ the members of the union. In this case, however, there was a larger program in which contractors, manufacturers, and union banded together to monopolize the entire New York City area for the benefit of the New York employees. Efforts of the union on its own behalf to make the area a closed-shop area would not have been objectionable, continued the Court; "it would have been the natural consequence of labor-union activities exempted under the Clayton Act from coverage under the Sherman Act." Since, however, the primary objective

[1] Prepared in the Office of the Solicitor, Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law nor to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

[2] *Allen Bradley Co.* v. *Local Union No. 3, International Brotherhood of Electrical Workers*, — —, U. S. — — June 18, 1945.

of all antitrust legislation has been to preserve competition, a business monopoly is no less such because a union participates. Such participation, the Court said, violates the act and subjects the union and the employer to the penalties provided for by the act.

Mr. Justice Roberts concurred in the results but disagreed on the scope of the injunction as approved by the Court.

New York antidiscrimination law not in conflict with Federal employment statutes.—The United States Supreme Court affirmed the decision of the New York Supreme Court holding that the State antidiscrimination law does not apply to the bylaws of the Railway Mail Association (an affiliate of the American Federation of Labor),[3] which limit membership to eligible postal clerks who are of the Caucasian race or native American Indians. The Court found as follows: (1) The statute placing a prohibition on discrimination because of race, creed, or color does not violate the fourteenth amendment to the Constitution, as the State has the right to protect minority groups and organizations functioning under its sanction; (2) a State does not deny equal protection because it regulates the membership of all organizations but fails to extend to organizations of Government employees provisions relating to collective bargaining, as under ordinary circumstances Government employees do not bargain collectively with their employer; (3) such a State statute does not interfere with congressional authority over postal matters, as there is no interference with postal regulations or post roads and the immunity of the Government from regulation by the State does not extend beyond the Government itself and its governmental functions. The State always regulates its own internal affairs and a State law such as this tends, if anything, to parallel the rights of minorities under the Federal Constitution.

Union's refusal of workers, forcing company out of business, not violation of Sherman Act.—A union, admittedly to punish the owner of a trucking company because of a former labor dispute in which one union member was killed, refused to permit its members to work for the company and refused to admit to membership in the union anyone who did. The union also entered into closed-shop agreements with large companies, including The Great Atlantic & Pacific Tea Co., whereby all trucking and hauling companies had to employ union men. As a result, the petitioner trucking company was put out of business. The United States Supreme Court, in a 5-to-4 decision,[4] held that the union's activities were not in violation of the Sherman Act, since a labor union has a right to sell its services where and when it pleases. The dissenting opinion by Mr. Justice Roberts, in which he was joined by Mr. Chief Justice Stone, Mr. Justice Frankfurter, and Mr. Justice Jackson, took the position that the dispute involved was not one concerning hours, wages, or other labor conditions, but arose out of the effort to drive petitioners out of business by frustrating every attempt of the petitioners to obtain contracts with shippers, thus reducing competition in interstate commerce. The minority viewed this case as similar to the *Allen Bradley* case reported simultaneously,[5] in which it was held that a union's combination with businessmen to accomplish a business objective was not protected by the Clayton or Norris-LaGuardia Acts.

[3] *Railway Mail Assn.* v. *Corsi*, —— U. S. ——, June 18, 1945.
[4] *Hunt* v. *Crumbach*, —— U. S. ——, June 18, 1945.
[5] See p. 288, this issue.

Decisions Relating to Fair Labor Standards Act

Building employees under Fair Labor Standards Act.—Two closely related cases have been decided by the United States Supreme Court to determine what office-building maintenance employees are subject to the Fair Labor Standards Act. In the first case, *10 East 40th St. Bldg.* v. *Callus*,[6] the building was rented to tenants pursuing a variety of businesses and included executive and sales offices of manufacturing companies, engineering and construction firms, advertising and publicity agencies, and others. The court decided that, since the building was devoted exclusively to miscellaneous office activities and no manufacturing was carried on, the act did not apply.

The second case, *Borden* v. *Borella*,[7] affirmed a lower court decision [8] holding that even though the office building was devoted almost entirely to housing the executive and administrative offices of a dairy-products company, this was a circumstance of administration and did not exclude application of the act. Since the executives were essential to the proper conduct of an interstate business, housing them in one building did not change their status, therefore the maintenance employees were entitled to the benefits of the act.

Travel time of miners in open-pit mine.—The same principle as that laid down in the *Tennessee Coal* [9] and *Jewell Ridge Coal Corp.*[10] cases was adopted in the case of *Poe* v. *Phelps Dodge Corp.* (D. Ariz., December 5, 1944.) Time spent by miners in an open-pit mine in checking in and out, obtaining instructions, etc., is working time, regardless of any industry practice previously in existence.

Manufacturing of cheese held "first processing" of milk.—In apparently the first consideration of the question, the Supreme Court of Arkansas in *Sugar Creek Creamery Co.* v. *Walker* (187 S. W. (2d) 178), ruled that "flash" pasteurization was merely a step in the manufacturing of cheddar cheese and bulk butter and that the entire operation from milk to cheddar cheese and cream to butter was the "first processing" of milk or cream to a dairy product. Under this interpretation of section 7 (c) of the Fair Labor Standards Act, the employees do not come within the act.

Interpretation regarding piece rates and incentive earnings.—In computing the regular rate for purposes of determining amounts due for overtime, under the Fair Labor Standards Act, all forms of compensation from whatever source, received by the employee in the workweek, must be included.[11]

The regular rate is not an arbitrary rate but an actual rate which may be based on a mathematical computation. When the employees actually earn more than their apparent basic hourly rates, the basic rates lose their significance in determining the actual rate of compensation.

The United States Supreme Court ruled that it made no difference, for the purpose of computing overtime, whether the wages received for work during the workweek are wholly or in part piecework prices,

[6] 65 Sup. Ct. 1227, June 11, 1945.
[7] 65 Sup. Ct. 1223, June 11, 1945.
[8] Discussed in Monthly Labor Review for September 1944 (p. 582).
[9] Discussed in Monthly Labor Review for May 1944 (p. 1021).
[10] Discussed in Monthly Labor Review for July 1945 (p. 99).
[11] *Walling* v. *Youngerman-Reynolds Hardwood Co.*, 65 Sup. Ct. 1243, June 4, 1945; *Walling* v. *Harnischfeger Corp.*, 65 Sup. Ct. 1246, June 4, 1945; lower court decision discussed in Monthly Labor Review for March 1945 (p. 594).

since the regular rate must reflect all payments which the parties agreed should be received for such work. The Court distinguished these two cases from that of *Walling* v. *Belo* (316 U. S. 624), saying that the agreed rate in the *Belo* case was in fact the actual regular rate at which the workers were employed. The Court emphasized that freedom of contract did not include the right to compute the regular rate in an artificial manner so as to negate the purposes of section 7 (a) of the Fair Labor Standards Act.

Employees of plant cafeteria under Fair Labor Standards Act.—Since such employees prepare, distribute, and serve the food to workers in a plant engaged in interstate commerce,[12] their services are as much a part of the integrated operation necessary to production as are those of maintenance employees in such buildings. (*Kirschbaum Co.* v. *Walling, 316 U. S. 517.*) The court, in reaching this conclusion, relied on *Armour & Co.* v. *Wantock* (323 U. S. 126) [13] in which private firemen of the company were held to be within the act.

No closed shop for closed union.—In *Blackeney* v. *California Shipbuilding Corp.*,[14] the Superior Court of California ruled that whether or not a closed-shop union holds a monopoly of labor "in the locality," it must admit Negroes to membership or lose its closed-shop privileges. This was a reiteration of the policy set forth in *James* v. *Marinship* (155 P. (2d) 329).[15] The court does not require admission of Negroes to the union, but it does demand a halt to discrimination by requiring either full membership for Negroes or the waiver of closed-shop benefits.

"Production" includes distribution as well as manufacture.—The District Court for the Northern District of Illinois, in a 2-to-1 decision in *United States* v. *Montgomery Ward & Co.* (58 Fed. Supp. 408), had held that the Smith-Connally War Labor Disputes Act does not apply to the company's mail-order business so as to authorize a Presidential order of seizure. In reversing this decision, the Circuit Court of Appeals for the Seventh Circuit held[16] that the term "production," as used in the War Labor Disputes Act, must be given the same meaning as in the Fair Labor Standards Act and thus "distribution" as well as manufacturing and other directly related production activities are included in the term. The court held that the purpose and background of the act as a war measure required a liberal construction of its terms and that the use of this same term in analogous statutes indicates a congressional intent that they are to have the same meaning in the absence of specific evidence to the contrary.

The court found it was unnecessary to go into the question of the scope of the President's war powers under the Constitution, with reference to his right to use them to seize Montgomery Ward, since under the War Labor Disputes Act his power to take possession of its properties in connection with a labor dispute was clear.

Decisions on National Labor Relations Act

Employees in armed forces cannot be added to current force to determine majority status.—The National Labor Relations Board ruled that, even though persons in the armed forces retained their status as

[12] *Basik* v. *General Motors Corp.*, 19 N. W. (2d) 142, Sup. Ct. Mich., June 5, 1945.
[13] Discussed in Monthly Labor Review for February 1945 (p. 337).
[14] Superior Court of California, June 4, 1945.
[15] Discussed in Monthly Labor Review, February 1945 (p. 337).
[16] *United States* v. *Montgomery Ward & Co.*, —— Fed. (2d) —— (C. C. A. 7), June 8, 1945.

employees, they were not directly concerned in the choice of a bargaining agent, and that to add such employees to the working groups would destroy the union's majority status and "deny to employees presently working the right of collective bargaining."[17] The Board pointed out that this ruling was not to be construed as a reversal of the principle that employees on military duty retained their status as employees. It meant only that a union's majority status might be determined without reference to employees on military leave.

Pickets restrained from carrying untruthful signs.—A defeated rival union in an election has a right to picket peacefully in an attempt to win to itself new members,[18] but this right of free speech does not include the right to falsify the facts by carrying signs which imply that the employer maintains a "company union." Such activity may be enjoined.

Irreparable injury no basis for injunction when election properly conducted.—In *Inland Empire District Council* v. *Willis*,[19] the union contended that because the National Labor Relations Board had failed to afford it an appropriate hearing prior to the election in a representation proceeding, the union had been denied due process of law. The United States Supreme Court held this contention untenable, in that section 9 (c) of the National Labor Relations Act requires only that the requisite hearing be held before the final order becomes effective. The court pointed out that if the union's interests were harmfully affected by the outcome of the election this was merely the inevitable result of losing the election. The conclusive act in a representation proceeding is the certification of the selected representative, and hearings may be held at any time before this certification.

Illegal strike a good defense against reinstatement.—The Seventh Circuit Court of Appeals in a unanimous decision [20] ruled that employees who go out on strike to compel a wage increase in violation of the Wage Stabilization Act are not entitled to reinstatement under the National Labor Relations Act. The court, denying enforcement of the Board's reinstatement order, held that as the strike was not caused by a "labor dispute" (the strike being illegal), the strikers could not retain their status as employees. However, the Board's order was enforced to the extent of preventing the employer from continuing unfair labor practices.

The technique of picketing used by the workers, termed "circular picketing," whereby the plant entrances were blocked and workers could not enter the plant, was likened to the sit-down strikes held illegal in the case of *National Labor Relations Board* v. *Fansteel Corp.* (306 U. S. 240).

Labor unions may not deny individuals the right to work.—Florida amended its Declaration of Rights by adding the following: "The right of persons to work shall not be denied or abridged on account of membership in any labor union or labor organization; provided, that this clause shall not be construed to deny or abridge the right of employees by and through a labor organization or labor union to bargain collectively with their employer." This amendment has

[17] *Supersweet Feed Co., Inc.*, 62 N. L. R. B. 9, Case No. 18–C–1069–1070, June 4, 1945.
[18] *Sachs Quality Furniture, Inc.* v. *Hensley*, Sup. Ct. N. Y., App. Div., June 1, 1945.
[19] —— U. S. ——, June 11, 1945.
[20] *National Labor Relations Board* v. *Indiana Desk Co.*, —— Fed. (2d)——(C. C. A. 7), June 15, 1945.

been declared constitutional by the district court of Florida [21] by a special three-judge court. This court maintained that the statute did not abridge the freedom of contract nor interfere with free speech, but in fact permits a person to decide for himself whether or not he will join a union in order to work. The court held that the Florida action is a valid exercise of the police power. It further pointed out that the wisdom or lack of wisdom in thus giving a "free ride" to nonunion members was for the legislature and the people to determine, not the courts.

Labor Law of Colombia, 1945 [22]

COLOMBIA'S law No. 6 of 1945, dealing with labor disputes, employment contracts, professional and labor associations, and special labor jurisdiction, became effective on March 14, 1945. The law provides for benefits for work accidents, occupational and non-occupational sickness, and burial, for severance pay, and for paid vacations.

Employment Contracts

Individual contracts.—A contract is held to exist "between a party rendering a remunerated personal service under continued subordination to another, and the party receiving such service." Minors "between the age of 18 and 21" may enter into such contracts without authorization of their legal representative, but minors who are over 14 and under 18 must obtain permission from the judge or from the sectional labor magistrate of the region in which they expect to work. All contracts may be revised "whenever the economy of the country undergoes an unexpected and serious change," but a change of employers does not invalidate a labor contract.

The maximum term of an employment contract is 5 years. When termination has not been specified, or is not automatically determined by completion of the work involved, the contract will be in force for 6 months, unless ended by mutual consent upon notice by one or the other of the parties; in such case it remains in effect not longer than 1 pay period following such notice. Final termination of the agreement is dependent upon the cancellation of all debts, benefits, and indemnities due.

Collective agreements.—When an agreement is entered into by one or more unions with one or several management associations, for the rendition of services or execution of a job, a copy must be filed with the appropriate Ministry. The duration, revision, and termination of such an agreement are to be governed by the general rules outlined above. When collective agreements cover more than two-thirds of the workers in an industrial field in a specific economic region, the Government is empowered to extend the contract wholly or in part to other companies of the same industry in the region, which may be of the same or of similar technical and economic capacity.

[21] *American Federation of Labor* v. *Watson* (S. D. Fla.), June 11, 1945.
[22] Data are from Dispatch No. 394 of the United States Embassy, Bogotá, Colombia, March 22, 1945.

Apprenticeship contracts.—Unless it is otherwise stipulated, an apprenticeship contract may be terminated by the worker upon 7 days' notice or by the employer upon payment of 7 days' wages. However, the term of apprenticeship is not to exceed 6 months unless the appropriate Government authority expressly permits an extension of this period because of the technical nature of the work.

Hours of Work and Weekly Rest

Hours of work in general are not to exceed 8 per day or 48 per week. However, certain classes, such as employees in managerial or confidential positions, domestic servants, etc., are not covered by this measure, and in agriculture, cattle raising, or forestry, a maximum 9-hour day or 54-hour week is permitted. In intermittent work, hours may not exceed 12 per day, unless the worker resides at the place of employment. A differential of 25 percent above the day rate is provided for continuous work between the hours of 8 p. m. and midnight, and a differential of 50 percent for such work between midnight and 4 a. m. Time and a quarter is to be paid to day workers for overtime, and time and a half to night workers.

An obligatory weekly rest day is provided, for which the worker will be paid if he has not been absent on any day in the week (or if absent not over 2 days, provided the absence is for good reason or caused by fault of the employer). Holidays are not to affect the workweek, and the worker is to be paid for them as though he had worked upon those days.

Wage Provisions

The law forbids the payment of wages in merchandise, in tokens, or by other similar means, but partial remuneration in kind (paid in food and living quarters) to wage earners living near the enterprise is permitted. Company stores selling merchandise or groceries are forbidden, unless the wage earner is free to make his purchases elsewhere if he chooses, and unless the employer makes known the conditions under which the goods are sold.

The Government is authorized to set minimum wages for any economic region or for any professional, industrial, commercial, cattle-raising or agricultural work of a specific region, in accordance with the cost of living, methods of work, relative aptitude of the workers, systems of remuneration, and economic capacity of the enterprises, as disclosed by findings of commissions composed of management and labor.

Workers' and Employees' Associations

The right of association into company, industrial, or craft unions, is recognized (except for public employees). "Company unions are the base of union organization. They are to be preferred as the representatives of their affiliates in all labor problems." Only one union will be recognized per enterprise. In an establishment in which there is more than one union, the largest must accept into membership the members of the other union or unions, on terms not more onerous than those imposed on its own previous members.

A company union, while it has legal representation, may require the management to adopt the check-off system and turn over to the union the dues of the union members.

Every union must give the appropriate Ministry, twice a year, a detailed statement of its income and expenditures.

Labor Disputes and Labor Courts

Labor disputes in public services, which are not settled either directly or by conciliation, are to be submitted for decision to a special tribunal composed of 3 members—1 designated by the workers, 1 by management, and the third by the appropriate ministry. When a strike or shut-down in a company that is not of a public-service character lasts more than 8 days, the Government will create a tribunal of 3 members representing labor, management, and the appropriate agency. This tribunal will investigate and propose a solution; if no agreement is reached, "the same procedure will be repeated every 8 days."

Jurisdiction over contract fulfillment, interpretation or execution of labor contracts, collective agreements, or labor legislation, and over premiums, bonuses, and other benefits, is to be permanently exercised as follows: (a) By labor courts as courts of the first or only instance; (b) by the sectional labor tribunals, as appellate courts; and (c) finally by the Supreme Labor Court. The Supreme Labor Court is to be composed of 3 members elected by the House of Representatives—one from each of three lists submitted by the President of the Republic (one prepared by himself, one by management, and one by labor). Sectional tribunals are to have 3 members each, designated by the Supreme Labor Court—one from each of the lists provided by Government, labor, and management. The sectional tribunals will elect the labor judges of their respective jurisdictions.

Temporary Welfare Provisions for Private Industry

Pending the organization of a compulsory system of social insurance, private employers are required to furnish compensation for sickness and accidents, and to provide old-age pensions, dismissal pay, and vacations with pay.

Vacations and severance pay.—Salaried employees and wage earners of private employers are entitled to 15 continuous days of vacation, with pay, for each year of service rendered, starting from October 16, 1944. "The vacation period is to be determined by the employer within a year. It is forbidden to compensate vacations with money before the expiration of existing contracts, but the parties may agree to accumulate vacations up to 4 years."

Private employers are to grant 1 month's salary to the worker for each year of service, in the event of dismissal not caused by misconduct or failure to fulfill the contract. For every 3 years of service (whether continuous or not) the worker acquires the inalienable right of severance pay for that period, even though he retires voluntarily or is dismissed in the subsequent 3 years. Generally, these provisions and the vacation provisions do not apply in full to small industries of a family character, to domestic servants, to companies with capital

not exceeding 125,000 pesos,[2] to cattle-raising enterprises with capital of not more than 80,000 pesos, nor to agricultural and forestry enterprises having less than 125,000 pesos of capital or not more than 50 permanent workers.

Compensation for sickness, accident, and death.—Private employers are required to provide compensation for occupational illness and accidents up to the equivalent of 2 years' salary, plus medical, surgical, and hospital assistance, and two-thirds of the salary or wage while medical assistance is necessary, but not to exceed 6 months. Furthermore, employers, according to the nature and capitalization of their business, are to furnish medical assistance for nonoccupational illness up to 180 days and two-thirds of the salary during the first 90 days, one-half during the remaining period. Essential funeral costs up to the equivalent of the salary received for the last month prior to the illness, must also be paid.

Tables of compensation scales for the various kinds or degrees of injury sustained in industrial accidents and illnesses are to be formulated by the Government and submitted to the 1945 session of the Colombian Congress for approval. In the meantime, the previous scales apply.

Old-age and invalidity pensions.—Payment of old-age pensions is compulsory for every company whose capital exceeds 1,000,000 pesos. Such pensions become payable after 20 years of service, provided the worker is at least 50 years of age. Pensions are based upon the wage scale and range from 30 to 200 pesos per month.

Benefits for Public Employees

Permanent employees or workers of the National Government (and employees of Congress who have served during 20 legislative sessions) are entitled to (1) compensation for nonoccupational sickness contracted in performance of duties, up to 180 days of proved incapacitation for work; (2) medical, pharmaceutical, surgical, and hospital assistance not to exceed 6 months; and (3) in the event of death, an amount equal to the dismissal pay to which they would have been entitled, plus costs of burial.

Old-age pensions are payable to public employees under the same terms as private employees. A pensioned employee may perform public duties while receiving an old-age pension, provided the total of salary and pension does not exceed 200 pesos monthly.

Government workers are also entitled to an invalidity pension equal to the full amount of the last wage or salary earned, but not less than 50 nor more than 200 pesos per month.

The various political subdivisions of the country must, within 6 months following promulgation of the Labor Law, provide similar benefits for their workers.

A Social Security Bank for Government employees, to be organized before July 1, 1945, was provided for. It would receive contributions (a) from the Government, amounting to 3 percent of the "Government's ordinary income," (b) from the salaried employees, amounting to 3 percent of their salaries plus one-third of their first month's salary, and (c) from wage workers, amounting to 2 percent of their wages.

Existing social-benefit institutions for public employees may elect to become part of the bank.

[2] Average exchange rate of peso in March 1945=57.1 cents.

Other Provisions

All sums (not in excess of 5,000 pesos) received as severance pay, workmen's compensation, and death benefits under compulsory life insurance are exempt from taxation.

A company with capital of over a million pesos must establish and support primary schools for workers' children, provided there are at least 20 children of school age and the work place is situated more than 2 kilometers [3] from the nearest town having a public school. National or foreign companies in this capital class must also maintain permanent specialized technical schools related to their field of business, for workers and their children, at the rate of one school for every 500 workers or fraction thereof.

Infractions of any of the provisions of the present law, or any of the legal norms in connection therewith for which a penalty is not already provided, will be punishable with fines up to 1,000 pesos, imposed by the judges and labor tribunals. For successive violations fines up to the sum of 200 pesos each may be imposed, in addition to imprisonment up to 10 days.

[3] 1 kilometer=0.621 mile.

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Women in Industry

Postwar Employment Prospects for Practical Nurses

IT IS predicted by the Women's Bureau of the U. S. Department of Labor that there will be a vigorous postwar demand for trained practical nurses and trained licensed attendants who have met certain standards.[1] The increasing age of the population, the number of veterans who will require treatment, the trend toward hospitalization for mental, nervous, and chronic illnesses, and the present tendency of hospitals to discharge patients at an earlier point in their convalescence are expected to be among the factors contributing to a high level of employment among nurses and attendants. Also, these workers can perform a variety of routine duties, and thus release professionally trained nurses for work requiring more technical knowledge.

Wherever employed, practical nurses or attendants perform housekeeping and errand functions in addition to assisting with feeding, bathing, dressing, toileting, and certain treatments. In hospitals and other institutions they work under the supervision of a graduate nurse or a physician; in homes they work alone but frequently under the general direction of a physician. They may work in general or in mental hospitals, or in institutions for tuberculous, orthopedic, convalescent, chronic, or aged patients. Or they may be employed in a private home, doctor's office, public health agency, or an industrial establishment.

The wartime shortage of physicians and professional nurses has increased the demand for practical nurses in hospitals and other institutions, and in public health services, while the demand in private homes has "skyrocketed."

The present trend is toward more training for practical nurses. It has been suggested that such nurses should be trained at least a year and a half under hospital discipline.

Recently, practical nurses in several States have organized their own groups to improve standards, while organizations such as the National Nursing Council for War Service and the American Nurses' Association have worked to stimulate recruiting programs for approved schools and to promote State licensing of personnel. The Vocational Division of the United States Office of Education has called the attention of State directors of vocational education to the need for practical-nurse training and to the fact that Federal funds allotted to the States for trade and industrial education can be used for such programs.

During the war emergency both the Army and the Navy have trained enlisted men and women for service in hospitals, while the United States Civil Service Commission has recruited "nursing assistants" for work in veterans' hospitals. Civil Service positions as hospital attendants are now open only to veterans. Volunteer nurses' aides, most of whom the Bureau expects will stop such work after the war, are given much of the credit for saving the situation in civilian hospitals.

Women with special employment problems may find practical nursing a likely field for their services. Maturity and marriage are revealed to be more of an

[1] U. S. Women's Bureau. Bulletin 203, No. 5, The Outlook for Women in Occupations in the Medical Services—Practical Nurses and Hospital Attendants, Washington, 1945 (Other reports in the series deal with the outlook for women as occupational therapists, physical therapists, medical laboratory technicians, medical record librarians, and professional nurses); Press release, May 28, 1945.

asset than a handicap. Negro women, too, find job opportunities in this work. Negroes made up 14 percent of the practical nurses or midwives reported in the 1940 Census. Most of them were employed in institutions in the North and by white families in the South, but as the economic level of the Negro rises more will be employed in the homes of their own race.

In 1940 practical nurses and attendants were second only to professional nurses in terms of the numbers employed in the medical services. Slightly more than half were attendants in hospitals or other institutions, while the others, as practical nurses and midwives, cared for patients in their homes. Two-thirds of them were women.

Wages and Hours of Women in Retail Trade in New York, 1944

VARIOUS investigations have shown retail trade in New York to be a low-wage industry. It has been estimated that there are about 177,000 retail stores in the State, 54 percent of which were estimated as having 430,000 workers, including 275,000 women and minors (boys under 21 years of age), according to a summary of the report made by the State Industrial Commissioner to the Retail Trade Minimum Wage Board, in June 1945.

The trade is largely one of small establishments. Of those employing women and male minors, 81 percent have fewer than 10 workers. The number of stores visited in the pay-roll survey of 1943 and in the reinvestigation in 1944, and the number of employees for whom these data were obtained, are given in table 1.

TABLE 1.—*Retail Stores Visited and Employees Covered in New York Pay-Roll Surveys, 1943 and 1944*

Type of store	1944			1943	
	Stores	Women and male minor employees	Men	Stores	Women and male minor employees
All types	1,005	7,844	4,950	6,157	35,381
Food	198	820	496	1,536	4,377
Department	20	1,818	1,570	75	6,640
Variety	48	1,278	141	189	5,685
Apparel	359	2,343	992	1,703	10,863
All other	380	1,585	1,751	2,654	7,816

Wages and Hours of Women Workers

Earnings of the workers varied with the occupation, the type of store, and the wage policy of the employer. In 1943 and 1944 the range of hourly wages for men, women, and male minors was from less than 20 cents to more than $1. Although hourly earnings rose from April 1943 to March 1944, many women workers were still being paid very low wages in 1944 (table 2).

TABLE 2.—*Distribution of Women in Different Types of Retail Stores in New York, by Hourly Earnings, 1944*

Hourly earnings	All stores	Type of store			
		Food	Department	Variety	Apparel
Percent of women earning—					
Under 30 cents	1.5	0.9	0.4	5.9	0.4
Under 40 cents	19.5	12.1	17.5	55.7	7.2
Under 50 cents	42.3	42.4	45.8	82.3	24.3
Under 60 cents	68.3	73.4	76.5	91.9	54.7
Under 80 cents	90.1	95.0	92.0	98.4	86.0
80 cents and over	9.9	5.0	8.0	1.6	14.0
Median hourly earnings (in cents)	52.4	51.8	51.0	39.2	58.2

The majority of the women were employed 40 hours or more per week in 1943 and 1944. However, in 1944 some increase in part-time work was reported, also some reduction in the full-time workweek.

The percentage distribution of women working specified hours per week is given below:

	Percent of women
Under 24 hours	20.7
24 and under 40 hours	16.5
40 hours	11.5
Over 40 and under 44 hours	11.1
44 and under 48 hours	22.3
48 hours	16.6
Over 48 hours	1.3

According to the report under review, the earnings of most women employed in retail trade do not meet the cost of adequate maintenance and health protection in New York State. This was estimated for 1944, for the average woman living as a member of a family, at $1,643.53 or $31.61 a week. Four out of five women with a workweek of 40 hours or over earned less than this amount.

Many women earned less than the typical New York City relief budget fixed by relief agencies for that locality.

Education and Training

Wartime Developments in Workers' Education

Summary

WORKERS' education under trade-union auspices has in many cases not only gained momentum but broadened its objectives since the beginning of the war.

Union membership rose from 10½ millions in 1941 to an estimated peak of 13¾ millions in 1944,[1] bringing new problems of assimilation and education of many new workers, on the one hand, and of providing opportunities for improved training for union leadership, on the other.

Organized labor has endeavored to meet this challenge in various ways. Among these have been the creation of new educational and research departments or the expansion of activity of existing agencies, the holding of labor institutes and educational conferences in increasing numbers, special training courses for union officers and leaders, establishment of numerous new labor schools, and the holding o, classes in a widening variety of subjects.

The workers' education movement has adopted the most modern educational devices—films and other visual aids, radio broadcasts, project methods, pamphlets and leaflets with striking formats, posters, and comic strips—and has continued to utilize art, music, dramatics, and other cultural mediums.

The growing degree of university-labor collaboration, which is a significant feature of the workers' education movement, seems to be a recognition not only by the workers themselves, but by high-ranking educators, that the maintenance of democracy depends to a great extent upon proper industrial relations.

The present article gives some of the developments in the workers, education field, based upon data supplied to the Bureau of Labor Statistfcs by workers' education authorities and the unions themselves and as revealed by examination of the proceedings of conventions, current official organs, and other literature. The survey was far from exhaustive. Nevertheless, the facts here presented do give some indication of the present scope and force of a dynamic movement.

American Federation of Labor

WORKERS EDUCATION BUREAU

The Workers Education Bureau of America, with headquarters in New York City, is officially recognized as the educational agency of the American Federation of Labor. It has pioneered in the field of labor education since 1921. Some of the unions of the A. F. of L. are

[1] The Bureau of Labor Statistics issues no official figures on union membership. According to the various union reports and other literature, the Bureau estimates that in 1944 approximately 13¾ million workers belonged to international and national labor unions.

affiliated with the Bureau and support its activities by financial contributions; in addition, the Federation grants it an annual subsidy. In its annual report submitted to the A. F. of L. convention in 1944, the Bureau pointed out that it was now entirely dependent on the trade-union movement for support, since grants from educational foundations had ceased; it stressed the importance of widening its base of support so that its educational services might be extended to all the unions actively affiliated with the A. F. of L.

The activities of the Bureau tend to fall into two groups—those directed toward public education, and those primarily for the benefit of officials and others in the labor movement.

In the broad field of adult education, it was pointed out at the 1944 convention of the American Federation of Labor, labor's program should be related to the whole field of adult education. The 1943 convention had approved a resolution that the Federation use its influence toward the establishment of trade-union courses in high schools and in extension work; the 1944 convention directed the Federation's permanent committee on education and the Workers Education Bureau to cooperate in carrying out a "proposed expansion of adult education." At the same meeting it was emphasized that labor's educational work should relate to this larger movement and should also take into consideration "the form and function of the resident labor college or labor institute in the future; their relation to international centers of training, their relation to rural educational centers, and above all their relation to a continuous program of 'public information' in a rapidly changing social order."

In its activities directed toward the labor movement itself, the Workers Education Bureau has continued during the war to promote labor institutes in various parts of the country. These have usually been sponsored by State federations of labor, in conjunction with State universities or other educational institutions. The Bureau's success in this field was commended by the 1944 A. F. of L. convention.

In some cases the institutes have been held over a period of years. Thus among those held in 1944, Kansas had its second, Colorado its third, Indiana and Massachusetts their fifth, and New Jersey its fourteenth such meeting. Montana held its first labor institute in that year. Postwar labor problems were the main theme of these meetings, at which attendance ranged from 150 to 250 persons.

In 1945, institutes were held in San Diego, Calif., Minnesota (the third such meeting), Colorado (the fourth), and New Jersey (the fifteenth). The San Diego meeting, sponsored by both A. F. of L. and C. I. O. unions and an educational organization, considered as its subjects the labor movement, past, present, and future; its opportunities and responsibilities; operation of collective bargaining; and postwar problems. The Minnesota institute, sponsored by the State University and labor organizations, dealt mainly with union problems incidental to the readjustment of veterans and war workers. Winning the war and building the peace was the theme of the New Jersey institute, sponsored by Rutgers University and the State federation of labor.

The Workers Education Bureau in 1944 also took part in various other conferences: Conference of the Massachusetts Division of Education, University Extension Service; University of North Carolina

Institute of Wartime Economy; University of New Hampshire Institute on Postwar Vocational and Adult Education; and Labor's League for Human Rights (in connection with the United Nations Relief and Rehabilitation Administration and the American Labor Conference on International Affairs).

Among the continuing activities of the W. E. B. is that of answering the calls of city-central bodies and local unions for assistance with their educational plans and for counsel in regard to forums, study courses, public-relations programs, and related matters. At the 1944 A. F. of L. convention the Bureau announced its plans for a program "to assist State federations and city-central-body officials, together with local business agents and international representatives, in preparing for hearings before the numerous Government agencies—both State and Federal—and to cooperate with them in meeting the avalanche of new obligations and responsibilities which have recently descended upon them." One of the continuing and immediate problems, as regards rank and file unionists, was declared to be that of impressing union members with the importance of attendance at and participation in union meetings and programs.

In a move toward closer cooperation between public libraries and labor groups, the Bureau met representatives of the American Library Association in 1944. Special exhibits of books of interest to labor were given by the New Jersey Public Library Commission at the Rutgers Labor Institute in 1944. Later the Chicago and Los Angeles public libraries prepared similar exhibits during the week of Labor Day. The Boston Public Library is issuing a bimonthly bulletin—the Union Librarian.

The Bureau itself issues a monthly news letter, among the features of which are a list of pamphlets and books of labor interest. Its own publications include suggestions for a labor library, a manual for shop stewards, and instructions on the carrying on of union meetings. It announced, at the 1944 A. F. of L. convention, plans for electrical transcriptions, available to labor groups, for education and radio work. It also has equipment for projecting sound film strips, used in visual education.

In the international field the Bureau entered into an arrangement with the Workers' Educational Association of Great Britain, at the time of the visit of the latter's representatives to the United States in 1943, for a program of exchange lectures. The A. F. of L. executive council stated in 1944 that "this practical program in international relations is reported to have done much to promote good will and friendship between England and the United States."

With a view to initiating in a smaller area the type of work carried on in the national field, a workers' education bureau was started in Madison, Wis., in 1944. This step was taken as a result of the efforts of the president of the American Federation of State, County, and Municipal Employees. Similar bureaus are reported as planned in other communities.

A. F. OF L. PRESS AND RADIO

Among the important means of carrying educational and informative material to unionists are the periodicals of labor organizations. The American Federation of Labor has on its mailing list 325 such

organs. The Federation itself publishes the American Federationist (monthly), Labor's Monthly Survey, Weekly News Service, and Noticiario Obrero Norteamericano (semimonthly).

On January 1, 1945, the Federation started a series of weekly broadcasts in the form of forums on various topics, for the information of both unionists and the public generally. The subjects covered, up to April 1, were as follows: America united, Unemployment compensation, Next 4 years, Nation's health, Paying for the war, White-collar workers, Lifting Government controls, Threat of monopoly, Housing, Wage policy, More T. V. A's, and Tolerance. A new series of weekly news broadcasts was started in July, to continue throughout the remainder of the year, under the title American Federationist, in the course of which matters vital to labor are to be presented.

INTERNATIONAL LADIES' GARMENT WORKERS' UNION

The educational record of the International Ladies' Garment Workers' Union is long and impressive and has served as a pattern for many other labor organizations. The report of its educational department for 1941–42 pointed out that during the union's quarter century of existence the educational program had been expanded to "meet the practical needs of the union and to provide learning for living and a balanced program of fun and ideas."

Since the beginning of the war a shift of emphasis has occurred in the educational activities, with greater emphasis on wartime problems. The 1944 report of the educational department showed (1) an increased emphasis upon training for union service and the preparing of new members to assume their rights and responsibilities as trade unionists, and (2) increased assistance for trade-union officers and executive board members, to help them meet "the many complicated problems which tax their attention and energy." The educational directors did more counseling than formerly, giving information to individual members on social security and advice on rent and prices. These activities have had to be carried on with a staff reduced by losses to the armed forces.[2]

The educational department of the I. L. G. W. U. spent over $392,000 during the 4 years ending on March 31, 1944; in addition, various affiliates were reported as having spent over $515,000 for educational work during that time.

Direct Educational Activities

One of the main activities of the department has been the promotion of study classes, institutes, and group action in other lines (recreation, music, art) having an educational value. The statement (p. 305), from data contained in the report of the department for 1942–44, shows the number of institutes and the attendance thereat, as well as the scholarships provided by the union at labor schools.

[2] Before the war the union had 25 full-time directors and local education committees in addition to the central office staff.

	Number of institutes	*Students at institutes*	*Scholarships at labor schools*
1939–40	4	205	3
1940–41	4	230	5
1941–42	5	264	4
1942–43	3	185	8
1943–44	3	220	6

One of the most successful of the institutes has been the annual Wisconsin Summer School for workers, at which, in the peak year of 1943, there were in attendance 92 students from 35 States. One of the features of these institutes consists of the courses in time and motion study conducted by two staff members of the I. L. G. W. U's department of management engineering. The duties of this department, which was started in 1941, are (1) to assist in improving manufacturing techniques and operating methods of all branches of the ladies' garment industry, (2) to serve as a central clearing agency for information on the level of "fair piece rates" and on production systems and manufacturing technique under which these rates are paid, and (3) to assist in training shop members and committees in distinguishing bad from good time-study practice. The management engineering department of the union also has held training sessions of its own, especially on individual plant problems.

The number of activities of each type, carried on by I. L. G. W. U. during the 5-year period, is shown in the accompanying table. The figures show a natural decrease as wartime activities engaged more and more of the energies of the people who would normally have participated.

Summary of Classes and Activities, Educational Department of I. L. G. W. U., 1939–40 to 1943–44 [1]

Type of activity	Classes and activities in—				
	1939–40	1940–41	1941–42	1942–43	1943–44
All activities	703	704	968	705	489
Study classes	261	290	494	418	265
Music	120	103	102	56	45
Dramatics	80	42	30	19	10
Athletics	50	41	116	126	107
Gymnasium	142	172	168	52	39
Dancing	50	56	58	34	23
Individual participants	17,000	16,800	19,887	17,235	11,878
Local and joint boards participating	76	79	87	82	72

[1] Report of Educational Department, I. L. G. W. U., June 1, 1942, to May 31, 1944 (New York [1944]), p. 31.

The foregoing table does not cover "radio broadcasting, theater parties, movie shows, exhibits, trips to points of interest carried on in New York City and other cities, and lectures and talks at union-membership meetings. Local 91, for example, ran a popular forum with well-known speakers, and Local 66 has used speakers and movies at its mass membership meetings."

The subjects covered in the study classes conducted by the I. L. G. W. U. in 1942–43 and 1943–44 are indicated in the following tabulation.

	Number of classes	
	1943–44	1942–43
All types of study classes	265	418
New members' class	69	57
First aid	32	130
Health	22	76
Labor problems and trade-union methods and history	29	25
Parliamentary law and public speaking	20	22
Current events	19	27
English	14	17
Citizenship and problems of democracy	7	13
Arts and crafts	11	12
Miscellaneous	[1] 42	39

[1] Includes language classes (6), knitting and sewing (6), art discussion (3), psychology (3), time and motion study (2), and correspondence clubs (2); there were also single classes in race problems and domestic arts.

Education for union officers.—Candidates for union office who have not previously served as full-time union officers have been required, since 1940, to complete an officers' qualification course before becoming eligible for election to any paid office in the union. In 1943–44 the course in New York City was attended by 50 members. The subjects covered trade-union techniques (12–15 hours), structure and operation of the I. L. G. W. U. (6 hours), history of the union (6 hours), economics of the garment industry (6 hours), and parliamentary law (3 hours).

A new departure was made in the winter of 1943–44 with the inauguration of an officers' institute in New York City. This was so successful that the continuance of this type of training received the endorsement of the president of the union. The speakers and subjects listed on the program of the second officers' institute held in New York City, during January–March 1945, were as follows:

Prof. Selig Perlman—Will the 1944 political situation occur again?
Prof. Selig Perlman—Can government dominate industrial relationships?
Senator Joseph H. Ball—Trade-unions and freedom.
Henry J. Kaiser—Postwar job prospects.
Elmo Roper—Labor and public opinion.
Senator Robert F. Wagner—Labor's needs in social security.
Dr. Michael A. Davis—Planning for health.
W. H. Davis—The future of the War Labor Board.
Eric A. Johnston—An industrialist looks at trade-unions.
George Meany—A trade-union leader looks at employers.
Isador Lubin—Labor and statistics.

Other Activities of Educational Value

An expanding educational program in cities of the Southwest was announced on December 1, 1944. Open forums have been organized throughout the southwest district. Among other conferences and classes held under the auspices of the union in the fall of 1944 were a series of educational meetings in Detroit and Manistee, Mich., an institute at Decatur, Ill., a course in current events for the members of the executive board of local No. 182 in St. Louis, and a 6-week "personality" course in Chattanooga. Health education had a prominent place in the union's summer classes in 1944. Psychological courses were being included in some recent I. L. G. W. U. educational

programs. It was reported that some 5,000 persons participated in the lectures and forums held at Unity House (vacation home of the union) in June and July 1944.

Other activities having educational value included a panel discussion on art, by distinguished artists, in New York City; an exhibit (the third of its kind) of art work of members of New York City Local No. 22; and concerts and dramatic activities sponsored by the union's cultural division.

The union has published numerous pamphlets dealing with such subjects as the trade-union movement, the I. L. G. W. U. and its history, the garment industry, the starting of classes, parliamentary law, hints for trade-union speakers, etc. Its semimonthly periodical, Justice, which appears in German, Italian, and Spanish as well as English, carries in each issue a section on the union's educational activities. In addition 38 of its locals have their own periodicals.

AMERICAN FEDERATION OF TEACHERS

At the annual convention of the American Federation of Teachers, held in Chicago in October 1944, the following recommendations of the adult-education committee of that organization were among those approved:

1. That an A. F. T. vacation seminar be sponsored again next year, since the experiment at Madison, Wis., proved highly successful. * * *
2. That the A. F. T. locals organize workers' education committees which would have the particular responsibility of developing professional contact with the labor movement.
3. That workers' education committees be set up in State federations and that in some cases regional committees overlapping State committees be set up.
4. That the A. F. T. develop effective educational materials to be used in trade-unions.
5. That in developing the program of workers' education the assistance of the Workers Education Bureau be obtained.
6. That more locals try to hold week-end institutes in which the teachers' locals and the labor movement could cooperate, with the assistance of the Workers' Education Bureau.

The teachers' vacation seminar, above mentioned, was scheduled to be held July 22 to August 4, 1945, under the direction of the University of Wisconsin School for Workers. Among the subjects on the agenda were the following: The teacher in the community; The labor movement in a changing world; Postwar problems; and World organization.

The director of the Workers Education Bureau has presented a plan to the American Federation of Teachers for greater cooperation between its locals and the bureau in promoting workers' education in the curriculum of the senior high schools.

AMALGAMATED MEAT CUTTERS AND BUTCHER WORKMEN

Because labor representatives with no economic training "will be misfits and unworthy to represent the workers," the Amalgamated Meat Cutters and Butcher Workmen of North America decided to require some academic training for union organizers and officers. It recently announced that it would send its more than 200 organizers to a 2-week course at the University of Wisconsin school for workers during August. Tuition would be paid by the international union.

In addition, two of the international vice presidents were to attend Harvard University's full-year labor course, beginning in the fall.

