

Monthly

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Wilmington shipbuilders during and after World War II



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UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

UNITED STATES DEPARTMENT OF LABOR

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BUREAU OF LABOR STATISTICS

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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR—BUREAU OF LABOR STATISTICS

◆◆◆◆◆◆◆◆◆◆ ◆ LAWRENCE R. KLEIN, Editor ◆◆◆◆◆◆◆◆◆◆

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This Issue in Brief

Workmen's compensation for seamen

Under a modified workmen's compensation act, disabled American merchant seamen would have received about 10 percent more than under the existing direct-settlement system, according to a Bureau of Labor Statistics study. Approximately half of the seamen would have received less under the compensation system than under the direct-settlement scheme; death and permanent total disability cases would have gained greatly. The Bureau's study was made to determine how seamen would be affected by the provisions of a liberalized workmen's compensation act, recommended by a Federal Interdepartmental Committee; the study was based on an analysis of approximately 6,000 accident reports submitted to the Committee. Page 851.

Welfare provisions for miners in six foreign countries

Mine workers in at least six foreign countries are benefiting from special welfare legislation. In Great Britain a tax of one penny a ton is paid into a fund managed by Government employer-employee representatives. The proceeds are used for health, welfare, and recreational facilities for coal miners. The Netherlands and Spain have somewhat similar funds, while Belgian miners are given special benefits under the social security laws. Page 862.

Wilmington shipbuilders during and after World War II

In the winter of 1945-46 a fourth of a representative group of 166 former shipbuilders of Wilmington, Del., were unemployed, nearly half had returned to pre-war jobs or had taken new ones, while nearly 13 percent, most of whom were men, had withdrawn from the labor market. Lower wage rates and hours of work were largely responsible for the reduced level of earnings in January 1946 compared with April 1945. During the first phase of reconversion the number of workers who migrated was noticeably smaller than during the war. Page 870.

Factors affecting earnings in chemistry and chemical engineering

Earnings of persons employed in chemistry and chemical engineering vary widely, depending on type of work done, amount of education, and years of experience. In 1943, persons employed in chemistry who had 1 year of experience earned a median base monthly salary, with overtime, of about \$200; those with 5 years' experience averaged about \$245; with 10 to 12 years of experience, about \$285; and with 21 to 25 years' experience, about \$360. Salaries of those employed in chemical engineering ranged from a median of \$235 (including overtime) with 1 year of experience to \$450 with 21 to 25 years of experience. Page 879.

Prices in the first quarter of 1946

Price developments during the first quarter of 1946 differed significantly from the general wartime pattern. Increases were greater in primary markets than in retail stores and were larger for industrial than for agricultural commodities. Primary market prices rose 1.7 percent—with significant increases for important industrial commodities and for agricultural products. Retail prices of consumer goods advanced slightly as higher prices for most of the principal items in the family budget, particularly clothing, more than offset lower prices for foods. Page 947.

Wage structure of machine-tool industry, January 1945

Plant workers in the machine-tool industry had average straight-time hourly earnings of \$1.05 in January 1945. Only about 1 out of 30 workers earned less than 65 cents per hour; a fifth earned \$1.25 or more. Men averaged \$1.07 and women only 82 cents an hour. By regions, average hourly earnings varied from 92 cents in the Middle West to \$1.08 in the Pacific region. Incentive workers averaged one-sixth more per hour than time workers in occupations where both methods of pay were widely used. Difference between union and nonunion wages varied considerably among the several regions. Detailed wage data and information on wage and related practices are given in the article on page 933.

Future levels of German industrial employment

The plan adopted by the Allied Control Council in March on reparations will leave in Germany industrial capital equipment sufficient to provide for domestic consumption approximating the level of 1932 and for exports to pay for strictly necessary imports. Exports must consist largely of consumers' goods instead of producers' goods, as formerly. Industrial employment will be reduced by the plan and the loss of territory to the east, to the extent of some 6 million jobs compared to 1936. The labor force will be nearly as large as prewar if proposed population transfers are carried out. The level of unemployment will depend on the absorptive capacity of agriculture, building, and "peaceful" industries. These will, however, be handicapped by reductions in industries supplying their equipment. The plan assumes that Germany will be treated as an economic unit. Page 895.

CURRENT LABOR STATISTICS

V

Current Statistics of Labor Interest in Selected Periods ¹

[Available in reprint form]

Item	Unit or base period	1946			1945	1939: Average for year
		April	March	February	April	
<i>Employment and unemployment</i>						
Civilian labor force (BC): Total.....	Thousands.....	56,900	55,660	54,340	² 51,930	² 54,230
Male.....	do.....	40,310	39,370	38,340	² 33,840	² 40,950
Female.....	do.....	16,590	16,290	16,000	² 18,090	² 13,280
Employed ⁴	do.....	54,550	52,950	51,690	² 51,160	² 46,930
Male.....	do.....	38,420	37,170	36,200	² 33,410	² 35,600
Female.....	do.....	16,130	15,780	15,490	² 17,750	² 11,330
Nonagricultural.....	do.....	46,360	45,370	44,700	² 43,410	² 37,430
Agricultural.....	do.....	8,190	7,580	6,990	² 7,750	² 9,500
Unemployed.....	do.....	2,350	2,710	2,650	² 770	² 7,300
Civilian employment in nonagricultural establishments: Total ⁴	do.....	36,721	36,271	35,360	37,791	30,353
Manufacturing.....	do.....	12,376	12,004	11,393	15,102	10,078
Mining.....	do.....	490	801	808	761	845
Construction ⁵	do.....	1,544	1,349	1,260	699	1,753
Transportation and public utilities.....	do.....	3,934	3,929	3,906	3,792	2,912
Trade.....	do.....	7,738	7,618	7,500	6,990	6,618
Finance, service, and miscellaneous.....	do.....	5,138	5,076	5,031	4,444	4,160
Federal, State, and local government, excluding Federal force-account construction.....	do.....	5,501	5,494	5,462	6,003	3,988
Military personnel.....	do.....	4,360	4,973	5,952	12,092	362
Production-worker employment:						
Manufacturing.....	do.....	10,982	10,624	9,983	13,356	8,192
Bituminous-coal mining.....	do.....	60	342	341	305	371
Class I steam railroads, including salaried employees (ICC).....	do.....	1,347	1,367	1,365	1,421	988
Hired farm workers (BAE).....	do.....	1,652	1,489	1,424	1,660	⁶ 2,109
<i>Hours and earnings</i>						
Average weekly hours:						
Manufacturing.....	Hours.....		40.8	40.5	⁷ 45.4	37.7
Bituminous-coal mining.....	do.....		45.9	45.5	⁷ 43.8	27.1
Retail trade.....	do.....		40.5	40.5	⁷ 39.7	43.0
Building construction (private).....	do.....		37.5	37.3	40.0	32.6
Average weekly earnings:						
Manufacturing.....			\$42.14	\$40.55	⁷ \$47.40	\$23.86
Bituminous-coal mining.....			\$58.30	\$57.37	⁷ \$52.26	\$23.88
Retail trade.....			\$31.12	\$30.77	⁷ \$27.21	\$21.17
Building construction (private).....			\$52.87	\$53.04	\$54.42	\$30.39
Average hourly earnings:						
Manufacturing.....			\$1.034	\$1.001	⁷ \$1.044	\$0.633
Bituminous-coal mining.....			\$1.274	\$1.265	⁷ \$1.197	\$0.886
Retail trade.....			\$0.841	\$0.837	⁷ \$0.752	\$0.536
Building construction (private).....			\$1.411	\$1.422	\$1.361	\$0.933
Average straight-time hourly earnings in manufacturing, using—						
Current employment by industry.....			\$0.998	\$0.967	⁷ \$0.969	\$0.622
Employment by industry as of January 1941.....			\$1.007	\$0.982	⁷ \$0.922	\$0.640
Quarterly farm wage rate, per day without board (BAE).....		\$4.36		⁸ \$4.40	\$4.12	⁶ \$1.53
<i>Industrial injuries and labor turn-over</i>						
Industrial injuries in manufacturing per million man-hours worked.....			17.6	18.2	⁷ 17.0	15.4
Labor turn-over per 100 employees in manufacturing:						
Total separations.....		6.2	6.6	6.3	6.6	⁶ 3.5
Quits.....		4.3	4.2	3.9	4.8	⁶ 0.8
Lay-offs.....		1.3	1.8	1.7	0.8	⁶ 2.6
Total accessions.....		6.8	7.1	6.8	4.7	⁶ 2.9
<i>Labor-management disputes</i>						
Work stoppages beginning in month:						
Number.....		465	385	260	431	218
Number of workers involved.....	Thousands.....	575	130	130	306	98
All work stoppages during month:						
Number of man-days idle.....	do.....	15,500	14,000	21,500	1,472	1,484
Man-days idle as percent of available working time.....		2.49	2.42	3.94	0.20	0.28

See footnotes at end of table.

Current Statistics of Labor Interest in Selected Periods¹—Continued

Item	Unit or base period	1946			1945	1939: Average for year
		April	March	February	April	
<i>Prices</i>						
Consumers' price index (moderate income families in large cities): All items.	1935-39=100...	130.9	130.2	129.6	127.1	99.4
Food.....	1935-39=100...	141.7	140.1	139.6	136.6	95.2
Clothing.....	1935-39=100...	154.3	153.1	150.5	144.1	100.5
Rent.....	1935-39=100...	108.4	108.4	108.4	108.4	104.3
Fuel, electricity, and ice.....	1935-39=100...	110.4	110.5	111.0	109.8	99.0
Housefurnishings.....	1935-39=100...	151.3	150.2	149.7	114.9	101.3
Miscellaneous.....	1935-39=100...	126.0	125.9	125.6	123.8	100.7
Retail food price index (large cities): All foods.	1935-39=100...	141.7	140.1	139.6	136.6	95.2
Cereals and bakery products.....	1935-39=100...	113.3	110.3	109.8	108.9	94.5
Meats.....	1935-39=100...	132.8	131.3	131.3	130.8	96.6
Dairy products.....	1935-39=100...	137.4	137.0	136.6	133.5	95.9
Eggs.....	1935-39=100...	137.7	139.0	144.2	139.9	91.0
Fruits and vegetables.....	1935-39=100...	185.9	183.4	181.1	173.3	94.5
Beverages.....	1935-39=100...	124.9	124.9	124.9	124.6	95.5
Fats and oils.....	1935-39=100...	126.1	125.9	125.4	123.8	87.7
Sugar and sweets.....	1935-39=100...	135.3	132.4	128.9	123.4	100.6
Wholesale price index: All commodities.	1926=100.....	110.2	108.9	107.7	105.7	77.1
All commodities other than farm products.	1926=100.....	104.5	103.4	102.5	100.5	79.5
All commodities other than farm products and foods.	1926=100.....	103.3	102.2	101.3	99.3	81.3
Farm products.....	1926=100.....	135.4	133.4	130.8	129.0	65.3
Foods.....	1926=100.....	110.8	109.4	107.8	105.8	70.4
<i>National income and expenditures</i>						
National income payments (BFDC).....	Millions.....	\$12,784	\$13,199	\$12,068	\$13,194	⁶ \$5,724
Consumer expenditures for goods and services (BFDC).....	do.....		⁹ \$27,600		⁹ \$24,684	⁹ \$14,256
Retail sales (BFDC).....	do.....	\$7,397	\$7,208	\$6,208	\$5,461	⁶ \$3,471
<i>Production</i>						
Industrial production index, unadjusted (FR): Total.	1935-39=100...	161	164	149	229	109
Manufactures.....	1935-39=100...	173	170	152	245	109
Minerals.....	1935-39=100...	99	131	134	140	106
Bituminous coal (BM).....	Thousands of short tons.	3,210	56,540	49,975	43,360	⁶ 9,945
Car loadings index, unadjusted (FR).....	1935-39=100...	107	132	119	139	101
Electric energy (FPC): Total.....	Millions of kw.-hr.	21,271	21,675	19,449	22,823	(¹⁰)
Utilities (production for public use).....	do.....	17,481	17,800	16,193	18,640	⁶ \$9,752
Industrial establishments.....	do.....	3,790	3,875	3,256	4,183	(¹⁰)
<i>Construction</i>						
Construction expenditures.....	Millions.....	\$856	\$735	\$631	\$415	⁶ \$527
Value of urban building construction started.	do.....	\$398	\$741	\$360	\$118	(¹⁰)
New nonfarm family dwelling units.....	.....	71,900	82,800	48,100	19,300	⁶ 42,900

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 Not comparable with February, March, and April 1946 figures because of a change adopted by the Bureau of the Census in July 1945 in sampling methods. (See Monthly Report on the Labor Force, September 1945.) Estimates for months prior to July 1945 are being revised.

³ 10-month average—March to December 1940. (See footnote 2.)

⁴ 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 the inclusion in the latter of such groups as self-employed and domestic and casual workers.

⁵ 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.

⁶ April.

⁷ March.

⁸ January.

⁹ First quarter.

¹⁰ Not available.

MONTHLY LABOR REVIEW

JUNE 1946

Workmen's Compensation for Seamen

By MAX D. KOSSORIS and JOSEPH ZISMAN¹

SEAMEN constitute one of this country's major industrial groups not covered by any kind of workmen's compensation law. This is contrary to the situation in nearly all other maritime nations. What is particularly interesting is that United States merchant seamen do not want any such legislation at present.