OTHER A. F. OF L. AFFILIATES

International and national unions.—During the war numerous other international and national unions affiliated with the American Federation of Labor have been carrying on workers' education through their official organs. A list (furnished by the Workers Education Bureau, April 9, 1945 [3]) of some of the other affiliates which have conducted workers' education in additional ways, is given below:

American Federation of State, County, and Muncipal Employees.
Brotherhoold of Railway Clerks.
Brotherhood of Sleeping Car Porters.
Building Service Employees' International Union.
Hotel and Restaurant Employees' International Alliance.
International Association of Machinists.
International Brotherhood of Electrical Workers of America.
International Brotherhood of Paper Makers.
International Brotherhood of Pulp, Sulphite, and Paper Mill Workers.
International Glove Workers' Union of America.
Laundry Workers' International Union.
United Automobile Workers of America—A. F. of L.
United Hatters, Cap and Millinery Workers International Union.
Upholsterers' International Union.

Central bodies and locals.—The examples below are illustrative of workers' education activities sponsored by many locals affiliated with the American Federation of Labor.

A tri-city conference of trade-unionists from Buffalo, Rochester, and Syracuse met in Rochester on February 11, 1944. A representative of the New York State federation made the arrangements for the gathering.

A series of classes on current labor problems was sponsored by the Portsmouth, N. H., Metal Trades Council.

It was reported in March 1945, that the Los Angeles Central Labor Council was sponsoring a postwar study group which holds dinner meetings at which a guest speaks on some vital labor subjects. Among the recent topics on the agenda have been the health insurance bill before the State legislature, and ways and means of streamlining our Federal and State legislatures.

Early in 1945 the Glove Workers' Union, Local 83, of Marinette and Menomonie, Wis., held a series of four educational meetings. The local's committee on education has begun to publish its own periodical—the Union Gazette.

The Dubuque (Iowa) Trades and Labor Congress is reported as sponsoring weekly classes in public speaking, which are free to any member of a union affiliated with the central body.

Congress of Industrial Organizations

The educational work of the C. I. O. is carried on through the educational division of its Department of Research and Education. The purpose of the division is "to assimilate new members of the C. I. O., to make them union-minded and conscious of the broad objectives of their union. The central idea in the philosophy of the workers' education program is the belief that the American worker

[3] The Workers Education Bureau cooperates more closely with central labor bodies and local unions (and with State federations of labor in the holding of institutes) than with the national and international A. F. of L. unions, and was unable to supply a complete list.

is more than an employee. He is a member of a family, of a church, of other organizations, and of a community. Consequently the emphasis on workers' education stresses social, economic, and political orientation." Educational methods used include the holding of institutes and conferences, the preparation of speeches and articles, the publication of labor literature, and visual aids.

At the 1944 convention of the Congress of Industrial Organizations it was stated by President Murray that the C. I. O. educational activities had stimulated some 20 colleges and universities to indicate their interest in adult education and to put men on their staffs to work with the American labor movement. The convention later adopted a resolution endorsing a national adult-education program and urging the Congress of the United States to make an appropriation for such a program in cooperation with the States.

Early in 1945 a conference of C. I. O. educational directors was held at which the uses of various mediums of expression were discussed. The importance of films was stressed in this connection and attention was called to their extensive use by the United Automobile Workers. Other suggestions included the issuance of a series of posters on general union subjects, the allocation by affiliates of funds to the C. I. O. to be used in the preparation of specific printed materials, and the holding of quarterly national conferences of educational directors with a single topic for each meeting. The first such regional conference was held early in May 1945, in Chicago.

Relations with religious leaders and churches have been fostered, and in October 1944 a religious and labor conference was held in Pittsburgh, attended by 225 delegates.

The weekly Labor for Victory Program, under the joint sponsorship of the C. I. O. and the A. F. of L., was discontinued in June 1944. But arrangements were made for weekly 1945 programs over three of the four principal networks. Many special network programs were also arranged and greater use of the radio by C. I. O. affiliates has been encouraged. America United is the title of a new 13-week series beginning on July 8, 1945.

C. I. O. EDUCATIONAL COURSES

A number of schools have been conducted in which the C. I. O. has participated. In Mobile, Ala., the C. I. O. and the Vocational Education Department of the public-school system recently cooperated in an educational program the primary purpose of which was the training of shop stewards and other union officials. Attendance was open to any interested person. Among the subjects to be covered were labor history, labor legislation, union agreements, and grievance procedures.

A school, the second conducted under the sponsorship of the C. I. O. southern regional directors, was scheduled to begin May 7, 1945, at the Highlander Folk School, Monteagle, Tenn. It was expected that the time spent in the 1-month courses, by the 45 enrolled students, would approximate that spent in 2 years' attendance at regular union meetings.

An Outline for an Industrial Area-Wide Labor Education Program, prepared for the C. I. O. department of research and education by a member of the United Steel Workers, proposes courses on the follow-

ing subjects: Your job, your union, and your pay; Industrial economics; The worker as a citizen; The worker as a consumer; Collective bargaining as consumers; The joint-production committee; Government and labor; History of American labor; Industrial unionism; Organizing the unorganized; The farmer and the worker; Labor in politics; Labor and the community; Labor and the veterans; Building a greater union; Orientation courses for teachers; Training course for union counselors; International labor movement; and Mass education and entertainment. The outline points out that "The labor movement has in the past few years begun to achieve organizational maturity. If it is to grow and develop as a vital force, it must necessarily strive to broaden the outlook of all wage earners as well as encourage the potentially capable to train for leadership, without which progress is impossible."

C. I. O. PUBLICATIONS

Periodical publications include the C. I. O. News (weekly), Union News Service (weekly), and Economic Outlook (monthly).

Numerous pamphlets have been issued, dealing with various economic problems affecting the wage earner (cost of living, full employment, housing, etc.), company unions, the steel industry, wartime union activities, legislation, and the labor movement and religion. Among the publications planned for 1945 are a servicemen's manual, a Bible cartoon strip, discussions of substandard wages, the farm and labor, and workers' education, an educational flyer, posters relating to price control, a C. I. O. bibliography, and a labor history. At the March educational directors' conference it was agreed that, in future, the national office would act as a clearing house for publications; and an exchange of publications between the national office and affiliates was arranged for. Emphasis was laid upon the desirability of making union papers attractive and readable and of the inclusion of educational material.

AMALGAMATED CLOTHING WORKERS OF AMERICA

The educational and recreational program of the Amalgamated Clothing Workers of America has from its beginning been notable. Through the years its cultural activities have reflected the membership's demands and changing times. While focusing its interest on war efforts, this union has manifested a renewed concern with the implications of democracy, the responsibilities of labor in national and international affairs, the causes of war, and the requirements of a program for enduring peace.

The report of the union's committee on education and recreation to the 1944 convention referred favorably to articles in The Advance (official organ of the union), material in the Reader's Packet issued by the union, the correspondence courses carried on by it, the regional conferences, and other activities of the publications and cultural-activities department.

Despite other wartime responsibilities, local officers have expended much time and energy in promoting forums and furnishing leadership.

As was brought out at the convention, war demands have restricted but not altogether diverted the educational and cultural program of this organization.

Fully recognizing the immediacy of the demands of other activities on the time of the union's officers and members and with full appreciation of the high quality of the educational work which has been carried out during the four years since the last convention, your committee nonetheless recommends that the convention direct the incoming general executive board to give careful consideration to the possibilities of expanding the services afforded to constituent joint boards and locals in carrying out an adequate educational program. It specifically recommends exploration of the question of the desirability of requiring, as a matter of policy, the establishment of educational committees in each local, with reports from these committees to be made to a general educational department, and material for the use of local committees to be supplied by such general department. It further recommends that the general officers assure that, in whatever form the union's educational program is conducted, adequate attention be devoted to promoting understanding of all phases of the fundamentals of democracy, including the equality of all citizens, regardless of race, creed, or color.

INDUSTRIAL UNION OF MARINE AND SHIPBUILDING WORKERS

The first union to follow the example of the International Ladies' Garment Workers' Union in the matter of establishing officers' qualification courses for candidates was the Industrial Union of Marine and Shipbuilding Workers. The 1944 convention of this organization (at Atlantic City) adopted a resolution expressing the conviction that "the strength and progress of the trade-union movement are dependent upon the degree to which workers understand its policies, aims, and aspirations." The general executive board was directed to broaden the union's educational program for the membership in general and to provide a suitable study course as a qualification, after January 1, 1945, for election to any office. Authorization was also given for establishing training courses for shop stewards and committee members.

The activities and accomplishments of the union's research department were reported on in detail, and the delegates gave their approval to enlargement of its staff to meet the union's expanding research needs. The Shipyard Workers' Union job-relations training course for shop stewards and officers was reported as making widespread progress, notably in New England, the Port of New York, Baltimore, and the Philadelphia-Camden area.

NATIONAL MARITIME UNION OF AMERICA

The National Maritime Union provides a 1-week course on trade-unionism, especially for new members. Each union member who attends the classes is paid $40 per week by the union. Among the students are persons of various grades of education. The union hopes that sometime the teachers can be recruited from its own ranks.

The union announced the formation, early in 1945, of a class in St. Louis for river boatmen, for the study of the boat delegate's job, what the boatmen's contract means, how to run meetings, the river history of the National Maritime Union, and education and political action on boats.

UNITED AUTOMOBILE, AIRCRAFT, AND AGRICULTURAL IMPLEMENT WORKERS

The United Automobile Workers (U. A. W.), with over a million members, has been outstanding in its educational work, using a variety of approaches.

The union's second annual educational conference, held in January 1945, was attended by 400 delegates from various parts of the United States. Among the subjects on the agenda were wages, standards of living, health and safety, discrimination, shop papers, leadership training, legislative objectives, political action, movie and slide films, consumers' problems, cooperatives, veterans' problems, reconversion, international affairs, and postwar planning.

Many regional week-end institutes have also been held in cooperation with educational institutions, such as State universities, which supply instructors and classroom facilities. About 10 different courses are made available. The local union makes up to the student his wage loss during the time he is in attendance at these classes. City-wide institutes, dealing with specific problems, have been held during the summer, the sessions being so arranged as to permit participation by workers on different shifts. Occasionally also an institute is held in an industrial establishment.

The union has been a pioneer in the use of radio in labor education, and has been of assistance to other unions. A radio expert works in consultation with the union's educational department.

Distribution of printed material is carried on, on a large scale. The educational director reported at the 1945 convention that in the previous year his department had distributed over 3 million pamphlets and had published a number of others written by its own staff. Discussion outlines for local education committees and a revision of the handbook for such committees were also to be distributed. In addition to the union's semimonthly publication, United Automobile Worker, which carries a regular section on education, the education department has its own monthly magazine. It has been running a contest, with awards made for the best news items, feature articles, editorials, poems, pictures, and cartoons produced by the U. A. W. members.

OTHER C. I. O. AFFILIATES

Marine Cooks' and Stewards' Association.—A report of the Marine Cooks' and Stewards' Association, referred to in the C. I. O. News of February 5, 1945, mentions a 6-week course in baking which was to be conducted by the San Francisco Marine Cooks' and Bakers' School.

Teachers Union of New York.—Approximately 2,000 teachers, supervisors, parents, and public officials were expected at the Ninth Educational Conference of the Teachers Union of New York, C. I. O., scheduled to be held in New York City on April 21, 1945. The principal subject on the agenda was education for a world family of democratic nations.

Textile Workers Union.—Much of the educational work of the Textile Workers Union of America has been directed to the South. Thus, it has held classes for international representatives there. It has also been attempting to develop literature for new members, and community programs, especially for that region. It is stated that, to make the plan a success, a full-time trained community worker is required.

The most signal accomplishment of the Textile Workers Union is steward training.

Transport Workers Union of America.—This union was reported as conducting a leadership training school in Philadelphia, in March 1945.

United Electrical, Radio, and Machine Workers.—In cooperation with Minnesota Labor (official weekly of the Minnesota C. I. O. Council) the Electrical, Radio, and Machine Workers of America are sponsoring a course in labor journalism as part of an educational program. Classes in trade-union subjects and practices and a series of community forums are also included in this program.

United Packinghouse Workers of America.—Classes for shop stewards are included in the educational work of District 1 of the C.I.O. Packinghouse Workers of Chicago.

United Transport Service Employees.—A committee on cooperative activities has been formed to study programs for joint educational action among the Transport Service Employees of America in the Chicago district. Credit-union plans were to be studied and neighborhood study groups sponsored. The educational and publicity director serves as chairman of the committee.

Other organizations.—Among other affiliates of the C. I. O. that have workers' education and training programs, and publish books, brief reports, and outlines for study, are the following:

American Communications Association.
American Federation of Hosiery Workers.
American Newspaper Guild.
Federation of Architects, Engineers, Chemists, and Technicians.
Federation of Glass, Ceramic, and Silica Sand Workers of America.
International Fur and Leather Workers Union.
International Longshoremen's and Warehousemen's Union.
International Union of Mine, Mill, and Smelter Workers of America.
International Woodworkers of America.
Oil Workers International Union.
State, County, and Municipal Workers of America.
United Cannery, Agricultural, Packing, and Allied Workers of America.
United Farm Equipment and Metal Workers of America.
United Federal Workers of America.
United Furniture Workers of America.
United Office and Professional Workers of America.
United Retail, Wholesale, and Department Store Employees of America.
United Rubber Workers of America.
United Steelworkers of America.

C. I. O. COUNCILS

Michigan C. I. O. Council.—It was reported in March, 1945, at the conference of the educational directors of the C.I.O., that the Michigan C. I. O. Council's 1-week institutes are held in a State Conservation Department camp, which is rented for a minimum figure. A considerable amount of leadership training results from giving 7 days to one subject. Funds to send members to the school are frequently raised by the local union's education committee through dances, raffles, and other activities.

Included in the subjects taught are collective bargaining, educational leadership, etc. Each local union has been requested to place a billboard for posters at the front of its headquarters. A committee of Detroit's outstanding advertising men was giving time without pay to the making of posters.

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Industrial union councils.—The educational work of the 232 local and 36 State industrial union councils was described as follows in the departmental report of these councils to the 1944 C. I. O. convention:

As the responsibilities of labor organizations in government increased with the war, and the need became sharper for qualified representatives in government agencies, and as many council officers were inducted into the armed services, our State and local organizations felt the need for personnel training facilities. Accordingly, they established contact with State universities in a number of areas and worked out systems and programs of training and education. The curricula varied all the way from the mechanics of operating an office to the study of labor law and labor history. The machinery set up for such training purposes differed widely from one State to another. This machinery is under examination and analysis by the Department of Councils of Education and Research with a view to working out recommendations suitable for general application.

American Labor Education Service

American Labor Education Service, Inc., has been functioning under its present title since 1940. It was previously known as the Affiliated Schools for Workers, which included five of the seven resident schools for workers (the Highlander Folk School, the Hudson Shore Labor School, the School for Workers at the University of Wisconsin, the Southern Summer School, and the Summer School for Office Workers). Other labor groups desired assistance from the organization and it developed into a service agency with various educational resources.

The Service is described by its director, in a letter of April 12, 1945, to the Bureau of Labor Statistics, as "a national labor organization that offers advisory service to trade-unions and community organizations interested in the field of workers' education."

Over a long period of years, through experimentation and case testing, it has studied techniques of carrying on programs with adult workers, and has made its findings available to other workers' education groups. Labor Education Service regards itself as an educational arm of the labor movement, not functioning in an isolated way but participating broadly in labor's efforts to prepare itself for assuming an ever-growing role in community life. Among its activities are advisory services, including field work; publications; bibliography services; conferences; and leadership-training institutes. New resources for workers' education continually are being studied, and among those services which have grown rapidly in recent years is that of strengthening understanding and establishing closer relationship between the labor movement and various community groups. This has resulted in the fact that many government and community organizations, as well as trade-unions, turn to Labor Education Service for assistance in learning how to adapt their programs to the needs of workers' groups.

In the war years, labor has been faced with new duties in government, in production planning, in the allocation of manpower, and in community programs. As a consequence American Labor Education Service is concerned with educational problems involved in these new tasks as well as postwar employment and political activities. Such questions as housing and child care constitute bases of study. The problems of special groups recently affiliated with organized labor, such as the white-collar workers, are also being given attention.

CONFERENCES AND SCHOOLS SPONSORED BY THE SERVICE

The fifth annual Midwest Workers Education conference was held in October 1944, under the sponsorship of American Labor Education Service. According to the directors' report—

Delegates came from steel, electrical, rubber, clothing, textile, automobile, transport-service, meat-cutting, bakery, paper, packinghouse, farm-equipment,

and metal industries, as well as from unions of teachers, bookbinders, novelty workers, postal clerks, retail clerks, Federal workers, and State, county and municipal workers. * * * The delegates were labor officials, educational committee members, educational directors, labor editors, and teachers of workers' classes, who were joined by government officials, community workers, and university representatives interested in a workers' education program.

In February 1945 a meeting of American Labor Education Service and of A. F. of L. and C. I. O. agencies carrying on workers' education was held, to which were invited those in Government employment interested in "servicing labor organizations." The object of this conference was to effect "more practical working relations between representatives of these groups." The meeting discussed the four major needs of workers' education: Use of mass-education techniques, participation of workers in Government programs, communication to Government agencies of labor's reactions, and cooperation between Government and labor in workers' education. A permanent committee was created to continue the work of the conference.

The annual Washington's Birthday meeting of the American Labor Education Service was sponsored by its leadership training committee on cooperation between labor education and university groups and Local 189 of the American Federation of Teachers. Reports were made of a survey of workers' education under the auspices of universities and colleges, followed by discussions on curriculum, sponsorship, control, source of leadership, and financing. Other subjects on the agenda included Education and the community, The university and labor education, The dynamics of workers' education today, and How to broaden workers' education to meet current needs.

Conferences on vital problems of race and intercommunity relations have been held and local field projects carried on, for the purpose of developing educational plans involving a more extensive participation in union and community activities by minority groups.

Every year American Labor Education Service conducts a residential summer school for white-collar workers. This program is being supplemented by week-end institutes and winter study groups.

COOPERATION WITH OTHER EDUCATIONAL AGENCIES

Cooperative relations are maintained between American Labor Education Service and other workers' education schools and agencies interested in trade-union leadership training. In addition to the affiliated schools already mentioned, such relations were maintained in 1944 with the Workers Education Bureau, the education and research department of the C. I. O., the Inter-Union Institute, the Workers' Education Council of Louisville, Ky., the National University Extension Association, and certain community agencies conducting workers' education (notably the Young Women's Christian Association).

In connection with a number of other workers' education organizations, American Labor Education Service is collaborating with university groups in a survey to ascertain the best services such groups may render.

PUBLICATIONS

American Labor Education Service has been a pioneer in the preparation of material for workers' education. Its present publication program includes annotated bibliographies on important subjects and records

of its special field projects, a pamphlet by the chairman of the committee on minority problems, and an annotated list of plays. During 1944, the Labor Education Guide was issued regularly, and the Bulletin was published three times.

Workers' Education at Higher Educational Institutions

The joint sponsorship by universities and State federations of labor of annual institutes and conferences, and the importance of this activity have already been noted. As the new director of the Workers Education Bureau declared, "at no time in the history of the trade-union movement has it been more important for labor and education to work together on their mutual problems." In furtherance of the program the director conferred with representatives of some universities on continuing labor-education programs. Among these institutions were the State Universities of Alabama, New Hampshire, North Carolina, South Carolina, Pennsylvania State College, Columbia University, Washington University (St. Louis), and the City College of New York.

In spite of the shortage of teachers, many colleges and universities have been able to continue their courses for workers and have even taken new steps in this direction. Some of these developments are noted below.

California Labor School.—In 1944 an educational advisory committee was created by the California Labor School, San Francisco. The membership of this new body includes leading California educators, the San Francisco State College, the San Francisco Junior College, and the superintendent of schools of San Francisco.

Cornell University.—The New York State School of Industrial and Labor Relations, the first State-supported and controlled school of its kind in the United States, was scheduled to be permanently organized at Cornell University during the summer of 1945. An appropriation of $200,000 was made by the State legislature for the first year's expenses, effective July 1, 1945. Three labor representatives were to be elected to the board of trustees of Cornell University as a permanent step in this organization, replacing a temporary board, to which the president of the New York State Federation of Labor had been appointed.

Tuition is to be free to residents of the State, and courses (and research) are to be planned to promote cooperation between employers and employees. Among the subjects to be taught are collective bargaining, mediation, arbitration, workmen's compensation, social security, personnel management, union organization, economics, and sociology.

Detroit University.—A 10-week basic course on labor relations was scheduled to begin April 10, 1945, at the University of Detroit. The Tuesday-night course was to be for members of labor unions only; the Thursday-night course was to be open to the public. The course for unions was to be devoted to collective bargaining, contract negotiation and interpretation, and labor problems in American industry.

Duquesne University.—A labor school has been established at Duquesne University, Pittsburgh. Special courses are available to men and women interested in the fundamental principles of the labor movement and its recent development. Classes were scheduled for February 19 to May 31, 1945.

Gonzaga University.—A new labor school, reported to be the first of its type in the Northwest, has been launched at Gonzaga University, Spokane, Wash. This educational venture is the result of the efforts of the C. I. O. Spokane County Council. Both C. I. O. and A. F. of L. students were among the 35 registered.

Harvard University.—For several years, 8-month fellowships have been provided jointly by the trade-unions and Harvard University. These fellowships are given to male union members with a good record of service and potentiality for greater union activity.

Courses for 1943–44 were on the following subjects: Economic analysis, Trade-union problems and policy, The supervisor and union labor, and Personnel and management controls. Of 13 unionists who were selected for fellowships, 10 were chosen and sent by sponsoring unions, and the other 3 received their appointments from the university with the approval of the unions.

Indiana University.—More than 10,000 questionnaires were distributed among labor unions in Indiana, by this university, for the purpose of obtaining information upon which to plan a satisfactory workers' education program for the State.

John Carroll University.—This university, at Cleveland, opened a free labor school for workingmen.

Marquette University.—The International Brotherhood of Electrical Workers of America (A. F. of L.) has given an endowment to Marquette University in order that it may provide intensive courses in electronics for selected members of the union, 100 at a time. Other members of the union will be trained in turn by these graduates.

Montana State University.—At the request of the unions at Missoula, Montana State University, situated in that city, began in January 1945 a series of 11 weekly, 2-hour evening classes in labor procedures.

Rhode Island State College.—A bill introduced into the Rhode Island Legislature and endorsed by the Governor, would appropriate funds for the salaries of a full-time director and personnel to conduct an educational program in schools, community centers, and union halls (when available), under the auspices of the Rhode Island State College's proposed department of workers' education.

Santa Clara University.—It was announced early in 1944 that a class in the principles of unionism and the techniques of collective bargaining was being offered to union officials, for the first time, under the direction of the university's division of war training.

University of Chicago.—This university offers a seminar course for labor leaders under the direction of the university and the Illinois State Federation of Labor. The committee representing the federation has as its chairman the president of Chicago Local No. 1 of the American Federation of Teachers.

University of Michigan.—The university has a new workers' education service which has recently started classes at its Detroit center. In March 1945 this service was being extended from lower Michigan to communities in the upper part of the State. Programs were in course of development in Escanaba, Iron Mountain, Ishpeming, and Marquette.

The service, which constitutes a part of the experimental adult-education program authorized by the State legislature, is administered through the extension service of the university, with the aid of an advisory committee of 6 persons (2 representatives of labor, 2 of the public, and 2 of the university).

University of Minnesota.—Announcement was made early in 1945, by the University of Minnesota, that classes would be conducted in trade-unionism, union administration, practical public speaking, and parliamentary procedure, for trade-union members. A joint labor-university committee planned the classes, which have received the endorsement of the St. Paul Trades and Labor Assembly, the Minneapolis Central Labor Union, the Minnesota State Industrial Council, and the Railroad Brotherhoods. The instructors include two from the University of Minnesota, one from Edison High School, and the legal and research director of the Minnesota Federation of Labor.

University of Wisconsin.—The university was a pioneer in the field of workers education. Workers' summer schools at the university date back to 1921, and have had far-reaching effects on the workers' education movement.

Yale University.—This institution granted scholarships to trade-union leaders to enable them to attend a 1943 graduate seminar. It contemplates continuing this plan when the war ends.

Other institutions.—Among other universities and colleges recently reported as conducting industrial-relations courses, special trade-union courses, labor projects, or labor institutes or schools, are the following: University of Connecticut, Holy Cross College (Worcester, Mass.), New York University, San Diego State College, Rockhurst College (Kansas City), Temple University (Philadelphia), the University of California, University of Scranton's Hazleton Labor College, University of Toledo, University of Virginia, Wayne University (Detroit), and Xavier University (Cincinnati).

Wage and Hour Statistics

Earnings and Wage Practices in Municipal Governments of 15 Cities, 1944[1]

Summary

AVERAGE hourly earnings of municipal employees in 74 occupations in 15 municipal governments were obtained by the Bureau of Labor Statistics for a single pay-roll period in 1944. On the basis of these data estimates of annual earnings were made. The data revealed considerable intercity variation in wages for identical occupational groups as well as wide intracity differences in wages among groups whose skills are comparable. The scheduled workweek varied somewhat less, both among cities and within any given city. An average computed on the basis of data for all 15 cities showed that of 16 key male occupations studied, senior civil engineers had the highest annual salaries ($3,278) and janitors the lowest ($1,619). Secretaries showed the highest salaries of 7 key female occupations ($2,007) and switchboard operators the lowest ($1,510). The occupations included in this survey did not include top professional and the higher-salaried administrative personnel.

Oakland, Gary, and Portland (Oreg.) ranked highest with respect to the general municipal wage level, while Atlanta, St. Louis, and a southwestern city were the three lowest. The ranks of 7 cities with respect to the wage levels of municipal employees and of employees in private industry were observed to be substantially similar. It is estimated that wages in the 15 cities increased approximately 10 to 15 percent between January 1941 and the date of the survey. This resulted from upward revisions of wage scales and the payment of cost-of-living bonuses.

Job-classification systems covering all or nearly all major groups of municipal workers were in effect in 12 of the 15 cities. Five cities had uniform pay plans that classify jobs by grades, with a uniform salary range for all jobs within a grade. Plans providing a single minimum rate for each job class, but with varying maximum rates, were found in 6 other cities. Less formal wage plans were followed in the remaining 4 cities. Although most municipal employees are paid on a monthly or annual basis, substantial numbers, particularly in the craft and laborer classifications, are paid hourly or daily rates.

All but 3 of the 15 cities had civil service systems covering all departments. Tenure of office in most cities was provided after a 6-month probationary period. Large numbers of municipal workers

[1] Prepared in the Bureau's Wage Analysis Branch by Carrie Glasser with the assistance of Marion R. Callaham and Joseph H. Mayer. Mr. Mayer was also in charge of tabulations. The survey on which this study was based was planned and directed by Margaret L. Plunkett.

were found to be members of unions but none of the municipal governments had written contracts with unions.

Purpose and Scope of Survey

The primary purpose of this survey was to obtain information regarding wages of municipal workers in selected occupational groups. The need for comprehensive and reliable data in this field has long been recognized by city governments, planning agencies, labor organizations, and others interested in public administration. It was in appreciation of this need that the Bureau of Labor Statistics undertook an experimental study in the summer of 1944. Information regarding hours of work, merit systems, pension schemes and vacation and sick-leave policies, was also collected in the course of this survey.[2]

Fifteen cities were covered in this survey; 5 of the 15 have populations between 100,000 and 250,000, 7 are in the 250,000 to 500,000 population group, and 3 have populations between 500,000 and 1,000,000. Municipal employment in these cities ranged from 1,400 to 14,600. Table 1 shows the cities studied, arranged by size groups, the approximate total number of municipal employees in each city at the time of the Bureau's survey, and the percentage of the employment covered by this survey.

TABLE 1.—*Estimated Municipal Employment and Percent of Employees Covered in 15 Cities Included in Bureau's Survey, Summer of 1944*

Size group and city	Estimated total municipal employment, summer of 1944	Percent of total employees studied	Size group and city	Estimated total municipal employment, summer of 1944	Percent of total employees studied
100,000–250,000 population:			250,000–500,000 population—Con.		
Flint, Mich	2,700	41	Denver, Colo	6,200	50
Gary, Ind	1,900	19	Oakland, Calif	4,400	22
Grand Rapids, Mich	1,900	34	Portland, Oreg	3,000	50
Hartford, Conn	4,300	25	St. Paul, Minn	3,300	15
Oklahoma City, Okla	1,400	54	500,000–1,000,000 population:		
250,000–500,000 population:			Buffalo, N. Y	10,300	38
City X [1]	4,600	25	Pittsburgh, Pa	9,200	41
Atlanta, Ga	4,100	43	St. Louis, Mo	14,600	40
Cincinnati, Ohio	8,600	33			

[1] A southwestern city. By request it is not identified by name in this study.

The selection of the 15 cities was guided by several considerations. Because wages for the same occupation tend to vary among municipal departments, cities with fairly diversified departmental organization were desired in order to insure adequate coverage for the selected occupational groups. This eliminated very small cities and accounts for the concentration of the sample on cities of medium size. The very largest cities in the country were omitted because of the experimental nature of this survey. For each of the 15 cities selected, all regular departments were included to the extent that they had the occupations selected for study. The major departmental divisions covered were general government, public works, public-service enterprises,

[2] Part of this additional information is summarized in this article. Further details will be provided in a forthcoming bulletin.

parks and playgrounds, zoning and planning, sanitation, health, welfare, protection, education, and libraries. It should be understood, however, that certain functions were found in some city governments but not in others. For example, Gary has no department of public welfare but is serviced in this respect by the public welfare department for Lake County. Likewise, Hartford and Oakland have no municipal water departments of their own but receive this service from public bodies which have jurisdiction over several municipalities. The present survey included only those selected groups of employees in city departments which were administratively a part of the municipal structure.[3]

The cities surveyed were also chosen with regard for geographical representation. Thus, of the 15 cities covered, there is at least one in each of the major geographic regions of the United States. The selection was greatly aided by conferences held with representatives of Federal, municipal, and union organizations interested in the salaries of municipal employees and related problems. The mayors and other officials of the 15 cities cooperated by placing at the disposal of the Bureau's representatives the necessary pay-roll and other official records. The information for most cities covers the pay-roll period for June 1944.[4]

The proportion of municipal employees covered in this survey, as shown in table 1, ranged from 15 percent to more than 50 percent for individual cities. This wide variation in coverage is due to several factors. First, the survey excluded certain large groups of municipal employees such as teachers, firemen, and policemen, as well as top professional and administrative personnel. While these groups are numerically large in all cities, they account for a considerably greater proportion of total municipal employment in some cities than in others. Second, part-time [5] and temporary workers were also excluded and, as in the case of the first group, the proportionate importance of these workers varied from city to city. Third, the occupations selected for study were those which were numerically important in the majority of cities and/or were representative of the different skills and wage levels. When an occupational group appeared to be of numerical importance in only a small number of cities, the group was excluded from the sample.[6] This resulted in greater loss of covered employees in some cities than in others.

Because the sample upon which this survey is based is limited to a small number of cities and to selected occupations which exclude the highest-paid personnel, the data are not considered to be representative of wage and employment conditions of municipal employees throughout the country. This experimental study does, however, yield useful information for those cities and occupations covered and should provide a helpful basis for planning broader studies in the future.

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[3] An exception to this rule was made in the case of the education "department" of Portland, which is administered independently of the Portland city government and is part of the Multnomah County School District.

[4] Exceptions were as follows: Atlanta, January 1944; Gary, October 1944; Hartford, April 1944; Portland, July 1944. As there were no general wage changes effective between these dates and June 1944, the pay-roll periods are comparable for purposes of this study.

[5] For purposes of this study a "part-time" worker was considered to be an employee who regularly worked less than the full number of hours in the normal day or workweek.

[6] For example, ambulance drivers and seamstresses were numerically significant groups in Atlanta and, similarly, cashiers in Denver. However, since the great majority of the cities covered did not show these classifications, they were dropped from the sample.

Method of Analysis

The survey covered 74 occupational groups of municipal employees but in no one municipal government were all of these occupations found. The highest representation was 66 for Denver; the lowest was 31 for Gary, the smallest of the cities surveyed. The job titles used in this study are not necessarily the same as those appearing on the pay rolls of the individual cities. The standard job descriptions developed by the Bureau after examination of job classifications used in several cities were taken as a basis for classifying the municipal employees covered. For example, an employee designated as a junior engineering clerk in some cities was classified as a "junior engineering aide" if the functions and requirements of the job corresponded with the standard job description used by the Bureau. Similarly, the designation "janitor" was used for many employees listed as cleaners or building custodians. In some instances it was found necessary to use broader occupational groupings than in others. For example, all stenographers were classified into one group, but typists were subdivided into junior and senior grades. Clerks were divided into four grades: (a) "General clerks" who perform simple routine tasks, (b) "senior clerks" who have more difficult tasks requiring the application of judgment based on established precedents, (c) "clerk supervisors" who plan, assign and supervise the work of subordinate employees, and (d) "principal clerks" who generally supervise larger groups and have greater opportunity for exercising independent judgment. Despite some discrepancies caused by differences in job descriptions in the 15 cities, it is believed that the employment of the standard job classification as a basis for grouping yielded satisfactory results.

Two measures of wages were developed in this survey—average hourly earnings and estimated average annual salaries, both based, with few exceptions, on pay-roll records for June 1944. The wage data include the base pay for the regular workweek, plus cost-of-living bonuses and length-of-service increments, wherever these were in effect. Overtime pay for emergency work beyond the usual workweek was not included, nor was premium pay for extra-shift operation, the latter a relatively unimportant factor in municipal employment. Indirect additions to income provided in the form of meals, lodging, laundry, or other payments in kind, were not taken into account. An exception to this rule was made wherever the workers in an occupation had the option of taking the cash value of full or part maintenance. In those instances in which all or a part of the group exercised the option, the average rate for the occupation was considered to be the average base rate plus the cash value of the maintenance. The occupational groups that received maintenance allowances not included in the computation of earnings are designated in table 2.

The statistics on annual salaries are estimates based on the single pay period for each city. Although these figures are consequently subject to some error, it is probably very small, since employment and wage practices among municipalities show considerable stability. The important salary-determining factors for which no allowance was made include (1) overtime payments, (2) income received directly or in kind for maintenance, (3) changes in base rates caused by individual grade promotions, prior to or after the pay-roll period studied, or other reasons, (4) seasonal lay-offs or other periodic reductions in time

worked, (5) labor turn-over during the year, which could increase the weight of employment at the lower limits of rate ranges within each occupational group, and (6) reductions or extensions in the regular workweek. Changes in the workweek would probably be of greater significance for workers paid on an hourly basis, but would also affect the earnings of some salaried employees.

The statistics of average hourly earnings and average annual salaries for each occupation represent the average for that group in all departments of a city in which the job was found. Since base rates and weekly hours are often not identical in all departments of a city, even for the same occupation, the city-wide averages do not necessarily correspond exactly to the average wages in any particular department.

Average Hourly Earnings

Table 2 shows, by occupation, the average hourly earnings of male and female employees in the 15 municipal governments for June 1944. One outstanding characteristic is the wide variation among the 15 cities with respect to the earnings of the same occupational group. For example, average hourly earnings of male laborers, an unskilled group, ranged from 51 cents in Atlanta to 91 cents in Portland. For janitors, another unskilled group, City X (a southwestern city) had the lowest hourly earnings, 43 cents, and Portland the highest, 95 cents. It is of interest to note that despite the difference in range, the rank of the cities is approximately the same for both unskilled occupational groups, with the southern cities reporting the lowest earnings and the far western cities the highest. Because the sample used is small and the period studied limited to 1 month, caution should be observed in generalizing the relationships indicated by certain parts of the data. Thus, although the southern cities had the lowest hourly earnings for certain unskilled occupational groups, they held a higher rank in the case of some skilled occupations. Atlanta, for example, showed the fourth highest hourly earnings for general repairmen, while fifth place was taken by Portland. For the same occupational group, Oklahoma City reported the lowest hourly earnings (72 cents) and the mid-western city of Gary the highest ($1.35).

Wide differences in average hourly earnings among occupations of similar skill grade within a given city are also indicated by the statistics in table 2. In three cities (Atlanta, Oakland, and St. Louis) janitors received higher hourly earnings than laborers, while in 11 cities the opposite was true. In Hartford, laborers received, on the average, 3 percent more in hourly earnings than janitors; and in Grand Rapids, the difference was almost 30 percent. With respect to certain skilled categories, similar marked deviations from uniformity within the same city were found.

TABLE 2.—*Average Hourly Earnings* [1] *of Employees in 15 Municipal Governments, Selected Occupations, By Sex, June 1944*

Occupation and sex	Atlanta	Buffalo	Cincinnati	Denver	Flint	Gary	Grand Rapids	Hartford
Males								
Account clerks		[2] $1.22	$0.96	$0.80	$1.05	[3]	$1.03	$1.13
Accountants (including supervisors)	$1.19	1.53	1.42	1.06	1.42		[3]	1.38
Attendants, hospital, etc	[4] .28		.54	[4] .39	.66		[3]	.60
Automotive mechanics	1.07	1.03	1.01	.91	1.12	$1.20	1.01	.94
Blacksmiths	1.19	1.10	[3]	.95	[3]	[3]	[3]	.91
Brickmasons	1.25	1.39	1.57	1.65			[3]	1.01
Building superintendents, school	[3]	[2] 1.24	.78	[2] .78	1.10	.90	.68	1.08
Carpenters, maintenance	[2] 1.15	[2] 1.25	1.38	[2] 1.14	1.01	1.50	.88	1.07
Civil engineers, junior	1.03	1.41	1.26	[3]			1.29	1.37
Civil engineers, senior	1.38	1.78	1.52	1.49	1.24	1.56	1.41	1.78
Civil engineers, principal	2.36	2.15	1.85	[3]		[3]	1.92	2.23
Clerks, general	.78	.91	.65	[2] .69	.64	.90	.82	
Clerks, senior	[2] .84	1.22			[3]		.99	
Clerical supervisors, except principal	.89	1.16	.94	.93	.85		.92	
Clerical supervisors, principal	1.08	1.59	1.17	1.22			1.14	
Cooks	[4] .43	[4] .66	[3]	[2] .76	[3]			.74
Draftsmen, junior		1.05		.92	[3]			
Draftsmen, senior		1.37	1.00	[3]	[3]			
Electricians, maintenance	[2] 1.27	1.52	1.36	1.00	1.08	1.50	.97	1.26
Elevator operators	.69	.67	[3]	[2] .60			[3]	.95
Engineering aides, junior		.97	.63	.75			[3]	[3]
Engineering aides, senior			.93	1.08			[3]	1.10
Equipment operators, heavy	1.12	1.53	.99	.95	.93	1.20	.99	.85
Equipment operators, light	.77	.89	.82	.80	.83	1.00	.86	.80
Food workers (except cooks)			[4] .65	[4] .41				
Food workers, hospital				[4] .41				
Food workers, other than hospital			[4] .65					
Foremen, labor (shop and field)	.95	.94	.87	.88	1.09	.98	.98	.99
Guards and watchmen (other than prison)	.56	[2] .72	.63	[2] .64	.78		.71	.70
Guards	.60	.80	.70					
Watchmen	.54	[2] .71	.62	[2] .64	.78		.71	.70
Guards, prison	.61		.77	.66				
Helpers, any craft	.75	.98	.78	.87	.88			[3]
Inspectors, field	1.24	1.12	1.19	1.01	1.22	1.28	1.42	1.53
Janitors	.58	.70	.60	[2] .62	[2] .79	.81	.64	.71
Laboratory technicians	[2] .99	[2] 80		.60			[3]	[3]
Laborers (including gardeners)	.51	[2] .78	.71	[2] .72	.84	.85	.82	.73
Gardeners		.78		[2] .72		.84	[3]	.78
Laborers	.51	[2] .78	.71	[2] .72	.84	.85	.82	.73
Laundry workers		.67	.63	[4] .45	[3]			
Librarians	.87			.69		[3]		
Library aides				.44		.58		
Linemen		1.13					1.09	1.02
Machinists, maintenance	[2] 1.04	1.10	1.07	[3]			1.15	
Mechanics, water works	.78	.85	.91	.79	.95		.88	
Office-machine operators	[3]			.66				
Painters	[2] 1.06	[2] 1.30	1.38	[2] 1.24	1.01	1.50	.82	1.06
Plumbers	[2] 1.44	[2] 1.51	1.40	1.31	[3]	1.50	1.00	1.09
Pumping-plant engineers	1.30	1.13	1.41	.95	1.07		1.12	
Pumping-plant oilers	.85	[3]		.74			.89	
Recreational leaders		.97						
Repairmen, general	[2] 1.06	[2] .93	.84	.80	.94	1.35	.87	.94
Sanitarians	.99	1.02	1.03	.73		1.36	1.02	1.14
Secretaries	.90	1.38	[3]	.92	[3]			
Sewage-plant operators	.87	.93			1.10	.89	1.05	
Stationary engineers	[2] 1.03	[2] 1.10	1.28	[2] 1.10	.98		.98	
Stationary firemen	[2] .90	[2] .78	.98	[2] .91	.87	.87	.78	.88
Stenographers	.78	1.29	.94	.68				
Stock clerks	.79	[2] .65	.91	[2] .73	.79		.84	.77
Storekeeper supervisors	[2] 1.05	1.03	1.10	[2] .99	.89		.91	[3]
Switchboard operators		.93					[3]	
Tree surgeons	[3]	.81		[3]			[3]	[3]
Tree trimmers	.62						.90	.80
Typists	.77							
Typists, junior	[3]							
Typists, senior	.89							
Water-purification operators	.83	.86	.75	.84	1.14		.98	
Water-service men	.84	.87	.90	.84	.92			
Females								
Account clerks		1.08	.94	.78	.93	.91	.86	
Accountants (including supervisors)	1.16			1.26	[3]		[3]	[3]
Attendants, hospital, etc	[2] .31	[2] .56	.49	[4] .37	.55		[4] .51	.59
Charwomen	.27	.66	.50	[2] .41	.62	.58	.53	
Clerks, general	[2] .56	[2] .83	.64	[2] .61	.71	.81	.55	.73
Clerks, senior	.70	[3]			.92		.95	1.05
Clerical supervisors, except principal	.67	1.14	.87	[2] .86	.78	.95	.82	.93
Clerical supervisors, principal	.89				1.05	.94	.90	1.18
Cooks		[2] .60	[2] .79	[4] .45	.72			
Dietitians	[4] .62	[4] .77	.81	[2] .84	1.00			.83

See footnotes at end of table.

TABLE 2.—*Average Hourly Earnings* [1] *of Employees in 15 Municipal Governments, Selected Occupations, By Sex, June 1944*—Continued

Occupation and sex	Atlanta	Buffalo	Cincinnati	Denver	Flint	Gary	Grand Rapids	Hartford
Females—Continued								
Elevator operators	-------	$0.52	(3)	-------	$0.58	-------	-------	-------
Food workers (except cooks)	-------	.53	(3)	[4] $0.38	.57	-------	-------	-------
Food workers, hospital	-------	.53	$0.46	[4] .36	.57	-------	-------	-------
Food workers, other than hospital	-------	-------	[4] .51	[4] .39	-------	-------	-------	-------
Graduate nurses (including Public Health Service)	[2] $0.62	[2] .79	.78	(3)	.90	$1.61	(3)	$0.79
Graduate nurses (except Public Health Service)	[2] .45	[2] .68	.76	[4] .57	.89	-------	[4] $0.69	.78
Graduate nurses (Public Health Service)	.73	.94	.82	[2] 1.05	.93	1.61	.90	1.01
Graduate nurse supervisors	[4] .94	[2] .84	1.02	[4] .66	1.11	-------	-------	-------
Housekeepers	[2] .39	[2] .55	(3)	[4] .45	(3)	-------	-------	-------
Laboratory technicians	[2] .96	.74	.87	-------	1.01	-------	-------	1.13
Laborers (including gardeners)	.42	.68	-------	(3)	-------	-------	-------	-------
Laundry workers	[2] .34	.61	.54	[4] .37	.60	-------	-------	.63
Librarians	[2] .97	-------	.81	.73	.93	.86	.99	-------
Library aides	.62	-------	.60	[2] .39	.74	.50	.65	-------
Matrons, park	.43	-------	.57	.61	-------	(3)	-------	-------
Matrons, prison	.61	.80	.67	.70	-------	-------	-------	-------
Office-machine operators	-------	.81	.65	.64	-------	-------	.59	.77
Recreational leaders	.56	.98	-------	-------	-------	-------	-------	-------
Sanitarians	-------	-------	-------	-------	-------	-------	-------	-------
Secretaries	[2] .81	.96	.92	[2] .87	.92	.92	.96	1.13
Social workers, welfare	[2] .66	-------	.82	.84	-------	-------	-------	.92
Stenographers	[2] .77	.93	.76	[2] .67	.68	.74	.73	.85
Stock clerks	-------	(3)	-------	.50	-------	-------	-------	-------
Switchboard operators	[2] .65	.86	.64	[2] .62	.68	.63	.75	.74
Typists	.74	.71	.68	.66	.63	-------	.68	.79
Typists, junior	.54	.64	.66	.60	.61	-------	.58	.72
Typists, senior	.75	.78	.86	.76	.70	-------	.74	.91

Occupation and sex	Oakland	Oklahoma City	Pittsburgh	Portland (Oreg.)	St. Louis	St. Paul	City X
Males							
Account clerks	$1.41	$0.87	$1.15	(3)	$1.14	(3)	$1.09
Accountants (including supervisors)	1.57	1.11	1.41	$1.31	1.48	$1.53	1.33
Attendants, hospital, etc	-------	-------	[4] .47	-------	[2] .54	-------	-------
Automotive mechanics	1.30	.85	1.82	1.13	1.09	-------	.92
Blacksmiths	1.29	(3)	(3)	(3)	1.24	1.02	(3)
Brickmasons	-------	(3)	1.84	(3)	1.75	-------	-------
Building superintendents, school	-------	.72	.78	.98	1.29	-------	.71
Carpenters, maintenance	1.45	.92	1.75	1.21	[2] 1.48	1.44	.79
Civil engineers, junior	1.55	(3)	1.52	1.18	1.27	1.65	1.22
Civil engineers, senior	1.98	1.22	1.50	1.43	1.59	1.89	1.52
Civil engineers, principal	2.30	(3)	1.77	(3)	2.02	-------	1.81
Clerks, general	1.20	(3)	.97	.94	[2] .77	-------	.68
Clerks, senior	1.44	.81	1.23	1.07	-------	1.10	.89
Clerical supervisors, except principal	-------	.98	1.35	1.05	[2] .97	1.10	.93
Clerical supervisors, principal	1.72	1.16	1.50	1.41	[2] 1.06	1.23	1.15
Cooks	-------	-------	-------	-------	[2] .71	-------	(3)
Draftsmen, junior	-------	(3)	1.11	1.11	1.04	-------	.94
Draftsmen, senior	1.69	(3)	1.44	1.16	-------	1.53	1.12
Electricians, maintenance	1.55	.89	1.61	1.40	1.54	1.50	.85
Elevator operators	.85	.53	.79	-------	[2] .62	-------	-------
Engineering aides, junior	1.15	.89	.94	.96	.83	1.31	.55
Engineering aides, senior	-------	-------	1.75	1.13	.91	(3)	1.05
Equipment operators, heavy	1.61	1.76	1.48	1.14	1.26	-------	.75
Equipment operators, light	1.09	.73	.91	.97	[2] .81	.86	.70
Food workers (except cooks)	-------	-------	-------	-------	[4] .41	-------	-------
Food workers, hospital	-------	-------	-------	-------	[4] .41	-------	-------
Food workers, other than hospital	-------	-------	-------	-------	-------	-------	-------
Foremen, labor (shop and field)	1.27	.87	.92	1.12	.82	.96	.85
Guards and watchmen (other than prison)	.93	.55	[2] .75	.85	(3)	-------	.60
Guards	.95	.59	.90	.86	[4] .75	-------	.74
Watchmen	.92	.45	[2] .68	(3)	[2] .62	-------	.46
Guards, prison	-------	-------	-------	-------	.82	.94	-------
Helpers, any craft	-------	-------	-------	.96	-------	-------	-------
Inspectors, field	1.56	1.00	1.24	1.10	1.02	1.31	1.08
Janitors	.95	[2] .57	.74	.81	[2] .69	-------	.43
Laboratory technicians	(3)	-------	[2] 1.08	.94	.65	-------	-------
Laborers (including gardeners)	[2] .92	.64	[2] .78	.91	.65	.81	.61
Gardeners	[2] .93	.71	[2] .86	.96	.68	.91	.62
Laborers	.90	.64	[2] .78	.91	.65	.80	.61
Laundry workers	-------	-------	(3)	-------	[2] .62	-------	-------
Librarians	(3)	-------	-------	-------	(3)	.83	-------
Library aides	(3)	-------	-------	-------	.46	.54	-------

See footnotes at end of table.

TABLE 2.—*Average Hourly Earnings* [1] *of Employees in 15 Municpal Governments, Selected Occupations, By Sex, June 1944*—Continued

Occupation and sex	Oakland	Oklahoma City	Pittsburgh	Portland (Oreg.)	St. Louis	St. Paul	City X
Males—Continued							
Linemen	$1.37	-------	$1.40	$1.30	$1.30	-------	$1.02
Machinists, maintenance	(3)	$0.82	1.75	1.22	1.10	$1.04	.95
Mechanics, water works	1.05	.77	.86	1.12	.86	.88	.85
Office-machine operators	-------	-------	-------	(3)	(3)	-------	.87
Painters	1.36	.95	1.63	1.32	[2] 1.55	1.44	.76
Plumbers	1.70	.95	1.75	1.46	1.59	-------	(3)
Pumping-plant engineers	-------	.84	1.19	1.17	(3)	-------	.80
Pumping-plant oilers	-------	-------	.96	-------	1.05	.70	-------
Recreational leaders	1.06	.41	1.09	.95	.61	-------	(3)
Repairmen, general	1.21	.72	[2] 1.15	1.01	[2] 1.00	.85	(3)
Sanitarians	1.41	.96	1.10	1.11	.99	-------	.84
Secretaries	(3)	-------	1.30	-------	(3)	(3)	-------
Sewage-plant operators	-------	.84	(3)	-------	-------	-------	.76
Stationary engineers	1.25	.90	[2] .99	1.19	1.27	.89	.74
Stationary firemen	-------	.63	[2] .81	(3)	1.06	.91	-------
Stenographers	-------	(3)	1.10	(3)	[2] .84	1.14	.86
Stock clerks	-------	-------	[2] .83	.92	[2] .73	-------	.78
Storekeeper supervisors	(3)	(3)	[2] .81	1.18	(3)	-------	(3)
Switchboard operators	-------	-------	.87	-------	[2] .75	-------	-------
Tree surgeons	(3)	(3)	-------	-------	.78	-------	(3)
Tree trimmers	.97	.55	-------	-------	.67	.89	.65
Typists	-------	-------	(3)	(3)	[2] .83	1.10	-------
Typists, junior	-------	-------	(3)	-------	[2] .83	-------	-------
Typists, senior	-------	-------	-------	(3)	-------	1.10	-------
Water-purification operators	-------	.83	.79	-------	1.05	-------	.84
Water-service men	-------	.83	.89	.99	.85	-------	.73
Females							
Account clerks	1.20	(3)	.87	.97	(3)	(3)	.91
Accountants (including supervisors)	-------	(3)	.90	-------	-------	-------	-------
Attendants, hospital, etc	-------	(3)	[4] .43	-------	[2] .54	-------	.47
Charwomen	.76	.49	[2] .54	.74	[2] .50	-------	.38
Clerks, general	.91	.68	[2] .86	.77	[2] .68	(3)	.71
Clerks, senior	-------	.85	-------	.96	-------	1.10	.81
Clerical supervisors, except principal	(3)	(3)	.79	.93	[2] .92	1.10	(3)
Clerical supervisors, principal	1.45	-------	-------	1.21	[2] 1.02	-------	-------
Cooks	-------	(3)	[2] .60	.56	[2] .49	-------	-------
Dietitians	-------	-------	[4] .80	-------	[2] .97	-------	-------
Elevator operators	.73	.49	.59	-------	.56	-------	(3)
Food workers (except cooks)	-------	-------	.52	-------	[2] .50	-------	-------
Food workers, hospital	-------	-------	-------	-------	[2] .50	-------	-------
Food workers, other than hospital	-------	-------	.52	-------	-------	-------	-------
Graduate nurses (including Public Health Service)	1.19	[2] .80	(5)	.88	[2] .76	1.23	.75
Graduate nurses (except Public Health Service)	(3)	[2] .78	[4] .50	.86	[2] .75	-------	-------
Graduate nurses (Public Health Service)	1.19	.81	.91	.89	.78	1.23	.75
Graduate nurse supervisors	-------	(3)	[2] 1.30	(3)	[2] .90	-------	(3)
Housekeepers	-------	-------	-------	-------	[4] .55	-------	-------
Laboratory technicians	(3)	.80	[2] 1.01	.96	[2] .73	-------	.74
Laborers (including gardeners)	.82	-------	(3)	-------	-------	.80	-------
Laundry workers	-------	(3)	[3] .48	-------	[2] .52	-------	-------
Librarians	1.03	.77	.96	-------	[2] .84	.84	.69
Library aides	.80	.58	.78	-------	.51	.58	.54
Matrons, park	-------	-------	-------	-------	-------	.47	-------
Matrons, prison	-------	-------	-------	-------	.66	-------	-------
Office-machine operators	.89	(3)	.87	.80	.81	-------	(3)
Recreational leaders	[2] 1.10	.41	.91	.85	.63	-------	.69
Sanitarians	-------	-------	1.08	-------	-------	-------	.78
Secretaries	1.17	.74	.99	.87	[2] .93	1.31	.95
Social workers, welfare	-------	-------	1.49	-------	[2] .78	-------	-------
Stenographers	.85	.69	.90	.81	[2] .75	.95	.74
Stock clerks	.98	-------	-------	-------	[2] .61	-------	-------
Switchboard operators	.85	.57	[2] .78	.78	[2] .66	-------	.63
Typists	.85	.65	.71	.76	[2] .66	.84	.57
Typists, junior	.84	(3)	.65	.75	[2] .66	.67	.55
Typists, senior	(3)	.66	(3)	(3)	-------	1.07	.60

[1] For some workers average hourly earnings are not straight-time but include overtime at premium rates. Only a small number of workers are so affected.

[2] Some workers receive additional compensation in the form of meals and/or lodging, or other payments in kind, the cash value of which was not estimated. The earnings of such workers have been excluded from the calculation of the average shown in order to avoid understating the average hourly earnings.

[3] Too few workers to justify presentation of an average.

[4] All workers receive additional compensation in the form of meals and/or lodging, or other payment in kind, the cash value of which was not estimated. The earnings presented include no allowance for such compensation.

[5] A comparable average for this combination cannot be shown, since all the workers in one of the two occupations receive additional compensation in the form of meals and/or lodging or other payments in kind.

Table 2 also permits comparison of hourly earnings of male and female workers in the same occupational groups. Of the 12 cities with data for general clerks of both sexes, Flint and City X were the only cities in which male general clerks received lower hourly earnings than the corresponding female group. In the 10 cities in which the earnings of women were below those of men, the difference ranged from only 1 percent in Cincinnati to almost 50 percent in Grand Rapids. In 8 of these 10 cities the margin was greater than 10 percent. In the more highly skilled group of clerical supervisors (except principal) none of the 10 cities reporting information for both sexes showed female earnings above those of males. In St. Paul both sexes received $1.10; in the 9 remaining cities the difference varied in favor of men from 2 percent in Buffalo to 70 percent in Pittsburgh, but in 5 of these cities was under 10 percent. It is probable that differences in length of time on the job and in the content of job account in large part for the differentials between the sexes found within any single city.

Estimated Annual Salaries

As in the case of average hourly earnings, there is a marked lack of uniformity in the estimated annual salaries of identical occupations in the 15 cities, and similarly, occupations requiring approximately the same degree of skill show substantial variations in salaries within any given city.[7] The differences observed on an annual basis are due both to differences in average hourly earnings and to variations in average scheduled weekly hours of work.

A distribution based on the annual salaries of 16 key male occupations that appeared in most cities showed that in 12 cities half or more of the classifications fell within the $2,000–$3,000 salary class. In one city (City X) half of the key male occupations had salaries under $2,000; in Gary and Pittsburgh the concentration was in the salary bracket of over $3,000. With respect to 7 key female occupations, no city reported salaries over $3,000; the majority of these occupations in 10 cities were in the $1,500 to $2,000 bracket.[8] It is important to bear in mind that the selected occupations do not include certain higher-salaried employees, such as firemen, teachers, policemen, and top administrative personnel. Moreover, the distribution of occupations by salary classes is not necessarily indicative of the distribution of municipal employees surveyed in this study, because the former takes no account of the number of workers in each occupation.

Of the 16 key male occupations, the highest-paid group, based on an average for all 15 cities, was senior civil engineers, with annual salaries of $3,278; the lowest-paid workers were janitors, at $1,619. Plumbers ($3,039), accountants ($3,032), and maintenance electricians ($2,920) were among the highest paid; laborers ($1,773) and light-equipment operators ($1,993) received the second and third lowest annual wages. Among the 7 key female occupations, secretaries were the highest paid ($2,007) and switchboard operators the lowest ($1,510).

[7] Detailed tabular data on estimated annual salaries, by occupation and city, will be included in a forthcoming bulletin.

[8] See footnote 9 for enumeration of key occupations.

Scheduled Weekly Hours of Work

The scheduled workweek was not uniform either among all 15 cities or within any single city. The majority of office employees were scheduled to work 38 hours in 4 cities (Gary, Hartford, Oakland, St. Louis), more than 38 but less than 40 hours in 3 cities (Buffalo, St. Paul, Pittsburgh), 40 hours in one city (Grand Rapids), 44 hours in 4 cities (Cincinnati, Denver, Flint, Portland), and 45 hours in City X. The regular workweek was reported as 41.5 hours in Atlanta and 44.5 hours in Oklahoma City. For nonoffice workers, scheduled hours were generally longer and there was greater variation within each city. Very few were scheduled to work less than 40 hours and with the exception of some custodial and boilerhouse employees, few were scheduled to work more than 48 hours. Hospital workers in Atlanta, Cincinnati, Denver, and Pittsburgh were among those for whom a 48-hour workweek was scheduled.

Intercity Comparisons of Wage Levels

The general level of municipal wage rates in the 15 cities is not easily identified from an inspection of the occupational data, because of the numerous classifications, the varying number of employees covered in each group, and the great disparity in wages. To facilitate intercity comparisons, two indexes of wage rates were constructed, based on 23 of the 74 key occupational classifications [9] included in this survey. All of these occupations appeared in at least 14 of the 15 cities, accounted for a substantial proportion of the employees surveyed, and were representative of the range of wage rates and skills.

The indexes were constructed in the following manner: (1) The number of employees in each city in each occupation was used as a weight to obtain the average occupational rate for all 15 cities combined; (2) the occupational rate in each city was expressed as a relative of the composite occupational rate; and (3) the resulting relatives for each city were then weighted in proportion to the number of workers in that occupation in all cities combined, yielding a composite relative for each city. In analyzing the resulting indexes of hourly rates and annual salaries presented in table 3, it should be noted that they are based on a limited number of the occupations surveyed and also exclude the higher-salaried personnel. Although the indexes presented differ in some degree from those that would be obtained if the coverage were more inclusive, it is believed that the rank of the cities with respect to their municipal wage levels is representative.

[9] These include 16 male occupations: Account clerks, accountants (including supervisors), automotive mechanics, blacksmiths, maintenance carpenters, senior civil engineers, maintenance electricians, heavy-equipment operators, light-equipment operators, labor foremen, field inspectors, janitors, laborers, painters, plumbers, and general repairmen. The 7 female occupations include clerical supervisors (except principal), general clerks, graduate nurses of the public health service, secretaries, stenographers, switchboard operators, and typists.

TABLE 3.—*Indexes and Rank of 15 Municipal Governments, by Level of Annual and Hourly Wage Rates in Selected Occupations, June 1944*

City	Annual rates		Hourly rates	
	Indexes (averages all cities=100)	Rank of city based on index	Indexes (averages all cities=100)	Rank of city based on index
Oakland	118	1	124	1
Gary	115	2	113	2.5
Portland (Oreg.)	114	3	113	2.5
St. Paul	110	4	108	5
Buffalo	107	5.5	105	6
Flint	107	5.5	104	7
Pittsburgh	106	7	109	4
Hartford	102	8	100	8
Cincinnati	99	9	94	10
Grand Rapids	93	10	99	9
Denver	91	11	92	12
Oklahoma City	90	12	84	13
City X	88	13	82	14.5
St. Louis	85	14	93	11
Atlanta	77	15	82	14.5

The relative position of each city with respect to both hourly rates and annual salaries was found to be almost identical. Oakland, Gary, and Portland had the three highest ranks measured by both indexes, while Atlanta, St. Louis, and the southwestern City X had the three lowest.

Seven of the cities surveyed were also included in a study of intercity variations in industrial wage levels made by the Bureau of Labor Statistics in 1943.[10] A comparison of the two sets of data revealed a close similarity in the rank of wage levels of municipal employees and of employees in private industry in the same cities. Portland showed the highest municipal wage rates as well as the highest industrial wage rates, and Atlanta ranked lowest in both respects. The remaining 5 cities, ranked from high to low on the basis of the data from both studies, were Pittsburgh, Buffalo, Cincinnati, Denver, and St. Louis.

Wage Increases Since January 1941

Wage rates of municipal employees increased substantially between January 1941 and June 1944 in all 15 cities. Some of these increases involved upward revisions of basic wage scales; others were given in the form of cost-of-living bonuses. In several cities both types of wage adjustments were made, but usually for different groups of employees.

Wage scales were advanced in all or most of the departments in Denver, Flint, Gary, Oklahoma City, Pittsburgh, and St. Louis. In some of these cities a uniform sum was applied to the wages of all or most employees, in others a uniform percentage increase was awarded, while in the remaining cities graduated sums or graduated percentage increases were applied to different salary brackets. In Flint, for example, a uniform increase of $130 per year, or 6 cents per hour, was granted in August 1943 to all municipal employees except those in the Board of Education. In July 1944, employees of the Board of Education were to receive a flat increase of $10 per month. A uniform general increase of 5 percent was applied to the wages of all salaried workers (except department heads) in Gary on January 1,

[10] See Intercity Variations in Wage Levels, in Monthly Labor Review, August 1944.

1942. In the same city all employees paid on an hourly basis received a flat increase of 10 cents an hour on January 1, 1942, and graduated increases on January 1, 1943, and January 1, 1944. In the 4 other cities where wage scales were adjusted upward both flat-rate and percentage increases were granted to different groups of workers. In some cities the amount of the increase varied with different salary classes.

Cost-of-living bonuses form a part of the present salary of all or a large proportion of the municipal employees in Atlanta, Buffalo, Cincinnati, Grand Rapids, Hartford, Oakland, Portland, St. Paul, and City X. The St. Paul and Portland wage plans call for an annual adjustment of wages based on the U. S. Bureau of Labor Statistics cost-of-living index. In the 7 other cities the cost-of-living bonus was most commonly a variable sum applied to different salary brackets. In Buffalo, for example, all employees earning less than $1,200 a year received a bonus of $156. The amount of the bonus decreased as the salary increased so that employees in the $3,600–$3,899 salary class received a bonus of $97.50. In Cincinnati employees in the lowest salary class of $1,020 or less a year received $250.08, but the amount increased with each salary class so that for those earning $2,580 the bonus was $398.88; all employees above this salary group received a uniform bonus of $400.08.

It is estimated that the wage increases and bonus payments had the effect of raising wages by approximately 10 to 15 percent in most cities.

Wage-Payment Practices

JOB-CLASSIFICATION AND SALARY PLANS

Job-classification systems covering all or nearly all major groups of municipal workers were in effect in 12 of the 15 cities. Pittsburgh had no similar system for any department but was engaged in a job-analysis study at the time of the survey. In Gary classifications were used only in the Police Department, and in Denver only in the Departments of Education and Public Welfare. Of the 12 cities having the more extensive systems, only Buffalo, Cincinnati, and St. Paul covered nonteaching personnel in the Department of Education.

Four general types of salary plans were prevalent: (a) Uniform pay plans that classify jobs by grades, with a uniform salary range for all jobs within a grade, found in Buffalo, Flint, Grand Rapids, St. Louis, and St. Paul; (b) plans that called for a single minimum rate for each job class but with varying maximum rates, used in Atlanta, Cincinnati, Hartford, Oakland, Portland, and City X; (c) salaries and wages fixed annually for individual jobs, with no step rates and no rate ranges indicated, found in Gary and Pittsburgh; and (d) the discretionary fixing of salaries and wages by the appointing officer, practiced in Denver. Denver, however, had established standardized wage rates and ranges in the Board of Education and Department of Public Welfare. Insufficient information was available to permit classification of the wage plan of Oklahoma City.

All of the uniform pay plans provided step rates between the minimum and maximum rates for a grade. These step-rate increases were earned at stated service intervals, except in Grand Rapids where they were granted on the basis of individual merit.

Salary increases within the range were also a feature of the (b) type plans found in six cities. However, only in Atlanta were specific

step-rate increases prescribed at certain time intervals; Cincinnati, Hartford, Oakland, and Portland provided specific increments to be awarded for individual merit. In City X the amount of increase within the salary range and the time interval were determined on an individual basis.

Although a classification of jobs is common to both, the (b) type plans typically provide for many more job classes and rate ranges than do the (a) type plans. For example, the (a) type plan used in St. Louis contained 32 job-classification grades, with a uniform salary range and step rates at stated service intervals for all jobs within a grade. There were 60 minimum rates with 150 rate ranges, and 33 flat rates with no rate ranges in Cincinnati which followed a (b) type plan.

Workers paid hourly or daily rates were, in most cases, treated differently from employees hired on a monthly or annual salary basis. Among the 5 cities with uniform pay plans, only Flint extended classification by grade to all daily and hourly rate workers, with ranges and step increases established for each grade. Buffalo set grade rates but made no provision for ranges or step increases. St. Louis and St. Paul incorporated daily and hourly rates for specific jobs in their plans, but except for one job in St. Paul, no ranges or step increases were provided. Grand Rapids had rates with prescribed ranges but no step increases for maintenance employees in the Department of Education. Of the 6 cities with (b) type plans, only Atlanta, Hartford, and Oakland had ranges and step increases applicable to both daily and hourly rates and salary rates. In City X daily and hourly rates were set for specific jobs but the system of ranges was not extended to include these rates. The Portland plan covered only monthly rates, while Cincinnati included some hourly and daily rates with corresponding ranges but no step increases.

METHODS OF WAGE PAYMENTS

Municipal employees, like employees of the Federal and State Governments, are typically salaried workers whose wages are expressed in terms of monthly or annual rates. However, substantial numbers of workers, particularly in the craft, maintenance, and laborer classifications, are paid hourly or daily rates. Occupations in which approximately one-fourth to three-fourths of the employees are paid by this method are the laborers, oilers, plumbers, heavy-equipment operators, carpenters, painters, brickmasons, electricians, stationary firemen, general repairmen, light-equipment operators, tree trimmers, blacksmiths, tree surgeons, and automotive mechanics. In the first 7 of the 15 enumerated occupations more than half of the workers were paid hourly or daily rates. An appreciable number of mechanics in waterworks, craft helpers, labor foremen, stationary engineers, guards and watchmen, janitors, and stock clerks were paid by the day or hour in two or more cities. Women workers paid daily or hourly rates in two or more cities were employed as cooks, other food workers, laborers, park matrons, charwomen and maids, and nurses (other than public health nurses). More than half of the women cooks, other food workers, and laborers included in the study were found in this category. Daily and hourly rate workers constituted about a fourth of all the workers studied, and approximately the same proportion in each of the seven cities City X, Cincinnati, Denver, Flint, Okla-

homa City, St. Louis, and St. Paul. More than half of the workers in Pittsburgh and more than a third in Atlanta, Gary, and Hartford were paid by this method.[11]

Administration of Municipal Employment Systems

CIVIL SERVICE SYSTEMS

All cities but Gary, Denver, and Hartford have civil service systems covering all departments of the municipal government. In Denver, the police and fire departments are the only departments covered by a civil service system and in Gary, only the police department. In Denver, however, the civil service commission has the power to review appointments in other departments. Hartford has a personnel system administered by the board of finance, but the board has no powers of appointment; appointments are made by department heads, and no competitive examinations are held.

In those cities where civil service systems are in effect, examinations are open and competitive for most of the positions in the classified service and are generally free. In Buffalo, however, fees range from 50 cents for an examination for a per diem job or one paying less than $1,200 to $5 for a job paying more than $5,000 a year. The St. Louis charter provides that fees may be charged.

TENURE OF OFFICE

Tenure of office is in most cases attained after a 6-month probationary period, but in three cities, (Cincinnati, Pittsburgh, and City X) the period is only 3 months;[12] in Oakland and Hartford it is 1 year, and in St. Louis it is "not more than 1 year." Information regarding the probationary period in Gary is not available.

Seniority is recognized in determining lay-offs in all cities except Atlanta, Cincinnati, Gary, and Pittsburgh. In St. Louis this rule is observed for all but a small group of employees; Denver and Oakland reported exceptions to the seniority principle in some departments.

Employees have the right of appeal from discharge "for cause" in most cities. There are no specific provisions for some departments that are outside the merit system in Gary and Denver. In Oklahoma City appeal is to the city manager, and there are no provisions for public hearing.

Union Affiliation

Although none of the municipal governments had written contracts with unions, in some cities entire departments were organized and in others groups of employees were members of independent unions or of unions affiliated with the American Federation of Labor or the Congress of Industrial Organizations. Only two cities, Denver and Oklahoma City, reported that no municipal employees were organized; for Flint, St. Louis, and City X, no information on unionization was available.

The status of union affiliation in 7 cities may be summarized briefly. In Atlanta mechanics were members of various unions affiliated with the A. F. of L.; truck drivers belonged to a local of the Teamsters

[11] The proportion of nonsalaried workers in the labor force probably varies somewhat from season to season.

[12] In Cincinnati the probationary period for unskilled laborers is 2 months.

Union, A. F. of L. In Buffalo employees of the division of streets, the city hospitals, the park department, and the sewer authority belonged to the State, County and Municipal Employees Union, C. I. O. Switchboard operators in the police and fire departments and janitors in the public library of Gary were members of the Building Service Employees Union, A. F. of L. In the Gary school department there was a teachers' local of the American Federation of Teachers, A. F. of L.; service and maintenance employees in the same department belonged to another A. F. of L. affiliate; a few municipal workers of Gary were members of the Fire Fighters Union, A. F. of L.; while certain hourly rate employees of the street, sewer and garbage department belonged to unions not designated.

In Grand Rapids maintenance and operating employees of the board of education and the public library were members of an A. F. of L. affiliate; fire and police department members belonged to the Metropolitan Club, sponsored by the A. F. of L. In addition the Grand Rapids Council of Public Employees covered board of education workers, and an unaffiliated municipal employees' association included city workers other than those in the public library, board of education, and fire and police departments.

In Hartford employees of the street department belonged to the Street Department Operatives Union, A. F. of L. Some of the employees in the following departments in Portland were members of unions affiliated with the A. F. of L.: Police, fire, bureau of parks, bureau of water works, and bureau of street cleaning. In Portland's Multnomah School District many custodial and maintenance employees as well as teachers were reported to be unionized, but no information concerning affiliation was available. While entire departments in St. Paul were not unionized, workers in several occupations, including maintenance employees, teachers, truck drivers, laborers, and firemen, were members of A. F. of L. unions.

Very little information is available concerning the extent of unionization in Cincinnati, Oakland, and Pittsburgh. It was reported, however, that although there were no contracts, conferences were held with union officials, and union rates were paid to municipal building-trades employees in Cincinnati, dock clerks and laborers in Oakland, and all journeymen in Pittsburgh.

Trend of Factory Earnings, 1939 to May 1945

THE published average earnings of factory workers are summarized in the accompanying table for selected months from January 1939 to May 1945.[1] The earnings shown in this table are on a gross basis (i. e., before deductions for social security, income and victory taxes, bond purchases, etc.).

Weekly earnings in all manufacturing averaged $46.03 in May 1945—98.5 percent above the average in January 1939, 72.8 percent above January 1941, and 18.4 percent above October 1942. Such factors as longer hours of work, merit increases for individual workers, premium pay for overtime worked, changing composition of the labor force within plants, shifts in the distribution of workers among plants

[1] Compare Trends in Factory Wages, 1939–43, in Monthly Labor Review, November 1943 (pp. 869–884), especially table 4 (p. 879). For detailed data regarding weekly earnings, see Detailed Reports for industrial and Business Employment, May 1945, table 6 (p. 385), in this issue.

and among industries, as well as wage-rate increases, account for the rise in earnings.

Gross hourly earnings in all manufacturing averaged 104.3 cents in May 1945—65.0 percent above the average in January 1939, 52.7 percent above January 1941, and 16.8 percent above October 1942.

Straight-time average hourly earnings, as shown in columns 7 to 9, are estimated to exclude premium pay at time and a half for work in excess of 40 hours. The effect of extra pay for work on supplementary shifts and on holidays is included. For all manufacturing, the straight-time average in May 1945 was 97.7 cents per hour; this was 56.8 percent higher than in January 1939, 47.1 percent above January 1941, and 16.4 percent above October 1942.

The shift of workers from relatively low-wage to relatively high-wage industries since 1939 would have raised the average earnings of factory workers, even if no other influences had been present. The effects of such interindustry shifts have been eliminated from the averages shown in columns 10 to 12 of the table. If employment had been distributed between industries as it was in January 1939, the straight-time hourly earnings of factory workers would have averaged 90.8 cents in May 1945, or 45.7 percent above the corresponding average in January 1939, 40.1 percent above January 1941, and 16.1 percent above October 1942. Between April and May 1945 the increase in straight-time hourly earnings, after eliminating the influence of shifting employment, amounted to 1.0 percent. Even this latter series of averages exaggerates the rise in wage rates, because it includes the influence of interplant shifts of employment, merit increases for individual workers, and premium rates for work on extra shifts and on holidays.

Earnings of Factory Workers in Selected Months, 1939 to May 1945

Month and year	Average weekly earnings			Average hourly earnings			Estimated straight-time average hourly earnings [1]			Estimated straight-time average hourly earnings weighted by January 1939 employment [2]		
	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1939: Jan.	$23.19	$25.33	$21.57	$0.632	$0.696	$0.583	$0.623	$0.688	$0.574	$0.623	$0.688	$0.574
1940: Jan.	24.56	27.39	22.01	.655	.717	.598	.644	.703	.589	.635	.697	.589
1941: Jan.	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601	.648	.711	.600
1942: Jan.	33.40	38.98	26.97	.801	.890	.688	.762	.835	.670	.729	.810	.667
July	36.43	42.51	28.94	.856	.949	.725	.809	.885	.701	.759	.846	.694
Oct.	38.89	45.31	30.66	.893	.990	.751	.839	.919	.723	.782	.869	.716
1943: Jan.	40.62	46.68	32.10	.919	1.017	.768	.859	.941	.733	.794	.886	.724
Apr.	42.48	48.67	33.58	.944	1.040	.790	.878	.959	.751	.808	.897	.741
July	42.76	48.76	34.01	.963	1.060	.806	.899	.981	.766	.823	.919	.750
Oct.	44.86	51.26	35.18	.988	1.086	.824	.916	.997	.781	.836	.929	.765
Dec.	44.58	50.50	35.61	.995	1.093	.832	.927	1.011	.788	.846	.942	.773
1944: Jan.	45.29	51.21	36.03	1.002	1.099	.838	.931	1.013	.793	.850	.945	.778
Apr.	45.55	51.67	36.16	1.013	1.110	.850	.942	1.023	.806	.862	.955	.792
July	45.43	51.07	37.05	1.018	1.116	.862	.950	1.035	.815	.874	.973	.799
Oct.	46.94	53.18	37.97	1.031	1.129	.878	.956	1.038	.829	.881	.969	.815
Dec.	47.44	53.68	38.39	1.040	1.140	.883	.963	1.046	.832	.886	.975	.818
1945: Jan.	47.50	53.54	38.66	1.046	1.144	.891	.970	1.053	.840	.894	.984	.825
Mar.	47.40	53.22	38.96	1.044	1.139	.896	.969	1.049	.845	.896	.982	.830
Apr.[3]	47.12	52.92	38.80	1.044	1.138	.899	.971	1.050	.850	.899	.985	.834
May [3]	46.03	51.58	38.23	1.043	1.135	.904	.977	1.055	.859	.908	.993	.843

[1] Average hourly earnings, excluding the effect of premium pay for overtime.

[2] Average hourly earnings, excluding premium pay for overtime, weighted by man-hours of employment, in the major divisions of the manufacturing industry, for January 1939.

[3] Preliminary.

Employment and Annual Earnings in Selected Indian Factories, 1939 and 1943

EMPLOYMENT increased approximately 50 percent and average earnings per worker per year nearly 83 percent in selected Indian factories between 1939 and 1943, according to an official survey.[1] Of the 10 groupings covered, the textile industry had the highest volume of employment, followed by engineering, in both years. The relative order of the various industries as regards annual earnings shifted considerably from 1939 to 1943. In 1943, the average for mints was highest (574.4 rupees [2]), textiles were next (571.2 rupees), and engineering ranked third (529.0 rupees), with average wages in the ordnance factories (527.4 rupees) closely approximating the level of earnings in engineering. Employment and average annual earnings are shown in the accompanying table, by industry, for 1939 and 1943.

Average Employment and Average Annual Earnings in Selected Factories in India, by Industry, 1939 and 1943

Industry	1939		1943	
	Average number of workers	Average annual earnings	Average number of workers	Average annual earnings
		Rupees		*Rupees*
Textiles	7,957,000	293.6	10,157,000	571.2
Engineering	1,050,000	312.1	2,354,000	529.0
Minerals and metals	599,000	462.8	974,000	502.7
Chemicals and dyes	512,000	246.2	810,000	398.8
Paper and printing	513,000	332.6	614,000	413.4
Wood, stone, and glass	412,000	193.8	725,000	303.0
Skins and hides	118,000	290.3	385,000	410.7
Ordnance factories	266,000	361.9	1,253,000	527.4
Mints	18,000	367.4	68,000	574.4
Miscellaneous	203,000	282.8	731,000	392.0

Wage Rates in Central and Southern Italy, 1939–45 [3]

WAGE variations based on skill and region have tended to narrow in central and southern Italy since the beginning of Allied operations in that country. Money wages have risen greatly, but not at the pace of prices.

Wage Rates by Skills

Gross daily wage rates, established by agreement, for skilled and unskilled workers in representative private industries in liberated Italy, in April 1945, ranged from 292.0 lire [4] for skilled printers and 259.0 lire for unskilled engineering workers in Rome, to 210.0 and 178.0 lire, respectively, for skilled and unskilled workers in the building

[1] Information is from Indian Labor Gazette (Government of India, Department of Labor), April 1945 (p. 340).

[2] Official exchange rate of rupee in United States currency was 33.3 cents in 1939 and 30.1 cents in 1943.

[3] Data are from report (No. 1583) of Alexander Kirk, United States Ambassador at Rome, dated May 18, 1945, enclosing report from Labor Subcommission of the Allied Commission for April 1945; and reports (Nos. 39 and 88) by William D. Grampp, vice consul, Rome, dated April 21 and June 6, 1945.

[4] The Allied Military Government established, in July 1943, for the liberated portion of Italy, an exchange rate of 1 lira for 1 cent; this became effective in the Rome area about the middle of 1944.

industry in Catanzaro. In Rome these rates for unskilled workers were more than 8 times as high as those in September 1942.

Daily wage rates in four representative industries in 6 regions in the southern and central parts of Italy for September 1942, November 1944, and April 1945, are shown in table 1.

TABLE 1.—*Daily Wage Rates in Representative Industries in Southern Italy, 1942, 1944, and April 1945*

Province, and population in 1944	Industry	Daily wage rate (in lire)					
		September 1942		November 1944		April 1945	
		Skilled	Unskilled	Skilled	Unskilled	Skilled	Unskilled
Rome (1,622,926 population)	Building	43	38	140	131	279	252
	Engineering	36	31	127	120	266	259
	Printing	43	27	140	113	292	252
Naples (2,223,509 population)	Building	41	28	134	114	235	215
	Engineering	31	27	118	112	219	213
	Food	33	27	121	111	222	212
Taranto (356,723 population)	Engineering	33	28	116	109	227	220
	Food	36	25	121	104	232	215
Terni (204,600 population [1])	Building	38	28	126	110	237	221
	Engineering	34	28	120	110	231	221
Brindisi (274,602 population)	Building	37	26	123	104	224	205
Catanzaro (628,443 population)	Building	43	24	134	102	210	178

[1] In 1936.

Rates given in table 1 are for an 8-hour day for a worker with 3 dependents, and include bonuses and allowances. Although the Italian General Confederation of Labor has advocated the adoption of a sliding scale for wages tied to the cost of living, various increases in basic rates, cost-of-living bonuses, food allowances, etc., have from time to time been negotiated.[5] These emergency payments, being the same for skilled and unskilled labor, have tended to decrease the difference between wages for the two groups, and this difference has been further decreased by the demand for unskilled labor. For example, in Naples, the daily wage of the skilled worker in building in September 1942 exceeded that of the unskilled worker by about 46 percent, but in April 1945 only by about 9 percent. In Brindisi, the wage of the skilled worker in the same industry exceeded that of the unskilled worker in September 1942 by 42 percent, and in April 1945 by 9 percent. In engineering, though the difference between the wages of the two groups was smaller, it also decreased between September 1942 and April 1945.

Wage Rates by Regions

According to studies based upon data of the Central Statistical Institute of the Italian Government, average daily wage rates in Rome and Naples rose from 42.5 and 30.1 lire, respectively, in May 1939, to 141.0 and 208.4 lire in November 1944.

Table 2 shows for specified months in 1939, 1943, and 1944, average daily wage rates in seven regions in southern and central Italy.

[5] For details, see Monthly Labor Review, May 1945 (p. 1013).

TABLE 2.—*Average Daily Wage Rates in Specified Regions of Italy, 1939–44*

Region	Daily wage rates (in lire)				Region	Daily wage rates (in lire)			
	May 1939	May 1943	July 1944	November 1944		May 1939	May 1943	July 1944	November 1944
Average	29.3	49.5	107.8	167.6	Rome	42.5	52.1	80.5	141.0
					Sassari	24.9	46.4	67.3	122.8
Catania	23.7	43.6	102.2	157.7	Taranto	25.0	47.7	68.8	141.0
Chiete	22.2	40.5	79.2	134.7	Trapani	26.5	75.2	134.0	189.5
Naples	30.1	57.1	147.9	208.4					

Average wage rates given for various parts of Italy in table 2 indicate that great regional differences in rates which prevailed in Fascist days have been somewhat reduced since the advent of the Allies—from 91 percent between the highest and lowest rates in May 1939, to 70 percent in November 1944. The inflationary effects of Allied military expenditures have been more noticeable in some regions than in others, raising wage rates in Catania, Sicily, for instance, from the second lowest in the seven regions in May 1939 to the third highest in November 1944, and shifting Rome from first to fourth place in average rates.

Although average wage rates were 2 or 3 times higher in November 1944 than in May 1943, the significance of this increase depends upon comparison with increases in food prices and other costs. No satisfactory index for all phases of cost of living is available. Indexes of food costs and of wages, based upon data from the Central Statistical Institute (1940=100), stood, respectively, at 210.7 and 113.6 in 1942, 457.1 and 145.9 in 1943, and 1870.5 and 541.3 by November 1944. Between 1943 and November 1944, the indexes of both food costs and wages rose about 300 percent. From 1940 to July 1943, however, food costs had risen more than 6 times as fast as wages, and this difference had not been made up before the end of 1944.

Indexes of average monthly income and of the cost of a fixed food budget for a worker's family of 5 in Rome, 1940–45, prepared by the Rome Chamber of the Italian General Confederation of Labor, are shown in table 3.

TABLE 3.—*Indexes of Average Monthly Income, Cost of Fixed Food Budget, and Real Wages, in Rome, 1940–45*

Month	Average monthly income [1]		Index of cost of fixed food budget	Index of real wages in terms of food
	In lire	Index		
1940: November	923	100	100	100
1941: March	950	103	(2)	
June	1,100	119	(2)	
1943: April	1,256	136	(2)	
July	1,360	147	410	36
December	1,867	202	537	38
1944: June	2,207	239	2034	12
August	3,096	335	1572	21
1945: March	6,424	696	2203	32
April	6,424	696	2150	32
May	6,424	696	1915	36

[1] Data for income include the contractual wage plus all allowances. Legal wages change only by decree and changes occurred only in the months given.
[2] No data.

According to the data presented in table 3, the average monthly money income of a worker in Rome was 596 percent greater in May 1945 than in November 1940. In the same period of time, the cost of a fixed food budget providing 2,200 calories daily per consuming unit for a family of 3.73 units, increased 1815 percent—3 times as much as the money income. When measured by the only price index available, that for food, the real-wage index in Rome in May 1945 was equal to that in July 1943, the month in which Mussolini was deposed. In the year from June 1944 to May 1945 the real value of wages tripled.

Wage Rates and Hours of New Zealand Railroad Workers, 1935 and 1945[1]

ANNUAL wage and salary rates of New Zealand railroad workers rose substantially in the 10-year period from 1935 to 1945. The rates of 10 occupational groups for 1935 and 1945 are shown in the accompanying table. In the latter year, the range was from £126 0s. 0d. for first-year cadets to £360 16s. 5d. (plus cost-of-living allowances) for sixth-year engine drivers. Cost-of-living bonuses are included in the 1945 figures, with the exception of earnings for sixth-year engine drivers and ninth-year firemen, as noted. Minimum wages for adults in the latter period were £225 yearly, irrespective of length of service; £235 after 5 years of service; £260 after 6 years; £270 after 7 years; and £275 after 1 year at £270.

Yearly Rates of New Zealand Railroad Workers, 1935 and 1945

Occupation	1945[1]			1935		
	£	s.	d.	£	s.	d.
Engine drivers:						
First year	356	7	9	241	1	10
Sixth year	[2]360	16	5	[3]		
Guards, first year	341	3	6	250	8	0
Firemen:						
First year	319	8	9	221	10	4
Ninth year	[2]319	10	5	[4]		
Porters, traffic laborers, and surfacemen:						
Under 2 years	299	17	6	221	10	4
2 years or more adult service	304	4	5			
Junior porters, 20 years	247	14	2	183	15	2
Draftsmen:						
First year	356	7	9	241	1	10
Third year	356	7	9	247	0	4
Apprentices, fifth year [5]	234	13	4	145	7	5
Train examiners, first year	332	9	7	219	4	2
Clerks, first year [6]	271	0	0	183	7	0
Cadets: [5]						
First year	126	0	0	77	4	0
Fifth year	226	0	0	149	11	6

[1] 1945 rates include cost-of-living allowances, except for instances noted.
[2] Plus cost-of-living allowances.
[3] Sixth-year earnings in 1935 not available; at that time, after 8 years' service, engine drivers' earnings were £288 11s. 2d.
[4] Ninth-year earnings in 1935 not available; after 10 years' service, firemen's annual rate was £241 1s. 10d.
[5] Plus a lodging allowance, if living away from home.
[6] Previously clerks' salaries rose by annual increments until, in the sixth year, £269 14s. was reached; a clerk then had to wait for a vacancy before he could be promoted. In 1945 the salary scale (excluding cost-of-living allowances) rose by annual increments until £380 was reached in the eighth year.