Seafaring is a hazardous occupation. Estimates for the last prewar year, 1938, indicate that out of a total estimated work force of about 132,000 seamen employed on American-flag merchant vessels, about 14,500 were the victims of accidental injuries and diseases arising during the course of employment on a vessel.

These accidents and diseases cost shipowners about 4½ million dollars, exclusive of claim-handling expense. As seamen are provided free medical treatment and hospitalization in U. S. Marine Hospitals, this single year's injuries and diseases cost the Federal Government about \$700,000. Injured seamen, or their dependents in case of death, are estimated to have received about \$3,600,000 after due allowance for attorney fees and court costs.

The estimates for 1938 indicate that about 300 seamen were killed, 400 suffered some degree of permanent disability, and 13,800 suffered temporary disabilities. Accidental injury caused approximately two-thirds of these cases and disease the remainder. It is important to realize in this connection that the present rights of seamen embrace the right to compensation for disease to a much greater extent than is customary under even the most liberal type of workmen's compensation act in this country. Generally the types of diseases which are compensable under such laws must arise specifically out of work hazards. Even under a very liberal law and administration, these industrial diseases rarely exceed 5 percent of the total injury count. As against this, fully one-third of all work disabilities to seamen during 1938 were diseases.

The reason for this difference lies largely in the conditions under which seamen work and live. A seaman generally is employed for the duration of a voyage. He "signs on" under the terms of "shipping articles" which constitute a contract of employment between the seaman and the master of the vessel, and he "signs off" when the voyage is terminated and he has received his pay. From the moment

¹ Mr. Kossoris is Chief of the Bureau's Industrial Hazards Division, and Mr. Zisman was formerly with the U. S. Maritime Commission.

he reports for duty and until the voyage ends, the seaman is "in the service of the vessel." On board ship, he lives in the quarters assigned to him; he eats the food served to him; he is on duty 8 hours per day—4 hours "on watch" at a time, with 8 hours "off watch." He cannot leave the vessel at any port without the master's permission. In other words, while in the service of the vessel he has no control over his environment, over his food, and living conditions, and he is obviously exposed to the hazards of the elements as well as the climatic conditions of the various parts of the world to which the voyage takes him. Furthermore, the seaman has no choice but to obey the master of a ship, no matter how hazardous the mission to which he is assigned.

While living conditions are good on modern ships, many of the older ships offer only the barest of comforts. Frequently no medical attention is available, and injured or ill seamen are usually treated by one of the officers and put ashore at the nearest port if conditions require it.

In the light of these conditions, it is clear why the rights of seamen cover a wide variety of diseases not normally regarded as having any logical connection with employment. These conditions also provide the explanation why any kind of workmen's compensation act for seamen should make no distinction between work injuries and diseases which arise during the course of employment.

The "Ancient Rights" of Seamen

There are several other important differences between seamen and other industrial workers. One of these is the right—dating back to ancient maritime law—to wages to the end of the voyage, even though a disability occurs before then. Another is title to a "maintenance and cure" allowance until the disability is removed, or until it becomes clear that no further medical attention will contribute toward lessening the degree of the permanent impairment. The usual maintenance allowance for disabled seamen in 1938 was about \$2.50 per day for the average seaman, and went up to about \$4.50 or \$5 per day for officers. As already indicated, hospitalization was free in U. S. Marine Hospitals, but during the period of hospitalization no payments were due for maintenance and cure. In addition, the seaman was entitled to indemnity for pain and suffering—an item which is foreign to the philosophy of workmen's compensation.

States permitting an employer to elect whether or not to come under the provisions of a workmen's compensation law usually strip an employer of his common-law defenses in case he elects not to accept the compensation law. Such defenses had made it almost impossible for injured workers to recover damages for work injuries prior to the acceptance of the workmen's compensation principle that compensation for wages lost due to injuries which arise out of and in the course of employment was payable regardless of fault.

Two laws, the Seamen's Act of 1915, popularly known as the LaFollette Act, and the Merchant Marine Act of 1920, known as the Jones Act, give seamen similar relief from the operation of the customary common-law defenses. The first of these acts, specifically aimed at the fellow-servant rule, provided that in any suit for an

injury sustained on board a vessel, seamen having command shall not be held to be the fellow servants of those subject to their authority. A Supreme Court decision in 1918, however, nullified the provisions of this act (*Chelentis v. Luckenbach*). Several other decisions followed similar reasoning and led to pressure for the passage of more comprehensive legislation. The Jones Act, passed in 1920, not only remedied the defect in the LaFollette Act, but introduced new principles. It extended to seamen the rights which railway workers had under the Federal Employer's Liability Act of 1908.

In short, as a result of the Jones Act, the ability of seamen to recover damages for their work injuries now rests primarily on their ability to prove negligence on the part of their employer or any of his officers, agents, or employees; and, if the seaman can prove that a prescribed safety provision was violated, the employer cannot even argue that the seaman was guilty of some negligence himself.

The Seamen and Workmen's Compensation

Prior to the passage of the Jones Act, the International Seamen's Union was strongly in favor of workmen's compensation legislation. In 1913, when this type of legislation was in its infancy, the union attempted to obtain specific inclusion in the California workmen's compensation law, but failed. Sharing the general discouragement of workers with the employer liability laws, the union turned its attention to a possible Federal law. In both its 1913 and 1914 annual conventions, a resolution was passed "that the workmen's compensation laws, State and Federal, should be extended to embrace all classes of seamen, and the legislative committee is hereby instructed to take the necessary steps to accomplish this object."

World War I interfered with the progress of legislation. In the meantime, the Jones Act was passed. By 1923 it was clear to the union leadership that their existing rights should not be surrendered, and that a workmen's compensation act be accepted only as an additional remedy. With employers fairly well deprived of their common-law defenses, the seamen wanted to preserve the right to sue under the Jones Act, and to use the workmen's compensation rights as an alternative—depending on which gave them the better result.

On the other hand, the shipowners began to push workmen's compensation as the exclusive remedy, after evaluating courts' interpretation of the Jones Act. Thus, there was a complete reversal of the usual positions of employers and employees—the shipowners urged a workmen's compensation act as the exclusive remedy, and the seamen opposed it.

A Senate Committee, which had before it a workmen's compensation bill (H. R. 6881) proposed by shipowners, therefore found itself confronted in 1940 with a situation in which the employers fought for a workmen's compensation act, while the employees vigorously opposed it. The Senate Committee sought more light on the subject and requested a number of Federal agencies to set up a joint committee to investigate the whole problem and to report its findings. This Committee, hereafter referred to as the Interdepartmental Committee, consisted of representatives from the Department of Commerce, the Department of Labor, the United States Maritime

Commission, the United States Employees' Compensation Commission, and the Maritime Labor Board.

Present Settlement Methods

When a seaman is injured or becomes ill while in the service of the vessel, his superior makes a report to the master of the vessel, who makes the required entry in the ship's log, reports to the owner, and in some cases to the United States Coast Guard. The seaman is brought back to his original port of sailing or to some other agreed-upon port. There he gets in touch with the claims official of the shipowner. Arrangements are made for such wage and maintenance payments as may be due the seaman and the negotiation for the claim settlement begins.

As a general rule, the seaman conducts his own negotiations. When he does, the available evidence indicates that a settlement usually is reached quickly.

The settlement covers four items: (1) Wages to the end of the voyage; (2) a maintenance allowance for the out-patient and convalescence period; (3) costs of such other items as medicines, medical appliances, hospitalization not furnished by the United States Marine Hospitals, artificial limbs, etc.; and (4) indemnity if the liability of the shipowner can be established—covering compensation for pain and suffering, loss of future earning power because of permanent impairment, and sometimes loss of wages until other jobs become available.

Settlement practices vary considerably among the operators of various types of vessels. Operators of oil tankers frequently pay full wages for the entire disability to officers and key personnel who have been with the company for a long time. Some claim adjusters have developed more or less fixed scales for various types of disabilities. Others apply the benefit scales of certain State workmen's compensation laws in determining amounts due for permanent impairments. Some of the oil companies extend to seamen the employee benefit plans available to their other personnel.

If the seaman calls an attorney into the negotiations, the shipowners usually stop all payments—whether for wages still due or maintenance and cure. The reason advanced for this procedure, which technically violates the seaman's rights, is that money paid prior to the reaching of the final settlement often commands little consideration by the seaman's attorney in arriving at the final settlement. In attorney cases, therefore, final settlements may include payments for all four types of items.

Insurance companies play a minor role in the settlement negotiations. Less than 8 percent of the nearly 6,000 cases studied by the Interdepartmental Committee were negotiated by these carriers. The reason for this lies in the fact that shipowners usually carry "protection and indemnity" insurance, which covers all of the shipowners' risks, including liabilities toward shippers as well as damage to the vessel. These policies generally cover liability for injuries and diseases of seamen on a "deductible" basis, under which the insurance company becomes liable only for amounts in excess of a specified sum. Thus, a policy may provide that the insurance carrier in any one case

is liable only for the amount in excess of \$500. Although these limits vary widely among shipowners, the settlement amounts usually fall below these limits, and consequently the services of insurance carriers are seldom invoked.

Because seamen's rights are well established, few of the disabled seamen find it necessary to employ attorneys. Of the approximately 5,400 cases supplying information on this point to the Interdepartmental Committee, about 17 percent were settled through attorneys and only 2 percent were litigated in the courts. Although a higher percentage of fatalities and permanent impairment cases were settled through attorneys, most settlements were negotiated directly between the seamen, or their dependents in cases of death, and the shipowner's claim agents. Twenty-two percent of fatalities were settled through attorneys, and 45 percent of the cases involving permanent impairments.

Interestingly, seamen employed attorneys more frequently when their settlements were negotiated with insurance carriers. The percentage of such cases was 35, and 10 percent were taken into court. In the direct settlement cases, the respective percentages were 17 and 2.

The Interdepartmental Committee's study revealed also that a relatively small number of admiralty attorneys handled a majority of the attorney cases. Out of 373 cases reported by 77 attorneys, 236 were handled by only 10 of them.

Many of the cases settled through attorneys involved small amounts. Nearly one-fifth involved \$100 or less, and over half of them resulted in gross recoveries of \$300 or less. Only one-fifth of the cases had gross recoveries in excess of \$1,000.

On the average, attorney fees and litigation costs used up 36 percent of the gross amount received by the seamen. In about a third of the cases, attorney fees and costs absorbed 40 percent of the settlements. Almost half, however, called for a 33½ percent fee to the attorney.

As a rule, the fee decreased with the amount of the recovery. Cases settled for \$100 or less usually called for a 40 percent fee. At the other extreme, cases settled for \$10,000 or more never involved fees above one-third of the settlement, and in about one-third of these cases fees were 20 percent or less.

One of the great advantages claimed for a workmen's compensation acts is the promptness of the settlement, and the relative certainty of the amounts due as benefits. Settlements under employer liability laws, on the other hand, suffered from the long delay between the date of the injury and the date of settlement—with no payments in between. It is therefore significant that under the modified employers' liability act under which seamen settle their claims, over three-fourths of the reported disability cases had been settled within 3 months after the date on which disability began.

The employment of attorneys tended to delay settlement. One reason for this was that the seamen used attorneys when they had difficulty in establishing the negligence of the shipowners, or their agents, or the unseaworthiness of the vessel. In death cases, shipowners frequently insisted that the claimants establish legal proof of dependency, thus compelling the dependents to obtain such rulings from the courts. The reason for this procedure, obviously, was to

protect the shipowners against having to make payments to more than one claimant.

Permanent disability cases usually involved longer lags between the date of injury and the date of settlement. The main reason for this was the desirability of waiting until the wound had healed and the degree of residual impairment could be ascertained.

Comparison of Recoveries

UNDER THE PRESENT SETTLEMENT METHOD

Of 5,487 cases reported to the Interdepartmental Committee for which disability developed during 1938, the average amount recovered per case was \$283. Less than 2 percent received \$2,500 or more, and less than 1 percent received \$5,000 or more. Injury cases averaged \$333, compared with \$169 for disease cases. None of the disease cases was settled for as much as \$5,000.

Practically all of the 5,487 cases resulted in recoveries to the seamen or their dependents. Only 29 were still pending in the spring of 1941, when the survey was concluded, and 104 had been closed without payment. Among the latter, however, no claims had been made in 76 cases, and in only 28 had the shipowners refused to make any settlement.

After deducting attorney fees and other litigation expenses, the distribution of the total number of cases in which recoveries were made and the average amount per case, by extent of disability, was as shown in table 1.

TABLE 1.—Average Net Recovery in 5,354 Disability Cases

Extent of disability	All cases		Injury cases		Disease cases	
	Number	Amount	Number	Amount	Number	Amount
All cases.....	5,354	\$268	3,631	\$319	1,723	\$159
Death.....	112	1,761	57	3,161	55	310
Permanent total.....	18	3,646	8	5,312	10	2,213
Permanent partial.....	188	1,898	176	1,968	12	879
Temporary total.....	5,036	162	3,390	174	1,646	136

The table presents two significant features: (1) That cases of disease were settled at lower average amounts than were injuries, in every category of disability; (2) that death cases were settled for relatively small amounts. The latter point may be explained by the fact that seamen frequently have few close of kin dependent upon them. Furthermore, these dependents had the burden of establishing the negligence of the shipowner or the unseaworthiness of the vessel. Frequently, too, they were not in a position to press their claims. Consequently only about half the fatalities involved indemnity payments.