The 40-hour week was introduced in September 1936 and was maintained during the war period. Only in special cases in which essential war production demanded it were workers asked to work longer hours. This 40-hour week replaced a normal 1935 workweek of 44 hours for craftsmen, train examiners, and laborers; 48 hours for guards, shunters, gangers, and surfacemen; and 56 hours for tablet porters.

[1] Data are from "The Standard," (official organ of New Zealand labor movement, Wellington), May 3 1945.

Earnings of Foreign Employees of Oil Companies in Maracaibo, Venezuela, 1945

AVERAGE total monthly income of foreign employees of the three principal oil companies in Maracaibo, Venezuela, in May 1945, ranged from $583 to $632. The employees (married males) receiving those incomes are classed as office clerks, semi-technical men, and semi-executives. Nearly all have the equivalent of a high-school education, and a few may have had some college training. The total income of the employees consisted of a basic salary, with additional compensation by one company to cover currency appreciation, by another to cover expatriation, and by two of the companies to cover cost-of-living allowances. The various items of income received by foreign employees of these oil companies in May 1945, are shown below:

	Company No. 1	*Company No. 2*	*Company No. 3*
Total average income	$632	$583	$615
Basic average salary (married males)	400	330	400
Compensation to cover currency appreciation	232	----	----
Expatriation allowance	---	70	----
Cost-of-living allowance	---	183	215

The foreign employee also receives a completely furnished house suitable to accommodate his family. Monthly rentals of $39, $45, and $15 are charged for these by companies 1, 2, and 3, respectively. Utilities, garbage removal, and total house maintenance are furnished free by companies 1 and 2; utilities and garbage removal are furnished for $1.50 a month by company No. 3. In the matter of vacations, home leave plus travel time (with passage paid by the company) is granted by companies 1, 2, and 3, respectively, to the extent of 90 days every 3 years, 42 days every 2 years, and either 60 days every 2 years or 90 days every 3 years. The foreign workers of each of the companies are also entitled to free hospitalization, including medicines; companies 2 and 3 make a charge of $3 per day for hospital room to members of the employee's family. Companies 1 and 3 make no deductions from salaries for retirement purposes; company 2 equals the employee's contribution toward retirement up to 13 percent of salary. Employees of company 3 may purchase staple articles—potatoes, rice, cheese, beans, lard, milk, peas, and corn—at 1940 price levels (market prices on these articles have doubled since 1940); this company operates a commissary, which, for the employee, effects an approximate saving of 30 percent on foodstuffs and drug-store items.

Virgin Islands Wage Order Under Fair Labor Standards Act[1]

ONE wage order, effective on August 1, 1945, established minimum wage rates for workers in the Virgin Islands, whose conditions of employment are subject to regulation under the terms of the Fair Labor Standards Act of 1938. Workers engaged in commerce or the production of goods for commerce will benefit from the minimum wage rates which range from 25 cents to 35 cents an hour.

Wage Order Under Fair Labor Standards Act, for Virgin Islands Workers, Effective August 1, 1945

Industry	Definition	Minimum hourly wage rate
Liquor	Manufacture and blending of spirituous liquors and all operations incidental thereto.	35 cents in Municipality of St. Thomas and St. John; 30 cents in Municipality of St. Croix.
Shipping	Transportation of passengers and cargo by water and activities in connection therewith, including (but without limitation) the operations of common or contract carriers; operation of piers, wharves, and docks, including bunkering, stevedoring, and storage; and lighterage operations.	32 cents in Municipality of St. Thomas and St. John; 30 cents in Municipality of St. Croix.
Property motor carrier	Industry carried on by any common or contract carrier engaged in transportation by motor vehicle of property in commerce or of property necessary to production of goods for commerce.	30 cents.
Wholesaling	Wholesaling, warehousing, and other distribution of commodities, including (but without limitation) activities of importers, exporters, wholesalers, public warehouses, brokers and agents, insurance agents, manufacturers' selling agencies, and other distributors.	30 cents.
Communications	Transmission of messages by wire or wireless	30 cents.
Electric power	Industry carried on by any firm or company engaged in generation and sale of electric light and power.	32 cents in Municipality of St. Thomas and St. John; 25 cents in Municipality of St. Croix.
Meat packing	Slaughtering of meat animals and dressing and packing of meat, and all operations incidental thereto in Municipality of St. Croix.	25 cents in Municipality of St. Croix.
Bay oil, bay rum, and miscellaneous manufacturing.	Manufacture of bay oil and bay rum, and any other products (except liquor) in Municipality of St. Thomas and St. John.	25 cents in Municipality of St. Thomas and St. John.
Other industries	Any industry not covered by foregoing, except banking, in Municipality of St. Croix definitions.	25 cents in Municipality of St. Croix.

[1] Information is from U. S. Department of Labor, Wage and Hour Division, Press release No. D-106, New York, June 21, 1945.

Cost of Living and Retail Prices

Cost of Living in Large Cities, June 1945

RETAIL prices paid by wage earners and lower-salaried workers in large cities rose 0.7 percent between mid-May and mid-June, and in the latter month were 2.9 percent higher than in June 1944. Higher prices for fresh fruits and vegetables and eggs, together with continued increases for clothing and housefurnishings brought the living costs in June 1945 to the highest level since the spring of 1921. Since August 1939, the month before the outbreak of war in Europe, prices of living essentials have increased 30.8 percent. The Bureau of Labor Statistics cost-of-living index for June 15, 1945, was 129.0 percent of the 1935–39 average.

The cost of the family food budget rose 1.7 percent between May 15 and June 15; this was the second consecutive month that food prices had gone up by more than 1½ percent. Fresh fruit and vegetable prices continued to advance sharply (6.5 percent), as larger than seasonal increases were reported for oranges, lettuce and sweetpotatoes, and large contraseasonal movements were reported for cabbage and onions. With a sharp increase in farm prices for cabbage (which is not under price control) and the removal of OPA retail price control margins, the average price rose from 5.8 cents in mid-May to 9.0 cents in mid-June. Prices for onions rose 24 percent. Egg prices advanced 3.1 percent, beginning their usual upward seasonal movement. Although prices of meats did not change during the month, meats were found in fewer stores in mid-June than at any time in the past 15 months. More than 85 percent of the independent grocers had no veal or pork, and three-fourths had no beef or lamb. (See p. 352.) The average cost of all food at retail was 51 percent above the level of August 15, 1939, but 1.3 percent lower than in May 1943, the highest level for food during the war.

Clothing prices moved upward 0.6 percent between May and June, the largest advance in any month so far this year. Stocks of medium and inexpensive apparel were reported to be at the lowest point during the war. There were sharp advances in the prices of tropical-weight wool suits in some cities, reflecting both the disappearance of lower-priced lines and the reappearance of prewar quality suits at prices considerably higher than when last stocked. This season's prices for men's cotton slacks and women's cotton frocks followed the upward movement of most cotton apparel. Average prices of business shirts, pajamas, shorts and housedresses also increased but supplies were limited, although some retailers in most of the large cities reported receiving small supplies of low-price preticketed merchandise produced under the WPB-OPA low-cost clothing program. Work clothing,

still hard to get, was higher in price and men's straw hats cost more than in June 1944.

Prices of housefurnishings rose 0.3 percent from mid-May to mid-June. The effect of the new OPA formula (MPR No. 580) for establishing price ceilings at the retail level was again reflected, as in May, in numerous changes in prices of housefurnishings. Average costs for living-room and bedroom furniture, cook stoves and dinnerware were higher, despite many small price decreases in a number of cities.

Fuel, electricity, and ice costs showed little change during the month ending June 15. Rate reductions lowering the average cost of gas to domestic consumers in Atlanta and a rebate on most June electric bills in Portland, Oreg., were offset by price increases for bituminous coal in a few cities.

On the average, there was no change in rents in large cities. However, rent costs varied slightly in a number of cities, with the largest increase in Scranton (0.6 percent from December 1944 to June 1945) where rents are not under OPA price control. Average rents in that city were still below the 1935–39 average. The largest decrease (0.6 percent) occurred in Portland, Oreg., for the corresponding period. The shortage of housing continued to be acute, especially in war centers.

The cost of miscellaneous goods and services remained relatively stable with a 0.1-percent increase. Prices for newspapers in Cleveland, Milwaukee, and Portland, Oreg., were raised and the cost of medical services, men's haircuts, and beauty shop services rose in a few cities.

In connection with the tables here given it should be borne in mind that the Bureau of Labor Statistics index indicates average changes in retail prices of selected goods, rents, and services, bought by families of wage earners and lower-salaried workers in large cities. The items covered represented 70 percent of the expenditures of families who had incomes ranging from $1,250 to $2,000 in 1934–36. The index does not show the full wartime effect on the cost of living of such factors as lowered quality, disappearance of low-priced goods, and forced changes in housing and eating away from home. It does not measure changes in *total* "living costs"—that is, *in the total amount families spend for living.* Income taxes and bond subscriptions are not included.

The indexes in the accompanying tables are based on time-to-time changes in the cost of goods and services purchased by wage earners and lower-salaried workers in large cities. They do not indicate whether it costs more to live in one city than in another. The data relate to the 15th of each month, except those for January 1941, in tables 1 and 2. For that month they were estimated for January 1 (the date used in the "Little Steel" wage formula of the National War Labor Board), by assuming an even rate of change from December 15, 1940, to the next pricing date. The President's "hold-the-line" order was issued April 8, 1943. The peak of the rise which led to that order was reached in May, which is, therefore, used for this comparison.

Food prices are collected monthly in 56 cities during the first four days of the week which includes the Tuesday nearest the 15th of the month. Aggregate costs of foods in each city, weighted to represent food purchases of families of wage earners and lower-salaried workers

have been combined for the United States with the use of population weights. In March 1943, the number of cities included in the food index was increased from 51 to 56, and the number of foods from 54 to 61. Prices of clothing, housefurnishings, and miscellaneous goods and services are obtained in 34 large cities in March, June, September, and December. In intervening months, prices are collected in 21 of the 34 cities for a shorter list of goods and services. Rents are surveyed semiannually in most of the 34 cities (in March and September, or in June and December). In computing the all-items indexes for individual cities and the rent index for the average of large cities, because of the general stability of average rents at the present time, the indexes are held constant in cities not surveyed during the current quarter. Prices for fuel, electricity, and ice are collected monthly in 34 large cities.

TABLE 1.—*Cost of Living in Large Cities as of June 1945 and Earlier Months*

Group	June 1945	May 1945	June 1944	May 1943	May 1942	Jan. 1941	Aug. 1939
	This month	Last month	Last year	Hold-the-line order	Gen. Max. Price Reg.	"Little Steel" decision	Month before war in Europe
	Indexes (1935–39=100.0)						
All items	129.0	[1] 128.1	125.4	125.1	116.0	100.8	98.6
Food	141.1	138.8	135.7	143.0	121.6	97.6	93.5
Clothing	145.4	[1] 144.6	138.0	127.9	126.2	101.2	100.3
Rent	108.3	-------	108.1	108.0	109.9	105.0	104.3
Fuel, electricity, and ice	110.0	110.0	109.6	107.6	104.9	100.8	97.5
Gas and electricity	95.2	95.2	95.6	96.1	96.6	97.5	99.0
Other fuels and ice	124.5	124.4	123.2	118.7	112.9	104.0	96.3
Housefurnishings	145.8	[1] 145.4	138.4	125.1	122.2	100.2	100.6
Miscellaneous	124.0	[1] 123.9	121.7	115.3	110.9	101.8	100.4
	Percent of change to June 1945						
All items	-------	+0.7	+2.9	+3.1	+11.2	+28.0	+30.8
Food	-------	+1.7	+4.0	−1.3	+16.0	+44.6	+50.9
Clothing	-------	+.6	+5.4	+13.7	+15.2	+43.7	+45.0
Rent	-------	-------	+.2	+.3	−1.5	+3.1	+3.8
Fuel, electricity, and ice	-------	0	+.4	+2.2	+4.9	+9.1	+12.8
Gas and electricity	-------	0	−.4	−.9	−1.4	−2.4	−3.8
Other fuels and ice	-------	+.1	+1.1	+4.9	+10.3	+19.7	+29.3
Housefurnishings	-------	+.3	+5.3	+16.5	+19.3	+45.5	+44.9
Miscellaneous	-------	+.1	+1.9	+7.5	+11.8	+21.8	+23.5

[1] Revised.

TABLE 2.—*Percent of Change in Cost of Living from Specified Dates to June 1945, by Cities*

City	Percent of increase in June 1945 compared with—					
	May 1945	June 1944	May 1943	May 1942	Jan. 1941	Aug. 1939
	Last month	Last year	Hold-the-line order	Gen. Max. Price Reg.	"Little Steel" decision	Month before war in Europe
Average	0.7	2.9	3.1	11.2	28.0	30.8
Baltimore, Md	1.5	4.2	3.7	12.4	32.0	34.7
Birmingham, Ala	.6	2.1	5.1	11.4	30.1	34.2
Boston, Mass	1.3	3.0	2.6	10.7	26.6	29.2
Buffalo, N. Y	1.3	2.5	.5	7.4	27.0	31.4
Chicago, Ill	.2	2.7	3.0	10.0	26.7	29.9
Cincinnati, Ohio	1.1	2.2	4.5	11.6	29.9	33.0
Cleveland, Ohio	.5	2.6	3.4	11.4	29.7	32.3
Denver, Colo	0	3.0	3.2	11.1	28.4	30.2
Detroit, Mich	1.3	3.3	2.7	10.1	29.5	32.8
Houston, Tex	.4	2.5	1.8	9.0	24.2	25.8
Kansas City, Mo	.6	2.9	3.8	11.4	29.2	28.9
Los Angeles, Calif	.2	2.9	3.7	10.5	27.3	29.9
Minneapolis, Minn	.6	2.0	2.3	7.5	22.4	25.0
New York, N. Y	.9	3.0	4.4	14.5	28.4	31.0
Philadelphia, Pa	.4	2.4	2.4	11.4	28.8	30.7
Pittsburgh, Pa	1.2	3.2	4.5	12.7	29.0	32.6
St. Louis, Mo	.8	2.5	2.7	10.2	26.1	29.9
San Francisco, Calif	.6	2.7	3.6	12.8	30.4	33.6
Savannah, Ga	.4	2.0	3.4	12.8	34.5	37.4
Seattle, Wash	−.1	2.5	1.9	8.9	29.3	31.6
Washington, D. C	.7	3.3	3.9	12.0	28.6	30.3

TABLE 3.—*Percent of Change in Cost of Living May to June 1945, by Cities*

City	Percent of change, May to June 1945 in cost of—					
	All items	Food	Clothing	Fuel, electricity and ice	Housefurnishings	Miscellaneous
Average	+0.7	+1.7	+0.6	0.0	+0.3	+0.1
Atlanta, Ga		+1.3		−1.1		
Baltimore, Md	+1.5	+3.1	+1.1	+.1	+1.1	+.1
Birmingham, Ala	+.6	+1.6	+.1	0	0	0
Boston, Mass	+1.3	+2.9	+.7	0	+.3	−.1
Buffalo, N. Y	+1.3	+2.3	+1.8	+.2	+1.9	0
Chicago, Ill	+.2	+.5	+.1	0	+.1	0
Cincinnati, Ohio	+1.1	+2.3	+.5	0	+.6	+.2
Cleveland, Ohio	+.5	+1.2	+.1	0	0	+.2
Denver, Colo	0	+.1	+.1	0	+.5	−.2
Detroit, Mich	+1.3	+3.1	+1.0	−.1	[1] −1.2	+.1
Houston, Tex	+.4	+.8	+.6	0	+.3	0
Indianapolis, Ind		+1.7		+.1		
Jacksonville, Fla		+.8		0		
Kansas City, Mo	+.6	+1.5	+.1	0	+1.7	+.2
Los Angeles, Calif	+.2	+.2	+.3	0	+.6	0
Manchester, N. H		+2.6		+.2		
Memphis, Tenn		+2.0		0		
Milwaukee, Wis		+2.1		+.5		
Minneapolis, Minn	+.6	+1.4	+.4	+.4	0	0
Mobile, Ala		+.7		+.5		
New Orleans, La		−.4		+.2		
New York, N. Y	+.9	+1.8	+1.0	0	+.4	+.5
Norfolk, Va		+.7		0		
Philadelphia, Pa	+.4	+.8	−.3	+.3	+.1	+.2
Pittsburgh, Pa	+1.2	+3.0	+.2	−.7	+.1	0
Portland, Maine		+1.3		−.1		
Portland, Oreg		+.3		+2.6		
Richmond, Va		+1.2		0		
St. Louis, Mo	+.8	+1.6	+.4	+.1	+.4	0
San Francisco, Calif	+.6	+1.2	+.6	0	+.5	+.1
Savannah, Ga	+.4	+.9	+.2	0	+.1	0
Scranton, Pa		+3.4		0		
Seattle, Wash	−.1	−.3	+.4	0	+.1	0
Washington, D. C	+.7	+1.4	+.8	+.4	+.6	+.2

[1] Decrease reflects downward adjustment in costs of some housefurnishing articles of prewar quality, based on additional information obtained after these goods returned to retail markets in 1944 and spring of 1945.

TABLE 4.—*Percent of Change in Cost of Living, March to June 1945, by Groups of Items*

City	Percent of change, March–June 1945, in cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity and ice	Housefurnishings	Miscellaneous
Average	+1.7	+3.8	+1.2	0	0	+0.9	+0.3
Atlanta, Ga	+.9	+2.3	+.6	----	−.5	+3.4	−.4
Baltimore, Md	+2.4	+5.1	+1.4	----	−.5	+1.9	+.2
Birmingham, Ala	+1.5	+2.8	+.1	+.2	+2.6	−.4	+1.2
Boston, Mass	+2.1	+4.7	+1.4	[1] +.1	−.5	+1.3	−.2
Buffalo, N. Y	+1.7	+3.7	+2.7	[1] +.2	−2.2	+1.9	0
Chicago, Ill	+1.7	+3.9	+.6	[1] 0	+.7	+.6	+.1
Cincinnati, Ohio	+2.3	+4.8	+1.4	----	+1.1	+1.5	−.2
Cleveland, Ohio	+2.0	+4.9	+.3	[1] −.2	+1.0	+1.4	+.2
Denver, Colo	+1.9	+3.7	+.1	[1] 0	+.3	+.3	+1.6
Detroit, Mich	+2.7	+5.9	+3.0	[1] +.2	+.2	[2] −.1	+.3
Houston, Tex	+1.5	+3.5	+1.1	----	0	+.2	+.4
Indianapolis, Ind	+1.6	+4.0	+.1	[1] −.1	+1.1	[2] −1.4	+.6
Jacksonville, Fla	+1.5	+3.3	+.4	[1] +.2	+.1	+2.3	+.1
Kansas City, Mo	+1.6	+3.1	+1.2	[1] −.2	+1.5	+3.3	+.2
Los Angeles, Calif	+1.0	+1.5	+.9	[1] +.2	0	+1.3	+1.0
Manchester, N. H	+1.9	+3.5	+.9	----	+.3	+1.5	+.3
Memphis, Tenn	+1.7	+3.7	+.7	----	+.8	+1.2	+.2
Milwaukee, Wis	+2.3	+5.4	+.1	0	+.5	+.8	+.4
Minneapolis, Minn	+1.2	+2.9	+.7	----	+.4	+.1	+.3
Mobile, Ala	+.7	+1.4	+.3	[1] +.1	+1.0	+.1	0
New Orleans, La	+.8	+.9	+.3	[1] −.1	+.2	[3]	+1.5
New York, N. Y	+2.0	+4.2	+1.4	[1] 0	−.2	+.9	+.6
Norfolk, Va	+.8	+1.4	+1.7	[1] +.1	+.5	0	+.2
Philadelphia, Pa	+1.4	+3.4	+.4	----	−.9	0	+.3
Pittsburgh, Pa	+2.3	+5.5	+.2	[1] −.1	−.1	+1.6	+.1
Portland, Maine	+1.0	+2.9	+.3	−.2	−.8	+.1	−.1
Portland, Oreg	+1.7	+3.1	+.4	[1] −.6	+3.2	+.7	+1.3
Richmond, Va	+.9	+1.9	−.1	----	+.9	+1.4	0
St. Louis, Mo	+2.0	+4.3	+1.0	----	+.5	+1.5	0
San Francisco, Calif	+.7	+.9	+1.0	----	+.2	+.6	+.6
Savannah, Ga	+.8	+1.6	+.5	[1] +.2	0	+2.6	−.2
Scranton, Pa	+3.1	+6.3	+.7	[1] +.6	0	+.8	+.3
Seattle, Wash	+.5	+.7	+1.4	----	+1.0	+2.0	−.1
Washington, D. C	+2.0	+3.5	+3.8	[1] 0	−.1	+.1	+.9

[1] Change from December 1944.
[2] Decrease reflects downward adjustment in costs of some housefurnishing articles of prewar quality, based on additional information obtained after these goods returned to retail markets in 1944 and spring of 1945.
[3] Not available. Insufficient data.

TABLE 5.—*Indexes of Cost of Living, April, May, and June 1945, by Groups of Items*

[Some indexes for April and May revised]

City	Indexes (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	Housefurnishings	Miscellaneous
Average, large cities:							
April	127.1	136.6	144.1	----	109.8	144.9	123.8
May	128.1	138.8	144.6	----	110.0	145.4	123.9
June	129.0	141.1	145.4	108.3	110.0	145.8	124.0
Atlanta, Ga.:							
April	----	137.3	----	----	115.9	----	----
May	----	138.3	----	----	116.6	----	----
June	129.9	140.1	141.5	----	115.3	145.3	130.8
Baltimore, Md.:							
April	130.0	144.9	147.2	----	108.7	150.1	123.4
May	131.0	146.9	148.2	----	108.7	150.7	123.4
June	132.9	151.4	149.8	----	108.8	152.3	123.5
Birmingham, Ala.:							
April	131.0	141.1	141.6	----	104.8	139.5	126.6
May	131.4	141.4	141.7	----	107.5	139.4	126.7
June	132.2	143.7	141.8	122.6	107.5	139.4	126.7
Boston, Mass.:							
April	123.0	130.8	140.8	----	120.2	143.8	117.7
May	123.9	133.0	141.7	----	120.1	144.4	117.6
June	125.5	136.8	142.7	105.1	120.1	144.9	117.5

See footnotes at end of table.

TABLE 5.—*Indexes of Cost of Living, April, May, and June 1945, by Groups of Items*—Continued

City	Indexes (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House furnishings	Miscellaneous
Buffalo, N. Y.:							
April	127.1	134.7	141.8		106.9	138.7	125.7
May	127.8	137.1	142.2		104.6	138.8	125.7
June	129.4	140.2	144.8	115.0	104.8	141.5	125.7
Chicago, Ill.:							
April	126.5	136.2	139.5		105.2	138.0	122.3
May	127.9	139.5	139.7		105.9	138.6	122.3
June	128.2	140.2	139.9	114.8	105.9	138.8	122.3
Cincinnati, Ohio:							
April	127.0	135.0	146.4		106.2	142.3	125.0
May	128.0	137.5	146.8		107.4	142.9	124.8
June	129.4	140.6	147.6		107.4	143.8	125.0
Cleveland, Ohio:							
April	130.1	140.7	145.5		112.5	144.3	122.6
May	131.7	144.6	145.4		113.6	145.9	122.6
June	132.3	146.4	145.5	115.7	113.6	145.9	122.8
Denver, Colo.:							
April	126.5	137.9	135.8		104.1	154.9	122.6
May	128.4	141.8	135.7		104.4	155.0	124.3
June	128.4	142.0	135.9	109.5	104.4	155.8	124.1
Detroit, Mich.:							
April	127.8	132.1	141.6		112.8	157.1	129.6
May	129.1	135.0	142.6		113.4	158.0	129.8
June	130.8	139.2	144.0	115.1	113.3	[1] 156.1	129.9
Houston, Tex.:							
April	125.6	136.7	139.6		91.1	144.0	123.5
May	126.2	138.4	139.8		91.1	143.7	123.8
June	126.7	139.5	140.6		91.1	144.1	123.8
Indianapolis, Ind.:							
April		133.3			112.2		
May		135.1			113.3		
June	129.5	137.4	137.6	115.8	113.4	[1] 148.0	127.4
Jacksonville, Fla.:							
April		145.5			113.9		
May		146.4			114.0		
June	135.6	147.5	142.0	113.4	114.0	151.1	137.3
Kansas City, Mo.:							
April	125.6	131.5	144.4		110.2	132.2	126.4
May	126.3	132.4	145.7		111.9	133.3	126.5
June	127.1	134.4	145.9	109.6	111.9	135.5	126.7
Los Angeles, Calif.:							
April	130.0	144.4	141.6		92.5	144.0	126.7
May	130.3	144.5	141.6		92.5	144.1	127.5
June	130.5	144.8	142.0	110.9	92.5	145.0	127.5
Manchester, N. H.:							
April		132.7			127.6		
May		133.9			127.7		
June	131.3	137.4	147.8		127.9	148.4	122.6
Memphis, Tenn.:							
April		145.2			105.5		
May		146.9			106.3		
June	132.0	149.8	148.7		106.3	139.7	120.2
Milwaukee, Wis.:							
April		134.3			109.5		
May		138.1			109.5		
June	127.0	141.0	135.9	108.8	110.0	143.6	120.0
Minneapolis, Minn.:							
April	123.2	129.5	140.2		102.6	138.8	123.0
May	123.9	131.2	140.5		102.6	138.9	123.0
June	124.6	133.0	141.1		103.0	138.9	123.0
Mobile, Ala.:							
April		144.9			102.7		
May		144.9			103.2		
June	129.3	145.9	138.6	115.2	103.7	137.1	119.8
New Orleans, La.:							
April		152.5			100.1		
May		153.0			100.0		
June	132.4	152.4	139.1	107.2	100.2	[2]	121.8
New York, N. Y.:							
April	127.4	136.8	149.8		114.1	134.5	126.0
May	128.5	139.6	150.1		113.9	134.9	126.0
June	129.7	142.1	151.6	103.5	113.9	135.4	126.6
Norfolk, Va.:							
April		140.1			119.7		
May		142.4			120.3		
June	132.3	143.4	143.8	109 2	120.3	142.5	131.5

See footnotes at end of table

TABLE 5.—*Indexes of Cost of Living, April, May, and June 1945, by Groups of Items*—Continued

City	Indexes (1935–39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Philadelphia, Pa.:							
April	126.0	134.2	145.4	----	109.4	144.7	121.0
May	127.3	137.7	145.9	----	109.2	144.1	120.8
June	127.8	138.8	145.5	----	109.5	144.2	121.1
Pittsburgh, Pa.:							
April	128.1	135.4	166.0	----	112.0	145.7	120.0
May	128.9	137.1	166.4	----	112.7	147.6	120.0
June	130.5	141.2	166.7	107.5	111.9	147.8	120.0
Portland, Maine.:							
April	----	131.3	----	----	119.2	----	----
May	----	133.4	----	----	118.3	----	----
June	126.7	135.2	145.6	106.4	118.2	141.2	122.5
Portland, Oreg.:							
April	----	147.4	----	----	117.1	----	----
May	----	149.9	----	----	117.2	----	----
June	135.5	150.3	142.6	114.7	120.3	146.1	130.4
Richmond, Va.:							
April	----	133.2	----	----	108.6	----	----
May	----	134.5	----	----	109.6	----	----
June	125.2	136.1	144.4	----	109.6	144.7	118.9
St. Louis, Mo.:							
April	125.3	139.0	140.1	----	107.3	125.8	119.9
May	126.4	141.7	140.5	----	107.7	126.5	119.9
June	127.4	144.0	141.0	----	107.8	127.0	119.9
San Francisco, Calif.:							
April	132.8	148.4	142.1	----	92.6	130.5	133.0
May	131.9	145.7	142.7	----	92.8	130.7	133.0
June	132.7	147.5	143.5	----	92.8	131.3	133.1
Savannah, Ga.:							
April	135.2	150.8	143.9	----	113.0	153.6	129.4
May	135.8	151.7	144.2	----	113.0	156.1	129.7
June	136.4	153.1	144.5	115.9	113.0	156.3	129.7
Scranton, Pa.:							
April	----	136.4	----	----	111.0	----	----
May	----	139.8	----	----	111.0	----	----
June	128.2	144.5	147.9	97.8	111.0	141.7	115.6
Seattle, Wash.:							
April	131.4	143.0	144.5	----	103.9	142.6	132.3
May	132.1	144.4	145.1	----	104.9	145.1	132.2
June	132.0	144.0	145.7	----	104.9	145.3	132.2
Washington, D. C.:							
April	126.4	137.8	151.3	----	109.1	139.9	127.4
May	127.6	139.7	155.0	----	109.2	139.9	128.2
June	128.5	141.6	156.3	100.3	109.6	140.8	128.4

[1] Decrease reflects downward adjustment in costs of some housefurnishing articles of prewar quality, based on additional information obtained after these goods returned to retail markets in 1944 and spring of 1945.

[2] Not available. Insufficient data.

TABLE 6.—*Indexes of Cost of Living in Large Cities, 1935 to June 1945*

Year and month	Indexes [1] (1935–39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942	116.5	123.9	124.2	108.5	105.4	122.2	110.9
1943	123.6	138.0	129.7	108.0	107.7	125.6	115.8
1944	125.5	136.1	138.8	108.2	109.8	136.4	121.3
Jan. 15	124.2	136.1	134.7	108.1	109.5	128.3	118.4
Feb. 15	123.8	134.5	135.2	108.1	110.3	128.7	118.7
Mar. 15	123.8	134.1	136.7	108.1	109.9	129.0	119.1
Apr. 15	124.6	134.6	137.1	108.1	109.9	132.9	120.9
May 15	125.1	135.5	137.4	108.1	109.8	135.0	121.3
June 15	125.4	135.7	138.0	108.1	109.6	138.4	121.7
July 15	126.1	137.4	138.3	108.2	109.7	138.7	122.0
Aug. 15	126.4	137.7	139.4	108.2	109.8	139.3	122.3
Sept. 15	126.5	137.0	141.4	108.2	109.8	140.7	122.4
Oct. 15	126.5	136.4	141.9	[2]	109.8	141.4	122.8
Nov. 15	126.6	136.5	142.1	[2]	109.9	141.7	122.9
Dec. 15	127.0	137.4	142.8	108.3	109.4	143.0	123.1
1945:							
Jan. 15	127.1	137.3	143.0	[2]	109.7	143.6	123.3
Feb. 15	126.9	136.5	143.3	[2]	110.0	144.0	123.4
Mar. 15	126.8	135.9	143.7	108.3	110.0	144.5	123.6
Apr. 15	127.1	136.6	144.1	[2]	109.8	144.9	123.8
May 15	128.1	138.8	144.6	[2]	110.0	145.4	123.9
June 15	129.0	141.1	145.4	108.3	110.0	145.8	124.0

[1] Based on changes in cost of goods purchased by wage earners and lower-salaried workers.
[2] Rents not surveyed in this month.

Retail Prices of Food in May and June 1945

PERCENTAGE changes in retail food costs in May and June 1945 as compared with previous months are shown in table 1.

TABLE 1.—*Percent of Change in Retail Costs of Food in 56 Large Cities Combined,*[1] *by Commodity Groups, in Specified Periods*

Commodity group	May 15, 1945, to June 12, 1945	Apr. 17, 1945, to May 15, 1945	June 13, 1944, to June 12, 1945	May 18, 1943, to June 12, 1945	Jan. 14, 1941, to June 12, 1945	Aug. 15, 1939, to June 12, 1945
All foods	+1.7	+1.6	+4.0	−1.3	+44.3	+50.9
Cereals and bakery products	+.1	+.1	+.6	+1.4	+15.0	+16.8
Meats	0	+.6	+1.4	−4.8	+30.2	+37.5
Beef and veal	−.1	0	−.3	−9.7	+8.3	+19.0
Pork	+.1	+.1	+.5	−10.3	+30.8	+28.0
Lamb	+.1	0	+.9	−4.0	+37.8	+37.7
Chickens	+.3	+1.3	+1.8	+6.2	+61.3	+65.8
Fish, fresh and canned	−1.4	+3.2	+9.6	+7.5	+81.6	+116.5
Dairy products	−.1	0	−.1	−2.6	+26.9	+43.3
Eggs	+3.1	+.6	+12.4	+2.1	+49.0	+60.0
Fruits and vegetables	+5.5	+5.3	+10.7	+.9	+106.4	+108.4
Fresh	+6.5	+6.4	+12.5	+.9	+122.4	+123.8
Canned	−.1	+.2	+.7	−.8	+42.3	+42.0
Dried	+.2	+.4	+2.9	+6.8	+69.5	+86.9
Beverages	0	0	+.2	+.1	+37.1	+31.3
Fats and oils	0	+.1	+.6	−1.9	+54.3	+46.6
Sugar and sweets	−.1	+.1	−.1	−.9	+32.6	+32.2

[1] The number of cities included in the index was changed from 51 to 56 in March 1943, with the necessary adjustments for maintaining comparability. At the same time the number of foods in the index was increased from 54 to 61.

TABLE 2.—*Indexes of Retail Costs of Food in 56 [1] Large Cities Combined, [2] by Commodity Groups, on Specified Dates*

[1935-39=100]

Commodity group	1945			1944	1943	1941	1939
	June 12 [3]	May 15	Apr. 17	June 13	May 18	Jan. 14	Aug. 15
All foods	141.1	138.8	136.6	135.7	143.0	97.8	93.5
Cereals and bakery products	109.1	109.0	108.9	108.4	107.6	94.9	93.4
Meats	131.6	131.6	130.8	129.8	138.3	101.1	95.7
Beef and veal	118.5	118.6	118.6	118.8	131.2	109.4	99.6
Pork	112.6	112.5	112.4	112.0	125.5	86.1	88.0
Lamb	136.0	135.9	135.9	134.8	141.6	98.7	98.8
Chickens	156.8	156.3	154.3	154.1	147.6	97.2	94.6
Fish, fresh and canned	215.6	218.7	211.9	196.7	200.5	118.7	99.6
Dairy products	133.4	133.5	133.5	133.5	136.9	105.1	93.1
Eggs	145.1	140.7	139.9	129.1	142.1	97.4	90.7
Fruits and vegetables	192.6	182.5	173.3	174.0	190.8	93.3	92.4
Fresh	207.7	195.0	183.3	184.6	205.8	93.4	92.8
Canned	130.1	130.2	130.0	129.2	131.1	91.4	91.6
Dried	168.8	168.5	167.9	164.1	158.0	99.6	90.3
Beverages	124.6	124.6	124.6	124.3	124.5	90.9	94.9
Fats and oils	123.9	123.9	123.8	123.1	126.3	80.3	84.5
Sugar and sweets	126.4	126.5	126.4	126.5	127.6	95.3	95.6

[1] Indexes based on 51 cities combined prior to March 1943.
[2] Aggregate costs of 61 foods (54 foods prior to March 1943) in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.
[3] Preliminary.

TABLE 3.—*Average Retail Prices of 78 Foods in 56 Large Cities Combined,[1] May and June 1945, Compared With Earlier Months*

Article		1945			1944	1941	1939
		June 12[2]	May 15	Apr. 17	June 13	Jan. 14	Aug. 15
Cereals and bakery products:							
Cereals:		*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Flour, wheat	10 pounds	64.3	64.2	64.3	64.9	41.4	35.8
Macaroni	pound	15.7	15.8	15.8	15.7	13.8	14.0
Wheat cereal [3]	28 ounces	23.3	23.3	23.2	23.2	23.5	24.2
Corn flakes	8 ounces	6.7	6.6	6.5	6.5	7.1	7.0
Corn meal	pound	6.4	6.4	6.4	6.2	4.2	4.0
Rice [3]	do	12.9	12.8	12.8	12.9	7.9	7.5
Rolled oats	do	10.4	10.3	10.3	9.4	7.1	7.1
Flour, pancake [3]	20 ounces	12.3	12.3	12.3	12.1	(4)	(4)
Bakery products:							
Bread, white	pound	8.8	8.8	8.8	8.8	7.8	7.8
Bread, whole-wheat	do	9.7	9.6	9.6	9.7	8.7	8.8
Bread, rye	do	9.9	9.9	9.9	9.9	9.0	9.2
Vanilla cookies	do	28.6	28.7	28.9	28.7	25.1	(5)
Soda crackers	do	18.9	18.9	18.9	18.9	15.0	14.8
Meats:							
Beef:							
Round steak	do	40.0	40.2	40.4	41.6	38.6	36.4
Rib roast	do	32.1	32.6	32.7	33.7	31.5	28.9
Chuck roast	do	27.6	27.8	28.0	28.9	25.2	22.5
Stew meat [3]	do	29.0	29.3	29.3	31.5	(4)	(4)
Liver	do	36.5	36.6	36.9	37.3	(5)	(5)
Hamburger	do	27.2	27.3	27.4	28.0	(4)	(4)
Veal:							
Cutlets	do	43.1	43.4	43.6	45.1	45.2	42.5
Roast, boned and rolled [3]	do	34.3	34.5	34.6	35.0	(4)	(4)
Pork:							
Chops	do	36.8	36.9	36.9	37.3	29.1	30.9
Bacon, sliced	do	41.0	40.9	41.0	41.2	30.1	30.4
Ham, sliced	do	49.0	49.2	49.3	51.1	45.1	46.4
Ham, whole	do	34.4	34.5	34.5	35.6	26.2	27.4
Salt pork	do	22.1	22.2	22.1	22.4	16.7	15.4
Liver [3]	do	22.1	22.0	22.1	22.0	(4)	(4)
Sausage [3]	do	38.4	38.0	38.1	38.2	(4)	(4)
Bologna, big [3]	do	33.8	33.9	33.9	34.2	(4)	(4)
Lamb:							
Leg	do	39.6	39.7	39.9	40.1	27.8	27.6
Rib chops	do	45.0	45.1	45.4	45.3	35.0	36.7

See footnotes at end of table.

TABLE 3.—*Average Retail Prices of 78 Foods in 56 Large Cities Combined,*[1] *May and June 1945, Compared With Earlier Months*—Continued

Article	1945			1944	1941	1939
	June 12[2]	May 15	Apr. 17	June 13	Jan. 14	Aug. 15
Meats—Continued.	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Poultry: Roasting chickens, pound	47.3	47.0	46.5	46.0	31.1	30.9
Fish:						
Fish (fresh, frozen), do	(6)	(6)	(6)	(6)	(6)	(6)
Salmon, pink, 16-ounce can	23.6	23.5	23.4	23.7	15.7	12.8
Salmon, red [3], do	40.3	40.2	40.8	42.3	26.4	23.1
Dairy products:						
Butter, do	50.0	49.9	49.9	49.9	38.0	30.7
Cheese, do	35.2	35.5	35.5	36.0	27.0	24.7
Milk, fresh (delivered), quart	15.6	15.6	15.6	15.6	13.0	12.0
Milk, fresh (store), do	14.5	14.5	14.5	14.5	11.9	11.0
Milk, evaporated, 14½-ounce can	10.1	10.1	10.1	10.0	7.1	6.7
Eggs: Eggs, fresh, dozen	51.0	49.7	49.5	45.7	34.9	32.0
Fruits and vegetables:						
Fresh fruits:						
Apples, pound	12.9	12.3	11.8	12.1	5.2	4.4
Bananas, do	10.5	10.4	10.4	11.3	6.6	6.1
Oranges, dozen	52.2	48.1	45.7	48.2	27.3	31.5
Grapefruit [3], each	11.0	10.1	9.4	9.2	(7)	(7)
Fresh vegetables:						
Beans, green, pound	17.4	18.9	20.0	16.6	14.0	7.2
Cabbage, do	9.0	5.8	6.6	5.4	3.4	3.9
Carrots, bunch	9.2	9.0	8.0	8.5	6.0	4.6
Lettuce, head	12.6	12.0	12.4	11.5	8.4	8.4
Onions, pound	8.8	7.1	5.2	6.5	3.6	3.6
Potatoes, 15 pounds	88.7	88.2	79.7	78.7	29.2	34.4
Spinach, pound	11.3	12.4	11.7	9.7	7.3	7.8
Sweetpotatoes, do	10.9	10.0	9.5	12.7	5.0	5.5
Beets [3], bunch	12.6	10.9	9.6	10.7	(4)	(4)
Canned fruits:						
Peaches, No. 2½ can	27.5	27.4	27.6	27.5	16.5	17.1
Pineapple, do	26.9	26.7	26.9	27.5	20.9	21.0
Grapefruit juice, No. 2 can	14.4	14.4	14.4	14.4	(7)	(7)
Canned vegetables:						
Beans, green, do	13.1	13.1	13.0	13.0	10.0	10.0
Corn, do	14.8	14.8	14.8	14.4	10.7	10.4
Peas, do	13.3	13.3	13.3	13.1	13.2	13.6
Tomatoes, do	12.1	12.2	12.2	11.9	8.4	8.6
Soup, vegetable [3], 11-ounce can	13.4	13.4	13.4	13.4	(4)	(4)
Dried fruits: Prunes, pound	17.7	18.0	17.7	17.1	9.6	8.8
Dried vegetables:						
Navy beans, do	11.4	11.4	11.4	10.7	6.5	5.8
Soup, dehydrated, chicken noodle [3], ounce	3.8	3.8	3.8	3.7	(4)	(4)
Beverages:						
Coffee, pound	30.4	30.4	30.4	30.0	20.7	22.3
Tea, ¼ pound	24.2	24.2	24.1	23.9	17.6	17.2
Cocoa [3], ½ pound	10.4	10.4	10.4	10.2	9.1	8.6
Fats and oils:						
Lard, pound	18.8	18.8	18.8	18.7	9.3	9.9
Shortening other than lard—						
In cartons, do	20.0	20.2	20.2	20.2	11.3	11.7
In other containers, do	24.5	24.6	24.6	24.7	18.3	20.2
Salad dressing, pint	25.3	25.6	25.5	25.6	20.1	(5)
Oleomargarine, pound	24.0	24.2	24.2	24.1	15.6	16.5
Peanut butter, do	28.5	28.4	28.4	28.4	17.9	17.9
Oil, cooking or salad [3], pint	30.6	30.8	30.8	30.1	(5)	(5)
Sugar and sweets:						
Sugar, pound	6.7	6.7	6.7	6.8	5.1	5.2
Corn sirup, 24 ounces	15.8	15.8	15.8	15.8	13.6	13.7
Molasses [3], 18 ounces	15.8	15.8	15.7	15.7	13.4	13.6
Apple butter [3], 16 ounces	13.9	13.9	13.8	13.2	(4)	(4)

[1] Data are based on 51 cities combined prior to January 1943.
[2] Preliminary.
[3] Not included in index. First priced February 1943.
[5] Not priced.
[6] Composite price not computed.
[7] First priced October 1941.
[8] Revised.