One of the facts to emerge from the Interdepartmental Committee study was that it seemingly paid the seaman to employ attorneys. The seaman who negotiated his settlement directly averaged a settlement amount of \$197. Those who used attorneys netted an average

amount of \$617; \$532 if no court action was involved, and \$1,234 if the case was litigated. While the attorney cases frequently involved the more severe injuries, the chief claims agent of one of the companies explained that he automatically raised his settlement offer when an attorney called, so as to head off litigation. Thus, the seaman who refused to accept a settlement of \$100 was offered \$250 if he had his attorney phone the agent. Even after the attorney deducted one-third of the settlement as his fee, the seaman was still better off than if he had not employed an attorney.

UNDER WORKMEN'S COMPENSATION

The Interdepartmental Committee posed three questions relative to compensation for injuries to seamen: (1) Whether the principle of workmen's compensation was more desirable than a system of liability based upon negligence; (2) whether it was possible to devise a workmen's compensation system that would preserve for injured seamen their ancient rights of wages to the end of the voyage and of maintenance and cure; and (3) whether such a system would be "desirable and advantageous from the standpoint of the seamen, the industry, and the public."

The committee answered the first two questions with an unqualified "yes." The answer to the third question, while affirmative, was qualified. The committee had at hand the findings of its statistical subcommittee which showed clearly that the seamen would lose decidedly if the provisions of the Longshoremen's and Harbor Workers' Compensation Act, which was under consideration by the Senate Committee, were extended to them, and that they were better off under their present employer liability system. To overcome this difficulty, the subcommittee suggested certain modifications of the usual type of workmen's compensation act structure: (1) That the compensation act become operative only at the end of the voyage, so as to preserve to the seamen the right of wages to the end of the voyage; (2) that the benefit payments during the period of temporary disability be not less than the allowance for maintenance and cure; and (3) that the wage base for computation of the benefit rate be predicated on full employment for 12 months of the year, even though seamen averaged only about 8½. It was also suggested that there be no waiting period for benefits and that there be no limitation on total compensation payable for disability and death.

Unfortunately, the time available to the Interdepartmental Committee was insufficient to permit evaluation of the reported cases under the system it recommended. That task was undertaken subsequently, although it suffered considerable delay because of the urgency of war activities. But now that World War II is over, it seems pertinent to focus attention on this problem again.

As these findings have an important bearing on the problem, brief mention of the steps used in the evaluation process are appropriate. The benefit rate was computed at 66½ percent of the full-time annual wage together with the value of subsistence, lodging, overtime, and bonuses. The benefit rate therefore was based on earnings during the period of employment directly preceding the disability. To this amount was added the monthly value of subsistence and lodging

established for purposes of the Social Security Act: \$48 for licensed officers and supervisory personnel, and \$36 for all other members of the crew.

The benefit-rate formula recommended by the Interdepartmental Committee was used—no limitations on total benefits payable for death or disability, and the benefit payments during the out-patient and convalescence period at least equal to the current payments for maintenance. The same method was used to compute benefits during the hospitalization period, for which nothing is payable under the present employer liability system.

Payments for death and permanent impairments were predicated on the same benefit base. For permanent total disabilities the benefit period was computed at the full life expectancy of the disabled seaman. For permanent partial disabilities, the schedule of specified weeks provided in the Longshoremen's and Harbor Workers' Act was used. Similarly, benefits payable to dependents of fatally injured seamen were calculated on the basis set forth in this act, except that for benefits the minimum used was \$14 per week, and the maximum \$28, rather than the smaller amounts specified in the act. No correction was made for the remarriage of widows.

How adequate are the minimum standards proposed by the Interdepartmental Committee in comparison with amounts paid under the present system? Although present-day earnings of seamen are different from what they were in 1938, the prewar year studied by the Committee, a comparison of actual payments for disabilities in that year with the amounts payable under the modified compensation system provides a fair comparison of the relative pecuniary advantages and disadvantages of the two systems.²

The comparison, shown in table 2, covers 5,812 cases for which data were adequate for comparison.

TABLE 2.—*Comparison of Probable Awards with Actual Net Recoveries, by Extent of Disability (Cases Reported Closed, 1938)*

Type and extent of disability	Number of cases	Probable award	Net recovery	Difference ¹		
				Amount	Average	Percent of net recovery
All cases.....	5,812	\$2,197,805	\$1,637,281	\$560,524	\$96.45	34.2
Injury.....	3,957	1,426,362	1,326,067	100,295	25.35	7.6
Disease.....	1,855	771,443	311,214	460,229	248.10	147.8
Fatal.....	139	735,744	216,987	518,757	3,732.06	239.1
Injury.....	71	454,667	199,121	255,546	3,599.24	127.8
Disease.....	68	281,077	17,866	263,211	3,870.75	1473.0
Permanent total.....	21	225,053	73,792	151,261	7,202.90	205.0
Injury.....	9	69,736	46,552	23,184	2,576.00	49.8
Disease.....	12	155,317	27,240	128,077	10,673.08	470.2
Permanent partial.....	224	426,682	437,437	-10,755	-48.01	-2.5
Injury.....	208	377,257	423,865	-46,608	-224.07	-11.0
Disease.....	16	49,425	13,572	35,853	2,240.80	264.2
Temporary total.....	5,428	810,326	909,065	-98,739	-18.19	-10.9
Injury.....	3,669	524,702	656,529	-131,827	-35.93	-20.1
Disease.....	1,759	285,624	282,536	33,088	18.81	13.1

¹ Unless indicated by (-) minus signs, the differences indicate gains over the net recoveries.

² A comprehensive report, dealing with the entire subject matter, is now in preparation.

The "net recovery" figures are net amounts received by seamen after the deduction of attorney and court costs where these were incurred. It was assumed that there would be no such costs under the compensation act. The total amount actually paid by shipowners was \$1,977,195. The total net amount retained by seamen was \$1,637,281. It will be noted that in terms of total payments by shipowners, the total amount payable under the proposed act would be \$2,197,805—about 10 percent more than the amount actually paid out by the shipowners.

Table 2 reveals clearly that cases involving fatalities and permanent total disabilities would fare much better under the compensation act. On the average, each fatality and permanent total disability would be paid more than twice the amount actually paid. These two types of cases, although constituting only 160 out of 5,812, or less than 3 percent, accounted for nearly \$961,000, or about 44 percent of the total.

The permanent partial impairment cases would not fare quite as well under the proposed compensation system. On the average, benefit payments would fall 2.5 percent below present net recoveries. The difference was much sharper for temporary total disability cases. Here compensation benefits would fall 10.9 percent short of the total amount paid under the present system. Although the total sum payable for this type of disability was less than that for fatalities and permanent total disabilities, the number of persons involved was 5,428, or 93 percent of the total. Thus, on the average, death and permanent total disabilities would gain, and permanent partial and temporary total disabilities would lose under the proposed compensation system.

Although this comparison deals with total amounts and with averages, the study did permit a more detailed analysis of the distribution of seamen who would lose or gain under the proposed system. The latter comparison is shown in table 3.

TABLE 3.—Cases Gaining Versus Cases Losing Under a Proposed Workmen's Compensation Law, by Extent of Disability (Cases Reported Closed, 1938)

Extent of disability	All cases	Cases in which workmen's compensation as compared with employers' liability would have resulted in—					
		Gain		Loss		Neither gain nor loss	
		Number	Percent	Number	Percent	Number	Percent
All cases.....	5,812	2,680	46.1	2,868	49.3	264	4.6
Injury.....	3,957	1,653	41.8	2,161	54.6	143	3.6
Disease.....	1,855	1,027	55.4	707	38.1	121	6.5
Fatal.....	139	129	92.8	10	7.2	0	0
Injury.....	71	61	85.9	10	13.1	0	0
Disease.....	68	68	100.0	0	0	0	0
Permanent total.....	21	21	100.0	0	0	0	0
Injury.....	9	9	100.0	0	0	0	0
Disease.....	12	12	100.0	0	0	0	0
Permanent partial.....	224	131	58.5	92	41.1	1	.4
Injury.....	208	115	55.3	92	44.0	1	.5
Disease.....	16	16	100.0	0	0	0	0
Temporary total.....	5,428	2,399	44.2	2,766	51.0	263	4.8
Injury.....	3,669	1,468	40.0	2,059	56.1	142	3.9
Disease.....	1,759	931	52.9	707	40.2	121	6.9

About 46 percent of disabled seamen would have been better off under the proposed compensation system. About 49 percent would have been worse off, and about 5 percent would not have been affected either way. Nearly 86 percent of the death cases, and every permanent total disability case, would have gained under the present system; but 41 percent of the permanent partially disabled seamen would have been worse off, as would 51 percent of all those temporarily disabled.

From a purely financial consideration, therefore, about half of the seamen would be paid less under the suggested compensation system. Most of these seamen, however, were those who suffered temporary disabilities. On the other hand, the death and permanent total disability cases appear to have been greatly under-compensated under the present system. They would have received enough more in compensation to lift the total amount payable to disabled seamen under the proposed system about 10 percent above that actually paid by the shipowners.

Thus, disabled seamen as a group would have received more, but about half would have received less under workmen's compensation.

The explanation for this lies in the fact that the proposed compensation system cannot make up the amounts paid as indemnity to temporarily disabled seamen. As already pointed out, the proposed system matches the present system for wages to the end of the voyage and payments for maintenance and cure. It adds payments for the hospitalization period, which is not compensated under the existing system. But this amount fails to match the average amount paid as indemnity for suffering and pain, and for which no allowance is made under workmen's compensation, which is predicated on a partial offset for wage loss.

There are, however, intangible benefits under a workmen's compensation system, as the Interdepartmental Committee pointed out. First, it provides a definite and quick way of ascertaining the amount due a disabled seaman. It provides a definite and certain benefit scale in contradistinction to recoveries determined by the uncertainty of damage suits or negotiated settlements. Further, workmen's compensation eliminates the controversial elements of negligence and assumption of risk and reduces the contest between seaman and shipowner to a minimum. It avoids costly and cumbersome court procedures and much of the bitterness usually engendered in these suits. It provides regular periodic compensation payments in lieu of a single lump-sum settlement payment, "thus protecting the recipients from improvidence."

Conclusions

The probable results of the application of the type of liberal workmen's compensation act proposed by the Interdepartmental Committee may be summarized as follows:

1. The total amount which seamen, as a group, would receive for disabling injuries and diseases probably would be in excess of what they receive under the present limited employer liability system. A workmen's compensation system modeled along the proposed lines would cost the shipowners about 10 percent more.

2. As is true of workmen's compensation systems generally, litigation would be curtailed greatly. Because benefit payments are stipulated in considerable detail and the question of fault is immaterial, there would be less tendency on the part of shipowners to evade liability and on the part of seamen to get as much as they could. It is likely, too, that industrial relations would be improved.

3. Shipowners might be encouraged to engage in accident prevention to a greater extent than they now do if the law contained penalty provisions—such as a fixed percent of additional compensation if a prescribed safety rule had been violated by the shipowner or his agent. Such a provision is contained, for example, in the Workmen's Compensation Act of Wisconsin.

4. The proposed act would compensate cases of death and permanent total disability far more adequately than is now the case. On the other hand, the majority of temporarily disabled seamen would receive less.

5. About half of all disabled seamen would receive less under the proposed compensation system than they do now, because this system does not offset the present "indemnity" payment for pain and suffering. The basic philosophy of workmen's compensation is to offset in part—usually two-thirds up to a prescribed maximum—the wage loss of the disabled worker.

6. The adoption of the proposed compensation system would increase the average payment to dependents of fatally injured or diseased and to severely disabled seamen at the expense of the less severely disabled.

Welfare Provisions for Miners in Six Foreign Countries¹

WORKING and social conditions in coal and other mines in foreign countries are frequently covered by special legislation or by special provisions for miners in general social legislation. This development has arisen in part because of the dissimilarity between mining and factory or office employment, including the additional hazards of underground work in respect to accidents and general health, and recently because of the difficulty of obtaining an adequate labor force for the mines. The usually strong trade-union movement in the coal industry has also been a factor. European miners have generally received larger food rations than other workers since early in the war period because of the heavy physical labor required by work in mines and the strategic importance of coal in war production and in postwar industrial rehabilitation. Developments along these lines are summarized below in regard to Belgium, Great Britain, British India, the Netherlands, New Zealand, and Spain.

*Belgium*²

In view of the importance of the coal industry in the reconstruction of Belgium, social security legislation enacted after the liberation in September 1944 included provisions specially favorable to miners. The Belgian Miners' Pension Fund provides old-age and survivors' pensions; sickness, invalidity, and unemployment benefits; family allowances; and annual vacations. The following are examples of special provisions for miners in Belgium:

(1) The financing of the miners' social security system from contributions by workers amounting to 8 percent of wages (as in other industries) and by employers amounting to 17.5 percent of pay roll for surface workers and 21.5 percent of pay roll for underground workers (as contrasted with an employer contribution of 15.5 percent in other industries).

(2) Retirement at 60 and 55 years of age for surface and underground workers, respectively (in contrast with a retirement age of 65 in other industries), and greatly increased pensions up to 12,300 francs a year for surface and 15,000 francs a year for underground workers (by decree-law of May 8, 1945), with supplementary pensions for service in excess of 30 years, and pensions payable at the end of 30 years' service regardless of age.

(3) Special supplementary paid vacations of 12 days for underground workers with free railway fare during leave.

(4) Survivors' benefits for widows and orphans in excess of those paid by the general social security system, with an old-age pension of 4,200 francs (decree-law of May 8, 1945) to survivors at the age of 55.

(5) Increased disability allowances up to 50 percent of a year's salary, based on 300 days at a ceiling wage of 90 francs daily (under decree-law of May 8, 1945).

¹ Prepared by the Bureau's Foreign Labor Conditions Staff under the direction of Faith M. Williams.
² Data are from the 1945 and early 1946 issues of the *Revue du Travail* (Ministère du Travail et de la Prévoyance sociale de Belgique, Brussels).

Other special national regulations designed to compensate coal miners particularly, provide (1) recruitment bonuses for unemployed men contracting for the first time for underground work, which amount to 2,000 francs, half payable at the time of hiring for 6 months, and half after the completion of 6 months of work, if the miner agrees to renew his contract; (2) exemption from military service in return for working underground until the age of 28 and thereafter; and (3) additional food rations, without cost to the miners.

Another special advantage given miners under Belgian legislation consists of loans to be used for housing. Interest rates range from two and one-half percent to miners with less than 5 years of service in the coal mines to one-half percent to miners with 20 or more years. The State pays the difference between these rates and those normally charged by the lending agency.

Coal miners also profited more than other workers from the wage increases given after liberation. Between 1938 and the end of 1945, their average wage rose from about 48 to 125 francs per day, an increase of 160 percent. In a period 2 years longer (1936 to 1945) wages for other workers were estimated to have risen variously from 86 to 160 percent.

*Great Britain*³

Welfare activities for the benefit of British miners have been carried on by the Miners' Welfare Fund since 1920. The Mining Industry (Welfare Fund) Act of 1943 provided for a levy on the output of coal mines to finance the Fund, to continue until 1951 at the existing rate of 1d. per ton. The rate had been raised to this amount by a 1939 law, after a reduction to $\frac{1}{2}$ d. during the depression.

Activities include recreational projects, scholarships for the education of miners' children, convalescent homes, and various other functions. Three of the main activities of the Fund are the provision of pithead baths, canteens, and rehabilitation centers. The construction of pithead baths was stopped in the middle of the program, owing to war shortages of labor and material. However, in 1944, 362 pithead baths were in use in mines employing 419,146 men—57 percent of the total workers in the industry. Parliamentary discussions at that time emphasized the importance of completing the program, both for the benefit of the workers who chose mining as an occupation and for the men then being directed to mining as a result of the labor shortage. Under the canteen program, 893 mines employing 95 percent of all the men engaged in the industry had canteens then operating; full meals were served at the canteens of mines employing 50 percent of all mine workers. The shortage of labor has again retarded completion of the program. Lack of bathing facilities has acted as a deterrent to full utilization of canteens. With regard to rehabilitation centers, two were in operation, five were in preparation, and others covering the whole of the coal fields were provided in collaboration with hospitals in the area.

Administration of the Fund is provided by a tripartite Miners' Welfare Commission. In 1939 this commission, appointed by the

³ Data are from Great Britain, Ministry of Labor Gazette (London), January 1944, and Parliamentary Debates, House of Commons, December 16, 1943; Monthly Labor Review, May 1935 (p. 1208); the Coal Industry Nationalization Bill of 1945; and recent consular reports.

Minister of Fuel and Power, consisted of three representatives of the Mine Workers Federation of Great Britain, three representatives of the Mining Association of Great Britain, one representative of the royalty owners, and three public members including the chairman.

The Coal Nationalization Bill, introduced late in 1945, changes the administration by providing for a Miners' Welfare Commission which "shall consist of a chairman and nine other members appointed by the Minister [of Fuel and Power] and all persons who hold office as members of the Commission at the commencement of this Act shall vacate office." The Nationalization Bill passed the House of Commons as of May 20, 1946. The bill has still to pass the House of Lords.

*British India*⁴

The Government of British India, by an ordinance of January 31, 1944, established a Coal Mines Labor Welfare Fund. This ordinance provided the general framework of the plan, the details of which were to be determined by later ordinances and notices.

Contributions to the fund are in the form of a tax on each ton of coal or coke leaving the collieries; the tax must be between 1 to 4 annas (equivalent to 1.88 to 7.52 cents at the 1944 average rate of exchange).

Administration of the fund is under an advisory committee appointed by the Central Government. This committee is to include an equal number of representatives of colliery owners and workmen in the industry; at least one member must be a woman. The size of the committee was to be determined later. The committee was to advise the Central Government on further regulations under the ordinance and on any other matters arising out of the administration of the ordinance. The Central Government may appoint inspectors, welfare administrators, and other officers to supervise the carrying out of the activities financed from the fund.

With the advice of the advisory committee, grants from the fund may be made to a Provincial Government, a local authority, or the owner of a coal mine having a welfare scheme.

The proceeds of the fund are to be used to provide (1) the improvement of public health and sanitation, the prevention of disease, the provision of medical facilities, and the improvement of existing medical facilities; (2) the provision of water supplies and facilities for washing; (3) the provision or improvement of education facilities; (4) the improvement of standards of living, including housing and nutrition, the amelioration of social conditions, and the provision of recreational facilities; and (5) the provision of transport to and from work.

A somewhat similar miners' welfare fund has been recently established in Hyderabad, which is not under direct British rule.

⁴ Data are from International Labor Office, Legislative Series, 1944-Ind. 1, and Indian Journal of Social Work, March 1946 (p. 313).

*The Netherlands*⁵

Coal miners in the Netherlands have received a variety of special concessions in regard to their social and working conditions.

State collieries, which before the war produced 60 percent of the country's total coal, have for a long time been obliged to provide baths free of cost. There was, however, a special tax of about 3 cents per ton of coal produced; the proceeds were expended for the general benefit of mining towns. About 90,000 of the combined population of 225,000 of those towns were miners and their dependents.

Most workers in the Netherlands are covered by compulsory national old age, invalidity and death, and sickness insurance systems, first instituted as early as 1913. The Government, employers, and workers contributed to the sickness insurance funds; the Government and employers to the old-age, invalidity, and death benefits. A Miners' Fund at Limburg provided insurance against various risks. In 1936, the Miners' Fund was coordinated with the national old age, invalidity, and death insurance and the Government started paying a subsidy to the Fund.

Employers and employees make equal contributions to this fund ranging from Fl. 3.60 to Fl. 9.00 a month.⁶ Miners are covered if under 40 years of age at the time of first entering the mines. For underground workers the pensionable age is 55, compared with 65 for nonminers. Benefits, payable after 120 months, consist of a basic pension varying according to wage class, number of contributions, and number of dependent children. Prior to 1936, miners who left mining for other insurable employment were covered under the compulsory pension plan for the duration of outside employment only. In 1946, a change in the pension system affecting miners was under review.

During the reconversion period following the war, coal miners have received special treatment in the form of larger rations of food and other consumer goods. Points for the purchase of consumer goods are given to piece-rate workers whose production exceeds 80 percent of their basic wage; time workers are given an average number of points based on the production of the entire mine. The plan has been in effect since August 1945.

*New Zealand*⁷

The Coal Mines Act of 1925, the latest consolidated law in a series devoted exclusively to mining which began in 1886, provides for a wide range of benefits. Under it a Coal Miners' Relief Fund is obtained from contributions paid by the employers of $\frac{1}{2}$ d. (about $\frac{1}{10}$ of a cent at the January 1946 rate of exchange) on every ton of marketable coal mined. Benefits are paid to miners injured in the course of employment and to their dependents in the case of death; all such benefits supplement those paid under the workmen's compensation law.

⁵ Data are from Dutch State Coal Mines, by Llewellyn A. Morgan (Fabian Society, London), July 1944; Labor Conditions in the Netherlands, in Monthly Labor Review, January 1944 (reprinted as Serial No. R. 1611); and from reports by United States foreign service officers.

⁶ In 1935 the florin was valued at \$0.678, and in May 1946 it was valued at \$0.378.

⁷ Data are from New Zealand Official Yearbook, 1940 (p. 623) and 1944 (pp. 345, 521); and International Labor Office, Legislative Series, 1925-N. Z. 2 (p. 20).

The Coal Miners' Relief Fund is administered by a "Public Trustee," but investigation of claims and payment of benefits are the function of Coal Miners' Relief Fund local committees, which are composed of elected representatives of coal-mine employees. The local committees' expenses are paid from the general fund.

The Coal Mines Act of 1925 also permits miners to form medical clubs, which may be financed from contributions from the Coal Miners' Relief Fund or from pay-roll deductions authorized by the employees and made through the employers. The act further provides that suitable housing accommodations must be supplied for workers as required by the Minister of Mines. Other safety and health provisions of the act deal with the control of coal dust, the use of safety lamps, the prohibition of work in places where the presence of gas is suspected, and the inspection of mines before work starts.

Pensions for miners totally incapacitated for work because of silicosis were first provided in 1915 and preceded most other forms of health or invalidity insurance in New Zealand. Under 1945 amendments to the social security program, weekly invalidity benefits amounting to £4 (about \$12.89) go to married miners and nonminers with dependents. In the case of nonminers maximum total weekly income is not to exceed £5 (about \$16.14) for a married man with dependents, and correspondingly less for unmarried persons. In the case of miners no maximum income limit is provided.

*Spain*⁸

The Spanish Ministry of Labor made provision for social welfare funds for coal miners in February 1946. An order provides for compulsory insurance organizations and funds for coal-mining regions.

These regional funds are to be raised by (a) a contribution of 3 percent of the total earnings of each worker; (b) employer contributions of 1.50 pesetas⁹ for each ton of coal used commercially; and (c) employer contributions of 0.50 peseta per ton produced.

A communication from the United States Embassy in Madrid in May 1946 states that the order provides for organization of regional social insurance funds for the coal mining industry by June 1, 1946. These funds were to be similar to that established in May 1944 for the Asturian coal mining industry; each regional fund, apparently, was to be administered by a council composed of representatives of management and miners, and responsible to the Ministry of Labor. A 2 percent charge on total collections covers administrative costs.

Virtually all coal-mining employees in the regions specified are covered. At the same time, there appears to be some overlapping with the coverage of national insurance funds. The latter, however, are usually worded so that they apply to industries not regulated or not granting equivalent benefits. Full details about the interrelationships of such funds are not presently available in this country.

If the regional social insurance funds for the coal mining industry take the Asturian coal fund for their model, they will provide the following benefits for the workers:

⁸ Data are from reports from the United States Embassy, Madrid; the Boletín Oficial del Estado (Madrid); and International Labor Office, Legislative Series.

⁹ In February 1946, 1 peseta=9 cents in U. S. currency in foreign exchange. No information is available as to differences in the cost of an equivalent standard of living in Spain and the United States.

(1) Manual workers who have reached the age of 65 between January 1, 1934, and July 1, 1946, are to receive 150 pesetas per month. Foremen, overseers not classified as technicians, and administrative employees not receiving the national old-age pension are to receive 240 pesetas per month. Rights to these retirement benefits are predicated upon 20 years of contribution by the worker to the fund. Those not having contributed for the full period of 20 years, upon reaching the age of 65, are to receive 1 peseta daily for every period of 5 years of contribution to the fund. Under an order of April 24, 1946, retirement benefits vary with length of service as follows: for 10 years of service, the benefit amounts to 20 percent of average earnings; for 20 years, 30 percent; for 40 years, 50 percent; and for more than 50 years' service, 60 to 70 percent.

(2) Survivors of workers covered under the regulation of March 28, 1933, are entitled to the following benefits: 90 pesetas monthly for the widow, plus 30 pesetas per month for each minor child, or brother or sister living with the widow up to a maximum of 150 pesetas monthly. Survivors of workers covered for the first time by the measure of April 24, 1946, are entitled to 50 percent of the retirement benefits listed by that order. Thus, under the order of April 24, 1946, the survivor of a worker employed for 20 years would receive 15 percent of the average earnings of the deceased worker, together with 60 pesetas per month for each orphan under 16 years of age.

(3) Sickness benefits amount to 90 pesetas per month plus 30 pesetas monthly for wife and each child, up to a maximum of 240 pesetas per month.

(4) According to the most recent communication of the United States Embassy in Madrid, burial and funeral benefits range from 500 to 2,000 pesetas. No details are presently available regarding the various factors that determine the amount to be paid for these burial and funeral benefits. The Asturian fund calls for a benefit of 300 pesetas.

(5) The maximum unemployment benefit is 50 percent of the basic wage for a period of not more than 6 months. These benefits are not to go into effect for 3 years, and not until imported coal is subject to a tax equivalent to 1.50 pesetas per ton.