TABLE 4.—*Indexes of Average Retail Costs of All Foods, by Cities,*[1] *on Specified Dates*

[1935-39=100]

City	1945			1944	1941	1939
	June 12[2]	May 15	Apr. 17	June 13	Jan. 14	Aug. 15
United States	141.1	138.8	136.6	135.7	97.8	93.5
Atlanta, Ga	140.1	138.3	137.3	135.2	94.3	92.5
Baltimore, Md	151.4	146.9	144.9	141.2	97.9	94.7
Birmingham, Ala	143.7	141.4	141.1	139.8	96.0	90.7
Boston, Mass	136.8	133.0	130.8	130.4	95.2	93.5
Bridgeport, Conn	138.5	135.9	133.9	131.4	96.5	93.2
Buffalo, N. Y	140.2	137.1	134.7	134.6	100.2	94.5
Butte, Mont	138.0	136.5	134.2	132.8	98.7	94.1
Cedar Rapids, Iowa[3]	144.6	142.7	140.5	137.3	95.9	----
Charleston, S. C	136.5	134.8	133.5	130.6	95.9	95.1
Chicago, Ill	140.2	139.5	136.2	135.4	98.2	92.3
Cincinnati, Ohio	140.6	137.5	135.0	138.4	96.5	90.4
Cleveland, Ohio	146.4	144.6	140.7	141.3	99.2	93.6
Columbus, Ohio	133.6	130.7	128.4	127.1	93.4	88.1
Dallas, Tex	135.6	134.2	134.4	130.8	92.6	91.7
Denver, Colo	142.0	141.8	137.9	137.5	94.8	92.7
Detroit, Mich	139.2	135.0	132.1	133.0	97.0	90.6
Fall River, Mass	134.6	131.9	130.1	129.2	97.5	95.4
Houston, Tex	139.5	138.4	136.7	135.0	102.6	97.8
Indianapolis, Ind	137.4	135.1	133.3	132.6	98.2	90.7
Jackson, Miss.[3]	149.0	147.4	148.3	139.3	105.3	----
Jacksonville, Fla	147.5	146.4	145.5	142.9	98.8	95.8
Kansas City, Mo	134.4	132.4	131.5	130.5	92.4	91.5
Knoxville, Tenn.[3]	159.0	157.8	156.5	154.1	97.1	----
Little Rock, Ark	140.3	138.0	137.6	133.8	95.6	94.0
Los Angeles, Calif	144.8	144.5	144.4	139.2	101.8	94.6
Louisville, Ky	134.1	[5] 131.2	130.6	132.9	95.5	92.1
Manchester, N. H	137.4	133.9	132.7	130.9	96.6	94.9
Memphis, Tenn	149.8	146.9	145.2	144.7	94.2	89.7
Milwaukee, Wis	141.0	138.1	134.3	135.5	95.9	91.1
Minneapolis, Minn	133.0	131.2	129.5	129.0	99.0	95.0
Mobile, Ala	145.9	144.9	144.9	142.1	97.9	95.5
Newark, N. J	145.3	139.9	138.0	137.7	98.8	95.6
New Haven, Conn	139.9	136.3	134.1	132.6	95.7	93.7
New Orleans, La	152.4	153.0	152.5	146.9	101.9	97.6
New York, N. Y	142.1	139.6	136.8	136.8	99.5	95.8
Norfolk, Va.[4]	143.4	142.4	140.1	142.0	95.8	93.6
Omaha, Nebr	133.5	133.9	130.3	131.1	97.9	92.3
Peoria, Ill	144.6	142.1	140.9	138.2	99.0	93.4
Philadelphia, Pa	138.8	137.7	134.2	134.5	95.0	93.0
Pittsburgh, Pa	141.2	137.1	135.4	135.8	98.0	92.5
Portland, Maine	135.2	133.4	131.3	131.1	95.3	95.9
Portland, Oreg	150.3	149.9	147.4	144.4	101.7	96.1
Providence, R. I	140.7	136.0	134.1	133.4	96.3	93.7
Richmond, Va	136.1	134.5	133.2	134.0	93.7	92.2
Rochester, N. Y	138.9	135.4	133.7	131.3	99.9	92.3
St. Louis, Mo	144.0	141.7	139.0	138.7	99.2	93.8
St. Paul, Minn	131.9	130.1	128.5	128.1	98.6	94.3
Salt Lake City, Utah	144.3	142.5	140.1	139.5	97.5	94.6
San Francisco, Calif	147.5	145.7	148.4	142.5	99.6	93.8
Savannah, Ga	153.1	151.7	150.8	150.2	100.5	96.7
Scranton, Pa	144.5	139.8	136.4	135.9	97.5	92.1
Seattle, Wash	144.0	144.4	143.0	140.4	101.0	94.5
Springfield, Ill	146.3	144.3	142.0	140.9	96.2	94.1
Washington, D. C	141.6	139.7	137.8	135.3	97.7	94.1
Wichita, Kans.[3]	150.0	151.7	149.9	146.2	97.2	----
Winston-Salem, N. C.[3]	141.4	139.9	138.0	135.1	93.7	----

[1] Aggregate costs of 61 foods in each city (54 foods prior to March 1943), weighted to represent total purchases of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons, rather than place-to-place comparisons.

[2] Preliminary.

[3] June 1940=100.

[4] Includes Portsmouth and Newport News.

[5] Revised.

TABLE 5.—*Indexes of Retail Food Costs in 56 Large Cities Combined,*[1] *1913 to June 1945*

[1935–39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913	79.9	1927	132.3	1941	105.5	*1944*	
1914	81.8	1928	130.8	1942	123.9		
1915	80.9	1929	132.5	1943	138.0	September	137.0
1916	90.8	1930	126.0	1944	136.1	October	136.4
1917	116.9	1931	103.9			November	136.5
1918	134.4	1932	86.5	*1944*		December	137.4
1919	149.8	1933	84.1				
				January	136.1	*1945*	
1920	168.8	1934	93.7	February	134.5		
1921	128.3	1935	100.4	March	134.1	January	137.3
1922	119.9	1936	101.3	April	134.6	February	136.5
1923	124.0	1937	105.3	May	135.5	March	135.9
1924	122.8	1938	97.8	June	135.7	April	136.6
1925	132.9	1939	95.2	July	137.4	May	138.8
1926	137.4	1940	96.6	August	137.7	June	141.1

[1] Indexes based on 51 cities combined prior to March 1943.

Supplies of Foods in Independent Retail Stores, June 1945

MEAT was available in fewer stores in mid-June than at any corresponding period in the past 15 months, according to independent grocers reporting to field representatives of the Bureau of Labor Statistics in 56 large cities. Granulated sugar, margarine, lard, and some canned fruits and vegetables were becoming increasingly difficult to obtain.

Both fresh and prepared meats were less available than in the previous reporting period in mid-May. Over 85 percent of the stores reporting had no veal or pork; approximately three-fourths no beef or lamb; and 4 out of every 10 were without frankfurters and bologna. Over half the stores surveyed had had no fresh meat for 5 or more days of the week preceding the survey. In June 1944, beef was available in three-fourths of the stores, veal in more than half, and lamb in almost two-thirds; pork, bacon, and prepared meats were plentiful.

In June 1945 meat shortages were more widespread among the different regions than in preceding months. The Rocky Mountain area was still better supplied than other regions, but beef, lamb, and pork were not so plentiful there as in mid-May. The Pacific Coast region showed a greater decrease in supply between May and June than any other area. On the other hand, there was more veal, pork loins and hams in the Chicago region, and more lamb in the Middle Atlantic area. The New England and Southeastern sections continued to have the smallest supplies, with beef, veal, and pork out of stock in more than 90 percent of the stores. It should be borne in mind that the survey was conducted before the OPA meat-distribution order and other measures had become effective.

Supplies of butter were adequate in mid-June except on the eastern seaboard, where 11 to 18 percent of stores were out of stock of this commodity. Shortening was still not available in more than a third of the stores, and the number of stores having stocks of lard and cooking and salad oils decreased in nearly all areas. Margarine was

unobtainable in more than half of the stores in the New England, Rocky Mountain, and Pacific Coast regions.

Over half the reporting grocers did not have canned pears and mixed fruits, and over four-fifths had no canned pineapple, indicating smaller supplies than in mid-April when these canned fruits were last included in the survey. Grapefruit juice and canned spinach were available in practically all stores, but canned peas were not so plentiful as in May and canned asparagus could not be bought in more than a fourth of the stores. Supplies of evaporated milk were adequate.

The number of grocers without stocks of granulated sugar increased from 9 percent in mid-March to 21 percent in June, with the eastern and southern regions experiencing the greatest decrease. Almost one-third of the stores in the Middle Atlantic and more than one-fourth in the Southeastern region were unable to supply their customers at the time of the survey. Two out of every 10 grocers in the Southwestern area had no sugar.

Independent Retail Stores Without Supplies of Specified Foods on May 15 and June 12, 1945, in 56 Large Cities

Commodity	Percent of stores without supplies of specified foods [1]									
	May 15 1945—56 large cities	June 12, 1945								
		56 large cities	Region [2]							
			I	II	III	IV	V	VI	VII	VIII
Meats:										
Beef, steaks and roasts	69	73	[3] 90	73	68	[3] 90	77	82	36	34
Beef, all other	72	75	[3] 90	73	71	[3] 90	79	85	47	44
Veal, steaks, chops, and roasts	84	86	[3] 90	[3] 90	76	[3] 90	79	76	81	90
Veal, all other	86	88	[3] 90	[3] 90	77	[3] 90	81	81	84	[3] 90
Lamb, chops and roasts	68	71	89	65	79	[3] 90	67	83	38	42
Lamb, all other	67	72	89	65	79	89	70	85	52	46
Pork, loins and hams	84	84	[3] 90	85	83	[3] 90	78	81	68	77
Pork, bacon	82	85	[3] 90	88	78	[3] 90	84	76	72	85
Frankfurters and bologna	31	41	39	58	50	20	25	39	2	16
Fats and oils:										
Butter	9	9	18	17	3	11	1	[4] 0	[4] 0	2
Margarine	26	32	60	33	16	12	11	39	57	52
Shortening	36	35	39	46	25	28	10	41	6	24
Lard	34	38	30	52	18	23	32	30	29	38
Cooking and salad oils	12	16	14	16	13	14	8	19	[4] 0	28
Processed foods:										
Pears, canned	[5] 50	52	54	63	67	53	50	42	30	8
Pineapple, canned	[5] 72	83	55	82	[3] 90	[3] 90	87	82	[3] 90	81
Mixed fruits, canned	[5] 38	53	45	51	69	67	40	69	29	19
Grapefruit juice, canned	([6])	1	[4] 0	1	1	[4] 0	1	2	[4] 0	[4] 0
Asparagus, canned	[5] 19	27	21	29	30	24	35	24	11	19
Peas, canned	11	16	18	29	14	12	3	7	[4] 0	[4] 0
Spinach, canned	[7] 2	3	1	6	5	[4] 0	[4] 0	[4] 0	[4] 0	1
Milk, evaporated, canned	6	1	3	[4] 0	3	6	[4] 0	2	[4] 0	[4] 0
Sugar, granulated	[8] 9	21	17	31	15	26	20	12	[4] 0	3

[1] Data are weighted by the number of independent food stores in each city to derive regional and all-region percentages.

[2] Regions consist of the following cities: *Region I.*—Boston, Bridgeport, Fall River, Manchester, New Haven, Portland, Maine., Providence. *Region II.*—Baltimore, Buffalo, Newark, New York, Philadelphia, Pittsburgh, Rochester, Scranton, Washington, D. C. *Region III.*—Cincinnati, Cleveland, Columbus, Detroit, Indianapolis, Louisville. *Region IV.*—Atlanta, Birmingham, Charleston, S. C., Jackson, Miss., Jacksonville, Knoxville, Memphis, Mobile, Norfolk, Richmond, Savannah, Winston-Salem. *Region V.*—Dallas, Houston, Kansas City, Mo., Little Rock, New Orleans, St. Louis, Wichita. *Region VI.*—Cedar Rapids, Chicago, Milwaukee, Minneapolis, Omaha, Peoria, St. Paul, Springfield, Ill. *Region VII.*—Butte, Denver, Salt Lake City. *Region VIII.*—Los Angeles, Portland, Oreg., San Francisco, Seattle.

[3] Over 90 percent out of stock.

[4] Some size, quality, or variety of the commodity was available in all stores surveyed.

[5] Apr. 17, 1945, was last date surveyed.

[6] Not included in the survey this month. List of foods covered is changed from time to time.

[7] Jan. 16, 1945, was last date surveyed.

[8] Mar. 13, 1945, was last date surveyed.

Wholesale Prices

Wholesale Prices in June 1945

HIGHER prices for many agricultural commodities and for several industrial products raised the Bureau of Labor Statistics index of commodity prices at the primary market[1] level 0.1 percent during June. The index stood at 106.1 percent of the 1926 average, a new high for this war. During the 12 months before June 1945, primary market prices rose 1.7 percent to a point 41.5 percent above August 1939.

Average prices for farm products rose 0.4 percent during the month, while foods advanced 0.5 percent and metals and metal products 0.4 percent. Prices for fuel and lighting materials increased 0.2 percent, and hides and leather products, building materials, and chemicals and allied products each rose 0.1 percent. Average prices of textile products, housefurnishing goods, and miscellaneous commodities remained unchanged at the level of the previous month.

Group indexes for raw materials and semimanufactured articles each advanced 0.4 percent during the month. Average prices for manufactured products remained unchanged.

Average primary market prices for farm products advanced 0.4 percent during June, continuing the rise of previous months but at a slower rate. The increase was caused by higher quotations for grains, eggs, and fresh fruits and vegetables. Among the grains, rye increased 8 percent on speculative buying resulting from a short crop and heavy demands for lend-lease shipments and distilling. An advance of more than 1 percent for wheat reflected the late harvest and transportation difficulties which slowed movement of the crop to markets. Barley was fractionally lower. Effects of the subsidy on feeder cattle were shown during the month in higher prices for steers and lower prices for cows and calves. Steers advanced 0.6 percent, cows declined nearly 4 percent, and calves were fractionally lower, reflecting the emphasis on feeding of steers. Lambs rose more than 1 percent as the result of short supplies with continued heavy demand, while quotations for ewes and wethers declined seasonally. Live poultry prices were lower following seasonal adjustments in ceiling prices, and quotations for eggs were seasonally higher. Cotton prices fell fractionally. Apples, oranges, and sweetpotatoes advanced seasonally. Fresh milk prices declined, and lemon prices were lower in expectation of a large crop. Prices for onions, which had been well below ceiling, rose substantially on heavier demand. White potatoes were generally lower in price as increased quantities from the 1945 crop came on the market.

[1] The Bureau of Labor Statistics wholesale price data for the most part represent prices prevailing in the "first commercial transaction." They are prices quoted in primary markets, at principal distribution points.

The increase of 2.5 percent in average prices for fruits and vegetables raised the group index for foods 0.5 percent during the month. In addition, quotations for rye flour were substantially higher, continuing the advance of earlier months. Dressed poultry prices declined, following the movement for live poultry.

Further advances in prices for sheepskins, as fewer lambs moved to market, raised the group index for hides and leather products by 0.1 percent during June. Prices for leather and leather products, including shoes, gloves, and belting remained steady.

WPB Regulation 388, allocating fabrics for the manufacture of lower-priced clothing, and the Maximum Average Price Regulation of OPA did not affect primary markets in June for the textile products included in the index.

The index for fuel and lighting materials advanced 0.2 percent during the month as the result of higher coal prices. Prices for anthracite advanced 2 percent, as the result of ceiling increases averaging 75 cents per ton, to cover approved wage adjustments and restore 1942 profit margins to the industry. Bituminous coal rose again, reflecting continued adjustments under higher ceilings permitted producers in April to cover higher wage costs. Beehive coke prices rose more than 7 percent, as ceilings were adjusted to cover the higher costs of bituminous coal used in the manufacture of coke. Sales realizations for electricity and for natural and manufactured gas were seasonally lower.

Average prices for metals and metal products rose 0.4 percent following price increases for some agricultural implements, in line with ceiling adjustments permitted individual manufacturers, and adjustment of prices for steel products. Mercury prices continued to decline with market uncertainty as to the size of shipments being received from foreign sources.

Among the building materials, refractory brick increased nearly 1 percent as higher prices were permitted by OPA to producers in eastern States. Ceiling revisions to encourage production of Douglas fir boards and dimension at the expense of timbers resulted in an increase of nearly 2½ percent for boards, and more than 1 percent for dimension, and a decline of 2 percent in prices for timbers. Butyl acetate rose 2 percent after a decline in the previous month, while quotations for turpentine were seasonally lower. Minor advances occurred in prices for common brick, sand, and gravel.

Higher prices for some chemicals and drugs more than offset lower quotations for fertilizer materials, to raise the group index of chemicals and allied products 0.1 percent. Logwood extract advanced as higher ceilings were permitted for dyewoods. Higher quotations for glycerin reflected a tight supply situation with continued heavy demand. Prices for ergot were lower and potash declined seasonally.

No price changes were reported for housefurnishings. Household appliances produced after many controls were revoked had not yet reached the market, while furniture production continued at a low rate because of tight supplies of materials and labor.

The all-commodity index has advanced each month for the past 10 months, but the rate of increase has been slower than during the early part of the war period. Farm product prices have shown the largest increase of any major group, with a gain of 4.3 percent during the 12 months ended in June 1945. This rise was attributable largely to

higher quotations for livestock. Group indexes for hides and leather products, textile products, metals and metal products, building materials, and miscellaneous commodities have risen from 1 to 2 percent. Average prices for chemicals and allied products declined slightly, while other major groups increased less than 1 percent. Prices for brick and tile, which were generally stable during the early part of the war, increased more than 10 percent during the past year. Most of this increase was the result of adjustments permitted by OPA to cover increased unit overhead costs with low volume production, and to avoid further closing of brick plants.

Prices in general have advanced much more slowly in this war than during the First World War, with the major exception of farm products; the increase for this group of nearly 114 percent since August 1939, is comparable to that of World War I. Prices for iron and steel, agricultural implements, cement, and rayon fibers and yarns generally have been stable, rising less than 10 percent during the nearly 6 years since the beginning of war in Europe. Increases of less than 20 percent have occurred in a number of subgroup indexes, including industrial leather products, nonferrous metals, plumbing and heating equipment, and industrial chemicals. However, prices in a few fields—grains, livestock, fresh fruits and vegetables, oils and fats, and cattle feed—have more than doubled since August 1939.

Reflecting the advance in prices for agricultural commodities, the group index for raw materials, in June 1945, was nearly 78 percent higher than in August 1939, in contrast to advances of slightly more than 28 percent in average prices for semimanufactured articles and manufactured products.

TABLE 1.—*Indexes of Wholesale Prices by Groups and Subgroups of Commodities, June 1945, Compared with May 1945, June 1944, and August 1939*

Groups and subgroups	Indexes (1926=100)				Percent of change to June 1945 from—		
	June 1945	May 1945	June 1944	August 1939	May 1945	June 1944	August 1939
All commodities	106.1	106.0	104.3	75.0	+0.1	+1.7	+41.5
Farm products	130.4	129.9	125.0	61.0	+.4	+4.3	+113.8
Grains	130.2	129.1	127.2	51.5	+.9	+2.4	+152.8
Livestock and poultry	134.4	135.5	123.0	66.0	−.8	+9.3	+103.6
Other farm products	127.2	125.9	124.7	60.1	+1.0	+2.0	+111.6
Foods	107.5	107.0	106.5	67.2	+.5	+.9	+60.0
Dairy products	110.5	110.6	110.3	67.9	−.1	+.2	+62.7
Cereal products	95.5	95.4	94.7	71.9	+.1	+.8	+32.8
Fruits and vegetables	134.7	131.4	137.7	58.5	+2.5	−2.2	+130.3
Meats	108.3	108.6	106.1	73.7	−.3	+2.1	+46.9
Other foods	95.1	94.7	93.0	60.3	+.4	+2.3	+57.7
Hides and leather products	118.0	117.9	116.4	92.7	+.1	+1.4	+27.3
Shoes	126.3	126.3	126.3	100.8	0	0	+25.3
Hides and skins	117.3	117.0	108.4	77.2	+.3	+8.2	+51.9
Leather	101.3	101.3	101.3	84.0	0	0	+20.6
Other leather products	115.2	115.2	115.2	97.1	0	0	+18.6
Textile products	99.6	99.6	97.8	67.8	0	+1.8	+46.9
Clothing	107.4	107.4	107.0	81.5	0	+.4	+31.8
Cotton goods	119.7	119.7	113.9	65.5	0	+5.1	+82.7
Hosiery and underwear	71.5	71.5	70.6	61.5	0	+1.3	+16.3
Rayon	30.2	30.2	30.3	28.5	0	−.3	+6.0
Silk				44.3			
Woolen and worsted goods	112.7	112.7	112.5	75.5	0	+.2	+49.3
Other textile products	100.9	100.9	100.5	63.7	0	+.4	+58.4

See footnotes at end of table.

TABLE 1.—*Indexes of Wholesale Prices by Groups and Subgroups of Commodities, June 1945, Compared with May 1945, June 1944, and August 1939*—Continued

Groups and subgroups	Indexes (1926=100)				Percent of change to June 1945 from—		
	June 1945	May 1945	June 1944	August 1939	May 1945	June 1944	August 1939
Fuel and lighting materials	83.9	83.7	83.3	72.6	+0.2	+0.7	+15.6
Anthracite	97.5	95.6	95.5	72.1	+2.0	+2.1	+35.2
Bituminous coal	123.8	123.2	120.4	96.0	+.5	+2.8	+29.0
Coke	131.0	130.7	130.7	104.2	+.2	+.2	+25.7
Electricity	[1]	[1]	59.3	75.8			
Gas	[1]	76.4	79.3	86.7			
Petroleum and products	64.2	64.2	64.0	51.7	0	+.3	+24.2
Metals and metal products	104.7	104.3	103.7	93.2	+.4	+1.0	+12.3
Agricultural implements	97.6	97.5	97.2	93.5	+.1	+.4	+4.4
Farm machinery	98.7	98.7	98.4	94.7	0	+.3	+4.2
Iron and steel	99.1	98.4	97.1	95.1	+.7	+2.1	+4.2
Motor vehicles	112.8	112.8	112.8	92.5	0	0	+21.9
Nonferrous metals	85.9	85.9	85.8	74.6	0	+.1	+15.1
Plumbing and heating	92.6	92.4	92.4	79.3	+.2	+.2	+16.8
Building materials	117.4	117.3	115.9	89.6	+.1	+1.3	+31.0
Brick and tile	110.9	110.7	100.6	90.5	+.2	+10.2	+22.5
Cement	99.4	99.4	96.4	91.3	0	+3.1	+8.9
Lumber	154.9	[2] 154.9	[2] 154.8	90.1	0	+.1	+71.9
Paint and paint materials	106.3	106.4	105.7	82.1	−.1	+.6	+29.5
Plumbing and heating	92.6	92.4	92.4	79.3	+.2	+.2	+16.8
Structural steel	107.3	107.3	107.3	107.3	0	0	0
Other building materials	104.3	104.1	103.0	89.5	+.2	+1.3	+16.5
Chemicals and allied products	95.0	94.9	95.3	74.2	+.1	−.3	+28.0
Chemicals	95.9	95.8	96.2	83.8	+.1	−.3	+14.4
Drugs and pharmaceuticals	109.5	106.8	112.0	77.1	+2.5	−2.2	+42.0
Fertilizer materials	80.4	81.9	79.9	65.5	−1.8	+.6	+22.7
Mixed fertilizers	86.6	86.6	86.3	73.1	0	+.3	+18.5
Oils and fats	102.0	102.0	102.0	40.6	0	0	+151.2
Housefurnishing goods	104.5	104.5	104.3	85.6	0	+.2	+22.1
Furnishings	107.5	107.5	107.2	90.0	0	+.3	+19.4
Furniture	101.5	101.5	101.4	81.1	0	+.1	+25.2
Miscellaneous	94.8	94.8	93.5	73.3	0	+1.4	+29.3
Automobile tires and tubes	73.0	73.0	73.0	60.5	0	0	+20.7
Cattle feed	159.6	159.6	159.6	68.4	0	0	+133.3
Paper and pulp	109.0	109.0	107.2	80.0	0	+1.7	+36.2
Rubber, crude	46.2	46.2	46.2	34.9	0	0	+32.4
Other miscellaneous	98.9	98.9	96.7	81.3	0	+2.3	+21.6
Raw materials	118.2	117.7	114.2	66.5	+.4	+3.5	+77.7
Semimanufactured articles	95.4	95.0	93.8	74.5	+.4	+1.7	+28.1
Manufactured products	101.8	101.8	100.9	79.1	0	+.9	+28.7
All commodities other than farm products	100.7	100.6	99.6	77.9	+.1	+1.1	+29.3
All commodities other than farm products and foods	99.6	99.4	98.5	80.1	+.2	+1.1	+24.3

[1] No quotation.
[2] Revised.

Index Numbers by Commodity Groups, 1926 to June 1945

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1944, and by months from June 1944 to June 1945, are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	87.3
1942	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	98.8
1943	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	103.1
1944	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	104.0
1944											
June	125.0	106.5	116.4	97.8	83.3	103.7	115.9	95.3	104.3	93.5	104.3
July	124.1	105.8	116.2	98.0	83.2	103.7	115.9	95.5	104.3	93.6	104.1
August	122.6	104.8	116.0	98.4	83.2	103.8	116.0	95.5	104.4	93.6	103.9
September	122.7	104.2	116.0	99.2	83.0	103.8	116.0	94.9	104.4	93.6	104.0
October	123.4	104.2	116.2	99.4	82.9	103.7	116.3	95.0	104.4	93.6	104.1
November	124.4	105.1	116.2	99.4	83.1	103.7	116.4	94.8	104.4	94.0	104.4
December	125.5	105.5	117.4	99.5	83.1	103.8	116.4	94.8	104.4	94.2	104.7
1945											
January	126.2	104.7	117.5	99.6	83.3	104.0	116.8	94.9	104.5	94.2	104.9
February	127.0	104.7	117.6	99.7	83.3	104.2	117.0	94.9	104.5	94.6	105.2
March	127.2	104.6	117.8	99.7	83.4	104.2	117.1	94.9	104.5	94.6	105.3
April	129.0	105.8	117.9	99.6	83.5	104.2	117.1	94.9	104.5	94.8	105.7
May	129.9	107.0	117.9	99.6	83.7	104.3	117.3	94.9	104.5	94.8	106.0
June	130.4	107.5	118.0	99.6	83.9	104.7	117.4	95.0	104.5	94.8	106.1

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 and 11 of Wholesale Prices, July–December and Year 1943 (Bulletin No. 785.)

TABLE 3.—*Index Numbers of Wholesale Prices by Special Groups of Commodities*

[1926=100]

Year	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	*1944*					
1929	97.5	93.9	94.5	93.3	91.6	June	114.2	93.8	100.9	99.6	98.5
1932	55.1	59.3	70.3	68.3	70.2	July	113.6	93.9	100.9	99.6	98.5
1933	56.5	65.4	70.5	69.0	71.2	August	112.7	94.1	100.9	99.7	98.6
1936	79.9	75.9	82.0	80.7	79.6	September	112.8	94.7	100.9	99.7	98.6
						October	113.2	94.8	101.0	99.8	98.7
1937	84.8	85.3	87.2	86.2	85.3	November	113.8	94.8	101.1	99.9	98.8
1938	72.0	75.4	82.2	80.6	81.7	December	114.6	94.8	101.1	100.0	98.9
1939	70.2	77.0	80.4	79.5	81.3						
1940	71.9	79.1	81.6	80.8	83.0	*1945*					
						January	115.1	94.9	101.3	100.1	99.1
1941	83.5	86.9	89.1	88.3	89.0	February	115.6	95.0	101.5	100.2	99.2
1942	100.6	92.6	98.6	97.0	95.5	March	115.7	95.0	101.6	100.4	99.2
1943	112.1	92.9	100.1	98.7	96.9	April	116.8	95.0	101.8	100.5	99.3
1944	113.2	94.1	100.8	99.6	98.5	May	117.7	95.0	101.8	100.6	99.4
						June	118.2	95.4	101.8	100.7	99.6

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during May and June 1945 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, May and June 1945*

[1926=100]

Commodity group	June 30	June 23	June 16	June 9	June 2	May 26	May 19	May 12	May 5
All commodities	105.9	105.9	106.0	106.0	106.1	105.9	105.8	105.7	105.7
Farm products	130.1	130.0	131.0	130.7	130.8	130.5	129.5	129.5	129.8
Foods	107.3	107.3	107.7	107.3	107.5	107.4	106.8	106.6	106.5
Hides and leather products	118.5	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3
Textile products	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
Fuel and lighting materials	84.8	84.7	84.5	84.5	84.7	84.6	84.6	84.3	84.0
Metals and metal products	104.8	104.8	104.8	104.8	104.8	104.4	104.3	104.4	104.3
Building materials	117.4	117.3	117.3	117.3	117.3	117.2	117.2	117.2	117.0
Chemicals and allied products	95.4	95.3	95.3	95.3	94.9	94.9	94.9	94.9	94.9
Housefurnishing goods	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2
Miscellaneous	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
Raw materials	118.7	118.6	119.0	118.8	118.9	118.5	117.9	117.9	117.8
Semimanufactured articles	95.3	95.3	95.3	95.3	95.3	94.8	94.8	94.8	94.8
Manufactured products	102.0	102.0	102.0	102.0	102.1	102.1	102.1	102.0	102.0
All commodities other than farm products	100.6	100.6	100.6	100.6	100.6	100.5	100.5	100.4	100.4
All commodities other than farm products and foods	99.8	99.8	99.7	99.7	99.8	99.7	99.7	99.6	99.5

Labor Turn-over

Labor Turn-over in Manufacturing, Mining, and Public Utilities, May 1945

FOR every 1,000 workers on factory pay rolls in May 1945, 47 quit, 6 were discharged, 12 were laid off, and 4 left to enter the armed services. The accession rate of 49 per 1,000 workers was slightly above that of April, but almost 25 percent below that of May 1944.

The rise during the month was due to the increased rate of hiring in the nonmunitions group. Workers laid off because of cut-backs in munitions production are creating a labor supply for civilian-goods industries which have suffered from a labor shortage since the war began.

The lay-off rate of 12 per 1,000 was the highest since June 1942. Although the nonmunitions lay-off rate remained the same as for April, that for munitions increased from 11 to 17 per 1,000. For the fifth consecutive month, the highest rate for all major groups, 36 per 1,000, was reported by the transportation-equipment group.

The shipbuilding industry, which has been laying off many workers since January, still has a rate of 31 per 1,000. The fighting of a one-front war is also reflected in the sudden rise in lay-offs from 14 to 51 in the aircraft industry and from 17 to 29 per 1,000 in the manufacture of aircraft parts and engines. Among the major groups, the second highest rate, 22 per 1,000, was in ordnance. A doubling of the lay-off rate in this group was brought about by curtailed operations in tank, bomb and shell loading, shell case, and sighting and fire-control equipment plants.

Workers were laid off at rates ranging from 14 to 10 per 1,000 in the automobile, miscellaneous, and nonferrous-metals groups. In the miscellaneous industries, cancellation of contracts in plants making aircraft instruments accounted for the laying off of 12 per 1,000 as against 3 in April. While the rate of lay-offs for the iron and steel group was not high compared with that for all manufacturing, the increase over the month was significant. Industries within this group that were forced to curtail operations at the close of the European war were firearms, cutlery (reduction in bayonet department), fabricated structural steel products, steel castings, and forgings.

Seven of the 10 munitions groups showed increased discharge rates, although that for all manufacturing remained the same. Discharges were highest in the ordnance and transportation-equipment groups, upon which production cut-backs fell most heavily.

Total separations for anthracite and bituminous-coal mining declined between April and May, reflecting a drop in the quit rate of both industries. The signing of coal contracts undoubtedly did much to slacken the rate of quits.

Although total separations for women were still considerably higher than for men in all manufacturing, involuntary separations amounted to about one-third of the total in each. A notable exception to this is the tank industry, in which plants produce aircraft parts in addition to tanks. Involuntary separations for women in these plants were about 70 percent of the total while for men it was only 50 percent of the total.

TABLE 1.—*Monthly Labor Turn-over Rates (per 100 Employees) in Manufacturing Industries* [1]

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total separation:												
1945	6.2	6.0	6.8	6.6	[2] 6.9							
1944	6.7	6.6	7.4	6.8	7.1	7.1	6.6	7.8	7.6	6.4	6.0	5.7
1943	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	6.6
1939	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
Quit:												
1945	4.6	4.3	5.0	4.8	[2] 4.7							
1944	4.6	4.6	5.0	4.9	5.3	5.4	5.0	6.2	6.1	5.0	4.6	4.4
1943	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	4.3
1939	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1945	.7	.7	.7	.6	[2] .6							
1944	.7	.6	.7	.6	.6	.7	.7	.7	.6	.6	.6	.6
1943	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	.6
1939	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
Lay-off: [3]												
1945	.6	.7	.7.	.8	[2] 1.2							
1944	.8	.8	.9	.6	.5	.5	.5	.5	.6	.5	.5	.5
1943	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	1.0
1939	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
Military and miscellaneous: [4]												
1945	.3	.3	.4	.4	[2] 4							
1944	.6	.6	.8	.7.	.7	.5	.4	.4	.3	.3	.3	.3
1943	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6
Accession:												
1945	7.0	5.0	4.9	4.7	[2] 4.9							
1944	6.5	5.5	5.8	5.5	6.4	7.6	6.3	6.3	6.1	6.0	6.1	5.1
1943	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	5.2
1939	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8

[1] Month-to-month employment changes as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month while the latter refer, for the most part, to a 1-week period ending nearest the middle of the month. In addition, labor turn-over data, beginning in January 1943, refer to all employees, whereas the employment and pay-roll reports relate only to wage earners. The labor turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing and certain seasonal industries, such as canning and preserving, are not covered.

[2] Preliminary.

[3] Including temporary, indeterminate, and permanent lay-offs.

[4] Miscellaneous separations comprise not more than 0.1 in these figures. In 1939 these data were included with quits.

TABLE 2.—*Monthly Labor Turn-over Rates (per 100 Employees) in Selected Groups and Industries,*[1] *May 1945* [2]

Industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	May	Apr.	May	Apr.	May	Apr.	May	Apr.	May	Apr.	May	Apr.
Manufacturing												
Munitions [3]	7.2	6.4	4.2	4.1	0.8	0.8	1.7	1.1	0.5	0.4	4.1	4.1
Nonmunitions [3]	6.6	6.9	5.5	5.8	.4	.4	.4	.4	.3	.3	6.0	5.6
Ordnance	9.7	8.0	5.9	5.5	1.2	1.1	2.2	1.0	.4	.4	5.5	6.1
Guns, howitzers, mortars, and related equipment	6.9	6.6	3.8	3.5	.8	.7	1.9	1.9	.5	.5	3.4	4.5
Ammunition, except for small arms	10.7	8.8	6.8	6.2	1.4	1.2	2.1	1.0	.4	.4	6.1	6.7
Tanks	12.0	6.7	5.4	4.8	1.7	1.1	4.4	.5	.5	.3	6.5	6.3
Sighting and fire-control equipment	4.9	3.5	2.7	2.1	.5	.5	1.3	.6	.4	.3	2.2	2.6
Iron and steel and their products	5.0	4.4	3.3	3.3	.5	.4	.8	.3	.4	.4	3.5	3.6
Blast furnaces, steel works, and rolling mills	3.3	2.9	2.4	2.3	.2	.2	.4	.1	.3	.3	2.5	2.6
Gray-iron castings	7.1	6.9	5.4	5.5	1.0	.7	.4	.3	.3	.4	6.1	5.4
Malleable-iron castings	5.6	5.7	4.5	4.7	.6	.5	.1	.1	.4	.4	4.3	4.2
Steel castings	7.5	6.4	4.8	5.1	.9	.8	1.4	.1	.4	.4	4.3	5.2
Cast-iron pipe and fittings	6.2	8.3	4.3	5.9	1.0	1.6	.4	.4	.5	.4	4.9	6.3
Tin cans and other tinware	(4)	10.1	(4)	7.3	(4)	2.2	(4)	.2	(4)	.4	(4)	11.
Wire products	3.2	2.9	2.3	2.1	.3	.2	.1	.1	.6	.5	3.1	2.6
Cutlery and edge tools	10.6	6.9	6.8	5.7	.4	.9	3.0	(5)	.4	.3	4.8	6.8
Tools (except edge tools, machine tools, files, and saws)	5.0	4.8	4.1	3.9	.4	.4	.2	.1	.3	.4	3.7	3.4
Hardware	4.5	4.0	3.6	3.3	.4	.3	.2	.1	.3	.3	4.2	4.0
Stoves, oil burners, and heating equipment	7.5	7.4	5.0	5.2	1.0	.8	1.0	.8	.5	.6	7.5	6.2
Steam and hot-water heating apparatus and steam fittings	6.3	5.9	4.3	4.9	.6	.4	1.0	.2	.4	.4	3.9	4.9
Stamped and enameled ware and galvanizing	7.5	6.5	5.8	4.9	.9	.7	.4	.3	.4	.6	8.0	6.8
Fabricated structural-metal products	8.8	8.7	4.9	5.3	.9	.8	2.3	2.0	.7	.6	5.1	4.3
Bolts, nuts, washers, and rivets	4.0	4.5	2.6	3.5	.6	.5	.3	.2	.5	.3	3.1	3.0
Forgings, iron and steel	5.6	4.9	3.5	3.4	.6	.5	1.2	.6	.3	.4	2.9	3.0
Firearms (60 caliber and under)	10.4	6.0	3.3	3.2	.6	.6	6.1	1.9	.4	.3	3.2	3.2
Electrical machinery	4.7	4.3	3.3	3.2	.6	.5	.5	.3	.3	.3	3.5	3.6
Electrical equipment for industrial use	3.8	3.5	2.6	2.6	.4	.4	.4	.2	.4	.3	2.7	2.8
Radios, radio equipment, and phonographs	5.2	4.6	3.7	3.5	.6	.6	.6	.2	.3	.3	3.9	3.9
Communication equipment, except radios	5.6	4.5	4.0	3.5	1.0	.7	.3	(5)	.3	.3	4.2	4.3
Machinery, except electrical	4.4	4.6	3.0	3.2	.6	.6	.4	.3	.4	.5	3.5	3.3
Engines and turbines	4.8	5.0	3.2	3.2	.6	.7	.5	.6	.5	.5	3.8	3.4
Agricultural machinery and tractors	4.1	4.6	3.1	3.7	.3	.3	.1	.1	.6	.5	3.6	3.2
Machine tools	3.6	3.6	2.1	2.2	.6	.6	.5	.4	.4	.4	2.3	2.3
Machine-tool accessories	4.4	3.6	2.5	2.3	.9	.7	.6	.3	.4	.3	3.2	3.1
Metalworking machinery and equipment, not elsewhere classified	4.0	3.9	2.6	2.8	.8	.5	.2	.2	.4	.4	3.4	3.5
General industrial machinery, except pumps	5.0	5.0	3.3	3.5	.7	.6	.6	.4	.4	.5	3.6	3.5
Pumps and pumping equipment	4.5	5.5	3.5	4.1	.6	.8	(5)	(5)	.4	.6	4.3	4.9
Transportation equipment, except automobiles	10.3	9.0	5.0	4.9	1.1	1.1	3.6	2.5	.6	.5	4.0	3.9
Aircraft	12.1	7.3	5.4	4.6	.8	.7	5.1	1.4	.8	.6	3.2	3.2
Aircraft parts, including engines	6.9	5.7	3.0	3.0	.6	.6	2.9	1.7	.4	.4	3.2	3.2
Shipbuilding and repairs	11.5	12.9	6.1	6.4	1.6	1.8	3.1	4.1	.7	.6	5.2	4.9
Automobiles	6.5	6.5	3.9	4.3	.8	.8	1.4	1.0	.4	.4	4.9	5.2
Motor vehicles, bodies, and trailers	6.2	6.4	3.3	3.8	.7	.8	1.9	1.4	.3	.4	4.1	4.3
Motor-vehicle parts and accessories	6.7	6.6	4.3	4.7	.8	.8	1.2	.7	.4	.4	5.4	5.8

See footnotes at end of table.

TABLE 2.—*Monthly Labor Turn-over Rates (per 100 Employees) in Selected Groups and Industries,*[1] *May 1945* [2]—Continued

Industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	May	Apr.	May	Apr.	May	Apr.	May	Apr.	May	Apr.	May	Apr.
Manufacturing—Continued												
Nonferrous metals and their products	7.1	6.3	5.0	4.7	0.7	0.6	1.0	0.6	0.4	0.4	5.6	5.7
Primary smelting and refining, except aluminum and magnesium	3.8	3.7	3.0	2.9	.3	.3	.1	.1	.4	.4	3.6	3.2
Aluminum and magnesium smelting and refining	8.3	10.4	7.2	7.7	.4	.3	.2	1.9	.5	.5	8.4	9.5
Rolling and drawing of copper and copper alloys	6.0	4.1	3.9	3.2	.7	.5	1.0	.1	.4	.3	2.8	3.3
Aluminum and magnesium products	8.6	7.5	5.7	5.4	.8	.7	1.6	.9	.5	.5	6.4	7.2
Lighting equipment	5.7	6.5	4.4	5.9	.5	.3	.5	.1	.3	.2	4.9	5.2
Nonferrous-metal foundries, except aluminum and magnesium	6.3	5.9	4.4	4.3	.7	.7	.9	.6	.3	.3	5.3	4.3
Lumber and timber basic products	9.3	9.4	8.1	7.6	.4	.4	.4	.9	.4	.5	9.0	8.3
Sawmills	9.6	9.1	8.4	7.5	.4	.3	.4	.8	.4	.5	9.0	8.1
Planing and plywood mills	6.5	7.4	5.3	6.1	.6	.5	.2	.3	.4	.5	6.3	6.1
Furniture and finished lumber products	9.4	8.6	8.3	7.4	.5	.6	.3	.3	.3	.3	8.2	7.5
Furniture, including mattresses and bedsprings	8.8	8.4	8.0	7.3	.5	.6	.1	.2	.2	.3	8.2	7.5
Stone, clay, and glass products	4.7	5.3	3.8	4.1	.4	.4	.1	.3	.4	.5	4.9	4.3
Glass and glass products	5.0	5.9	3.8	4.1	.5	.6	.3	.6	.4	.6	5.0	4.5
Cement	3.8	4.3	3.0	3.4	.3	.3	.2	.2	.3	.4	5.7	4.1
Brick, tile, and terra cotta	5.4	6.1	4.7	4.6	.3	.4	.1	.5	.3	.6	5.8	4.9
Pottery and related products	4.5	5.8	3.8	5.2	.3	.2	(3)	.1	.4	.3	5.2	4.7
Textile-mill products	5.8	6.5	4.9	5.5	.4	.4	.2	.3	.3	.3	5.5	5.0
Cotton	6.6	7.6	5.8	6.7	.4	.4	.1	.2	.3	.3	6.4	6.0
Silk and rayon goods	6.3	6.5	5.3	5.3	.5	.5	.2	.4	.3	.3	6.2	5.2
Woolen and worsted, except dyeing and finishing	3.9	4.1	2.8	2.9	.3	.2	.6	.7	.2	.3	3.6	3.2
Hosiery, full fashioned	4.7	4.2	3.5	3.6	.2	.2	.8	.2	.2	.2	3.3	2.7
Hosiery, seamless	5.4	6.3	4.9	5.8	.3	.2	.1	.1	.1	.2	5.0	4.8
Knitted underwear	4.8	5.4	4.2	4.3	.2	.2	.3	.8	.1	.1	5.2	4.1
Dyeing and finishing textiles, including woolen and worsted	4.4	4.1	3.1	3.1	.5	.4	.3	.2	.5	.4	3.5	3.1
Apparel and other finished textile products	4.7	5.4	4.2	4.7	.2	.2	.2	.4	.1	.1	4.5	4.3
Men's and boys' suits, coats, and overcoats	3.2	4.1	2.9	3.8	.1	.1	.1	.1	.1	.1	2.9	3.1
Men's and boys' furnishings, work clothing, and allied garments	5.0	5.3	4.6	4.8	.2	.2	.1	.2	.1	.1	4.5	4.4
Leather and leather products	5.2	5.6	4.5	5.0	.4	.2	.1	.2	.2	.2	5.2	5.0
Leather	3.5	4.2	2.6	3.7	.5	.2	.1	(3)	.3	.3	3.2	3.8
Boots and shoes	5.4	5.8	4.8	5.2	.3	.2	.1	.2	.2	.2	5.5	5.2
Food and kindred products	8.5	8.7	7.1	7.3	.5	.5	.5	.5	.4	.4	7.5	6.8
Meat products	8.4	8.1	6.8	6.7	.4	.5	.6	.5	.6	.4	6.7	4.7
Grain-mill products	9.3	10.2	8.1	9.2	.5	.5	.3	(3)	.4	.5	9.0	9.8
Tobacco manufactures	7.8	8.1	6.9	7.4	.5	.4	.3	.2	.1	.1	6.5	7.2
Paper and allied products	6.2	6.4	5.0	5.5	.5	.4	.2	.1	.5	.4	6.1	5.8
Paper and pulp	5.5	6.3	4.4	5.2	.4	.4	.2	.2	.5	.5	5.7	5.3
Paper boxes	7.8	7.3	6.7	6.4	.5	.4	.2	.1	.4	.4	7.3	7.0
Chemicals and allied products	6.0	5.5	4.5	4.3	.7	.6	.4	.2	.4	.4	5.0	5.2
Paints, varnishes, and colors	2.8	3.0	2.0	2.3	.4	.3	(3)	(3)	.4	.4	2.7	2.3
Rayon and allied products	4.1	4.9	3.3	3.6	.3	.3	.1	.4	.4	.6	4.2	3.9
Industrial chemicals, except explosives	4.6	4.0	3.1	3.0	.5	.5	.6	.2	.4	.3	4.1	3.6
Explosives	8.4	6.9	6.2	5.6	1.3	.8	.6	(3)	.3	.5	6.6	8.5
Small-arms ammunition	8.0	7.2	6.3	5.7	1.0	.9	.3	.2	.4	.4	5.9	5.8

See footnotes at end of table.

TABLE 2.—*Monthly Labor Turn-over Rates (per 100 Employees) in Selected Groups and Industries,*[1] *May 1945*[2]—Continued

Industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	May	Apr.	May	Apr.	May	Apr.	May	Apr.	May	Apr.	May	Apr.
Manufacturing—Continued												
Products of petroleum and coal	3.1	3.2	2.1	2.0	0.4	0.3	0.2	0.5	0.4	0.4	3.5	2.9
Petroleum refining	3.1	3.1	2.1	1.9	.3	.3	.3	.5	.4	.4	3.5	2.9
Rubber products	5.6	5.6	4.4	4.7	.5	.4	.3	.2	.4	.3	4.9	4.3
Rubber tires and inner tubes	5.4	5.4	4.4	4.6	.5	.4	.1	.1	.4	.3	4.9	4.0
Rubber footwear and related products	6.0	6.2	5.5	5.6	.3	.2	(5)	.1	.2	.3	5.1	4.7
Miscellaneous rubber industries	5.7	5.9	4.2	4.7	.6	.5	.5	.4	.4	.3	4.7	4.8
Miscellaneous industries	4.9	4.2	2.8	2.9	.5	.6	1.2	.3	.4	.4	3.4	2.9
Nonmanufacturing												
Metal mining	5.2	4.6	4.3	3.8	.3	.3	.2	.2	.4	.3	4.0	4.8
Iron ore	2.9	2.5	2.0	1.8	.2	.1	.4	.3	.3	.3	2.9	4.0
Copper ore	5.9	5.2	5.2	4.3	.3	.3	.1	.2	.3	.4	3.7	5.4
Lead and zinc ore	6.8	6.3	5.8	5.4	.4	.4	.1	.1	.5	.4	5.4	4.7
Metal mining, not elsewhere classified, including aluminum ore	5.7	5.7	4.2	4.4	.8	.9	.2	.1	.5	.3	5.2	5.6
Coal mining:												
Anthracite mining	1.1	1.6	.8	1.2	(5)	(5)	.2	.2	.1	.2	.8	.9
Bituminous-coal mining	3.0	3.3	2.4	2.8	.2	.2	.2	.1	.2	.2	2.9	2.6
Public utilities:												
Telephone	2.9	2.9	2.5	2.6	.1	.1	.1	.1	.2	.1	3.4	3.3
Telegraph	3.3	3.4	3.0	3.1	.1	.1	.1	.1	.1	.1	2.9	2.6

[1] Since January 1943 manufacturing firms reporting labor turn-over have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample, comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products.

[2] Preliminary figures.

[3] The munitions division which replaces the selected war industries group, includes the following major industry groups: Ordnance; iron and steel; electrical machinery; machinery, except electrical; automobiles; transportation equipment, except automobiles; nonferrous metals; chemicals; products of petroleum and coal; rubber. The nonmunitions division includes lumber; furniture and finished lumber products; stone, clay, and glass; textile-mill products; apparel and finished textile products; leather; food and kindred products; tobacco; paper and pulp; miscellaneous industries. Comparable data for 1943 and 1944 appeared in the July issue of the Monthly Labor Review.

[4] Not available.

[5] Less than 0.05.

TABLE 3.—*Monthly Labor Turn-over Rates (per 100 Employees)*[1] *for Men and Women in Selected Industries Engaged in War Production, May 1945* [2]

Industry	Total separation		Quit		Total accession	
	Men	Women	Men	Women	Men	Women
All manufacturing	6.0	9.2	4.1	6.1	4.4	5.8
Ordnance	8.2	12.5	4.7	7.9	4.6	6.9
Guns, howitzers, mortars, and related equipment	6.4	9.5	3.1	6.4	2.9	5.5
Ammunition, except for small arms	9.0	12.7	5.5	8.5	5.4	7.1
Tanks	10.1	25.6	4.8	7.3	4.9	13.8
Sighting and fire-control equipment	3.7	7.0	2.0	4.0	1.9	2.7
Iron and steel and their products	4.4	8.8	2.9	5.8	3.1	5.7
Blast furnaces, steel works, and rolling mills	3.0	7.5	2.1	4.8	2.3	4.1
Gray-iron castings	6.9	9.9	5.3	7.1	5.6	8.3
Malleable-iron castings	5.6	6.6	4.5	4.7	4.5	4.1
Steel castings	7.2	11.1	4.8	4.1	4.4	3.3
Cast-iron pipe and fittings	6.1	6.6	4.2	5.4	5.0	3.9
Firearms (60 caliber and under)	9.6	18.7	2.7	5.6	2.0	4.5
Electrical machinery	3.7	6.1	2.1	4.6	2.2	4.9
Electrical equipment for industrial use	2.8	5.5	1.7	4.1	1.6	4.6
Radios, radio equipment, and phonographs	4.0	6.1	2.2	4.9	2.5	5.0
Communication equipment, except radios	4.8	6.4	2.8	5.0	3.0	5.2
Machinery, except electrical	4.0	6.3	2.5	4.7	3.1	4.9
Engines and turbines	4.4	6.3	2.7	4.8	3.2	5.6
Machine tools	3.3	5.6	1.9	3.7	2.2	3.7
Machine-tool accessories	4.1	5.7	2.2	3.8	3.0	3.9
Metalworking machinery and equipment, not elsewhere classified	3.4	6.5	2.1	4.6	3.1	5.2
General industrial machinery, except pumps	4.4	7.1	2.8	5.0	3.2	5.0
Pumps and pumping equipment	3.9	6.5	2.9	5.5	2.9	8.7
Transportation equipment, except automobiles	8.8	15.0	4.4	6.8	3.9	4.7
Aircraft	8.3	18.1	4.2	7.3	2.6	4.1
Aircraft parts, including engines	5.8	9.9	2.5	4.2	2.5	4.3
Shipbuilding and repairs	11.2	15.2	5.9	9.7	5.5	6.8
Nonferrous metals and their products	6.7	8.7	4.7	5.8	5.2	6.9
Primary smelting and refining, except aluminum and magnesium	3.7	4.9	3.0	3.3	3.6	4.0
Aluminum and magnesium smelting and refining	8.5	6.5	7.6	3.8	8.4	8.6
Rolling and drawing of copper and copper alloys	5.4	10.0	3.7	5.6	2.7	3.5
Aluminum and magnesium products	8.0	10.7	5.4	6.6	6.0	8.0
Nonferrous-metal foundries, except aluminum and magnesium	6.2	6.9	4.0	5.6	4.4	7.4
Chemicals and allied products	5.2	7.9	3.6	6.5	4.3	6.6
Industrial chemicals, except explosives	4.2	5.8	2.9	4.1	4.1	4.2
Explosives	7.1	11.3	5.1	9.0	5.4	9.4
Small-arms ammunition	7.3	8.8	5.1	7.6	5.0	6.9

[1] These figures are presented to show comparative turn-over rates and should not be used to estimate employment.

[2] These figures are based on a slightly smaller sample than that for all employees, inasmuch as some firms do not report separate data for women.

Building Operations

Building Construction in Urban Areas, June 1945

THE value of building construction started in urban areas of the United States during June 1945 reached a total of 144 million dollars, gaining 7 percent over the previous month and 24 percent over June a year ago. For the third consecutive month, non-Federally financed work increased substantially while Federal construction experienced a decline. This trend was especially pronounced in June when the value of non-Federal building rose 23 percent and Federal contract awards dropped 38 percent.

Both new residential construction and additions, alterations, and repairs gained materially during the month, 14 and 33 percent, respectively. New nonresidential building, on the other hand, fell off 17 percent because of a 52-percent decline in Federally financed work.

TABLE 1.—*Summary of Building Construction in All Urban Areas, June 1945*

Class of construction	Number of buildings			Valuation		
	June 1945	Percent of change from—		June 1945 (in thousands of dollars)	Percent of change from—	
		May 1945	June 1944		May 1945	June 1944
All building construction	73,878	+7.1	+9.9	144,298	+6.5	+24.3
New residential	12,527	+9.3	+24.6	53,120	+13.5	+45.0
New nonresidential	11.812	+16.3	+55.7	43,868	−17.4	−12.2
Additions, alterations, and repairs	49,539	+4.6	−.1	47,310	+33.0	+60.3

There was an 8-percent rise over May in the number of new dwelling units begun during the month. The total for June was 13,586 units, as compared with 12,530 in May. Privately financed units increased from 11,222 to 11,988 and Federally financed from 1,308 to 1,598.

Comparison of June 1945 and June 1944

Chiefly responsible for the 28-million-dollar gain over the year in building construction was the 60-percent increase in additions, alterations, and repairs. This type of construction comprised one-third of the total dollar volume during June 1945 as compared with one-fourth in June a year ago, rising from 30 million dollars to 47 million dollars. New residential construction, too, gained markedly, 45 percent, whereas new nonresidential building dropped off 12 percent.

TABLE 2.—*Number and Valuation of New Dwelling Units in All Urban Areas, by Source of Funds and Type of Dwelling, June 1945*

Source of funds and type of dwelling	Number of dwelling units			Valuation		
	June 1945	Percent of change from—		June 1945 (in thousands of dollars)	Percent of change from—	
		May 1945	June 1944		May 1945	June 1944
All dwellings	13,586	+8.4	+17.5	52,610	+13.2	+45.8
Privately financed	11,988	+6.8	+20.2	48,187	+12.0	+52.1
1-family	10,437	+9.7	+38.2	43,551	+15.6	+83.8
2-family [1]	550	−41.1	−60.5	1,941	−38.5	−60.5
Multifamily [2]	1,001	+29.8	−2.4	2,695	+23.1	−12.3
Federally financed	1,598	+22.2	+.1	4,423	+28.2	+.5

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Comparison of First 6 Months of 1944 and 1945

By the end of the first half of 1945, the cumulative value of building construction started in all urban areas was approximately 658 million dollars, 17 percent above the aggregate for the same period in 1944. All types of construction financed from other-than-Federal funds reached higher levels in 1945 than in 1944, with the greatest increase, 51 percent, occurring in new nonresidential building. Although Federally financed work as a whole increased slightly, new residential construction declined 29 percent. Federal nonresidential building remained the same, whereas additions, alterations, and repairs were almost 3 times as great in 1945 as in 1944.

TABLE 3.—*Value of Building Construction Started in All Urban Areas, by Class of Construction, First 6 Months of 1944 and 1945*

Class of construction	Valuation (in millions of dollars)								
	Total construction			Federal			Other than Federal		
	First 6 months of—		Percent of change	First 6 months of—		Percent of change	First 6 months of—		Percent of change
	1945	1944		1945	1944		1945	1944	
All construction	658	563	+16.9	183	179	+2.2	475	384	+23.7
New residential	202	197	+2.5	20	28	−28.6	182	169	+7.7
New nonresidential	260	221	+17.6	144	144	(1)	116	77	+50.6
Additions, alterations and repairs	196	145	+35.2	19	7	+171.4	177	138	+28.3

[1] Percentage change not computed since both periods report the same valuation.

TABLE 4.—*Number and Valuation of New Dwelling Units in All Urban Areas, by Source of Funds and Type of Dwelling, First 6 Months of 1944 and 1945*

Source of funds and type of dwelling	Number of dwelling units			Valuation (in thousands of dollars)		
	First 6 months of—		Percent of change	First 6 months of—		Percent of change
	1945	1944		1945	1944	
All dwellings	57,946	64,542	−10.2	199,517	195,422	+2.1
Privately financed	51,053	53,346	−4.3	181,046	168,600	+7.4
1-family	41,761	40,232	+3.8	153,583	127,354	+20.6
2-family [1]	3,828	5,903	−35.2	11,727	20,181	−41.9
Multifamily [2]	5,464	7,211	−24.2	15,736	21,065	−25.3
Federally financed	6,893	11,196	−38.4	18,471	26,822	−31.1

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Construction From Public Funds, June 1945

The value of contracts awarded and force-account work started during June and May 1945 and June 1944 on all construction projects, excluding shipbuilding, financed wholly or partially from Federal funds and reported to the Bureau of Labor Statistics, is shown in table 5. This table includes construction both inside and outside the corporate limits of cities in urban areas of the United States.

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed From Federal Funds, June 1945*

Source of funds	Value (in thousands of dollars) of contracts awarded and force-account work started		
	June 1945 [1]	May 1945 [2]	June 1944 [2]
All Federal sources	67,185	89,223	239,322
War public works	2,039	2,591	9,722
Regular Federal appropriations [3]	60,481	81,921	222,296
Federal Public Housing Authority	4,665	4,711	7,304

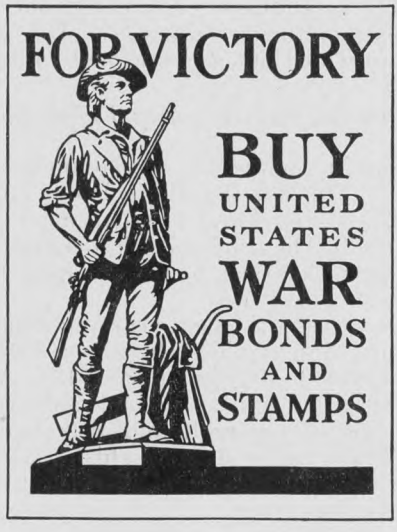
[1] Preliminary; subject to revision.
[2] Revised.
[3] Excludes the following amounts (in thousands of dollars) for ship construction; June 1945, 16,818; May 1945, 18,310; June 1944, 116,064.

Coverage and Method

Figures on building construction in this report cover the entire urban area of the United States which by Census definition includes all incorporated places with a 1940 population of 2,500 or more and, by special rule, a small number of unincorporated civil divisions. Valuation figures, the basis for statements concerning value, are derived from estimates of construction cost made by prospective private builders when applying for permits to build, and the value of contracts awarded by Federal and State governments. No land costs are included. Unless otherwise indicated, only building construction within the corporate limits of cities in urban areas is included in the tabulations.

Reports of building permits which were received in June 1945 for cities containing between 80 and 85 percent of the urban population of the country provide the basis for estimating the total number of buildings and dwelling units and the valuation of private urban building construction. Similar data for Federally financed urban building construction are compiled directly from notifications of construction contracts awarded, as furnished by Federal agencies.

The contracts awarded and force-account work started on Federally financed building construction inside the corporate limits of cities in urban areas were valued at $21,940,000 in June 1945, $35,548.000 in May 1945, and $34,086,000 in June 1944.



Trend of Employment, Earnings, and Hours

Summary of Employment Reports for June 1945

THE total number of employees in nonagricultural establishments was 37,495,000 in June, 137,000 less than in May 1945 and 1⅓ million less than in May 1944. The decline over the month was the first May-to-June decline in 7 years. Normally, there are seasonal increases in the nonmanufacturing industries. This year manufacturing cut-backs more than wiped out any seasonal gains.

Industrial and Business Employments

Manufacturing production-worker employment declined by a little more than 200,000. This was localized in the munitions group and reflects contract cancellations and terminations. Declines of 10,000 or more were reported by the transportation-equipment, iron and steel, automobile, machinery, electrical machinery, nonferrous, and chemical groups.

The largest decline during the past year and a half was in the transportation-equipment group in which there were 1,616,000 as compared with a peak of 2,626,000 in November 1943. Although the shipbuilding, aircraft, aircraft-engine, and tank industries all contributed to the over-all decline, the aircraft and aircraft-engine industry together accounted for the major share. This is the first month in 1945 that declines in aircraft were greater than in shipbuilding.

Almost all the major groups which comprise the nonmunitions group of factory works reported employment increases. All but one of these gains were less than 10,000. The food group, which added 30,000, reported seasonal increases in most industries. The gain in slaughtering and meat packing reflects an increase in the volume of livestock.

Anthracite mines, operating with a new contract, reported 64,500 miners as compared with the strike-depressed low of 9,000 in May. The signing of the coal contracts brought employment back to approximately the level in April 1945 and only slightly below June of last year.

TABLE 1.—*Estimated Number of Production Workers and Indexes of Production-Worker Employment in Manufacturing Industries, by Major Industry Group* [1]

Industry group	Estimated number of production workers (in thousands)				Production-worker indexes (1939=100)	
	June 1945 [2]	May 1945	Apr. 1945	June 1944	June 1945 [2]	May 1945
All manufacturing	12,201	12,405	12,678	13,610	148.9	151.4
Durable goods	7,028	7,255	7,471	8,246	194.6	200.9
Nondurable goods	5,173	5,150	5,207	5,364	112.9	112.4
Iron and steel and their products	1,564	1,606	1,631	1,672	157.7	162.0
Electrical machinery	656	670	682	745	253.2	258.7
Machinery, except electrical	1,090	1,108	1,130	1,210	206.3	209.6
Transportation equipment, except automobiles	1,616	1,744	1,874	2,334	1017.9	1098.9
Automobiles	606	634	659	703	150.7	157.5
Nonferrous metals and their products	391	401	404	423	170.5	174.9
Lumber and timber basic products	447	443	438	476	106.3	105.3
Furniture and finished lumber products	330	329	331	345	100.5	100.2
Stone, clay, and glass products	328	320	322	338	111.7	109.1
Textile-mill products and other fiber manufactures	1,039	1,035	1,046	1,104	90.9	90.5
Apparel and other finished textile products	794	801	819	867	100.5	101.4
Leather and leather products	307	303	305	313	88.5	87.4
Food	997	967	975	1,038	116.7	113.2
Tobacco manufactures	81	80	81	83	86.3	85.4
Paper and allied products	302	299	301	311	114.0	112.6
Printing, publishing, and allied industries	330	326	326	330	100.5	99.5
Chemicals and allied products	613	623	633	584	212.8	216.3
Products of petroleum and coal	135	134	133	132	127.3	126.3
Rubber products	184	189	192	193	152.3	155.9
Miscellaneous industries	391	393	396	409	160.0	160.7

[1] The estimates and indexes presented in this table have been adjusted to levels indicated by final 1942 and preliminary 1943 data made available by the Bureau of Employment Security of the Federal Security Agency. The term "production worker" has been substituted for the term "wage earner" which has been used in our previous releases. This conforms with the terminology and standard definitions of classes of workers in manufacturing industries formulated by the Division of Statistical Standards of the U. S. Bureau of the Budget. The use of "production worker" in place of "wage earner" has no appreciable effect on the employment estimates and indexes since there is very little difference in the definitions.

[2] Preliminary.

Public Employment

An increase of 33,000 in employment of the Federal Government outside continental United States in June 1945 was partially offset by a decline on the continent, and resulted in bringing total employment in all branches to 3,654,000. The decline on the continent was in war agencies, mainly in the War and Navy Departments.

In reducing its staff by 4,300, the Treasury Department reversed its previous generally upward trend. The Post Office Department did likewise, with a staff cut of 1,400. The main offsetting increase, among agencies other than war agencies, occurred in the Commerce Department where the continuation of the agricultural census was responsible for additional employment of 6,100.

Source of data.—Data for the Federal executive service are reported through the Civil Service Commission, whereas data for the legislative and judicial services and Government corporations are reported to the Bureau of Labor Statistics. Force-account employment is also included in construction employment (table 5), and navy-yard employment is also included in employment on shipbuilding and repair projects (table 4). Data for pay rolls are now being revised, and the revised series will be available shortly.

TABLE 2.—*Employment in Regular Federal Services and in Government Corporations, in Selected Months*

Year and month	Total	Executive [1]	Legislative	Judicial	Government corporations [2]
June 1939	952,441	920,053	5,336	2,322	24,730
June 1940	1,036,229	1,001,591	5,851	2,499	26,288
June 1941	1,400,168	1,361,404	6,055	2,517	30,192
June 1942	2,211,609	2,170,223	6,464	2,653	32,269
June 1943	3,268,005	3,224,068	6,146	2,622	35,169
June 1944	3,294,289	3,248,966	6,154	2,679	36,490
April 1945	3,613,169	3,570,080	6,346	2,626	34,117
May 1945 [3]	3,638,147	3,595,249	6,361	2,617	33,920
June 1945 [3]	3,653,765	3,611,087	6,349	2,613	33,716

[1] Includes employees in United States navy yards who are also included under shipbuilding (table 4) and employees on force-account construction who are also included under construction projects (table 5). Includes employees stationed outside continental United States. Beginning March 1945, data exclude 10,324 employees of the Navy Department who had been held prisoners of war by the enemy since about January 1942.

[2] Data are for employees of the Panama Railroad Company, the Federal Reserve banks, and banks of the Farm Credit Administration, who are paid out of operating revenues and not out of Federal appropriations. Data for other Government corporations are included under the executive service.

[3] Preliminary.

TABLE 3.—*Employment in the Executive Branch of the Federal Government, by War and Other Agencies, in Selected Months* [1]

Year and month	Total	War agencies [2]			Other agencies		
		All areas	Continental United States	Outside continental United States [3] [4]	All areas	Continental United States	Outside continental United States [3]
June 1939	920,053	202,752	173,602	29,150	717,301	708,132	9,169
June 1940	1,001,591	261,027	215,314	45,713	740,564	728,996	11,568
June 1941	1,361,404	570,708	497,059	73,649	790,696	777,472	13,224
June 1942	2,170,223	1,308,029	1,135,092	172,937	862,194	848,011	14,183
June 1943	3,224,068	2,410,601	2,131,896	278,705	813,467	798,336	15,131
June 1944	3,248,966	2,427,696	2,060,680	367,016	821,270	805,662	15,608
April 1945	3,570,080	2,689,936	2,056,697	633,239	880,144	863,565	16,488
May 1945 [5]	3,595,249	2,702,723	2,038,624	664,099	892,526	876,011	16,515
June 1945 [5]	3,611,087	2,716,323	2,018,847	697,476	894,764	878,174	16,590

[1] Includes employees in United States navy yards who are also included under shipbuilding (table 4) and employees on force-account construction who are also included under construction projects (table 5).

[2] Covers War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and the emergency war agencies.

[3] Includes Alaska and the Panama Canal Zone.

[4] Beginning March 1945, data exclude 10,324 employees of the Navy Department who had been held prisoners of war by the enemy since about January 1942.

[5] Preliminary.

Employment in Shipyards

Employment in shipyards continued to decline during June 1945, although the net loss of 49,600 workers in June was less than the 77,600 decline in employment during May and the 77,000 decline during April. During the first 6 months of 1945, shipyard employment declined 314,600. The June 1945 employment was 582,700 less than the peak for the industry in December 1943.

During June 1945, employment in private shipyards declined 49,500, while United States navy yards showed a net loss of only 100 workers. Because of intensified recruiting by the Navy Department, made necessary by the increased repair load, employment in the two Pacific Coast navy yards and two naval drydocks increased by 3,100.

In spite of the fact that total employment in shipyards declined, the number of workers engaged in service and repair of all types of naval and cargo vessels increased 14,600 in June. This increase on repair work was offset, however, by a decrease of 64,200 in the number of workers engaged in new construction. Of the total of 1,139,800 workers, 748,100 were engaged in new construction; the remaining 391,800 were engaged in service and repair work—34 percent of the total as compared with 23 percent last December.

Shipyards in the North Atlantic region had the greatest numerical loss in employment during June, 25,900, while Pacific Coast yards were second with a loss of 9,400 workers. However, shipyards in the Great Lakes region had the greatest percentage decrease in employment, 16.8 percent; Inland yards were next highest, with a decrease of 15.4 percent.

Pay rolls of shipyard workers for June amounted to $327,558,000, which was $14,415,000 less than pay rolls for May.

TABLE 4.—*Total Employment and Pay Rolls in United States Navy Yards and Private Shipyards Within Continental United States, by Shipbuilding Region, June 1945*

Shipbuilding region	Employment (in thousands)			Pay rolls (thousands of dollars)		
	June 1945 [1]	May 1945	June 1944	June 1945 [1]	May 1945	June 1944
All regions	1,139.8	1,189.4	1,588.3	327,558	341,973	442,648
United States navy yards [2]	315.7	315.8	331.2	93,591	93,571	90,987
Private shipyards	824.1	873.6	1,257.1	233,967	248,402	351,661
North Atlantic	438.0	460.9	576.5	138,383	145,665	[3]
South Atlantic	106.2	109.3	139.6	27,474	28,263	[3]
Gulf	137.0	141.2	217.8	36,041	37,151	[3]
Pacific	407.1	416.5	525.2	111,081	113,499	[3]
Great Lakes	30.7	36.9	65.2	8,137	9,784	[3]
Inland	20.8	24.6	64.0	6,442	7,611	[3]

[1] Preliminary.
[2] Includes all navy yards constructing or repairing ships, including the Curtis Bay (Md.) Coast Guard Yard. Data are also included in the Federal executive service (tables 2 and 3).
[3] Break-down not available.

Data on employment and pay rolls are received monthly by the Bureau of Labor Statistics directly from all private shipyards. Data for United States navy yards are received monthly from the Navy Department. Employees in the navy yards are also included in data for the Federal executive service (tables 2 and 3).

Construction Employment

Employment on new construction rose to 967,200 in June 1945 from a total of 918,000 in the preceding month and from 841,000 a year ago. Gains for the month and over the year were entirely on non-Federally financed projects, Federal construction employment having declined slightly during both periods.

All types of non-Federal projects showed employment increases this month, with by far the greatest (25,400) occurring in new residential construction. This type of private work has been stimulated to a large extent by the inauguration of a new building program by the

National Housing Agency, known as H–2 housing, designed to meet conditions of general congestion impeding the war effort and to lay a pattern which will enable the building industry to expand as rapidly as additional materials and manpower become available. The total non-Federal employment gain for the month was 50,100 or 9 percent. However, the increase over a year ago was even greater, 159,900 or 36 percent, primarily because almost two and a half times as many persons were employed on new nonresidential building this June as last (199,700 as compared with 83,000).

Federal construction employment, on the other hand, decreased by 3,600 from May 1945 and by 8,200 from June 1944. The decline during the month was accounted for principally by a 2,500 drop on new nonresidential building. In spite of the current drop, Federal nonresidential work was one-third greater this June than last. Most other types of Federal construction showed employment decreases from a year ago.

TABLE 5.—*Estimated Employment and Pay Rolls on Construction Within Continental United States, June 1945*

Type of project	Employment (in thousands)			Pay rolls (in thousands of dollars)		
	June 1945 [1]	May 1945 [2]	June 1944	June 1945 [1]	May 1945 [2]	June 1944
New construction, total [3]	967.2	918.0	841.0	(4)	(4)	(4)
At the construction site	831.1	784.6	679.4	(4)	(4)	(4)
Federal projects [5]	224.6	228.2	232.8	54,149	52,573	45,603
Airports	6.5	6.0	19.9	1,212	1,124	3,358
Buildings	173.7	176.4	147.4	43,874	41,552	29,673
Residential	12.0	12.2	27.1	2,959	3,042	5,811
Nonresidential [6]	161.7	164.2	120.3	40,915	38,510	23,862
Electrification	.7	.6	.5	136	131	104
Reclamation	6.6	6.6	14.3	1,631	1,627	3,128
River, harbor, and flood control	12.8	14.1	21.0	2,489	2,960	4,086
Streets and highways	11.2	9.8	17.6	2,104	1,855	3,087
Water and sewer systems	2.9	3.1	5.3	547	555	845
Miscellaneous	10.2	11.6	6.8	2,156	2,769	1,322
Non-Federal projects	606.5	556.4	446.6	(4)	(4)	(4)
Buildings	336.6	309.2	197.2	79,438	72,353	44,962
Residential	136.9	111.5	114.2	(4)	(4)	(4)
Nonresidential	199.7	197.7	83.0	(4)	(4)	(4)
Farm dwellings and service buildings	114.2	102.5	110.5	(4)	(4)	(4)
Public utilities	111.0	106.9	93.7	(4)	(4)	(4)
Streets and highways	27.7	22.0	31.3	(4)	(4)	(4)
State	11.0	9.0	15.6	(4)	(4)	(4)
County and municipal	16.7	13.0	15.7	(4)	(4)	(4)
Miscellaneous	17.0	15.8	13.9	(4)	(4)	(4)
Other [7]	136.1	133.4	161.6	(4)	(4)	(4)
Maintenance of State roads [8]	85.5	84.2	91.1	(4)	(4)	(4)

[1] Preliminary.
[2] Revised.
[3] Data are for all construction workers (contract and force-account) engaged on new construction, additions, and alterations, and on repair work of the type usually covered by building permits. (Force-account employees are workers hired directly by the owner and utilized as a separate work force to perform construction work of the type usually chargeable to capital account.) The construction figure included in the Bureau's nonagricultural employment series covers only employees of construction contractors and on Federal force-account and excludes force-account workers of State and local governments, public utilities, and private firms.
[4] Data not available.
[5] Includes the following force-account employees, hired directly by the Federal Government, and their pay rolls: June 1944, 28,242, $5,654,000; May 1945, 18,684, $3,743,900; June 1945, 18,943, $3,596,300. These employees are also included under the Federal executive service (tables 2 and 3); all other workers were employed by contractors and subcontractors.
[6] Includes the following employees and pay rolls for Defense Plant Corporation (RFC) projects: June 1944, 40,364, $9,002,200; May 1945, 16,184, $3,553,300; June 1945, 15,788, $3,771,200.
[7] Includes central office force of construction contractors, shop employees of special trades contractors, such as bench sheet-metal workers, etc., and site employees engaged on projects which, for security reasons, cannot be shown above.
[8] Data for other types of maintenance not available.

Source of data.—For construction projects financed wholly or partially from Federal funds, the Bureau of Labor Statistics receives monthly reports on employment and pay rolls at the construction site directly from the contractors or from the Federal agency sponsoring the project. Force-account employees hired directly by the Federal Government are also included in tables 2 and 3 under Federal executive service.

Estimates of employment on non-Federal construction projects (except State roads) are obtained by converting the value of work started (compiled from reports on building permits issued, priorities granted, and from certain special reports) into monthly expenditures and employment by means of factors which have been developed from special studies and adjusted to current conditions. For State roads projects, data represent estimates of the Public Roads Administration.

Detailed Reports for Industrial and Business Employment, May 1945

Nonagricultural Employment

ESTIMATES of employment in nonagricultural establishments are shown in table 1. The estimates are based on reports of employers to the Bureau of Labor Statistics, on unemployment-compensation data made available by the Bureau of Employment Security of the Federal Security Agency, and on information supplied by other Government agencies, such as the Interstate Commerce Commission, Civil Service Commission, Bureau of the Census, and the Bureau of Old-Age and Survivors Insurance. The estimates include all wage and salaried workers in nonagricultural establishments but exclude military personnel, proprietors, self-employed persons, and domestic servants.

Estimates of employees in nonagricultural establishments, by States, are published each month in a detailed report on employment and pay rolls.

TABLE 1.—*Estimated Number of Employees in Nonagricultural Establishments, by Industry Division*

Industry division	Estimated number of employees (in thousands)			
	May 1945	April 1945	March 1945	May 1944
Total estimated employment [1]	37,632	37,797	38,062	38,672
Manufacturing [2]	14,810	15,102	15,368	16,122
Mining	728	761	796	839
Contract construction and Federal force-account construction	769	699	636	686
Transportation and public utilities	3,800	3,792	3,788	3,768
Trade	7,023	6,996	7,084	6,962
Finance, service, and miscellaneous	4,496	4,444	4,394	4,363
Federal, State, and local government, excluding Federal force-account construction	6,006	6,003	5,996	5,932

[1] Estimates include all full- and part-time wage and salary workers in nonagricultural establishments who are employed during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded.

[2] Estimates for manufacturing have been adjusted to levels indicated by final 1942 data made available by the Bureau of Employment Security of the Federal Security Agency. Since the estimated number of production workers in manufacturing industries have been further adjusted to preliminary 1943 data, subsequent to December 1942, the two sets of estimates are not comparable.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 154 manufacturing industries and for 27 nonmanufacturing industries, including water transportation and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission. The employment, pay roll, hours, and earnings figures for manufacturing, mining, laundries, and cleaning and dyeing, cover production workers only; but the figures for public utilities, brokerage, insurance, and hotels relate to all employees except corporation officers and executives, while for trade they relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover production workers and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from about 25 percent for wholesale and retail trade, cleaning and dyeing, and insurance, to about 80 percent for public utilities and 90 percent for mining.

The general manufacturing indexes are computed from reports supplied by representative establishments in the 154 manufacturing industries surveyed. These reports cover more than 65 percent of the total production workers in all manufacturing industries of the country and about 80 percent of the production workers in the 154 industries covered.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the period ending nearest the 15th of the month.

INDEXES OF EMPLOYMENT AND PAY ROLLS

Employment and pay-roll indexes, for both manufacturing and nonmanufacturing industries, for March, April, and May, 1945, and for May 1944, are presented in tables 3 and 5.

The figures relating to all manufacturing industries combined, to the durable- and non-durable-goods divisons, and to the major industry groups, have been adjusted to levels indicated by final data for 1942 and preliminary data for 1943 made available by the Bureau of Employment Security of the Federal Security Agency. The Bureau of Employment Security data referred to are (*a*) employment totals reported by employers under State unemployment-compensation programs and (*b*) estimates of the number of employees not reported under the programs of some of these States, which do not cover small establishments. The latter estimates were obtained from tabulations prepared by the Bureau of Old-Age and Survivors Insurance, which obtains reports from all employers, regardless of size of establishment.

Not all industries in each major industry group are represented in the tables since minor industries are not canvassed by the Bureau. Furthermore, no attempt has been made to allocate among the separate industries the adjustments to unemployment-compensation data. Hence, the estimates for individual industries within a group do not in general add to the total for that group.

TABLE 2.—*Estimated Number of Production Workers in Manufacturing Industries*[1]

Industry	Estimated number of production workers (in thousands)			
	May 1945	April 1945	March 1945	May 1944
All manufacturing	12,405	12,678	12,940	13,652
Durable goods	7,255	7,471	7,661	8,315
Nondurable goods	5,150	5,207	5,279	5,337
Durable goods				
Iron and steel and their products	1,606	1,631	1,658	1,669
Blast furnaces, steel works, and rolling mills	473.8	475.4	478.5	481.5
Gray-iron and semisteel castings	72.2	72.5	74.6	73.4
Malleable-iron castings	24.5	24.2	25.5	24.6
Steel castings	69.3	70.9	71.8	75.6
Cast-iron pipe and fittings	16.2	16.0	15.6	15.1
Tin cans and other tinware	41.5	41.7	41.9	37.5
Wire drawn from purchased rods	31.7	32.0	32.7	33.5
Wirework	32.6	33.9	34.7	34.6
Cutlery and edge tools	23.5	23.9	24.4	22.9
Tools (except edge tools, machine tools, files, and saws)	26.3	26.8	27.5	27.8
Hardware	45.2	46.0	46.8	45.8
Plumbers' supplies	22.5	22.8	23.2	23.0
Stoves, oil burners, and heating equipment, not elsewhere classified	60.6	62.0	63.6	61.7
Steam and hot-water heating apparatus and steam fittings	53.3	54.3	55.2	56.7
Stamped and enameled ware and galvanizing	85.0	86.0	86.9	88.5
Fabricated structural and ornamental metalwork	63.5	67.5	70.0	76.2
Metal doors, sash, frames, molding, and trim	10.0	10.3	10.7	13.2
Bolts, nuts, washers, and rivets	23.3	23.6	23.9	27.3
Forgings, iron and steel	34.1	34.4	35.4	37.4
Wrought pipe, welded and heavy riveted	23.2	24.1	24.4	26.2
Screw-machine products and wood screws	41.5	42.4	43.0	46.4
Steel barrels, kegs, and drums	8.2	8.4	8.4	6.7
Firearms	29.0	29.8	30.7	50.6
Electrical machinery	670	682	693	747
Electrical equipment	411.2	419.7	426.4	455.1
Radios and phonographs	113.3	114.5	116.7	128.9
Communication equipment	102.3	103.5	104.8	115.0
Machinery, except electrical	1,108	1,130	1,152	1,211
Machinery and machine-shop products	432.4	441.4	449.9	469.6
Engines and turbines	63.2	65.2	66.7	70.9
Tractors	54.3	55.6	57.2	59.7
Agricultural machinery, excluding tractors	41.6	42.7	43.9	45.3
Machine tools	72.7	73.6	74.6	79.1
Machine-tool accessories	62.9	63.9	64.4	69.5
Textile machinery	26.2	25.9	26.4	27.6
Pumps and pumping equipment	67.7	68.9	71.5	80.5
Typewriters	13.0	13.0	13.1	11.2
Cash registers, adding and calculating machines	28.5	29.2	29.8	33.1
Washing machines, wringers and driers, domestic	12.5	12.8	12.8	13.5
Sewing machines, domestic and industrial	10.5	10.8	11.1	9.3
Refrigerators and refrigeration equipment	49.0	49.9	51.1	52.5
Transportation equipment, except automobiles	1,744	1,874	1,970	2,401
Locomotives	33.2	33.5	34.0	36.4
Cars, electric- and steam-railroad	59.4	57.9	58.6	58.5
Aircraft and parts, excluding aircraft engines	575.4	619.1	637.6	741.9
Aircraft engines	192.7	203.5	210.6	255.4
Shipbuilding and boatbuilding	782.9	853.2	917.1	1,179.3
Motorcycles, bicycles, and parts	9.5	9.6	9.5	9.3
Automobiles	634	659	668	710
Nonferrous metals and their products	401	404	407	426
Smelting and refining, primary, of nonferrous metals	38.6	39.2	39.5	51.0
Alloying and rolling and drawing of nonferrous metals, except aluminum	70.9	71.7	72.6	71.5
Clocks and watches	25.3	26.0	26.3	24.8
Jewelry (precious metals) and jewelers' findings	13.1	13.2	13.2	14.2
Silverware and plated ware	10.9	10.9	11.0	10.4
Lighting equipment	26.9	26.3	26.2	25.3
Aluminum manufactures	70.1	70.6	70.5	76.1
Sheet-metal work, not elsewhere classified	31.2	31.4	32.0	31.7
Lumber and timber basic products	443	438	448	474
Sawmills and logging camps	217.0	213.7	218.4	232.5
Planing and plywood mills	67.8	68.3	69.8	72.2

See footnote at end of table.

TABLE 2.—*Estimated Number of Production Workers in Manufacturing Industries* [1]—Continued

Industry	Estimated number of production workers (in thousands)			
	May 1945	April 1945	March 1945	May 1944
Durable goods—Continued				
Furniture and finished lumber products	329	331	338	342
Mattresses and bedsprings	17.1	17.2	17.6	16.4
Furniture	147.8	149.3	152.6	155.9
Wooden boxes, other than cigar	26.2	26.6	27.1	28.2
Caskets and other morticians' goods	12.0	12.1	12.2	12.4
Wood preserving	10.0	10.0	10.1	9.8
Wood, turned and shaped	21.2	21.0	21.3	21.2
Stone, clay, and glass products	320	322	327	335
Glass and glassware	86.6	87.0	88.3	91.6
Glass products made from purchased glass	10.9	10.8	11.1	10.4
Cement	16.3	16.2	16.1	17.0
Brick, tile, and terra cotta	40.3	40.5	40.9	42.3
Pottery and related products	37.9	38.3	38.9	41.2
Gypsum	4.0	4.0	4.1	4.2
Wallboard, plaster (except gypsum), and mineral wool	9.3	9.3	9.4	9.2
Lime	7.7	7.6	7.7	8.4
Marble, granite, slate, and other products	13.1	13.1	13.8	12.4
Abrasives	21.2	21.4	21.6	21.5
Asbestos products	19.4	19.7	20.1	20.8
Nondurable goods				
Textile-mill products and other fiber manufactures	1,035	1,046	1,067	1,110
Cotton manufactures, except smallwares	411.4	415.9	424.2	437.9
Cotton smallwares	13.4	13.5	13.5	13.5
Silk and rayon goods	85.6	86.3	88.0	89.6
Woolen and worsted manufactures, except dyeing and finishing	140.6	142.1	145.2	152.1
Hosiery	96.2	97.0	98.6	106.5
Knitted cloth	10.0	10.2	10.3	10.8
Knitted outerwear and knitted gloves	27.5	27.9	28.6	30.0
Knitted underwear	33.1	33.4	34.1	36.1
Dyeing and finishing textiles, including woolen and worsted	57.2	57.6	58.8	62.4
Carpets and rugs, wool	19.2	19.6	20.0	20.3
Hats, fur-felt	9.1	9.1	9.3	9.5
Jute goods, except felts	3.2	3.2	3.2	3.3
Cordage and twine	14.5	14.6	14.9	15.7
Apparel and other finished textile products	801	819	836	862
Men's clothing, not elsewhere classified	195.6	198.0	201.4	212.7
Shirts, collars, and nightwear	47.9	48.5	49.4	53.4
Underwear and neckwear, men's	11.9	12.0	12.1	12.4
Work shirts	14.3	14.4	14.3	15.4
Women's clothing, not elsewhere classified	200.3	206.9	212.7	213.4
Corsets and allied garments	14.1	14.1	14.4	15.3
Millinery	16.8	19.6	20.6	18.6
Handkerchiefs	2.5	2.5	2.6	3.0
Curtains, draperies, and bedspreads	10.7	10.6	10.3	13.0
Housefurnishings, other than curtains, etc	11.2	10.7	11.2	9.6
Textile bags	14.8	14.6	14.7	14.5
Leather and leather products	303	305	309	312
Leather	38.6	38.8	39.3	40.4
Boot and shoe cut stock and findings	16.1	15.9	16.1	16.2
Boots and shoes	169.7	170.6	172.3	173.8
Leather gloves and mittens	11.6	11.7	11.9	12.9
Trunks and suitcases	11.9	12.1	12.6	11.6
Food	967	975	979	1,005
Slaughtering and meat packing	124.4	129.2	136.2	154.6
Butter	24.5	23.4	22.6	23.8
Condensed and evaporated milk	15.7	14.8	13.9	14.8
Ice cream	16.0	15.1	14.0	15.6
Flour	28.8	28.4	29.0	27.6
Feeds, prepared	21.0	21.1	21.2	19.8
Cereal preparations	9.3	9.4	9.3	9.3
Baking	254.7	254.7	256.8	253.9
Sugar refining, cane	14.7	15.3	15.0	14.5
Sugar, beet	4.5	4.0	3.9	4.4
Confectionery	54.0	56.0	58.1	56.6
Beverages, nonalcoholic	26.4	26.4	25.7	27.9
Malt liquors	50.1	49.9	49.9	50.1
Canning and preserving	98.7	101.6	95.8	99.?