Employer Contributions to Union Benefit Funds, United States¹

BY AGREEMENT between the National Electrical Contractors Association and the International Brotherhood of Electrical Workers (AFL), 1 percent of gross pay rolls is to be allocated by employers to the existing union pension fund. Provisions for pensions are not common in collective agreements. As the 1-percent allocation does not constitute "wages" under the Stabilization Act of 1942, the National Wage Stabilization Board ruled that the agreement between the union and the employer did not require its approval. However, approval must be obtained from other Government agencies, notably

¹ Information is from National Wage Stabilization Board release NWSB-45; Bureau of Labor Statistics Bulletin No. 841, Health-Benefit Programs Established Through Collective Bargaining (Washington, 1945); and BLS records.

the Office of Price Administration, if price ceilings or costs rise as a result of the action.

Company financing has also gained recognition in a recent arbitral decision in the leather-tanning industry. The recent arbitration award in the American Hide and Leather Co. case grants the request of the International Fur & Leather Workers Union (CIO) for group insurance benefit (sickness and hospitalization), without contribution on the part of the employees. The arbitrator's decision, requiring the company to expand its group life insurance to provide these additional benefits, was based on the fact that this is the prevailing practice in the tanning industry, particularly in Massachusetts, where more than half of the workers are covered by health-benefit plans paid for by the company and an additional number by plans paid for by joint employee-employer contributions.

In providing for a benefit fund through collective bargaining, a practice effective in certain other industries was applied to electrical workers. For example, a survey made by the U. S. Bureau of Labor Statistics in 1945 showed that more than 600,000 workers were covered by representative health-benefit plans, established as part of the contractual relationship between unions and employers.

Administration and Coverage of Plans

The pension plan as negotiated by electrical contractors and organized employees provides that payments are to be made periodically to a 15-member board of trustees, including 7 each to be selected by the company and the union and 1 public member to be appointed by the Secretary of Labor. Such sums are to be placed in the union's existing pension fund for use "solely for pension benefits."²

At the time that the Bureau investigated health-benefit programs, the systems in operation were distributed among (1) those administered by insurance companies; (2) those administered by the union; and (3) those jointly administered by employers and union representatives.

About a third of the employees were covered by health-benefit systems which were underwritten and administered by insurance companies. A numerically important group in this category consisted of 100,000 members of the Textile Workers Union of America (CIO) in various branches of the textile industry who, in general, were entitled to receive benefits covering accidents, sickness, and death.

Plans for somewhat less than a third of the workers required that the union should assume all, or the major share of, administrative responsibility. The International Ladies' Garment Workers' Union (AFL) had the largest coverage in this group (about 150,000 employees in the women's apparel industry). In addition to health benefits, some of the plans administered by this union cover vacations and retirement. The ILGWU stresses medical care, and the union maintains health centers in most of the important clothing centers.

Jointly administered health-benefit plans are of two principal types—those confined to a single company and those on an industry

² The pension is \$42 monthly to eligible union members at the age of 65 years; \$2 of this amount is devoted to keeping the pensioner in good standing in the union.

or an area basis. More than 200,000 workers are covered by the health-insurance of the Amalgamated Clothing Workers of America (CIO). Of this total some 125,000 workers are employed by companies under the Men's and Boys' Clothing Manufacturers Association agreement. The Amalgamated Insurance Fund is administered by a 12-member executive board of the union. However, consent of an advisory committee composed of 11 members of the association representing employers is required, before the trustees may "enter into any insurance contract or purchase any insurance policy, or make any change in any outstanding policy."

Financing of Plans

The fund covering electrical workers is to be jointly financed by the employer contribution of 1 percent of pay rolls (already referred to) and the employee payment of 57 cents a month. Among the plans surveyed by the Bureau, the majority are employer-financed. This generalization applies to all the union-administered systems, almost all of those jointly administered, and more than half of those administered by insurance companies.

Wilmington Shipbuilders During and After World War II¹

THE general improvement in nonagricultural employment since October 1945, following the decline which commenced after the end of the European phase of the war, has by-passed local pockets of persistent and fairly heavy unemployment. Areas in which there was a heavy concentration of war production are typical of such localities.

One such instance was Wilmington, Del., and its wartime shipyard workers during the winter of 1945-46.

The Shipyard

The Wilmington shipyard, from which 166 workers were selected by the Bureau of Labor Statistics for intensive study as representative of the 4,700 employed by the yard in April 1945, produced destroyer escorts during the early war years; production later was shifted to "landing ships medium." In addition, the shipyard also produced dredges for the Army Engineers.

Employment in January 1941 was only 250. By September 1943, it had increased nearly forty-fold to more than 9,600, with the majority of the total hired after June 1942. This was the peak of employment. From October 1943 on, the decline was fairly continuous, and by the beginning of 1946 employment had dropped to approximately 200 workers.

It is against this backdrop of intensive production and employment activity—and subsequent sudden cessation of production and curtailment of employment—that the Bureau, through its study, attempted to portray the occupational and economic antecedents of the workers of the shipyard, their mobility, their geographic dispersion, something of their social characteristics, and, perhaps most important, the general effect on them of rapid disemployment in terms of income and occupational readjustment.

Labor Supply

Wilmington's industries have usually been able to draw workers from the nearby agricultural districts of Delaware and eastern Maryland. During World War II, apart from the labor shortage induced by the expansion of other industries in the immediate area, the shipyard faced active competition for labor from the large industrial centers of Philadelphia and Baltimore, and from the New Jersey County of Salem, directly across the Delaware River. Although the supply of workers was less short than in Baltimore, classified as a Group I war manpower area, Wilmington remained in Group II for most of the war period.²

¹ Prepared by Hilda W. Callaway of the Bureau's Wage Analysis Branch. The field work for the study was conducted by the Bureau's regional office in Philadelphia.

² Wilmington was classified as Group I only between May and September 1943. Group I included "areas in which acute labor shortages exist or are anticipated, that will endanger essential production"; Group II included "areas in which labor shortages exist that are approaching a balanced demand-supply situation." (Source War Manpower Commission.)

Unable to obtain enough workers from the population of the city or neighboring areas, the shipyard's representatives traveled great distances on a recruitment drive. One shipyard worker, for example, said he learned of the Wilmington job from a company representative while employed as a truck driver in Marshfield, Wis. The United States Employment Service, in particular, and the Industrial Union of Marine and Shipbuilding Workers of America were also instrumental in bringing workers to the shipyard. Some of the workers heard of job openings while enrolled in vocational schools located in other States; others were attracted by reports of friends and relatives within the city.

The Shipyard Work Force

The 166 representative shipyard workers differed in many characteristics from the prewar labor force, which had built ships on a custom basis.

Before the war, men predominated in the shipyards, primarily because of the heavy nature of the work. The inflated war demands for labor, coupled with the steady drain of men into the armed forces, resulted in a drastic revision of hiring standards. Women and older men, as well as young men 16 and 17 years of age, many without training and without previous industrial experience, were taken on.

Early in 1942, the Wilmington shipyard began the recruitment of women. In the group studied in April 1945 there were about one-fifth as many women as men, a sharp contrast with the situation in March 1942 when only a half of 1 percent of private-shipyard wage earners were women.³

Men ranged in age from 17 to 68 years; more than two-fifths were under 35 and about one-half as many (22 percent) were over 45. The women were much younger; only 1 (a former buyer for a Wilmington retail store) was over 45 years of age, while 20 were under 35.

EDUCATION AND TRAINING

All but 11 of the 166 workers had received at least 4 years of schooling; 1 Negro and 3 white men had never attended school. Women had acquired more high-school education than men; almost three-fifths as compared with about one-half. On the other hand, none of the women but 5 of the men, including 1 Negro, had taken some college work.

While a high-school or college education is not required for many types of employment, either provides an advantage for the job seeker in some pursuits. Perhaps of greater assistance in shipbuilding is the acquisition of specialized training and skills. Although this industry changed from custom-made to mass-production methods during the war, a high proportion of skilled labor was still required. However, only 35 of the 166 workers studied had any trade school or vocational training before entering the yard; yet 84 men and 4 women were holding skilled jobs and another 32 men and 10 women were employed in semiskilled occupations when surveyed in April 1945.⁴ Fifteen men and 2 women had taken their training after January 1941 and

³ See Wartime Employment Production and Conditions of Work in Shipyards, U. S. Bureau of Labor Statistics Bulletin No. 824 (p. 6), 1945.

⁴ Training of the 35 workers covered a period of 1 month or more.

the others, 21 men and 1 woman, prior to this date. A few received training in both periods.

Before the war some workers had acquired skills which were in no way related to their shipyard jobs, such as a former commercial artist who became a pipe welder, first class, at the shipyard. There were, however, more workers whose prewar training was useful in the shipyard. To illustrate: A 57-year old man who in 1907 had completed a 3-year apprenticeship in sheet-metal work and had worked continuously at the trade, started in the shipyard in December 1942 as a first-class sheet-metal worker. In a few months he was promoted to foreman in the sheet-metal department and was still serving in that capacity in the spring of 1945.

The majority of the workers with no training before the war had taken courses in the company-operated school, under the Government vocational training program, or in private schools. The cost of training undertaken in private schools was frequently high, as much as \$135 for some workers. Because the starting rate of pay was uniform for all workers employed in the same capacity, irrespective of source or types of training undertaken, the workers who had spent their own funds felt that their investment was wasted.

An important question arises in connection with the training and skills acquired during the war: Will these skills aid workers in finding jobs in a selective and competitive labor market? Obviously, a definitive answer is not possible. It must be recognized that not only shipyard workers but millions of others who were engaged in war production acquired skills previously foreign to them. In addition, millions of men received training of various kinds while with the armed forces. From a competitive viewpoint, one out of a hundred men who can read blueprints may be in no better position than one out of a hundred common laborers. Perhaps the greatest and most important gain that may be realized from the broader acquisition of skills is that which follows from the general improvement in the efficiency and productivity of American labor.

UNIONIZATION

The Industrial Union of Marine and Shipbuilding Workers of America, a CIO affiliate, had a closed shop agreement with the shipyard which included all the yard's wage earners with the exception of supervisory personnel, working foremen, and subforemen. None of the women included in the sample had been union members before their shipyard employment. This is not surprising since most of them had been housewives or domestics. On the other hand, 51 of the 135 men had held union cards previously; 10 of them, former miners, had been affiliated with a union for periods varying from 6 to 15 years.

Migration

Shipbuilding and other essential industries would have been severely handicapped had not workers been willing and able to move to the war production centers; in very few instances was the local labor supply adequate to meet manpower requirements.

Between January 1941 and April 1945, two-fifths (69) of the shipyard workers surveyed had made an aggregate of 78 moves from one city

to another to obtain work. For a few workers, the moving cost was nominal; they came in their own cars and brought fellow workmen who shared transportation expenses. Others came by bus and railroad coach, which explains to a large extent why the cost of moving for 44 of the migrants⁵ was less than \$50, even though the distances some of them traveled was great. Thus, a farmer from Georgia brought his wife and daughter with him by train at a cost of about \$30. Expenditures for 7 of the moves ranged from \$100 to \$200 and a like number cost \$200 to \$300. Only one worker, who came from New Hampshire and brought his family of 4, spent as much as \$300.

The shipbuilders who came to Wilmington from other industrial centers probably had less difficulty in adjusting themselves to an urban community than the farmers and farm laborers, coal miners, filling-station attendants, domestic servants, and textile workers from the rural areas and small towns. In January 1941, 74 of the 166 workers were scattered over 18 different States, not including Delaware. Forty-two of the migrant workers came from either rural communities or small towns, whereas only 12 were from cities of more than 250,000 inhabitants. Less than a fourth of the 166 workers, exclusive of the Wilmington residents, lived within a hundred mile radius of the city in January 1941; 8 were living more than 500 miles away, and 33 were 100 to 500 miles distant.

Prewar Employment of the Shipbuilders

With the channeling of manpower and materials to military purposes there began a tremendous shifting of workers to war industries, and from one war industry to another, as military requirements changed. In January 1941, all but 12 men and 15 women of the 166 studied were employed. Five men were still in school and 3 were unemployed and seeking work. Twelve women were housewives, 11 of whom had never been gainfully employed until the war encouraged them to offer their services.

About a fourth of the workers were usually employed in manufacturing, chiefly in the textile mills of Wilmington and the Carolinas, in the manufacture of transportation equipment, and in the local leather industries. Construction supplied the next largest group, 25, while 24 came from the service trades, and 15 from farms in Delaware or elsewhere. Wholesale and retail trade supplied 13 workers; a like number came from transportation, communication, and public utilities; 10 came from the coal fields, principally of West Virginia and Pennsylvania. Five workers were usually employed by Federal, State, or local government, and the remaining 3 by finance, insurance, and real estate companies.

Closely interwoven with the industrial shifts were changes in the workers' occupations. In April 1945, 88 workers were employed in skilled and 42 in semiskilled jobs. Of the remaining 36 workers, 15 held unskilled jobs, 9 were service workers, and the other 12 held various clerical jobs, such as timekeeper, material checker, etc. Though a predominance of skilled workers is characteristic of the industry's labor force, many of the shipbuilders had not previously

⁵ For purposes of this study, a person was considered a migrant if he moved from one city to another to take or seek work. Moves unrelated to employment were not counted.

been craftsmen. For example, of the 15 former farmers and farm laborers, 8 held skilled and 6 semiskilled jobs. The farm laborers may have had an advantage over some of the other workers because they frequently acquire mechanical skill in repairing and handling farm implements.

As might be expected, in view of the short supply of required skilled labor, upgrading of workers to skilled and semiskilled jobs became a necessity. However, it is noteworthy that out of 47 workers who had held skilled jobs before 1941, 5 became semiskilled workmen, 3 became clerical workers, and 1 held a custodial job at the shipyard. By contrast, only 11 of the 36 workers usually engaged in semiskilled work remained in the same category; 20 were upgraded to skilled jobs, 4 became service workers, and 1 a clerical worker.

Irrespective of age, sex, or color, all but 8 of the workers (7 of whom had entered the labor market late in the war) had changed jobs at least once since January 1941. Almost two-fifths of the 166 workers had held 4 or 5 jobs; 27 percent, 6 to 9 jobs; and the same proportion, 2 or 3 jobs.

The Shipbuilders' Wartime Earnings and Hours

Shipyard workers are among the highest paid in manufacturing industries. Gross weekly earnings of the 166 shipbuilders averaged \$63.16 in April 1945, about \$14 above the national average for all manufacturing workers. After deductions for income tax, social security, and union dues, net "take home" pay was \$55.19, exclusive of war bond purchases. In terms of 1941 purchasing power this amounts to \$42 a week.

Although job rates were the same for men and women, very few of the latter obtained the higher paying jobs; no woman received over \$70 per week. On the other hand, 28 men earned more than this amount and 4, who were foremen, grossed more than \$100.

The comparatively high weekly earnings of the shipbuilding workers in April 1945 were to a large extent due to shift bonuses (3 shifts were in operation) and to overtime pay. Among the 166 workers, 146 were working 48 hours, 17 worked over 52 hours, 2 were on a 40-hour schedule, and 1 worked 49 to 51 hours.

Many of the workers had left industries in which wage rates historically have been lower than in the durable-goods industries. Only 18 workers, 13 of whom were women, had hourly earnings of 90 cents or less in April 1945. While 1 out of every 6 women earned at least \$1.20 an hour, more than two-thirds of the men earned that much or more. For most of the workers, shipyard work meant a substantial increase in hourly rates over 1941.

Despite the high level of weekly earnings in April 1945, it is unlikely that many shipyard workers received an annual wage income in 1945 equal to that of 1944, owing to the cut in the workweek and lower wage levels for peacetime employment. In 1944 there was a greater concentration of women than men at the lower income levels: only 2 of the women had an annual wage income of \$3,000 or more, as compared to 57 (two-thirds) of the men; 22 of the latter had incomes above \$4,000. This is partially accounted for by the late entrance of women into the shipyard and the fact that some of them worked

less than 12 months in 1943. To a greater extent, the difference was due to the smaller proportion of women in skilled jobs. The following table also shows a marked increase in the incomes of both men and women between 1943 and 1944, primarily the result of occupational changes.

Classified Annual Wage Income of 160 Identical Shipyard Workers, 1943-44, by Sex¹

Income class	1943		1944	
	Men	Women	Men	Women
All income classes.....	132	28	132	28
Under \$500.....		1		
\$500 and under \$1,000.....	2	5		1
\$1,000 and under \$1,500.....	5	5		2
\$1,500 and under \$2,000.....	15	10	5	6
\$2,000 and under \$2,500.....	20	5	11	9
\$2,500 and under \$3,000.....	33	2	29	8
\$3,000 and under \$3,500.....	26		40	2
\$3,500 and under \$4,000.....	15		25	
\$4,000 and under \$4,500.....	6		10	
\$4,500 and under \$5,000.....	6		4	
\$5,000 and over.....	4		8	

¹ Excluding 3 men and 3 women who had no wage income in 1943. None of them earned more than \$2,500 in 1944.

Effects of the Cut-Back

Not all job seekers found work in the Wilmington area after wartime operations ceased. When wartime employment at the shipyard was at its highest point, in September 1943, only 387 persons in Wilmington were receiving unemployment compensation. Two years later, following VJ-day, the number had grown to 9,300; in January 1946, unemployment benefits were being paid to 18,600 persons.

Shipbuilding contributed heavily to the pool of unemployment. In the yard surveyed, the rolls had been cut from 4,700 to almost 200 workers between April 1945 and January 1946. Of the 166 workers interviewed, only 5 still held their shipyard jobs in the winter of 1945-46;⁶ over a fourth were unemployed and seeking work. As the figures below show, most of the workers had been jobless for 1 to 3 months. Not all of them had received unemployment compensation: some were ineligible because of illness;⁷ others were reluctant to apply because they considered the benefits as relief; some were disqualified for quitting their jobs; still others did not know of the program or where and how to file a claim.

All periods of unemployment.....	Number of unemployed workers
Less than 1 month.....	42
1 and less than 2 months.....	5
2 and less than 3 months.....	10
3 and less than 4 months.....	14
4 and less than 5 months.....	4
5 and less than 6 months.....	4
6 and less than 7 months.....	2
7 and less than 8 months.....	3

⁶ Ten workers known to have lost their jobs could not be traced during the resurvey and another had died.

⁷ It is of interest to note that Rhode Island is the only State paying cash benefits during illness. These benefits are financed by a 1-percent contribution out of workers' wages.

THE COURSE OF UNEMPLOYMENT

The high rate of unemployment among the former shipbuilders reflects the immediate effects of the disappearance of war work in Wilmington; of the 42 unemployed, 33 were still living within the city or neighboring suburbs. Some of the unemployed had no intention of leaving but hoped eventually to find jobs in the same area. This hope was fostered by the construction of an automobile assembly plant, started in the winter of 1945. Lack of information as to what was available or of means to move and uncertainty about ability to find housing accommodations elsewhere also kept workers from migrating. Some of the unemployed had turned down jobs because they considered the wages offered too low. In particular, skilled and semiskilled jobs in textile and leather manufacturing plants were refused on the grounds that wages were inadequate; in some cases, they were less than half the shipyard hourly wage.

Women, older men, and workers of both sexes with limited work experience found it especially difficult to obtain suitable work. Thus, more than one-half of the women studied, in contrast to one-fifth of the men, were unemployed. About a fourth of the men 45 years of age or older were seeking work as compared with a fifth in lower age brackets. Several of the workers had turned down jobs offered by the U. S. Employment Service in the hope of finding something at their usual skill level. These refusals did not always mean disqualification for unemployment compensation; war and prewar training frequently justified the demands for particular types of work. For example, a skilled leather worker who became a power shear machine operator at the shipyard at \$1.12 an hour, refused a job as laborer at 60 cents an hour in a local tanning plant.

Some workers had no jobs offered them by the USES. To cite one case, a 27-year-old woman—a shipyard laborer who baled paper and rags—had not been offered a job since she was laid off in June.

Nearly half the workers, 77 in number, had found other jobs by January 1946, generally through the aid of the USES or their union. Several seem to have realized their postwar plans and to have made a satisfactory adjustment to peacetime employment. Three prewar farmers wanted to return to agriculture and are now reestablished on farms. Some construction and factory workers have resumed their prewar trades or jobs. Others whose plans, when first interviewed, involved ventures into new fields have made only temporary adjustments and expect to find other employment within the next 12 months.

Ten workers, three of whom were self-employed before entering war industry, were operating their own businesses in January 1946. However, two of them, an upholsterer and a filling-station operator, were having financial difficulties and expected to return to the wage-earner group. Withdrawals from the labor market, 21 in all, were greater than was expected in April 1945: 9 men were inducted into the armed services, 1 young man entered college, and 5 women became housewives. The other 6 were men forced out of the labor market by illness.

INDUSTRIAL AND OCCUPATIONAL SHIFTS

While only 5 of the 155 were still shipbuilders in January 1946, the distribution of workers, occupationally and industrially, had not by then returned to the prewar pattern. Manufacturing and construction accounted for relatively more of the employed workers in the winter of 1945-46 than in January 1941. On the other hand, agriculture, mining, and services showed losses. However, compared to 1941, a relatively large number were unemployed or had left the labor market, and the changes indicated may reflect an unstable situation.⁸

Using identical workers, thereby excluding both wartime entrants into the labor market and the unemployed, the proportion of workers in manufacturing increased from 31 to 39 percent.

	Employment of 88 identical workers			
	Usual—Prewar		Winter 1945-46	
	Number	Percent	Number	Percent
All industries.....	88	100	88	100
Agriculture.....	11	13	3	3
Mining.....	5	6	2	2
Construction.....	14	16	18	21
Manufacturing.....	27	31	34	39
Wholesale and retail trade.....	7	8	8	9
Finance.....	3	3	3	3
Transportation.....	8	9	10	11
Services.....	11	12	6	7
Government.....	2	2	4	5

Although every fourth displaced shipbuilder found a job in construction work, more than half of them had been in other industries prior to the war. Among those who had found manufacturing jobs in January 1946 were 5 prewar farmers, a miner, 4 construction workers, an insurance salesman, and 2 service workers. More than a third of the workers whose usual prewar employment was in factories went into other fields, chiefly construction, although there were instances where an industrial worker took a service or government job.

For the same reasons that the full extent of industrial shifts are not yet apparent, postwar occupational changes are still incomplete. Two-fifths of the skilled workers and a seventh of the semiskilled (based on prewar experience) were among those seeking work. Less than one-half of the 88 employed workers who had prewar experience were working at their usual occupation or in their prewar jobs. Apparently, in making postwar adjustments, workers were strongly influenced by their wartime jobs; thus, there was a continued concentration of workers in craftsmen occupations.

POSTWAR WAGES AND HOURS

Between April 1945 and January 1946, average gross weekly earnings had declined 32 percent, according to reports from 81 identical shipbuilders whose average pay had been \$63.53 in the prior period. Earnings of women, both white and Negro, had fallen 50 percent. A 29 percent decrease was found for white men, as compared to 37 per-

⁸ In January 1946, 9 were in the armed forces and 12 were not seeking work. In January 1941, the corresponding figures were 1 and 11.

cent for Negro men. The greater decline for women reflects a shorter workweek (48 hours in April 1945 and about 41 hours in January 1946); the workweek for men was only 1 hour below the April average. While in most cases the shift to peacetime employment meant a sharp wage cut, the wages of workers now employed in construction on a 40-hour schedule exceed those of shipyard workers based on a 48-hour week.

Reports from 66 workers⁹ revealed that the average ex-shipbuilder grossed only \$44.32 per week in the winter of 1945-46. Five years earlier his average weekly earnings were \$35.36. In 1941 the sole deduction, 35 cents, was paid as social-security taxes; in the winter of 1945-46, about \$2 more was deducted for income taxes. In view of the increased cost of living essentials, spendable income amounted to less than \$33 in 1941 purchasing power. Many of these workers had accumulated savings and war bonds, but in large part they had been expended because of unemployment or the reduced weekly pay and, to some extent, by migration costs.

MIGRATION

In all, 37 workers or slightly more than half of the number who came to Wilmington to work in shipyards left the congested Wilmington area after April 1945. All but 10 returned to their 1941 residences. Some moved the day following receipt of their last pay; others stayed a few weeks searching for work. A few found jobs in other plants which were winding up war contracts, or in peacetime industries, before they made the decision to return home.

No community labor market which experienced as rapid an expansion of war industries as did Wilmington is likely to absorb all its displaced workers. While some will move on to other communities in search of work, or will return to former residences, others will remain. The United States Employment Service, which was instrumental in bringing many of the workers to the war areas, is now re-directing workers to new jobs. The rapidity and efficiency with which this can be done are circumscribed by the fact that the USES does not have funds to transport stranded workers to former homes or to new jobs.

The Wilmington shipyard workers' experiences are not unique. War production utilized millions of workers, the vast majority of whom faced and still face the question: "Where can a job be found?" Added to their group are the veterans and new entrants into the labor market. The absorption of workers into the peacetime labor force will be influenced by the amount of training or retraining of workers whose present skills are not marketable, relocation of workers to areas where there is an active labor demand, and guidance of workers to jobs which are suitable both in terms of skill and wages.

⁹ In order to make comparisons with 1941, only those workers for whom information was available for both years could be used.

Factors Affecting Earnings in Chemistry and Chemical Engineering¹

Summary

THE incomes of persons employed in chemistry and chemical engineering vary widely, depending on the type of work done, the amount of education, and the years of experience, as well as on individual abilities. These factors were evidenced in the results of two surveys of the economic status of those engaged in chemistry and chemical engineering in 1941 and 1943.

In making these surveys, no attempt was made to define membership of the chemical profession; the surveys included reports from persons who stated that they were employed in the fields of chemistry or chemical engineering. Persons who performed routine work in such jobs as testing were included, as well as those who advanced through research and production into administrative positions requiring executive ability in addition to a knowledge of chemistry. This is reflected, in part, in the wide range of earnings. The report, therefore, is not intended to show the earnings of members of the chemical profession as such. Information on the economic status of those working in the field in the many different types of jobs which may be open will be helpful in the guidance of young people and veterans interested in appraising the possibilities open to students of chemistry, and in planning their education.