See footnote at end of table.

TABLE 2.—*Estimated Number of Production Workers in Manufacturing Industries* [1]—Continued

Industry	Estimated number of production workers (in thousands)			
	May 1945	April 1945	March 1945	May 1944
Nondurable goods—Continued				
Tobacco manufactures	80	81	82	82
Cigarettes	33.9	34.4	34.8	33.3
Cigars	32.5	32.9	33.2	36.2
Tobacco (chewing and smoking) and snuff	8.3	8.6	8.7	7.7
Paper and allied products	299	301	307	311
Paper and pulp	142.7	143.8	146.1	144.9
Paper goods, other	43.1	43.8	44.8	46.8
Envelopes	9.2	9.3	9.4	9.7
Paper bags	12.6	12.6	12.9	13.5
Paper boxes	75.3	75.8	77.4	79.2
Printing, publishing, and allied industries	326	326	329	329
Newspapers and periodicals	109.2	108.8	109.3	110.0
Printing, book and job	131.3	131.4	132.4	130.9
Lithographing	24.1	24.0	24.5	24.6
Bookbinding	27.2	27.1	27.6	28.3
Chemicals and allied products	623	633	639	592
Paints, varnishes, and colors	28.8	28.9	29.4	29.9
Drugs, medicines, and insecticides	50.0	50.2	49.9	51.0
Perfumes and cosmetics	12.2	12.2	12.1	11.8
Soap	13.2	13.2	13.4	13.5
Rayon and allied products	53.1	53.1	54.6	51.7
Chemicals, not elsewhere classified	114.1	114.7	115.3	126.0
Explosives and safety fuses	97.9	98.5	98.7	69.9
Compressed and liquefied gases	5.9	6.0	5.9	6.1
Ammunition, small-arms	66.1	67.4	67.2	54.8
Fireworks	22.0	22.9	23.8	30.9
Cottonseed oil	13.3	14.5	16.3	13.4
Fertilizers	23.7	27.1	26.9	22.6
Products of petroleum and coal	134	133	134	130
Petroleum refining	92.2	91.8	91.8	87.4
Coke and byproducts	21.8	21.8	22.0	22.9
Paving materials	1.7	1.6	1.5	1.6
Roofing materials	9.2	9.5	9.5	9.6
Rubber products	189	192	197	195
Rubber tires and inner tubes	91.6	93.2	95.7	90.1
Rubber boots and shoes	16.8	16.9	17.4	20.7
Rubber goods, other	69.4	71.3	72.6	72.9
Miscellaneous industries	393	396	400	409
Instruments (professional and scientific) and fire-control equipment	59.1	59.7	59.9	63.0
Photographic apparatus	27.3	27.4	28.0	29.2
Optical instruments and ophthalmic goods	23.2	23.3	23.6	24.9
Pianos, organs, and parts	7.9	7.5	7.4	7.9
Games, toys, and dolls	15.4	15.6	15.9	15.4
Buttons	9.6	9.6	9.7	9.7
Fire extinguishers	4.5	4.6	4.7	6.1

[1] Estimates for the major industry groups have been adjusted to levels indicated by the final 1942 and preliminary 1943 data made available by the Bureau of Employment Security of the Federal Security Agency. Estimates for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data. For this reason, together with the fact that this Bureau has not prepared estimates for certain industries, the sum of the individual industry estimates will not agree with totals shown for the major industry groups. The term "production worker" has been substituted for the term "wage earner" which has been used in our previous releases. This conforms with the terminology and standard definitions of classes of workers in manufacturing industries formulated by the Division of Statistical Standards of the U. S. Bureau of the Budget. The use of "production worker" in place of "wage earner" has no appreciable effect on the employment estimates since there is very little difference in the definitions.

TABLE 3.—*Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries* [1]

[1939 average=100]

Industry	Employment indexes				Pay-roll indexes			
	May 1945	Apr. 1945	Mar. 1945	May 1944	May 1945	Apr. 1945	Mar. 1945	May 1944
All manufacturing	151.4	154.8	158.0	166.7	302.8	317.2	325.5	334.3
Durable goods	200.9	206.9	212.2	230 3	407.2	430.7	444.0	470.9
Nondurable goods	112.4	113.7	115.2	116.5	200.8	206.1	209.7	200.7
Durable goods								
Iron and steel and their products	162.0	164.5	167.3	168.3	304.1	314.2	319.1	310.9
Blast furnaces, steel works, and rolling mills	122.0	122.4	123.2	124.0	227.1	228.5	229.1	221.1
Gray-iron and semisteel castings	123.5	124.0	127.7	125.7	251.0	257.7	269.4	250.4
Malleable-iron castings	135.9	134.3	141.2	136.5	279.1	283.5	298.9	276.0
Steel castings	230.3	235.5	238.7	251.4	421.8	451.2	457.7	461.4
Cast-iron pipe and fittings	97.9	97.0	94.2	91.2	193.5	193.4	190.2	176.0
Tin cans and other tinware	130.6	131.3	131.8	118.2	214.4	227.5	231.2	195.5
Wire drawn from purchased rods	144.2	145.6	148.6	152.3	239.6	252.8	257.5	252.7
Wirework	107.2	111.5	114.1	113.8	208.9	225.6	235.9	225.0
Cutlery and edge tools	152.7	155.1	158.1	148.3	308.2	323.9	332.4	308.5
Tools (except edge tools, machine tools, files, and saws)	171.7	174.7	179.7	181.7	322.8	342.7	352.1	339.3
Hardware	126.8	128.9	131.4	128.4	268.4	275.0	280.7	260.4
Plumbers' supplies	91.4	92.5	94.2	93.5	171.7	177.4	180.4	168.6
Stoves, oil burners, and heating equipment, not elsewhere classified	131.4	134.4	137.8	133.8	246.9	264.6	269.7	252.5
Steam and hot-water heating apparatus and steam fittings	176.0	179.2	182.1	187.2	334.4	348.0	349.7	353.7
Stamped and enameled ware and galvanizing	153.0	154.8	156.4	159.3	322.8	323.0	331.4	313.0
Fabricated structural and ornamental metalwork	178.8	190.1	197.2	214.4	340.8	364.6	368.7	435.2
Metal doors, sash, frames, molding, and trim	128.6	133.4	138.1	170.1	239.6	260.2	273.1	317.9
Bolts, nuts, washers, and rivets	163.0	165.3	166.8	190.9	328.1	334.6	344.8	369.0
Forgings, iron and steel	221.6	223.9	230.0	243.0	431.5	460.8	472.0	479.9
Wrought pipe, welded and heavy riveted	276.8	287.9	291.1	313.3	585.5	614.1	609.3	605.6
Screw-machine products and wood screws	245.4	250.3	253.9	274.0	476.7	501.4	515.3	528.3
Steel barrels, kegs, and drums	135.3	138.2	138.9	110.1	259.4	295.1	268.8	216.0
Firearms	579.8	596.6	614.4	1011.1	1299.6	1299.3	1404.6	2304.3
Electrical machinery	258.7	263.2	267.5	288.4	476.8	493.8	504.7	512.2
Electrical equipment	227.5	232.2	235.9	251.8	425.5	440.8	452.5	456.4
Radio and phonographs	260.4	263.1	268.3	296.2	501.1	520.6	528.7	551.5
Communication equipment	318.4	322.3	326.4	358.0	535.0	552.1	554.1	562.7
Machinery, except electrical	209.6	213.8	218.0	229.2	385 8	407.0	419.2	428.8
Machinery and machine-shop products	213.7	218.2	222.3	232.1	386.4	409.8	419.8	426.1
Engines and turbines	338.6	349.3	357.7	380.2	682.9	732.4	769.3	813.8
Tractors	173.8	177.8	183.0	191.0	272.0	278.4	287.5	298.0
Agricultural machinery, excluding tractors	149.4	153.4	157.7	162.7	288.7	312.5	324.6	332.6
Machine tools	198.4	200.9	203.8	216.0	347.6	370.9	382.0	381.3
Machine-tool accessories	249.8	253.8	255.8	276.4	429.9	448.7	456.9	470.9
Textile machinery	119.4	118.4	120.6	125.8	223.9	228.8	236.4	227.3
Pumps and pumping equipment	279.3	284.4	295.0	332.2	576.2	593.2	630.4	698.7
Typewriters	79.9	80.1	80.6	69.0	166.0	164.4	165.9	140.2
Cash registers, adding and calculating machines	144.7	148.6	151.4	167.9	273.8	287.5	298.9	329.7
Washing machines, wringers and driers, domestic	167.3	171.7	171.4	180.6	287.7	327.0	315.4	322.0
Sewing machines, domestic and industrial	134.4	137.3	142.1	119.1	270.7	292.1	304.7	258.5
Refrigerators and refrigeration equipment	139.4	141.9	145.3	149.5	249.9	260.2	266.0	258.6
Transportation equipment, except automobiles	1098.9	1180.9	1240.9	1512.7	2290.7	2502.8	2645.4	3127.3
Locomotives	512.5	518.0	525.7	562.7	1167.8	1194.1	1233.2	1272.9
Cars, electric- and steam-railroad	242.2	236.3	239.1	238.4	485.4	487.1	506.4	483.0
Aircraft and parts, excluding aircraft engines	1450.4	1560.4	1607.0	1869.9	2837.0	3070.7	3190.3	3557.3
Aircraft engines	2167.0	2288.8	2368.8	2872.3	3703.0	3957.0	4279.7	4946.3
Shipbuilding and boatbuilding	1130.7	1232.2	1324.5	1703.2	2447.0	2724.6	2906.6	3645.0
Motorcycles, bicycles, and parts	135.6	137.5	136.8	133.2	265.9	268.2	263.3	245.3
Automobiles	157.5	163.7	166.1	176.5	278.5	302.9	310.9	324.4
Nonferrous metals and their products	174.9	176.3	177.6	185.7	331.3	343.9	348.1	347.9
Smelting and refining, primary, of nonferrous metals	139.8	141.8	143.0	184.6	261.5	269.1	265.4	342.1
Alloying and rolling and drawing of nonferrous metals, except aluminum	182.6	184.6	187.1	184.2	340.7	362.3	367.0	339.9
Clocks and watches	124.6	128.3	129.5	122.4	265.1	278.5	287.5	253.2
Jewelry (precious metals) and jewelers' findings	91.1	91.3	91.2	98.3	158.5	162.9	164.4	160.6
Silverware and plated ware	89.5	89.4	90.4	86.0	162.4	165.8	169.5	155.8
Lighting equipment	131.5	128.5	127.9	123.4	242.0	236.2	236.1	222.4
Aluminum manufactures	297.5	300.0	299.2	323.2	525.2	554.0	556.0	570.1
Sheet-metal work, not elsewhere classified	166.2	167.5	170.8	169.2	320.0	318.4	335.4	314.3

See footnote at end of table.

TABLE 3.—*Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries* [1]—Continued

Industry	Employment indexes				Pay-roll indexes			
	May 1945	Apr. 1945	Mar. 1945	May 1944	May 1945	Apr. 1945	Mar. 1945	May 1944
Durable goods—Continued								
Lumber and timber basic products	105.3	104.3	106.5	112.9	197.1	196.3	195.9	208.4
Sawmills and logging camps	75.3	74.2	75.8	80.7	142.9	141.2	140.4	152.1
Planing and plywood mills	93.3	94.0	96.0	99.4	163.8	166.8	168.0	169.9
Furniture and finished lumber products	100.2	101.0	103.0	104.3	187.3	191.6	195.2	187.7
Mattresses and bedsprings	93.2	93.8	95.7	89.7	168.5	165.9	172.4	154.6
Furniture	92.9	93.8	95.8	97.9	172.4	177.4	181.8	175.7
Wooden boxes, other than cigar	103.5	105.1	106.8	111.4	207.9	210.9	214.2	214.8
Caskets and other morticians' goods	96.1	97.3	97.9	99.9	172.5	177.7	175.9	168.8
Wood preserving	88.5	88.6	89.5	87.3	195.6	196.5	192.3	178.5
Wood, turned and shaped	96.3	95.6	96.9	96.4	174.9	177.1	179.4	171.6
Stone, clay, and glass products	109.1	109.7	111.4	114.2	187.9	193.3	193.2	189.8
Glass and glassware	124.0	124.6	126.5	131.2	199.8	206.1	207.1	208.4
Glass products made from purchased glass	108.9	107.8	110.8	103.7	191.4	189.2	192.6	170.1
Cement	68.6	67.9	67.6	71.2	114.0	114.5	108.3	108.7
Brick, tile, and terra cotta	71.0	71.4	72.0	74.5	121.1	124.1	121.0	118.9
Pottery and related products	114.6	115.8	117.6	124.6	183.6	188.6	191.3	192.5
Gypsum	80.1	81.7	82.4	85.6	131.8	140.1	144.6	144.9
Wallboard, plaster (except gypsum), and mineral wool	114.3	114.0	115.8	113.0	209.9	220.5	214.0	195.5
Lime	80.9	80.6	81.8	88.4	158.6	165.2	159.8	174.2
Marble, granite, slate, and other products	70.7	70.9	74.7	67.2	109.7	117.5	114.7	101.5
Abrasives	273.5	277.0	279.7	278.3	481.0	483.9	495.0	468.2
Asbestos products	122.4	123.9	126.5	131.0	246.7	259.2	266.5	255.8
Nondurable goods								
Textile-mill products and other fiber manufactures	90.5	91.4	93.2	97.1	164.3	168.3	173.0	171.0
Cotton manufactures, except smallwares	103.9	105.0	107.1	110.6	200.2	201.8	206.5	202.4
Cotton smallwares	100.7	101.6	101.4	101.1	186.9	193.9	198.0	180.2
Silk and rayon goods	71.4	72.0	73.5	74.8	133.7	134.6	139.3	136.1
Woolen and worsted manufactures, except dyeing and finishing	94.2	95.2	97.3	102.0	178.9	186.8	193.4	192.9
Hosiery	60.5	61.0	62.0	67.0	95.3	98.8	101.2	105.5
Knitted cloth	91.2	93.0	94.1	99.2	160.9	165.3	170.3	168.5
Knitted outerwear and knitted gloves	97.9	99.1	101.6	106.8	184.8	189.1	195.2	188.7
Knitted underwear	85.8	86.6	88.5	93.6	159.5	165.5	169.1	167.4
Dyeing and finishing textiles, including woolen and worsted	85.5	86.1	87.9	93.3	141.1	147.5	151.3	152.2
Carpets and rugs, wool	75.2	76.4	78.0	79.2	126.3	137.4	140.0	132.3
Hats, fur-felt	62.3	62.7	63.7	65.3	122.7	115.9	128.2	120.5
Jute goods, except felts	88.9	88.8	90.1	92.1	175.4	174.9	178.9	173.9
Cordage and twine	119.6	120.7	123.3	130.1	227.8	231.6	236.1	236.8
Apparel and other finished textile products	101.4	103.7	105.9	109.2	178.5	193.0	206.2	182.8
Men's clothing, not elsewhere classified	89.5	90.6	92.1	97.3	156.6	167.1	174.4	166.4
Shirts, collars, and nightwear	68.0	68.8	70.1	75.8	123.2	128.8	132.9	134.4
Underwear and neckwear, men's	73.6	74.1	75.0	76.9	149.5	154.8	158.3	149.3
Work shirts	106.5	107.2	106.5	114.4	201.6	208.8	208.7	206.8
Women's clothing, not elsewhere classified	73.7	76.2	78.3	78.6	131.1	143.6	157.2	128.1
Corsets and allied garments	75.0	75.4	76.9	81.6	130.4	132.2	136.7	139.6
Millinery	69.0	80.7	84.8	76.6	84.2	125.8	160.0	101.9
Handkerchiefs	50.7	51.8	52.7	62.2	96.8	96.0	99.8	114.8
Curtains, draperies, and bedspreads	63.5	62.7	60.6	76.6	133.2	129.4	125.2	144.4
Housefurnishings, other than curtains, etc	105.5	100.3	105.1	90.7	194.1	195.4	198.9	159.0
Textile bags	123.5	122.2	122.9	121.2	210.7	212.9	214.1	192.9
Leather and leather products	87.4	87.9	88.9	89.9	158.9	164.7	167.7	156.1
Leather	81.7	82.1	83.3	85.5	147.3	148.3	151.1	146.8
Boot and shoe cut stock and findings	85.2	84.5	85.2	86.0	147.1	150.5	150.1	142.3
Boots and shoes	77.8	78.2	79.0	79.7	143.2	150.4	153.6	139.8
Leather gloves and mittens	116.5	117.2	119.5	129.4	207.9	210.6	215.1	218.8
Trunks and suitcases	142.4	145.2	151.8	139.8	242.8	245.8	254.8	226.9
Food	113.2	114.1	114.6	117.6	186.0	187.4	187.3	191.6
Slaughtering and meat packing	103.3	107.2	113.1	128.3	162.5	167.7	178.2	216.9
Butter	136.6	130.3	125.9	132.7	217.5	211.6	196.3	201.9
Condensed and evaporated milk	161.6	152.7	142.9	152.2	279.3	260.6	238.7	245.9
Ice cream	101.9	96.0	89.4	99.6	145.0	142.2	130.8	137.3
Flour	116.3	114.5	117.0	111.5	203.1	201.1	201.0	179.3
Feeds, prepared	136.5	137.1	137.5	128.5	240.6	244.7	235.6	221.2
Cereal preparations	125.0	125.7	124.5	124.8	226.3	232.5	232.6	216.5

See footnote at end of table.

TABLE 3.—*Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries* [1]—Continued

Industry	Employment indexes				Pay-roll indexes			
	May 1945	Apr. 1945	Mar. 1945	May 1944	May 1945	Apr. 1945	Mar. 1945	May 1944
Nondurable goods—Continued								
Food—Continued.								
Baking	110.4	110.4	111.3	110.1	171.9	170.4	170.2	163.8
Sugar refining, cane	104.0	108.2	106.2	102.7	168.8	182.5	181.3	163.7
Sugar, beet	43.6	38.3	37.6	42.1	65.6	61.6	58.1	60.5
Confectionery	108.5	112.6	116.7	113.7	184.8	191.8	198.5	183.3
Beverages, nonalcoholic	124.1	124.1	120.8	131.2	167.2	164.9	159.7	168.9
Malt liquors	139.0	138.3	138.1	138.9	205.6	206.8	200.9	201.9
Canning and preserving	73.4	75.5	71.2	74.3	144.4	150.0	142.6	143.2
Tobacco manufactures	85.4	86.7	87.6	88.3	156.4	160.4	165.2	152.8
Cigarettes	123.5	125.3	126.8	121.4	192.1	200.2	207.4	182.0
Cigars	63.9	64.6	65.3	71.1	131.9	131.6	135.3	137.9
Tobacco (chewing and smoking) and snuff	90.7	93.3	94.8	84.5	145.3	154.6	156.9	122.0
Paper and allied products	112.6	113.6	115.7	117.1	187.4	192.8	195.2	188.8
Paper and pulp	103.8	104.6	106.3	105.4	177.5	182.0	183.4	177.2
Paper goods, other	114.5	116.5	119.1	124.3	185.5	194.0	198.2	194.6
Envelopes	106.0	107.5	108.1	111.3	167.9	170.6	170.0	169.1
Paper bags	113.3	113.4	116.7	122.1	192.5	199.6	208.3	198.5
Paper boxes	108.9	109.5	111.9	114.5	175.2	180.3	182.3	177.2
Printing, publishing, and allied industries	99.5	99.4	100.2	100.2	141.8	141.1	142.4	134.9
Newspapers and periodicals	92.1	91.7	92.1	92.7	122.4	120.7	120.2	116.1
Printing, book and job	103.9	104.0	104.8	103.6	154.4	155.5	157.2	144.8
Lithographing	92.6	92.4	94.2	94.5	135.5	133.1	136.9	132.9
Bookbinding	105.5	105.2	107.2	109.8	180.3	178.9	186.0	180.9
Chemicals and allied products	216.3	219.8	221.6	205.4	388.9	391.3	394.1	358.7
Paints, varnishes, and colors	102.4	102.6	104.4	106.3	166.6	167.8	169.5	167.2
Drugs, medicines, and insecticides	182.5	183.0	182.0	186.1	282.0	277.1	280.2	270.7
Perfumes and cosmetics	117.9	117.6	116.9	113.5	163.0	166.7	168.0	158.8
Soap	97.4	97.5	98.3	99.4	164.7	165.9	170.7	163.6
Rayon and allied products	109.9	109.9	113.1	107.1	183.2	181.2	181.8	173.5
Chemicals, not elsewhere classified	164.1	164.9	165.7	172.5	295.2	295.6	296.7	296.5
Explosives and safety fuses	1349.3	1357.7	1361.1	964.2	2096.3	2075.7	2091.6	1499.0
Compressed and liquefied gases	149.2	151.3	149.7	154.5	268.1	274.7	270.7	271.4
Ammunition, small-arms	1549.1	1581.2	1576.2	1285.3	3185.2	3149.9	3167.0	2558.2
Fireworks	1897.9	1975.6	2059.2	2664.5	5294.0	5490.6	5759.0	7388.9
Cottonseed oil	87.5	95.2	107.1	88.3	183.6	202.5	224.5	170.3
Fertilizers	126.2	144.6	143.4	120.4	292.6	351.3	340.5	266.8
Products of petroleum and coal	126.3	126.0	126.2	122.7	226.9	230.6	223.9	212.4
Petroleum refining	126.5	126.1	126.1	120.0	222.6	227.2	220.6	205.2
Coke and byproducts	100.6	100.3	101.5	105.6	187.2	184.6	182.2	183.0
Paving materials	71.0	66.2	62.8	66.8	133.5	124.7	119.5	133.3
Roofing materials	114.8	117.8	117.7	119.5	209.2	222.3	213.9	212.2
Rubber products	155.9	159.1	162.9	161.2	280.6	296.4	296.7	283.3
Rubber tires and inner tubes	169.2	172.2	176.8	166.5	288.6	306.0	301.9	283.0
Rubber boots and shoes	113.3	114.3	117.4	139.8	208.3	219.2	216.3	248.6
Rubber goods, other	134.1	137.7	140.3	140.8	243.9	256.1	264.5	248.3
Miscellaneous industries	160.7	161.8	163.4	167.3	312.8	322.2	326.3	319.1
Instruments (professional and scientific) and fire-control equipment	534.3	540.1	541.4	570.2	995.6	1070.4	1068.3	1091.7
Photographic apparatus	157.9	158.7	162.1	169.3	265.4	270.1	275.4	273.5
Optical instruments and ophthalmic goods	199.6	200.5	202.7	214.2	344.3	347.5	354.3	355.1
Pianos, organs, and parts	103.6	99.0	97.5	103.6	196.4	189.3	188.0	196.8
Games, toys, and dolls	82.5	83.5	85.3	82.6	161.7	169.4	178.3	159.5
Buttons	87.3	87.5	88.4	88.8	171.3	175.8	180.2	174.3
Fire extinguishers	454.7	460.0	470.4	616.2	1028.2	1065.9	1076.9	1292.9

[1] Indexes for the major industry groups have been adjusted to levels indicated by final 1942 and preliminary 1943 data made available by the Bureau of Employment Security of the Federal Security Agency. Indexes for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data. The term "production worker" has been substituted for the term "wage earner" which has been used in our previous releases. This conforms with the terminology and standard definitions of classes of workers in manufacturing industries formulated by the Division of Statistical Standards of the U. S. Bureau of the Budget. The use of "production worker" in place of "wage earner" has no appreciable effect on the employment and pay-roll indexes since there is very little difference in the definitions.

TABLE 4.—*Estimated Number of Production Workers in Selected Nonmanufacturing Industries* [1]

Industry	Estimated number of production workers (in thousands)			
	May 1945	April 1945	March 1945	May 1944
Mining:				
Anthracite	9.0	64.1	65.4	68.5
Bituminous coal	329	305	334	356
Metal	68.2	68.6	69.1	82.6
Iron	24.6	24.2	23.9	28.8
Copper	21.4	21.7	22.1	27.4
Lead and zinc	14.3	14.5	14.8	16.8
Gold and silver	5.3	5.5	5.6	5.8
Miscellaneous	2.6	2.7	2.7	3.8
Telephone [2]	[3]	[3]	404	407
Telegraph [4]	44.2	44.4	44.8	45.9
Electric light and power [2]	201	200	201	202
Street railways and busses [2]	228	229	230	231
Hotels (year-round) [2]	350	348	352	352
Power laundries	[1]	[1]	[1]	[1]
Cleaning and dyeing	[1]	[1]	[1]	[1]
Class I steam railroads [5]	1,427	1,421	1,423	1,425
Water transportation [6]	159	155	152	122

[1] The term "production worker" has been substituted for the term "wage earner" which has been used in our previous releases. This conforms with the terminology and standard definitions of classes of workers formulated by the Division of Statistical Standards of the U. S. Bureau of the Budget. The use of "production worker" in place of "wage earner" has no appreciable effect on the employment estimates in mining industries since there is very little difference in the definitions. In the power laundries and cleaning and dyeing industries, the omission of driver-salesmen causes a significant difference. New series are being prepared.

[2] Data include salaried personnel.

[3] Not available.

[4] Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and o cable companies. Data include salaried personnel.

[5] Source: Interstate Commerce Commission. Data include salaried personnel.

[6] Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes vessels under bareboat charter to, or owned by, the Army or Navy.

TABLE 5.—*Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries*

[1939 average=100]

Industry	Employment indexes				Pay-roll indexes			
	May 1945	Apr. 1945	Mar. 1945	May 1944	May 1945	Apr. 1945	Mar. 1945	May 1944
Mining:								
Anthracite	10.8	77.4	79.0	82.7	15.1	135.1	149.7	155.8
Bituminous coal	88.7	82.3	90.2	96.0	211.1	159.6	204.3	215.5
Metal	77.3	77.8	78.4	93.6	128.6	131.2	130.9	148.5
Iron	121.7	120.7	118.8	142.4	215.1	213.0	213.1	229.4
Copper	89.9	90.9	92.8	115.1	151.3	155.5	153.2	187.7
Lead and zinc	92.0	93.1	95.0	108.4	172.0	177.7	180.4	196.5
Gold and silver	21.5	22.3	22.6	23.6	27.3	29.8	29.5	30.4
Miscellaneous	66.6	67.2	69.2	95.7	110.4	113.1	114.4	158.6
Quarrying and nonmetallic	78.3	77.7	76.6	84.5	150.8	151.2	142.5	157.4
Crude-petroleum production [1]	82.8	82.7	82.6	82.5	132.4	131.8	132.8	127.9
Public utilities:								
Telephone	(2)	(2)	127.1	128.2	(2)	(2)	162.4	153.5
Telegraph	117.4	117.9	118.9	121.9	174.0	169.9	170.8	176.1
Electric light and power	82.1	82.0	82.1	82.8	117.5	117.4	116.8	112.9
Street railways and busses	117.7	118.3	118.9	119.1	175.7	174.2	175.7	168.5
Wholesale trade	94.5	94.9	95.3	94.4	140.8	144.4	141.4	133.4
Retail trade	96.9	96.8	99.3	96.9	131.0	132.0	133.0	124.2
Food	103.0	103.6	105.9	107.3	139.3	139.9	141.2	135.2
General merchandise	113.3	112.4	117.4	108.5	144.0	143.5	147.6	132.4
Apparel	107.6	106.7	111.0	110.4	148.7	148.2	153.4	144.5
Furniture and housefurnishings [3]	61.6	61.1	62.0	63.2	89.0	88.7	88.6	86.3
Automotive	67.9	68.5	68.6	64.8	102.9	106.2	104.3	94.4
Lumber and building material	90.7	90.4	89.4	90.4	135.2	135.6	131.5	128.3
Hotels (year-round) [4]	108.5	108.0	109.0	109.0	168.0	165.6	166.7	155.3
Power laundries	104.9	104.7	105.5	110.1	161.9	162.5	162.2	161.3
Cleaning and dyeing	119.8	119.7	117.4	124.8	191.4	194.0	192.3	194.2
Class I steam railroads [5]	144.4	143.8	144.1	144.2	(2)	(2)	(2)	(2)
Water transportation [6]	303.5	295.5	290.4	233.5	746.2	729.2	724.7	552.6

[1] Does not include well drilling or rig building.
[2] Not available.
[3] Revisions have been made as follows in the data for earlier months:
Retail trade, Furniture and housefurnishings group.—February 1945 pay-roll index to 88.2.
[4] Cash payments only; additional value of board, room, and tips, not included.
[5] Source: Interstate Commerce Commission.
[6] Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes vessels under bareboat charter to, or owned by, the Army or Navy.

AVERAGE EARNINGS AND HOURS

Average weekly earnings and hours and average hourly earnings for March, April, and May 1945, where available, are given in table 6 for both manufacturing and nonmanufacturing industries. (For trend of earnings since 1939, see page 333 of this issue.)

The average weekly earnings for individual industries are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply information on man-hours, the average hours worked per week and average hourly earnings shown in this table are necessarily based on data furnished by a slightly smaller number of reporting firms. Because of variation in the size and composition of the reporting sample, the average hours per week, average hourly earnings, and average weekly earnings, shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown. The average weekly hours and hourly earnings for the man-

ufacturing groups are weighted arithmetic means of the averages for the individual industries, estimated employment being used as weights for weekly hours and estimated aggregate hours as weights for hourly earnings. The average weekly earnings for these groups are computed by multiplying the average weekly hours by the corresponding average hourly earnings.

TABLE. 6.—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries*

MANUFACTURING

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	May 1945	Apr. 1945	Mar. 1945	May 1945	Apr. 1945	Mar. 1945	May 1945	Apr. 1945	Mar. 1945
							Cents	*Cents*	*Cents*
All manufacturing	$46.03	$47.12	$47.40	44.1	45.1	45.4	104.3	104.4	104.4
Durable goods	51.58	52.92	53.22	45.5	46.5	46.7	113.5	113.8	113.9
Nondurable goods	38.23	38.80	38.96	42.3	43.2	43.5	90.4	89.9	89.6
Durable goods									
Iron and steel and their products	51.22	52.07	52.09	46.0	46.9	47.1	111.4	110.9	110.7
Blast furnaces, steel works, and rolling mills	56.24	56.32	56.10	46.6	47.0	47.0	120.8	119.9	119.5
Gray-iron and semisteel castings	51.64	53.18	54.00	46.9	48.0	48.4	110.9	110.8	111.6
Malleable-iron castings	50.58	52.37	52.51	46.0	47.5	47.4	110.9	110.7	110.7
Steel castings	51.49	53.81	53.84	44.7	46.8	46.9	115.1	114.9	114.7
Cast-iron pipe and fittings	41.47	42.09	42.62	46.5	47.0	46.4	89.9	89.6	91.7
Tin cans and other tinware	38.82	41.19	41.73	42.9	45.1	45.6	90.4	91.2	91.5
Wirework	48.83	50.78	51.90	45.7	47.2	48.1	106.8	107.7	108.1
Cutlery and edge tools	43.18	44.69	44.97	44.5	45.9	46.1	97.4	97.7	97.5
Tools (except edge tools, machine tools, files, and saws)	45.66	47.36	47.35	45.7	47.4	47.3	99.8	100.4	100.1
Hardware	47.48	47.87	47.61	46.7	47.2	47.6	100.6	100.5	100.1
Plumbers' supplies	49.15	50.07	49.97	45.5	46.6	46.6	107.9	107.5	107.2
Stoves, oil burners, and heating equipment, not elsewhere classified	46.83	49.09	48.76	44.3	46.5	46.6	105.9	105.5	104.7
Steam and hot-water heating apparatus and steam fittings	48.80	49.87	49.32	46.0	47.4	47.2	105.6	105.1	104.5
Stamped and enameled ware and galvanizing	46.87	47.93	48.71	44.6	45.7	46.2	105.0	104.8	105.4
Fabricated structural and ornamental metalwork	53.18	53.64	52.29	47.2	47.4	46.5	112.4	113.2	112.5
Metal doors, sash, frames, molding, and trim [2]	50.25	52.58	53.29	45.3	47.3	48.2	111.0	111.1	110.7
Bolts, nuts, washers, and rivets	50.99	51.13	52.21	47.9	48.1	48.5	106.6	106.8	107.3
Forgings, iron and steel	58.40	61.71	61.62	45.9	48.1	48.0	127.3	128.4	128.5
Screw-machine products and wood screws	50.09	51.73	52.44	47.0	48.4	49.0	106.5	106.8	106.9
Steel barrels, kegs, and drums	41.42	46.13	41.90	41.6	45.6	41.9	99.9	101.5	99.9
Firearms	59.10	57.56	59.96	45.6	44.7	46.6	129.5	128.7	128.7
Electrical machinery	48.72	49.61	49.89	45.8	46.6	46.6	106.4	106.4	107.0
Electrical equipment	51.27	51.91	52.53	46.3	46.9	47.1	110.6	110.6	111.6
Radios and phonographs	42.03	43.22	43.04	45.0	46.1	45.9	92.8	93.5	93.4
Communication equipment	46.56	47.47	47.03	44.8	45.7	45.5	104.0	103.6	103.0
Machinery, except electrical	53.62	55.49	56.07	46.6	48.1	48.6	115.1	115.3	115.3
Machinery and machine-shop products	52.69	54.82	55.06	46.6	48.2	48.7	112.9	113.5	113.0
Engines and turbines	56.48	58.28	59.91	45.9	47.4	48.0	123.3	123.3	125.1
Tractors	52.72	52.73	52.98	45.1	45.7	45.9	116.8	115.4	115.5
Agricultural machinery, excluding tractors	51.38	54.18	54.68	44.9	47.0	47.5	114.5	115.3	115.1
Machine tools	56.50	59.53	60.49	47.7	50.2	50.9	118.3	118.7	118.8
Machine-tool accessories	58.86	60.86	61.70	47.8	49.4	49.8	123.5	123.3	123.2
Textile machinery	48.55	50.33	51.12	47.7	49.0	49.7	102.1	102.6	102.8
Typewriters	50.00	49.40	49.56	47.8	48.6	49.0	104.6	101.7	101.1
Cash registers, adding and calculating machines	57.40	58.70	59.91	46.8	48.0	48.7	123.4	122.9	123.7
Washing machines, wringers and driers, domestic	45.37	50.24	48.49	43.2	46.6	45.5	105.1	107.8	106.6
Sewing machines, domestic and industrial	54.38	57.44	57.99	48.4	51.0	51.4	112.8	113.2	113.6
Refrigerators and refrigeration equipment	51.59	52.66	52.58	45.2	46.1	46.1	114.2	114.2	113.9

See footnotes at end of table.

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TABLE 6.—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	May 1945	Apr. 1945	Mar. 1945	May 1945	Apr. 1945	Mar. 1945	May 1945	Apr. 1945	Mar. 1945
Durable goods—Continued									
							Cents	*Cents*	*Cents*
Transportation equipment, except automobiles	$59.67	$60.70	$61.13	45.9	46.8	47.1	130.0	129.8	129.9
Locomotives	64.97	65.42	66.58	47.3	47.7	48.7	136.9	137.2	136.6
Cars, electric- and steam-railroad	52.80	54.30	55.71	44.1	45.6	46.5	119.7	119.1	119.8
Aircraft and parts, excluding aircraft engines	55.29	55.66	56.10	46.5	46.8	47.1	118.9	118.9	119.0
Aircraft engines	58.92	59.62	62.29	45.1	45.8	47.1	130.8	130.0	132.1
Shipbuilding and boatbuilding	63.53	64.93	64.56	45.8	47.0	46.9	138.8	138.3	137.6
Motorcycles, bicycles, and parts	54.25	53.97	53.25	47.8	48.8	48.7	113.5	110.6	109.3
Automobiles	55.60	58.25	58.99	43.9	45.5	46.1	126.6	128.1	128.0
Nonferrous metals and their products	49.55	50.96	51.18	46.0	47.1	47.3	107.7	108.1	108.1
Smelting and refining, primary, of nonferrous metals	49.93	50.56	49.61	46.6	47.1	46.5	107.0	107.3	106.7
Alloying and rolling and drawing of nonferrous metals, except aluminum	53.41	56.39	56.40	46.9	48.9	48.7	114.6	115.4	115.8
Clocks and watches	44.30	45.28	46.06	45.8	46.4	47.1	96.7	97.6	97.9
Jewelry (precious metals) and jewelers' findings	44.64	45.78	46.07	44.9	45.7	46.2	98.9	99.3	99.0
Silverware and plated ware	47.90	48.98	49.53	46.1	47.0	47.5	104.0	104.1	104.3
Lighting equipment	47.86	47.86	48.27	44.8	45.0	45.6	106.9	106.3	105.9
Aluminum manufactures	48.75	50.99	51.20	45.4	47.1	47.4	107.4	108.3	108.0
Lumber and timber basic products	34.99	35.18	34.38	43.0	43.6	43.1	81.4	80.7	79.8
Sawmills and logging camps	33.98	34.05	33.15	42.5	43.1	42.5	80.0	79.0	78.0
Planing and plywood mills	38.54	38.70	38.27	44.7	45.2	44.9	85.5	85.5	85.1
Furniture and finished lumber products	37.33	37.82	37.90	43.6	44.3	44.6	85.7	85.4	85.0
Furniture	37.74	38.67	38.78	43.4	44.2	44.5	87.8	87.8	87.4
Caskets and other morticians' goods	41.14	41.94	41.32	45.7	46.3	46.0	90.4	90.8	90.2
Wood preserving	35.20	35.35	34.24	44.1	44.6	44.1	79.8	79.3	77.7
Stone, clay, and glass products	40.46	41.36	40.77	43.6	44.5	44.2	92.9	92.9	92.3
Glass and glassware	40.65	41.74	41.27	41.7	42.8	42.8	97.7	97.8	96.8
Glass products made from purchased glass	36.37	36.31	36.27	44.1	44.3	44.0	82.5	82.0	81.6
Cement	44.38	45.19	43.10	47.2	47.6	46.0	94.0	95.0	93.7
Brick, tile, and terra cotta	34.95	35.90	34.69	42.3	43.3	42.3	82.4	81.9	81.4
Pottery and related products	37.34	37.81	37.78	41.5	42.0	42.3	91.3	90.7	90.7
Gypsum	42.90	44.66	45.77	45.8	48.1	48.5	93.3	92.6	94.4
Lime	38.12	39.55	38.06	47.9	49.6	48.1	79.5	80.8	79.1
Marble, granite, slate, and other products	40.45	43.07	39.95	44.3	45.6	43.5	91.7	94.6	91.7
Abrasives	49.43	48.96	49.74	48.1	48.1	48.5	102.8	101.8	102.5
Asbestos products	47.08	48.64	48.85	46.5	48.0	48.5	100.6	101.3	100.7
Nondurable goods									
Textile-mill products and other fiber manufactures	30.39	30.82	31.07	40.8	41.9	42.4	74.6	73.5	73.3
Cotton manufactures, except smallwares	27.76	27.70	27.79	41.3	42.3	42.5	67.3	65.5	65.4
Cotton smallwares	34.52	35.43	36.21	42.4	43.6	44.6	81.5	81.5	81.4
Silk and rayon goods	29.72	29.83	30.33	40.6	41.6	42.5	73.0	71.6	71.3
Woolen and worsted manufactures, except dyeing and finishing	35.38	36.52	36.95	40.7	42.2	42.9	86.9	86.5	86.2
Hosiery	28.97	29.82	30.02	36.9	38.0	38.6	78.4	78.4	77.8
Knitted cloth	32.94	33.10	33.61	42.3	43.3	44.0	77.9	76.4	76.6
Knitted outerwear and knitted gloves	31.58	31.91	32.28	38.9	39.6	40.0	79.9	79.4	79.5
Knitted underwear	27.39	28.10	28.10	39.5	40.8	41.4	69.0	68.6	67.7
Dyeing and finishing textiles, including woolen and worsted	34.27	35.55	35.81	43.6	45.4	45.7	78.5	78.5	78.4
Carpets and rugs, wool	38.76	41.48	41.39	40.5	43.7	44.1	95.7	95.2	94.0
Hats, fur-felt	45.98	43.18	46.94	41.0	39.7	42.2	110.8	108.7	110.9
Jute goods, except felts	35.26	35.22	35.49	44.5	44.9	45.0	79.2	78.4	78.8
Cordage and twine	33.87	34.13	34.06	44.7	45.2	45.3	75.7	75.3	75.0
Apparel and other finished textile products	30.88	32.64	34.06	36.4	37.9	39.0	84.9	86.2	87.4
Men's clothing, not elsewhere classified	33.09	34.72	35.53	37.1	39.0	40.0	88.3	88.6	88.6
Shirts, collars, and nightwear	25.45	26.29	26.59	36.5	37.9	38.7	69.8	69.5	68.8
Underwear and neckwear, men's	27.34	27.99	28.21	36.2	37.7	38.1	74.9	73.8	74.0
Work shirts	20.52	21.10	21.25	35.6	36.8	37.0	57.7	57.2	57.3
Women's clothing, not elsewhere classified	38.70	41.27	43.71	35.3	36.4	37.8	107.6	110.2	112.2
Corsets and allied garments	30.23	30.38	30.92	39.3	39.6	40.4	77.0	76.9	76.8

See footnotes at end of table.