Most of those working in the field had college training in chemistry or chemical engineering: The combined data show that about 87 percent of those reporting had at least a bachelor's degree in either of these fields; an additional 6 percent had no degree, but had taken at least some college courses in chemistry or chemical engineering; another 3 percent had degrees in some other field of science or engineering.

The chemical manufacturing industries employed nearly two-thirds of all those in the field of chemistry, and about 82 percent of those in chemical engineering. Those employed in chemistry were engaged chiefly in analysis and testing, industrial research, and technical administration; other major fields were teaching, production, development, research in basic science, and technical service. In chemical engineering, highest proportions were employed in technical administration or production work; large numbers were also engaged in development, industrial research, technical service, and design. In general, administrative jobs paid highest salaries; technical service and industrial research paid more than analysis and testing or secondary school teaching.

There was a marked tendency for the earnings of chemists holding a doctor's degree to exceed those of persons employed in the field of chemistry at the same age or experience levels and holding a master's or bachelor's degree, or none. This was true to a lesser extent, and less consistently, among chemical engineers.

¹ Prepared in the Bureau's Occupational Outlook Division, by Cora E. Taylor, under the supervision of Harold Goldstein.

The charts and tables accompanying this article indicate clearly that years of experience are a major factor in differences in earnings.

Earnings reported for 1943 were higher than in 1941. The median base monthly salary of those employed in chemistry increased by 21.5 percent and in chemical engineering by 26.4 percent, in the 2-year period. There is some evidence that salaries have advanced further since the time of the survey.

Scope and Method of Survey

Early in 1944, the Bureau of Labor Statistics, in cooperation with the American Chemical Society, made a survey of the economic status of members of the society by means of a questionnaire mailed to all members.² At approximately the same time the Bureau also made a sample survey of persons employed in the field of chemistry and chemical engineering who were not society members. After the elimination of members of the armed forces and those reporting a field of employment other than chemistry or chemical engineering, there were about 19,000 questionnaires in the sample of American Chemical Society members, and 2,500 in the sample of nonmembers. Taking the two groups as representing, respectively, the total membership and the total number employed in the field who were not members of the society, weights were established to give the two groups their proper proportions as related to the total estimated number of persons employed in chemistry and chemical engineering in 1943. Information from reliable sources placed the total number of chemists at about 71,000 and of chemical engineers at about 26,000, as of January 1944.³

It is difficult to decide who ought to be included in a survey of a professional field. Professional society memberships are likely to include a higher proportion of those who have succeeded in their profession than of those who have been relatively unsuccessful; on the other hand, an attempt to correct this bias may dredge up large numbers of persons on the fringe of the profession and hence equally bias the figure in a downward direction. The fact is that some professions as fields of economic opportunity are not precisely definable. On the one hand, the young college graduate is often assigned to a variety of routine jobs of a subprofessional sort, serving, as it were, an informal apprenticeship. On the other hand, the more able young people with no more than a high-school education may rise to jobs of this sort and higher. The ceiling for those with little formal training is often higher than the floor for those with degrees. Beyond this fact of overlapping there is an enormous spread of professional capacity ranging from an undefined lower level of competence to a level that calls for genius or near-genius. The Bureau has tried, therefore, to include the complete range of capacities in the field of chemistry and chemical engineering.

Sex, Age Distribution, and Years of Experience

It is evident that those employed in chemistry and chemical engineering were predominantly male. Women in 1943 formed only

² Professional Chemical Workers in War and Peace. An analysis of the economic status of the members of the American Chemical Society, 1941 to 1943, by Andrew Fraser, Jr. (Available in *Chemical and Engineering News*, issues of May 25, July 10, August 25, and October 10, 1944, or in reprint form from the Mack Printing Co., Easton, Pa.)

³ The methods used in the survey will be described in more detail in a reprint of this article.

slightly more than 4 percent of the total in the field of employment of chemistry and about 0.2 percent in chemical engineering. Slightly less than 3 percent of the total number of persons employed as chemists and 0.4 percent of those employed as chemical engineers were women, according to the 1940 census.

The median age of those employed in chemistry in 1943 was 33.5 years; that of women so employed was 29.4 years. The median age of those employed in chemical engineering was 32.6.

In 1943, the median years of experience were 10.5 for chemists and 9.6 for chemical engineers.

Major Field of Education and Educational Level

A high percentage of persons engaged in chemistry hold degrees above the bachelor's level (table 1). Nearly a fourth have a master's degree, while almost 19 percent have obtained the degree of doctor. About 8 percent of those employed in chemistry are without a degree, but almost all have done some college work. Fewer chemical engineers than chemists have advanced formal education beyond the bachelor's degree. Almost two-thirds have the bachelor's degree, about 22 percent have acquired the master's degree, but only 7.6 percent hold the degree of doctor. Relatively few employed engineers are without a degree.

TABLE 1.—*Distribution of Persons Employed in Chemistry and Chemical Engineering, by Major Field of Education and Educational Level, 1943*

Educational level	Number employed	Major field of education		
		Chemistry	Chemical engineering	All other
CHEMISTRY				
Number ¹ of persons employed: Total.....	71,000	59,700	6,600	4,700
Doctors.....	13,300	12,400	300	600
Masters.....	17,300	14,400	900	2,000
Bachelors.....	34,700	28,000	4,900	1,800
Incomplete college.....	5,200	4,400	500	300
No college.....	500	500	-----	(²)
Percent, by educational level³				
Persons employed: Total.....	100.0	100.0	100.0	100.0
Doctors.....	18.7	20.8	3.6	12.8
Masters.....	24.4	24.1	14.0	43.8
Bachelors.....	48.9	46.9	74.6	37.8
Incomplete college.....	7.3	7.3	7.8	5.6
No college.....	.7	.9	-----	(⁴)
Percent, by major field of education³				
Persons employed: Total.....	100.0	84.2	9.2	6.6
Doctors.....	100.0	93.7	1.8	4.5
Masters.....	100.0	82.8	5.3	11.9
Bachelors.....	100.0	80.8	14.1	5.1
Incomplete college.....	100.0	85.0	9.9	5.1
No college.....	100.0	99.8	-----	.2

See footnotes at end of table.

TABLE 1.—Distribution of Persons Employed in Chemistry and Chemical Engineering, by Major Field of Education and Educational Level, 1943—Continued

Educational level	Number employed	Major field of education		
		Chemistry	Chemical engineering	All other
CHEMICAL ENGINEERING				
Number ¹ of persons employed: Total.....	26,000	4,600	20,100	1,300
Doctors.....	2,000	600	1,300	100
Masters.....	5,800	900	4,600	300
Bachelors.....	16,800	2,800	13,200	800
Incomplete college.....	1,300	300	900	100
No college.....	100	(²)	100	(²)
Percent, by educational level ³				
Persons employed: Total.....	100.0	100.0	100.0	100.0
Doctors.....	7.6	13.9	6.3	5.7
Masters.....	22.3	19.2	23.1	20.2
Bachelors.....	64.5	59.5	65.7	64.6
Incomplete college.....	5.1	7.1	4.4	9.4
No college.....	.5	.3	.5	.1
Percent, by major field of education ³				
Persons employed: Total.....	100.0	17.6	77.4	5.0
Doctors.....	100.0	32.2	64.1	3.7
Masters.....	100.0	15.1	80.4	4.5
Bachelors.....	100.0	16.2	78.8	5.0
Incomplete college.....	100.0	24.5	66.4	9.1
No college.....	100.0	9.7	89.5	.8

¹ Estimated numbers of persons in this part of the table are shown rounded to the nearest 100.

² Less than 50.

³ Percentages computed before rounding.

⁴ Less than a tenth of 1 percent.

About 9 percent of those employed in the field of chemistry in 1943 had received their education in the chemical engineering field, but as many as 17.6 percent of those employed as chemical engineers had been trained as chemists. In absolute numbers, however, the shift was in the other direction: Some 6,500 persons whose major field of education had been chemical engineering were employed as chemists, while only about 4,500 persons made the reverse shift. As many as 6.6 percent of the chemists, mostly with a master's degree, were educated in some field other than chemistry or chemical engineering. Among the chemical engineers, 5 percent reported some other field of education.

Geographical Distribution

Employment opportunities for those in the field of chemistry are concentrated in the Middle Atlantic States, with New York State employing the greatest numbers. The three States comprising the Middle Atlantic region (New York, New Jersey, and Pennsylvania) and the five comprising the East North Central region (Illinois, Ohio, Michigan, Indiana, and Wisconsin) employed over half the chemists

and chemical engineers in the United States in 1943. California and Massachusetts each employed more than 4 percent of those in the field. The South Atlantic States employed about the same proportion of chemical engineers as chemists. Chemists had a higher proportion of jobs in the West North Central region; engineers were proportionately more numerous in the West South Central region, where the petroleum industries are important.

Source of Employment

Over 60 percent of those working in chemistry and as many as 82 percent of those in chemical engineering found employment in the manufacturing industries in 1943, with by far the greatest numbers in the chemical industries (table 2). The second largest employer was the petroleum industry, where the proportion of engineers is considerably higher than that of chemists. Federal and State governments and educational institutions each employed about 7 percent of all chemists. The Federal Government employed 4.7 percent of the chemical engineers, but other public authorities afforded little employment opportunity for this group.

TABLE 2.—Percentage Distribution of Persons Employed in Chemistry and Chemical Engineering, by Source of Employment, 1943

Source of employment	Percent of persons employed in—	
	Chemistry	Chemical engineering
Public authorities	20.7	6.7
Federal Government	7.6	4.7
State government	6.9	1.0
Other public authorities	6.2	1.0
Nonpublic organizations	78.1	91.7
Educational institutions	6.8	1.6
Private firms or companies	66.4	86.4
Manufacturing	63.1	82.2
Food	4.9	3.3
Textiles	2.1	1.4
Paper and allied products	2.3	4.1
Chemical	28.1	35.6
Paints, varnishes, and colors	5.9	3.9
Miscellaneous chemical industries	22.2	31.7
Petroleum and coal products	7.7	17.1
Rubber products	4.0	4.9
Iron and steel and their products	3.1	2.1
Nonferrous metals and their products	3.1	4.1
Other manufacturing industries	7.8	9.6
Other private organizations ¹	3.3	4.2
Other nonpublic organizations ²	4.9	3.7
Retired, unemployed, or direct relief	(³)	1.1
Not reported	1.2	1.5
Total	100.0	100.0

¹ Includes mining, construction, public utilities, etc.

² Includes research institutes, consulting laboratory firms, technical or trade associations, etc.

³ Less than a tenth of 1 percent.

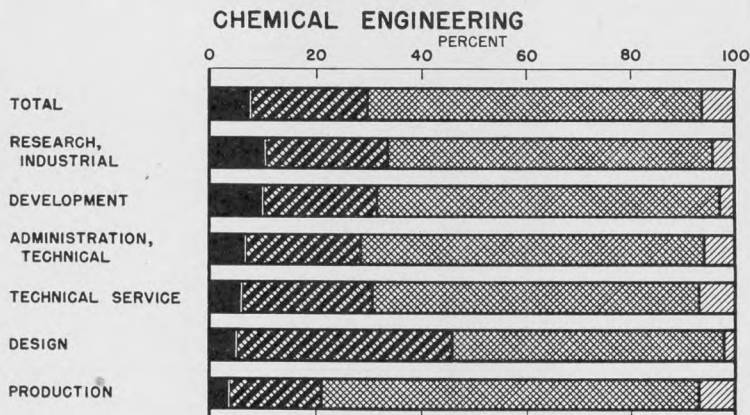
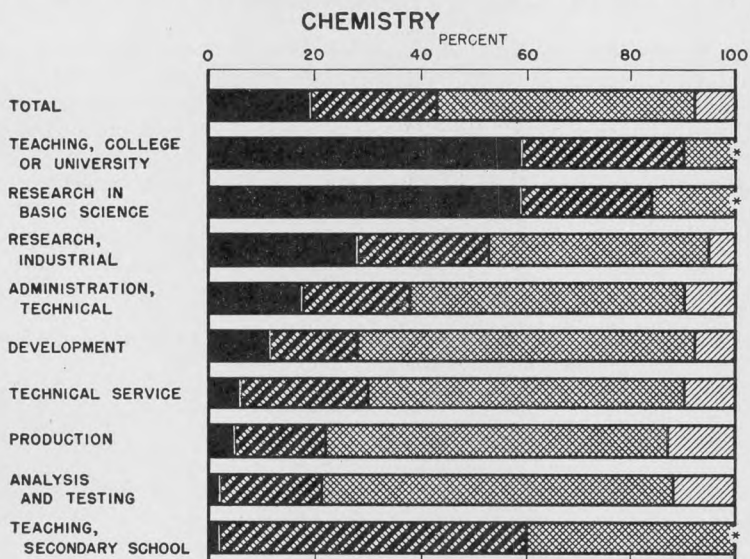
CHART I

EDUCATIONAL LEVELS OF PERSONS IN EACH MAJOR OCCUPATIONAL FIELD

CHEMISTRY AND CHEMICAL ENGINEERING

1943

DOCTORS
 MASTERS
 BACHELORS
 INCOMPLETE OR NO COLLEGE



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

*LESS THAN TWO-TENTHS OF ONE PERCENT
REPORTED INCOMPLETE COLLEGE OR NO COLLEGE

Occupational Status

In 1943, over 60 percent of the chemists surveyed were engaged in analysis and testing, industrial research, and technical administration. Almost half the engineers were engaged in technical administration or production. The distribution according to occupational status is shown in the accompanying tabulation.