TABLE 6.—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	May 1945	Apr. 1945	Mar. 1945	May 1945	Apr. 1945	Mar. 1945	May 1945	Apr. 1945	Mar. 1945
Nondurable goods—Continued									
Apparel and other finished textile products—Continued.							*Cents*	*Cents*	*Cents*
Millinery	$29.73	$37.97	$45.88	26.9	31.4	35.2	93.2	99.0	104.5
Handkerchiefs	25.11	24.37	24.89	37.4	37.0	37.8	66.9	65.7	65.8
Curtains, draperies, and bedspreads	28.10	27.58	27.58	37.1	37.2	37.3	75.0	73.5	73.6
Housefurnishings, other than curtains, etc	32.03	33.68	32.70	39.3	41.9	40.7	80.5	80.4	80.4
Textile bags	29.96	30.54	30.51	41.1	42.4	42.3	72.9	72.0	72.1
Leather and leather products	34.71	35.74	36.00	40.4	42.0	42.5	85.9	85.1	84.8
Leather	45.02	45.21	45.45	46.1	46.4	46.5	97.9	97.5	97.7
Boot and shoe cut stock and findings	35.03	35.94	35.58	41.7	43.6	43.0	84.2	83.7	83.8
Boots and shoes	32.69	34.05	34.46	39.2	41.1	41.8	83.0	82.3	82.0
Leather gloves and mittens	30.73	30.74	31.03	36.7	37.6	38.2	84.0	82.0	81.4
Trunks and suitcases	35.99	35.52	35.15	41.2	41.8	41.9	85.7	84.9	82.6
Food	39.05	39.16	38.94	44.5	45.0	45.1	87.7	86.9	86.4
Slaughtering and meat packing	42.74	42.56	42.92	45.7	45.9	46.3	93.7	92.9	92.9
Butter	34.94	35.74	34.71	46.7	47.3	46.1	73.9	73.6	73.2
Condensed and evaporated milk	39.83	39.33	38.51	51.5	51.2	50.6	77.4	76.8	76.1
Ice cream	39.15	40.54	40.23	45.2	47.2	46.8	82.5	82.7	82.5
Flour	43.80	44.22	43.33	49.6	50.1	49.7	88.4	88.4	87.3
Cereal preparations	46.01	47.00	47.45	46.7	48.1	48.0	98.5	97.7	98.8
Baking	39.22	38.87	38.51	45.2	45.5	45.5	86.3	85.3	84.6
Sugar refining, cane	38.78	40.33	40.81	45.6	46.5	47.7	85.0	86.6	85.5
Sugar, beet	37.86	40.37	38.69	39.1	39.9	39.5	96.8	101.2	98.0
Confectionery	31.30	31.29	31.23	40.7	41.0	41.5	77.0	76.5	75.3
Beverages, nonalcoholic	35.48	35.08	34.90	43.5	43.6	43.4	81.5	80.4	80.2
Malt liquors	52.03	52.92	51.45	45.1	45.9	44.9	114.9	115.0	114.2
Canning and preserving	31.72	32.10	32.28	39.4	40.9	41.3	81.1	79.1	78.8
Tobacco manufactures	30.91	31.22	31.80	41.5	42.3	42.9	74.5	73.8	74.1
Cigarettes	33.05	33.93	34.73	41.8	43.2	44.1	79.1	78.6	78.7
Cigars	29.46	29.10	29.60	41.4	41.4	42.2	71.0	70.0	70.1
Tobacco (chewing and smoking) and snuff	28.05	28.85	28.82	40.4	41.7	41.4	69.4	69.2	69.6
Paper and allied products	39.78	40.63	40.35	45.4	46.5	46.3	87.6	87.4	87.1
Paper and pulp	43.14	43.95	43.60	47.8	48.8	48.5	90.2	90.1	89.9
Envelopes	38.14	38.04	37.66	44.6	44.9	44.6	85.4	84.8	84.4
Paper bags	34.60	35.84	36.34	42.2	43.8	44.5	82.3	82.3	82.0
Paper boxes	35.48	36.30	36.01	42.6	43.7	43.6	83.3	83.1	82.5
Printing, publishing, and allied industries	46.63	46.52	46.61	41.2	41.2	41.6	113.3	112.9	112.1
Newspapers and periodicals	51.09	50.60	50.15	39.0	38.7	38.7	129.1	128.8	127.5
Printing, book and job	44.65	44.97	45.18	42.1	42.6	43.1	106.4	106.2	105.8
Lithographing	49.36	48.40	48.86	44.6	44.3	44.9	110.6	109.4	108.9
Chemicals and allied products	45.29	44.77	44.78	45.7	45.7	45.9	99.1	98.0	97.5
Paints, varnishes, and colors	47.30	47.91	47.51	47.3	47.8	47.7	100.3	99.8	99.3
Drugs, medicines, and insecticides	36.69	35.89	36.44	43.3	42.7	43.6	85.0	84.3	83.8
Soap	48.15	48.46	49.44	47.8	48.1	48.7	100.7	100.8	101.6
Rayon and allied products	40.66	40.19	39.18	43.2	43.3	42.6	94.0	92.8	92.0
Chemicals, not elsewhere classified	54.03	53.83	53.78	47.3	47.3	47.3	114.1	113.9	113.7
Explosives and safety fuses	47.91	47.18	47.63	45.6	44.9	45.3	105.0	105.0	105.1
Ammunition, small-arms	46.57	45.12	45.51	46.5	45.8	46.3	100.1	98.6	98.3
Cottonseed oil	28.57	28.88	28.45	50.2	51.5	51.5	56.9	56.1	55.3
Fertilizers	32.02	33.07	32.79	45.9	48.2	48.4	69.7	68.6	67.8
Products of petroleum and coal	57.23	58.30	56.65	47.5	48.5	47.4	120.4	120.3	119.5
Petroleum refining	59.80	61.26	59.43	47.5	48.4	47.3	126.5	126.8	126.0
Coke and byproducts	50.77	50.25	49.00	47.9	48.4	47.1	105.7	104.3	104.1
Roofing materials	46 82	48.50	46.72	48.2	49.9	48.7	97.1	97.3	95.9
Rubber products	50.09	51.93	50.62	44.2	45.7	45.3	113.2	113.6	111.7
Rubber tires and inner tubes	57.32	59.75	57.29	44.6	46.3	45.3	128.4	129.4	126.0
Rubber boots and shoes	41.32	43.07	41.42	43.6	45.6	44.0	94.8	94.5	94.1
Rubber goods, other	42.68	43.63	44.26	43.9	45.1	45.6	97.3	96.8	97.1
Miscellaneous industries	44.41	45.50	45.65	44.8	45.8	46.1	99.2	99.3	99.1
Instruments (professional and scientific) and fire-control equipment	54.11	57.67	57.36	47.1	49.8	49.9	114.8	115.9	115.1
Pianos, organs, and parts	46.13	46.23	46.62	44.7	45.2	45.5	103.0	102.6	102.8

See footnotes at end of table.

TABLE 6—*Earnings and Hours in Manufacturing and Nonmanufacturing Industries*—Continued

NONMANUFACTURING

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	May 1945	Apr. 1945	Mar. 1945	May 1945	Apr. 1945	Mar. 1945	May 1945	Apr. 1945	Mar. 1945
Mining:							*Cents*	*Cents*	*Cents*
Anthracite	$38.10	$44.92	$48.76	36.4	38.9	41.4	103.9	115.3	117.9
Bituminous coal	53.32	43.44	52.26	41.7	36.6	43.8	126.5	118.3	119.7
Metal [3]	46.69	47.35	46.92	45.0	45.5	45.0	103.8	104.0	104.2
Quarrying and nonmetallic	41.52	41.98	40.26	47.2	48.0	46.5	87.9	87.4	86.8
Crude-petroleum production	54.16	53.89	54.31	46.1	45.2	46.2	117.3	119.1	117.5
Public utilities:									
Telephone	(4)	(4)	40.60	(4)	(4)	42.8	(4)	(4)	95.1
Telegraph [5]	38.35	37.33	37.20	45.7	44.8	44.7	83.9	83.3	83.2
Electric light and power	50.23	50.08	49.77	44.5	43.7	44.2	112.4	113.8	112.3
Street railways and busses	49.30	48.65	48.81	51.7	51.0	51.2	95.4	95.6	94.7
Wholesale trade	43.83	44.51	43.51	42.9	43.2	42.9	101.8	103.1	101.6
Retail trade	27.56	27.69	27.21	39.4	39.8	39.7	76.4	76.4	75.2
Food	32.19	32.14	31.76	40.1	40.1	40.0	75.5	75.4	74.6
General merchandise [2]	22.63	22.83	22.37	34.9	35.3	35.7	63.6	63.4	62.3
Apparel	28.90	29.05	29.03	36.3	36.2	36.4	80.3	80.7	80.3
Furniture and housefurnishings [2]	39.46	39.54	38.65	43.6	44.1	43.9	90.5	90.9	88.7
Automotive [2]	42.63	43.63	42.80	46.2	46.6	46.1	94.6	94.8	94.5
Lumber and building materials	38.40	39.04	38.05	43.1	43.8	43.5	90.2	89.8	88.9
Hotels (year-round) [6]	24.21	23.99	23.97	44.4	44.3	44.8	53.5	53.3	52.9
Power laundries	28.64	28.98	28.80	43.4	43.8	43.8	66.8	66.3	66.0
Cleaning and dyeing	32.92	33.41	34.03	43.1	43.9	44.3	76.9	76.9	77.5
Brokerage	68.80	64.32	66.40	(4)	(4)	(4)	(4)	(4)	(4)
Insurance	46.71	47.11	47.39	(4)	(4)	(4)	(4)	(4)	(4)
Private building construction	53.82	54.42	54.49	39.3	40.0	40.0	136.9	136.1	136.3

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during any part of one pay period ending nearest the 15th of the month. As not all reporting firms furnish man-hour data, average hours and average hourly earnings for individual industries are based on a slightly smaller sample than are weekly earnings. Data for the current and immediately preceding months are subject to revision.

[2] Revisions have been made as follows in data for earlier months:

Metal doors, sash, frames, molding, and trim.—January and February 1945 average weekly earnings to $51.30 and $53.03; February average hourly earnings to 110.4 cents and comparable January hourly earnings to 108.9 cents.

General merchandise group.—January and February 1945 average weekly hours to 35.9 and 36.1, and average hourly earnings to 61.6 and 61.8 cents.

Furniture and housefurnishings group.—February 1945 average weekly hours to 43.6 and average hourly earnings to 88.8 cents.

Automotive group.—February 1945 average weekly hours to 46.3.

[3] Average weekly hours and hourly earnings for metal mining are weighted by the employment in metal mining industries. Average weekly earnings are the product of average weekly hours and average hourly earnings. Complete series from January 1939 available upon request.

[4] Not available.

[5] Excludes messengers and approximately 6,000 employees of general and divisional headquarters and of cable companies.

[6] Cash payments only; additional value of board, room, and tips not included.

Civilian Labor Force, June 1945

INCREASES of 350,000 in unemployment and 690,000 in employment between May and June 1945 combined to raise the civilian labor force to a total of 53,070,000 in June 1945, according to the Bureau of the Census sample Monthly Report on the Labor Force.

The considerable gain in the volume of unemployment between May and June 1945 reflected two developments in labor-market activity during the month. Large numbers of teen-age youths entered the labor force at the close of the school term in many areas. As is usually he case, many of these youngsters did not find jobs immediately so

that a seasonal increase in unemployment resulted. In addition, layoffs resulting from cut-backs in war production schedules contributed to the unemployment increase, although many released workers found other jobs or left the labor force.

During the month, a decline of 450,000 in nonagricultural employment took place, a large part of which occurred in munitions industries. The number of women engaged in nonagricultural pursuits dropped by 350,000, the number of men by 100,000. The level of nonfarm employment in June 1945 was 760,000 below that in June 1944—a decline of 790,000 among men was only slightly offset by a gain of 30,000 among women. During the year, however, the size of the armed forces increased by nearly 900,000.

A seasonal upswing of 1,140,000 in agricultural employment between May and June 1945 largely accounted for the net increase in the civilian labor force between these months. Farm employment in June 1945, however, was about 470,000 below the June 1944 total.

Civilian Labor Force in the United States, Classified by Employment Status and by Sex, May and June 1940–45 [1]

[Source: U. S. Department of Commerce, Bureau of the Census]

Item	Estimated number (in thousands) of persons 14 years of age and over [2]											
	1945		1944		1943		1942		1941		1940	
	June	May	June	May	June	May	June	May	June	May	June	May
Total civilian labor force	53,070	52,030	54,220	52,840	55,220	53,550	56,260	54,340	56,130	53,880	55,560	53,890
Unemployment [3]	1,080	730	1,000	880	1,220	920	2,550	2,310	5,520	5,120	7,720	7,490
Employment	51,990	51,300	53,220	51,960	54,000	52,630	53,710	52,030	50,610	48,760	47,840	46,400
Nonagricultural	42,900	43,350	43,660	43,360	44,180	43,720	43,480	42,980	40,510	39,550	36,950	36,480
Agricultural	9,090	7,950	9,560	8,600	9,820	8,910	10,230	9,050	10,100	9,210	10,890	9,920
Males												
Civilian labor force	34,350	33,790	35,540	34,910	36,880	36,260	40,790	39,820	41,790	40,270	41,710	40,640
Unemployment [3]	580	430	500	420	660	530	1,610	1,460	3,800	3,700	5,450	5,550
Employment	33,770	33,360	35,040	34,490	36,220	35,730	39,180	38,360	37,990	36,570	36,260	35,090
Nonagricultural	26,810	26,910	27,600	27,400	28,610	28,520	31,070	30,740	29,480	28,610	27,090	26,220
Agricultural	6,960	6,450	7,440	7,090	7,610	7,210	8,110	7,620	8,510	7,960	9,170	8,870
Females												
Civilian labor force	18,720	18,240	18,680	17,930	18,340	17,290	15,470	14,520	14,340	13,610	13,850	13,250
Unemployment [3]	500	300	500	460	560	390	940	850	1,720	1,420	2,270	1,940
Employment	18,220	17,940	18,180	17,470	17,780	16,900	14,530	13,670	12,620	12,190	11,580	11,310
Nonagricultural	16,090	16,440	16,060	15,960	15,570	15,200	12,410	12,240	11,030	10,940	9,860	10,260
Agricultural	2,130	1,500	2,120	1,510	2,210	1,700	2,120	1,430	1,590	1,250	1,720	1,050

[1] Estimates for period prior to November 1943 revised April 24, 1944.
[2] All data exclude persons in institutions.
[3] Includes persons on public emergency projects prior to July 1943.

Recent Publications of Labor Interest

August 1945

Cooperative Movement

Developments in consumers' cooperative movement [of the United States] in 1944. Washington 25, U. S. Bureau of Labor Statistics, 1945. 16 pp. (Bull. No. 821; reprinted from Monthly Labor Review, March 1945, with additional data.) 10 cents, Superintendent of Documents, Washington 25.

I speak for Joe Doakes, for cooperation at home and among nations. By Roy F. Bergengren. New York, Harper & Bros., 1945. 167 pp. $2.

Discusses, from the viewpoint of the common man, some of the ills of the present-day world, inequalities of income distribution in the United States, and possibilities for a permanent peace. In the author's opinion, the only hope for a permanent peace is international cooperation based on a better economic life for all people. To effect the latter, economic cooperation of the people themselves through the various types of cooperatives—credit, consumers', etc.—is advocated, which would result in "a more even distribution of those goods and services which contribute so materially to human happiness."

A century of Rochdale cooperation, 1844–1944. By Joseph Reeves. London, Lawrence & Wishart, 1944. 202 pp., bibliography. 7s. 6d.

Described as "a critical but sympathetic survey of a significant movement of the workers for economic emancipation," this report examines various aspects of the British cooperative movement. Separate chapters deal with cooperation in other countries and with the International Cooperative Alliance. The author sets forth the ways in which, in his opinion, the movement has missed its full opportunities, and the measures that should be taken. He favors increased social use of earnings (reducing or eliminating patronage refund accordingly) and increased political action by the cooperative movement, abolishing the Cooperative Party, and working with the Labor Party. Points to the Russian movement as an example of what could be done under a socialistic economic order.

World cooperation, 1844–1944. By N. Barou. London, Fabian Publications, Ltd., and Victor Gollancz, Ltd., 1944. 52 pp., charts. (Fabian research series, No. 87.) 2s.

Gives comparative statistics, showing development of cooperatives of various types during their century of growth. Certain countries (United States, Soviet Union, China, Palestine, India, and British colonies) are discussed separately. Other chapters deal with international organization, cooperation and politics, and the war and the future.

Cooperation in France. (In Review of International Cooperation, London, March–April 1945, pp. 33–39.)

Review of the present situation of the various types of cooperatives, with statistics for the war period.

Cooperatives and taxation. By P. H. Casselman. A brief submitted * * * to the Royal Commission on Cooperatives, Ottawa, February 16–17, 1945. [Ottawa, Social Center of University of Ottawa?], 1945. 41 pp.; mimeographed.

Arguments in favor of cooperatives presented in the hearings held on taxation of cooperatives in Canada.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

Employment and Rehabilitation of Veterans

The disabled veteran. (In The Annals of the American Academy of Political and Social Science, Vol. 239, Philadelphia 4, May 1945, pp. 1–181. $2, paper, or $2.50, cloth, to nonmembers.)

Collection of articles dealing with various aspects of the disabled veteran's return to civilian life. The articles cover such subjects as pertinent legislation, physical and mental rehabilitation, retraining and reemployment, and individual and social adjustment.

Psychology for the returning serviceman. By a committee of the National Research Council; edited by Irvin L. Child and Marjorie Van de Water. Washington 6, Infantry Journal; New York, Penguin Books, 1945. 243 pp., illus. 25 cents.

Advice to servicemen designed to aid them in readjusting themselves to civilian life, a peacetime job, and a peacetime community.

Reemployment of war veterans. New York 10, Metropolitan Life Insurance Co., Policyholders Service Bureau, [1945?]. 36 pp.

Designed to aid management in its planning for the postwar period by helping to clarify the problem of reemploying returning veterans.

Veterans' reemployment rights under Selective Service interpretations. (In Yale Law Journal, New Haven, Conn., March 1945, pp. 417–444. $1.25.)

Examines present legislation relating to reemployment rights of veterans, the interpretation of that legislation by various Government agencies, and the present and possible effects of those interpretations upon the economic well-being of the veteran.

Your postwar career. Madison 3, Wis., U. S. War Department, Armed Forces Institute, 1945. 144 pp., diagrams, illus. (Education manual 945; available only to veterans.)

Textbook designed to introduce the soldier to the postwar job scene by acquainting him of facilities available to him in his job hunt and giving specific information on the various occupational fields.

How reinstatement will work in Britain. By Sir Godfrey Ince. (In Labor and Industry in Britain, British Information Services, New York 20, June 1945, pp. 84–89.)

Discussion of problems that will arise, and methods for dealing with them, under the British reinstatement legislation for ex-service personnel.

Employment and Unemployment (General)

Employment problems during reconversion and in the postwar period. By A. F. Hinrichs, Acting Commissioner of Labor Statistics. Washington 25, U. S Bureau of Labor Statistics, 1945. 10 pp.; mimeographed. Free.

Address at Fifteenth Annual Labor Institute, Rutgers University, New Brunswick, N. J., June 4, 1945.

Impact of the war on employment in 181 centers of war activity. Washington 25' U. S. Bureau of Labor Statistics, 1945. 32 pp. (Bull. No. 826.) 10 cents' Superintendent of Documents, Washington 25.

Public employment and pay rolls in the United States, 1929–39, and postwar implications. Washington 25, U. S. Bureau of Labor Statistics, 1945. 31 pp., charts. (Serial No. R. 1732; reprinted from Monthly Labor Review, February 1945, with additional data.) Free.

Guaranteed Employment and Annual Wages

Shall we guarantee full employment? By Stanley Lebergott. (In Harper's Magazine, Concord, N. H., February 1945, pp. 193–202.)

The author discusses various arguments in support of the "comfortable belief" that direct public action will not be needed to assure postwar employment. He expresses the view that in any event the Nation has a responsibility for guaranteeing security and an opportunity to work to all veterans and war workers. It is stated that the Government will find it necessary to spend public funds to deal with mass unemployment, and that a guaranty of employment would tend to maintain confidence in business activity and would thereby reduce public expenditures for handling unemployment.

Guaranteed-employment and annual-wage provisions in union agreements, effective January 1945. Washington 25, U. S. Bureau of Labor Statistics, 1945. 26 pp. (Bull. No. 828; reprinted from Monthly Labor Review, April 1945, with additional data.) 10 cents, Superintendent of Documents, Washington 25.

The guaranteed annual wage. (In Industrial Bulletin and Employment Review, New York State Department of Labor, Albany 1, January–February 1945, pp. 11–15; bibliography. 10 cents.)
Summarizes main features and leading arguments for and against.

The guaranteed annual wage. By Philip Murray. Pittsburgh, United Steelworkers of America, 1945. 14 pp., bibliography.
Statement of the union's case for an annual wage guaranty.

Housing and Nonresidential Construction

Probable volume of postwar construction. Washington 25, U. S. Bureau of Labor Statistics, 1945. 58 pp. (Bull. No. 825; reprinted from Monthly Labor Review, February, March, and April 1945, with additional data.) 10 cents, Superintendent of Documents, Washington 25.

Public versus private housing: A review of the Washington slum clearance controversy. New York 17, National Industrial Conference Board, Inc., 1945. 36 pp. (Studies in business policy, No. 6.)
Discusses the development of public housing in the District of Columbia and compares costs and rents with those of privately constructed shelter.

Informe que a los sindicatos y cooperativas de Bogotá, rinde su representante en la Junta Directiva de la Caja de la Vivienda Popular. By Alberto Figueredo Salgedo. [Bogotá, Caja de la Vivienda Popular, 1945.] 31 pp.
Presents information on the creation, nature, and functioning of the Low-Cost Housing Fund of Bogotá.

Foundation for housing. London, S. W. 1, Conservative and Unionist Party Organization, Central Committee on Postwar Reconstruction, 1944. 32 pp. 3d.
Includes a brief historical survey of housing in Great Britain between the two World Wars and a suggested policy for the future.

Ways and means of rebuilding. Report of the London conference of the Town and Country Planning Association, 1943. Edited by Donald Tyerman. London, Faber & Faber, Ltd., 1944. 111 pp. 8s. 6d. net.
One of the sessions dealt with the implications of a full-employment policy.

Income

Measuring and projecting national income. New York 17, National Industrial Conference Board, Inc., 1945. 27 pp., charts. (Studies in business policy, No. 5.)
Addresses and discussions at a round-table conference of the National Industrial Conference Board on January 18, 1945, with additional papers. The work of the U. S. Department of Commerce and other agencies in the field of national income and national product is described as an attempt to summarize the accounting transactions which actually appear in the combined books of the Nation—the accounting records of business, Government, and consumers. The recent development and applications of the concepts of gross national product and gross national expenditure are described in some detail, with particular reference to their uses in the analysis of actual and potential markets, consumer spending, Government purchasing, business investment, output, and employment.

ecent studies on national income. By D. C. MacGregor. (In Canadian Journal of Economics and Political Science, Toronto, February 1945, pp. 115–129; May 1945, pp. 270–280. $1 each.)
Critical reviews of major studies, official and unofficial, of national income in various countries.

County incomes and trade movement in Illinois: A suggested method for estimating incomes of small areas. By P. D. Converse. Urbana, University of Illinois, Bureau of Economic and Business Research, 1945. 16 pp., map. (Special bull. No. 4.) 50 cents.

National income and expenditure, [Great Britain]. By J. E. Meade and Richard Stone. London, Oxford University Press, 1944. 36 pp. 2s.
Discussion of the purposes and content of the Government's annual White Paper on national income and expenditure.

Size of family in relation to family income and age of family head. By T. J. Woofter Jr. (In American Sociological Review, Washington 25 [Managing Editor, U. S. Department of Agriculture], December 1944, pp. 678–684. $1.)

Industrial Accidents and Accident Prevention

Analysis of accidents in construction of 68 selected industrial plants and facilities, January 1, 1942, to April 30, 1944. Washington 25, U. S. War Department, Army Service Forces, Corps of Engineers, Safety and Accident Prevention Branch, [1945]. 11 pp., illus.; processed.

What's ahead for construction safety? By Lloyd A. Blanchard. (In National Safety News, Chicago 6, February 1945, pp. 10, 11, et seq. 40 cents.)
Accident-frequency rates on U. S. Army construction projects were substantially reduced between 1941 and 1943, according to the writer, who describes measures for the prevention of accidents in the construction industry and emphasizes the need for trained construction safety engineers.

Coordination of dust suppression by water and roof control at the working face [of coal mines]—successful results obtained under adverse conditions. London, Ministry of Fuel and Power, 1945. 7 pp., charts. (Safety pamphlet No. 15.) 2d. net, His Majesty's Stationery Office, London, W. C. 2.

Industrial medicine and accident prevention—the personal factors of accidents. By Verne K. Harvey, M.D., and E. Parker Luongo, M.D. (In Industrial Medicine, Chicago, May 1945, pp. 377–381; bibliography. 40 cents.)
Since from 80 to 90 percent of all industrial accidents, according to the authors, are due to personal factors rather than to mechanical causes, the physical examination of a worker by an industrial physician should include a diagnosis of personality as related to accident proneness.

Psychiatry in industrial accidents. By Lowell S. Selling, M.D. (In Advanced Management, New York 7, April–June 1945, pp. 70–75. $1.50.)
Points out individual causes for accident proneness and the need for psychologically trained personnel workers to assist the plant physician in evaluating workers for specific jobs.

Industrial Hygiene

Control of welding fumes—why and how. By Morwick Ross and Philip Drinker. (In Transactions, 33d National Safety Congress, Chicago, October 3–5, 1944, Vol. I, pp. 256–259. Chicago 6, National Safety Council, Inc., 1944.)

The safe handling of toxic materials and gases. By Elmer L. Schall. (In Public Health News, State Department of Health, Trenton, N. J., April 1945, pp. 240–247, 250–253. Free to residents of New Jersey.)

Eyes right, for better production. (In Modern Industry, New York 17, May 15, 1945, pp. 33–37; illus. 35 cents.)
Account of the new techniques for correlating visual skills with visual requirements of jobs, for the purpose of placing workers more scientifically and increasing production, and of union cooperation in such programs.

Labor-management relationships in industrial health problems. By J. J. Bloomfield. (In Journal of the American Medical Association, Chicago 10, June 30, 1945, pp. 639–643. 25 cents.)
Evaluates the part played in plant health and safety by unions through collective bargaining and by labor-management committees sponsored by the U. S. War Production Board.

Official industrial hygiene services. By Victoria M. Trasko. (In Industrial Medicine, Chicago, April 1945, pp. 277–283. Reprints of article are available free from the author, Industrial Hygiene Division, U. S. Public Health Service, Bethesda 14, Md.)
Report on the major types of services rendered industrial establishments throughout the United States by official State and local industrial-hygiene units, from July 1942 through June 1944.

Industrial nursing in Connecticut—an introduction to desirable practice. (In Industrial Nursing, Chicago, January 1945, pp. 41–48.)

Industrial Relations

Labor policy after the war. By Frank P. Huddle. Washington 5 (1013 Thirteenth Street NW.), Editorial Research Reports, 1945. 16 pp. (Vol. 1, 1945, No. 19.) $1.

Concise analysis of labor policies in the United States and points of view of public officials, union leaders, and representatives of management. Among the questions discussed are unification of Federal labor agencies, postwar productivity in relation to wages and purchasing power, and the principles that should govern peacetime labor relations.

The National War Labor Board: Its significance. By Joseph Shister. (In Journal of Political Economy, Chicago 37, March 1945, pp. 37–56. $1.)

The author discusses control by the U. S. National War Labor Board of the wartime labor market and probable effects of the Board's decisions on postwar labor relations.

Protecting management's rights in labor relations. New York 1, International Statistical Bureau, Inc., 1945. 35 pp.

Summary of rules and decisions under the National Labor Relations Act, including court decisions, as affecting the rights and duties of management and as defining unfair labor practices.

Sick-leave provisions in union agreements. Washington 25, U. S. Bureau of Labor Statistics, 1945. 7 pp. (Bull. No. 832; reprinted from Monthly Labor Review, May 1945.) 5 cents, Superintendent of Documents, Washington 25.

Collective agreements in the pulp and paper industry in Canada, 1944. (In Labor Gazette, Department of Labor, Ottawa, April 1945, pp. 539–554.)

First in a series of analytical studies of current agreements on file with the Canadian Department of Labor. This initial article, dealing with mill operations in the pulp and paper industry, analyzes various agreement provisions and lists the labor unions operating in the industry together with their membership.

The rights of engineers. By Wal Hannington. London, Victor Gollancz, Ltd., 1944. 122 pp. 3s. 6d.

Describes the rights of workers, operation of collective agreements, and development of trade-unionism in the engineering industry of Great Britain.

Labor Organizations and Conferences

Judicial procedure in labor unions. By Philip Taft. (In Quarterly Journal of Economics, Cambridge, Mass., May 1945, pp. 370–385. $1.25.)

Analysis of trade-union procedures in dealing with violations of union rules and policies.

Recent trends in British trade unions. By Noel Barou. New York 3, League for Industrial Democracy, 1945. 31 pp., bibliography. 15 cents.

In the first part of the pamphlet the importance of the British labor movement is estimated in statistical and other terms; the second part contains a summary of the British Trades Union Congress' interim report on postwar reconstruction.

Report of 21st session of All-India Trade Union Congress, Madras, 1945. Bombay 4, All-India Trade Union Congress, 1945. 103 pp. 2 rupees.

Report of the second conference [of the Indian Federation of Labor], held at Jamshedpur on December 24 and 25, 1944. Delhi, Indian Federation of Labor, [1945]. Variously paged.

Medical Care and Sickness Insurance

Health services for migrant farm families. By Frederick D. Mott, M.D. (In American Journal of Public Health and the Nation's Health, New York 19, April 1945, pp. 308–313. 50 cents.)

Hospital care of the indigent and medically indigent in New Jersey: A review of the policies and legal resources for adequate hospital care. Trenton, New Jersey Hospital Association, Welfare Committee, 1945. 46 pp.

Medical care for everybody? By Maxine Sweezy. Washington 6, American Association of University Women, 1945. 38 pp., bibliography, charts, illus. 15 cents.

Compulsory health insurance—arguments for and against. By George B. Mangold. (In Sociology and Social Research, Los Angeles 7, May–June 1945, pp. 343–354. 60 cents.)

Migration, Migratory Workers, and Population Status

County variation in net migration from the rural-farm population, 1930–40. By Eleanor H. Bernert. Washington 25, U. S. Department of Agriculture, Bureau of Agricultural Economics, 1944. 44 pp.; mimeographed.

Observations on the sample censuses in ten congested production areas. By John Webb. Washington 25, Committee for Congested Production Areas, 1944. 20 pp., maps.

Sample population censuses were taken in selected areas by the U. S. Bureau of the Census at the request of the Committee for Congested Production Areas. Some of the information obtained is summarized in this pamphlet, particularly the increases in population from 1940 to 1944; the characteristics of the population as to age, color, and sex; the farm and nonfarm origins of additions to the population; and the distance of moves made by migrants to the congested areas.

Wartime changes in regional concentration. By Elmer C. Bratt. (In Survey of Current Business, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, Washington 25, March 1945, pp. 14–20; charts. 20 cents, Superintendent of Documents, Washington 25.)

A discussion of the wartime shifting of the working population of the United States, based largely, with certain adjustments, on Bureau of Labor Statistics data on State distribution of manufacturing and other nonagricultural employment. There is also some discussion of the effects of demobilization and of reconversion on the regional concentrations of employment.

The Joads in New York. New York 10, Consumers League of New York, 1945. 26 pp. 15 cents.

Presents the results of an investigation in the summer of 1944 of 22 family camps, housing approximately 2,000 migrant farm workers, in 9 counties in New York State.

World population in transition. Edited by Kingsley Davis. (In The Annals of the American Academy of Political and Social Science, Vol. 237, Philadelphia 4, January 1945, pp. 1–203; charts. $2, paper, or $2.50, cloth, to nonmembers.)

The purpose of the volume was to give a broad picture of the demographic situation throughout the world, the major problems in the situation, and the population possibilities of the future. The subject is dealt with on both a regional and a topical basis.

Asia on the move: Population pressure, migration, and resettlement in Eastern Asia under the influence of want and war. By Bruno Lasker. New York, Henry Holt & Co., 1945. 207 pp. $3.

Negro in Industry

Full employment and the Negro worker. By Willard S. Townsend. (In Journal of Negro Education, Washington 1, winter number 1945, pp. 6–10. Reprints of article are available from National CIO Committee to Abolish Discrimination, Washington 6.)

The author contends that full employment in the postwar period will not abolish race problems, but will prepare the way for effective educational programs for reducing the frequency and intensity of economic depressions and the consequent dearth of jobs—one of the fundamental causes of racial strife.

Legislation outlawing racial discrimination in employment. By Harold Dublirer. (In Lawyers Guild Review, Washington 5, March–April 1945, pp. 101–109. 50 cents.)

The Negro war worker in San Francisco—a local self-survey. [San Francisco, Young Women's Christian Association], 1944. 98 pp. 50 cents.

One of the eight chapters of the report is devoted to housing and another to industry and employment. Recommendations based on the findings of this survey were issued in separate mimeographed form.

Occupations and Occupational Adjustment

Careers in safety: Choosing a vocation in the field of accident prevention. By Herbert J. Stack, Charles C. Hawkins, and Walter A. Cutter. New York, Funk & Wagnalls Co., 1945. 152 pp. $1.50.

Careers in the steel industry. By Burr W. Leyson. New York, E. P. Dutton & Co., Inc., 1945. 191 pp., illus. $2.50.
Describes the various processes in the making of steel and indicates job opportunities in the industry, remuneration, and prospects for advancement.

Job placement reference, with introduction to the job placement technique. By Keith Van Allyn. Los Angeles, National Institute of Vocational Research, Inc., 1945. 361 pp., bibliography. $10.
The principal purpose of the study is described as an aid in coordinating testing procedures and job specifications and in providing a convenient method for use by counselors or employers for accurately comparing individual qualifications with occupational requirements.

Matching the physical characteristics of workers and jobs. By Bert Hanman. (In Industrial Medicine, Chicago, May 1945, pp. 405–426 et seq. 50 cents.)
Evaluation of existing practices in the United States for matching the physical characteristics of workers and jobs in selective-placement systems.

Occupational data for counselors: A handbook of census information selected for use in guidance. Washington 25, U. S. Bureau of Labor Statistics, 1945. 36 pp., charts. (Bull. No. 817.) 10 cents, Superintendent of Documents, Washington 25.

Position classification—a selected list of references. Washington 25, U. S. Civil Service Commission, Library, January 1945. 40 pp.; processed.
The references are grouped under three main heads: (1) Principles, method, and description (including materials pertaining to several foreign countries); (2) Position analysis and evaluation; (3) Selected classification plans, class specifications, or job descriptions.

Postwar Reconstruction

Economic stability in the postwar world: The conditions of prosperity after the transition from war to peace. Report of the Delegation on Economic Depressions, Part II. Geneva, League of Nations, 1945. 319 pp., charts. $3, Columbia University Press, New York; $2.50 with paper cover, no index.
Part I of this report (noted in October 1943 Monthly Labor Review, p. 855) discussed the period of transition from war to peace from the point of view of policies designed to prevent depression. Part II discusses the nature and causes of depressions and analyzes the policies, national and international, which the Delegation on Economic Depressions recommends for preventing depressions. A major theme is the dependence of employment on expenditures.

Impact of the war on the St. Louis area: Working notebook for use by local groups studying recent economic developments and formulating plans for the postwar period. Washington 25, U. S. Bureau of Labor Statistics, 1944. 61 pp., charts; mimeographed. (Industrial area study No. 27.) Free.

Problems for postwar Dallas relating to employment and the labor force. Dallas, Tex., Chamber of Commerce, and Committee for Economic Development, 1945. 90 pp.
Report prepared by director of regional office of U. S. Bureau of Labor Statistics. The study contains an account of the wartime industrial expansion of Dallas and an analysis of the war workers of the area as to where they came from, their status in Dallas, and their postwar plans. It is stated that about 94,000 more workers were employed in Dallas in June 1944 than before the war. The study is designed to throw light on postwar planning for dealing with the problem of released war workers and returning veterans. The statistical section includes 54 tables relating to such subjects as employment, types of work, earnings, prewar status, and postwar plans.

Kansas manufacturing in the war economy, 1940–44. By L. L. Waters. Lawrence, Kans., University of Kansas, 1945. 46 pp., charts. (Industrial research series, No. 4.)

First in a series of reports intended to provide material basic to strengthening the economy of Kansas. Wartime changes in various industries are described and there is a discussion of the problems of conversion and reconversion.

Miami: Economic pattern of a resort area. By Reinhold Paul Wolff. Coral Gables, Fla., University of Miami, 1945. 172 pp., charts. $2.

Designed to aid in economic and social planning for the Miami area in coordination with development in southern Florida. There is a chapter on income structure, including wages and salaries.

La France devant la reconstruction économique. By Robert Mossé. New York, Brentano's, 1945. 113 pp.

Discusses the development of the French economy before the war, the effects of German tyranny, and the prospects of reconstruction.

Social Security (General)

How lucky is my social security number? New York 19, International Ladies' Garment Workers' Union, [1945?]. 20 pp.

Simple statements of the Federal old-age and survivors insurance provisions and the status of unemployment compensation systems.

Industrial life insurance in the United States. By Malvin E. Davis. New York, McGraw-Hill Book Co., Inc., 1944. 399 pp. $2.75.

Nontechnical account, by the associate actuary of the Metropolitan Life Insurance Co., based largely on the practice of three companies which are said to handle about three-fourths of the industrial life insurance in force in the United States.

The progress of social security in the Americas in 1944. By Arthur J. Altmeyer. (In International Labor Review, Montreal, June 1945, pp. 699–721. Reprints of article are available at 10 cents each. Distributed in United States by Washington branch of I. L. O.)

Review of social-insurance developments, including new programs made operative and plans published but not yet adopted, in the countries of North, Central, and South America during 1944.

Some basic readings in social security. Washington 25, Federal Security Agency, Social Security Board, January 1945. 58 pp. 15 cents, Superintendent of Documents, Washington 25.

Annotated supplement to 1942 edition of the bibliography (publication No. 28, revised).

Vacations

Paid vacations in American industry, 1943 and 1944. Washington 25, U. S. Bureau of Labor Statistics, 1945. 30 pp. (Bull. No. 811; reprinted from Monthly Labor Review, January and February 1945, with additional data.) 10 cents, Superintendent of Documents, Washington 25.

Vacation policy in 1945. By Gertrude Reynolds. New York 17, National Industrial Conference Board, Inc., 1945. 11 pp. (Supplement to Conference Board Management Record, May 1945.)

A study of the vacation policies of companies, in a considerable variety of industries, reporting to the National Industrial Conference Board. The tables give a wide range of information relating to such subjects as service requirements for vacations, relation between vacations and other types of leave, and vacation policies as affected by status of veterans.

Wages and Hours of Labor

A handbook on wage incentive plans. Washington 25, U. S. War Production Board, Management Consultant Division, 1945. 39 pp., charts. 10 cents, Superintendent of Documents, Washington 25.

The vice chairman for labor production of the War Production Board, in commenting on the results of wage-incentive plans, emphasizes the increased output

"wherever labor and management prove themselves willing to agree on a workable plan and demonstrate their good faith and willingness to carry out the operation of the plan for their mutual benefit." It is further stated that organized labor is increasingly aware of the difference between a fairly administered wage-incentive plan and "the outmoded and self-defeating speed-up systems."

Substandard wages: An analysis of their extent and effect, and what must be done to establish a higher wage level. Washington 6, Congress of Industrial Organizations, 1945. 32 pp., charts, illus. (Publication No. 121.) 15 cents.

Argument for an hourly minimum of 65 cents. It is stated that the two big facts about substandard wages are that they are largely the result of insufficient trade-union organization and that they are prevalent in occupations which will expand most after the war.

Trends in southern wage differentials since 1890. By Richard A. Lester. (In Southern Economic Journal, Chapel Hill, N. C., April 1945, pp. 317–344; charts. $1.)

The differentials are derived in part from series of average hourly earnings and in part from wage-rate series. The results show in some cases a widening and in others, notably cotton textiles, a narrowing of differentials. It is stated that for certain skilled trades average wages in the South have exceeded the average for the North. Differentials between the South and the North and within both regions are described as varying widely and irrationally from industry to industry and locality to locality. One of the conclusions is that low wage rates may be less important as a factor in industrial location and expansion than is commonly assumed.

Statistics relative to wages, hours of work, and employees in the various branches of the lithographing industry, [Province of Quebec], 1938–43. [Quebec?], Lithographing Industry Parity Committee for the Province of Quebec, [1944?]. 79 pp.; mimeographed.

Zonal statistics relative to wages, hours of labor, and employees in the various trades of the printing industry for Montreal and district, 1937–43. [Montreal?], Printing Industry Parity Committee for Montreal and district, [1944?]. 163 pp.; mimeographed.

Salarios—régimen legal, tarifas mínimas. By Eugenio Pérez Botija. Madrid, Instituto de Estudios Políticos, 1944. 409 pp.

Covers such points as the politico-social theory of the wage, legislative provisions concerning wages and the regulation of labor, and the legally established minimum wages for various industries, in Spain. The latest legislation included was dated March 31, 1944.

Women in Industry

How the Army protects its women workers. By Dorothy Barker. (In Transactions, 33d National Safety Congress, Chicago, October 3–5, 1944, Vol. 1, pp. 36–40. Chicago 6, National Safety Council, Inc., 1944.)

Account, by a woman safety engineer, of the pattern of safety engineering developed for the protection of women workers at U. S. Army Air Service Depots, and discussion of causative factors in accidents.

Maternity-leave clauses in union contracts. By Jennie Mohr, Women's Bureau, U. S. Department of Labor. (In The Child, U. S. Department of Labor, Children's Bureau, Washington, 25, May 1945, pp. 166–169. Reprints of article are available free from Women's Bureau.)

Wartime job opportunities for women household workers in Washington, D. C. Washington 25, U. S. Bureau of Labor Statistics, 1945. 11 pp. (Serial No. R. 1736; reprinted from Monthly Labor Review, March 1945, with additional data.) Free.

Women's emergency farm service on the Pacific coast in 1943. Washington 25, U. S. Department of Labor, Women's Bureau, 1945. 36 pp. (Bull. No. 204.) 10 cents, Superintendent of Documents, Washington 25.

A study of certified sickness absence among women in industry [in Great Britain]. By S. Wyatt. London, Medical Research Council, Industrial Health Research Board, 1945. 34 pp., charts. (Report No. 86.) 9d. net, His Majesty's Stationery Office, London, W. C. 2.

General Reports

Papers and proceedings of the 57th annual meeting of the American Economic Association. (In American Economic Review, Evanston, Ill., Vol. XXXV, No. 2, May 1945; 520 pp.)

Several subjects discussed at the annual meeting were of special interest as affecting labor. A discussion of consumption economics emphasized the importance of the maintenance of an adequate flow of income into channels of consumption as a basis of postwar employment. Papers on civilian production and employment after the war included a general analysis of objectives and guides to policy, an account of business plans for postwar expansion, and a discussion of the possible role of Government in maintenance of full employment. Other subjects of labor interest included price control and rationing during the period of transition to peace and the relations between organized labor and the public.

The Argentine Republic. By Ysabel F. Rennie. New York, Macmillan Co., 1945. 431 pp., bibliography, illus. $4.

Account of the political, economic, and social changes that occurred in Argentina from 1853 to 1944.

Latin American periodicals currently received in the Library of Congress and in the library of the Department of Agriculture. Edited by Charmion Shelby. Washington 25, U. S. Library of Congress, 1944. 249 pp. (Latin American series No. 8.) 45 cents, Superintendent of Documents, Washington 25.

Annotated list of periodical and serial publications, including those dealing with labor and related subjects.

Plan for labor: Indian labor and reconstruction after the war. By Kanji Dwarkadas. Bombay, Thacker & Co., Ltd., 1945. 12 pp. 8 annas.

The author discusses the substandard living conditions of workers with respect to housing and sanitation, as well as medical care, and recommends a 5-year plan of legislative and administrative reforms.

Poland between two wars. By Ferdynand Zweig. London, Secker & Warburg, 1944. 176 pp. 10s. 6d. net.

Critical study of social and economic changes in independent Poland up to the outbreak of war in 1939. Part III, on ecomonic trends and developments, includes chapters on national income and its distribution, industrial development, the cooperative movement, and the Polish worker. The latter deals with social legislation, collective agreements, employment, wages, and the standard of living.

The real Soviet Russia. By David J. Dallin. New Haven, Conn., Yale University Press, 1944. 260 pp., bibliography. $3.50.

Analytical examination of the political and social structure of the Soviet Union and of the guiding ideas of the present regime. In a chapter on the working class, the writer discusses the standard of living and the relationship of workers to the Communist Party, and explains why he thinks the development of a labor movement has proved impossible under the Soviet regime. There is also a chapter on forced labor.

U. S. GOVERNMENT PRINTING OFFICE: 1945