Occupational status, 1943:	Percent engaged in—	
	Chemistry	Chemical engineering
Research, industrial.....	22.6	11.9
Administration, technical.....	14.9	27.2
Teaching, college or university.....	6.5	(1)
Analysis and testing.....	23.8	(1)
Research in basic science.....	4.8	(1)
Development.....	5.9	15.1
Production.....	7.7	21.7
Technical service.....	2.1	6.2
Teaching, secondary schools.....	5.7	(1)
Design.....	(1)	5.1
All other.....	6.0	12.8
Total.....	100.0	100.0

¹ Number reporting is too small to be significant and is included in "all other."

Persons interested in chemistry as a career may be concerned with the extent of formal education which may be necessary to facilitate entrance and success in the various fields of work. In some fields advanced degrees are essential; in others, they are held by a relatively small proportion. The data are shown in chart 1. For example, in research in basic science, nearly 60 percent of those employed in chemistry held a doctor's degree; 25 percent held a master's degree. The doctorate was also held by nearly 60 percent of those in college or university teaching, and an additional 30 percent held a master's degree. On the other hand, in secondary school teaching only 1 or 2 percent were doctors, but nearly 60 percent held a master's degree. In analysis and testing only 2 percent, and in production only 5 percent, held a doctor's degree.

Among chemical engineers, a high proportion of advanced degrees was found in design work. Analysis and testing and production jobs were filled largely by those with a bachelor's degree. Since bachelors account for nearly two-thirds of all the chemical engineers, it is not surprising to find them predominating in most fields of work.

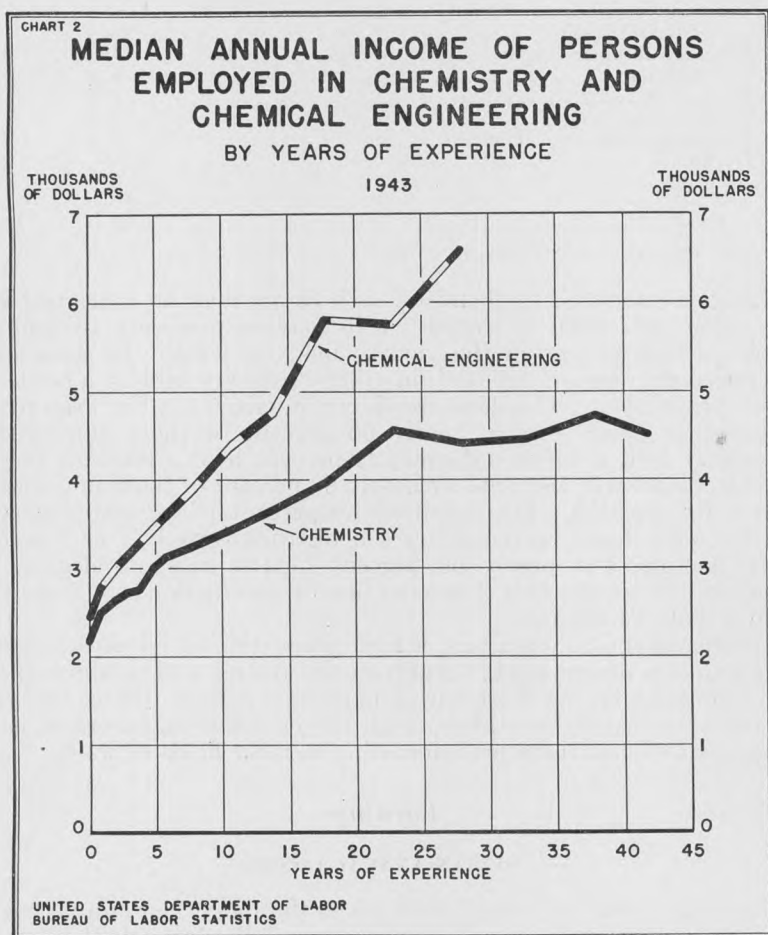
Earnings

MEDIAN ANNUAL INCOME

Respondents in the survey were asked to report their annual income including salaries, fees, and bonuses, regardless of whether or not earned in their profession. The median for all employed in chemistry, without regard to any attribute, was \$3,280 in 1943; for those employed in chemical engineering, it was \$3,998. The median income ranged from \$2,152 for beginners in chemistry to \$4,751 for those with 36 to 40 years of experience. Those in chemical engineering began at an average of \$2,452, and the average steadily increased to \$6,620 at

levels of 26 to 30 years' experience. Median annual incomes, by years of experience, are graphically shown in chart 2.⁴

In interpreting the data on income, it should be noted that those persons employed in the field of chemistry are relatively young (median ages being 33.5 years for chemists employed in 1943 and 32.6 years for chemical engineers), and that the median income, therefore, reflects the preponderance of younger men. Actually, income increased with experience, according to the survey, the older and more experienced chemists and chemical engineers having earned, on the average, well over the indicated median for the groups as a whole.



BASE MONTHLY SALARY RATE

The base monthly salary rate was reported in two ways—(1) *exclusive* of overtime payments, fees, and bonuses; (2) *exclusive* of fees and bonuses, but *inclusive* of overtime. It was found that after about 13

⁴ The data underlying this chart will be included in a reprint of this article.

to 20 years of experience total annual income tended to exceed by substantial amounts a figure 12 times the base monthly salary rate *inclusive* of overtime. This would indicate that, on the average, those persons at the higher-experience levels began to receive appreciable additional income from fees, bonuses, and sources other than base salary.

Median monthly salary rates, with and without overtime, for persons employed in chemistry and chemical engineering in 1943, are shown in table 3, by length of experience.

TABLE 3.—Median Base Monthly Salary Rates of Persons Employed in Chemistry and Chemical Engineering, by Years of Experience, 1943

Years of experience	Median base monthly salary rate in—			
	Chemistry		Chemical engineering	
	Excluding overtime	Including overtime	Excluding overtime	Including overtime
All persons employed	\$243	\$268	\$297	\$324
Under 1 year	170	201	176	213
1 year	177	206	204	237
2 years	194	222	225	256
3 years	204	230	240	261
4 years	210	229	246	273
5 years	216	248	259	294
6 years	235	256	268	302
7-9 years	241	262	297	322
10-12 years	257	286	333	370
13-15 years	274	298	358	387
16-20 years	300	329	411	437
21-25 years	340	359	434	451
26-30 years	336	357	510	512
31-35 years	341	357	(1)	(1)
36-40 years	357	371	(1)	(1)
41-43 years	360	414	(1)	(1)
44 years and over	(1)	(1)	(1)	(1)

¹ Number reporting is too small to compute median.

Earnings of those in chemistry seem to have had an almost steady increase until a median of \$360 a month was reached after 40 years' experience. Those in chemical engineering, with 26 to 30 years' experience, advanced rapidly to as high as \$510. In 1943, chemists, on the average, earned \$25 each month in overtime payments; chemical engineers earned as much as \$27. Apparently the beginners benefited most from overtime, as chemists with less than 1 year of experience had a median income of \$201 a month including overtime, or \$31 more than the straight-time median. A similar group of chemical engineers earned, with overtime, \$37 more than the straight-time median.

Earnings by Occupational Field

Highest salaries were earned in administrative jobs. Teachers in colleges and universities received slightly above the median salary of all employed in chemistry; chemistry teachers employed in secondary schools received considerably less remuneration. Analysis and testing, in which field more than a fifth of those employed in chemistry were engaged at the time of the survey, showed a comparatively low rate of pay. The median base monthly salaries for those in chemistry

and those in chemical engineering engaged in the principal fields of work are shown in the accompanying tabulation.

	Median base monthly salary, 1945	
	Chemistry	Chemical engineering
All principal fields-----	\$243	\$297
Research, industrial-----	259	256
Administration, technical-----	335	370
Teaching, college or university-----	249	(1)
Teaching, secondary-----	218	(1)
Analysis and testing-----	210	(1)
Research in basic science-----	243	(1)
Development-----	229	262
Production-----	255	278
Technical service-----	281	268
Design-----	(1)	301

¹ Number too small to compute median.

Among the reasons for differences in earnings between those employed in chemistry and those in chemical engineering was the concentration of persons in some fields of higher remuneration in chemical engineering. For example, more than a quarter of those in engineering were engaged in technical administration, as compared to about a seventh of the persons who classified themselves in the field of chemistry. The latter group, on the other hand, had higher proportions in such fields as analysis and testing and secondary school teaching, in which salaries seemed to be lower than the general average. Within a particular field of work, in some cases those employed in chemistry earned more, on the average, than those in chemical engineering; in other cases the reverse was true.

Earnings by Education

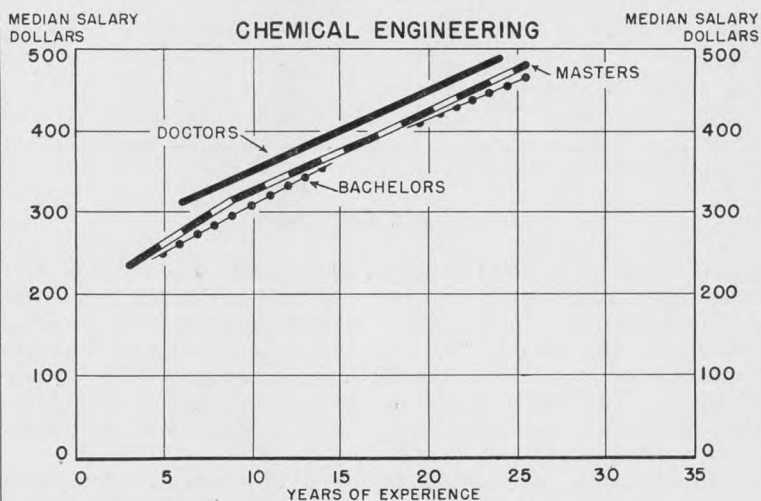
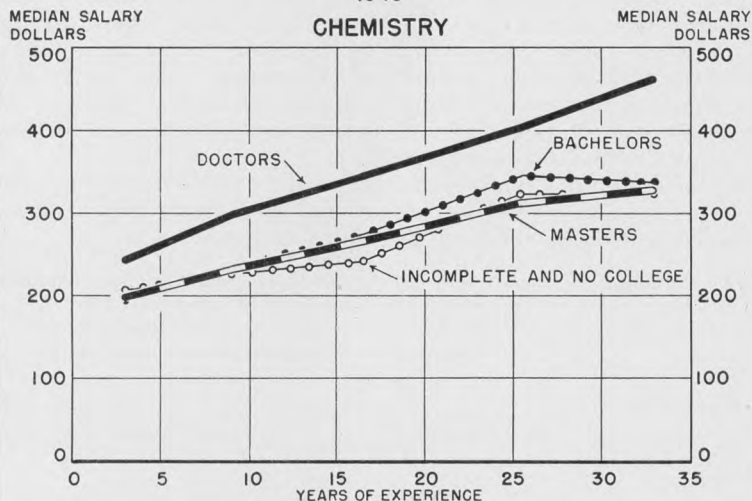
The income of those employed in chemistry and chemical engineering seems to vary with the extent of their education. Differentials in earnings between holders of the bachelor's degree and holders of the master's degree were neither large nor consistent, but the median base monthly salaries of those holding the doctor's degree significantly exceeded those of the other groups. Chemists with a doctor's degree and with 6 to 12 years' experience reported average monthly base salaries about \$65 higher than those of chemists at the same experience levels who held lower degrees. The differentials ranged between \$72 and \$104 for chemists with 13 to 20 years of experience, and averaged well over \$125 a month for chemists with more than 30 years in the field. A similar pattern of generally widening differences in salaries between doctors and the other two groups is found among the chemical engineers.

Persons who reported not having completed college or not having gone to college attained lower median base monthly salaries, among the chemical engineers, than each of the other groups at each experience level, but, among those employed in chemistry, their salaries were not consistently or significantly different from those of chemists with the bachelor's or the master's degree. Many persons in this group attained success because of special abilities or because of valuable practical experience. Of the total employed in both chemistry and

CHART 3

MEDIAN BASE MONTHLY SALARY OF PERSONS EMPLOYED IN CHEMISTRY AND CHEMICAL ENGINEERING

BY EDUCATIONAL LEVEL
ACCORDING TO YEARS OF EXPERIENCE
1943



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

chemical engineering, less than 1 percent was without college training (table 1); so that the combination of those having incomplete college training, and those without college experience entirely, actually represents a group composed chiefly of persons who may have had a great deal of formal college education but who lacked the precise requirements for a degree.

In general, salaries of chemists and chemical engineers seem to rise steadily for at least the first 20 or 30 years of professional work. It should be emphasized, however, that the data do not permit of definite statements as to the progression of salaries of individuals. What is shown is a cross section *at one time*, of the salaries of persons employed in the field with varying amounts of experience. The curves shown in the charts reflect many factors in the history of the profession over the past 30 or more years, as well as the mere factor of the increasing years of experience of the individuals.

Information on median base monthly salary in chemistry and chemical engineering, analyzed by educational level according to years of experience, as of 1943, is given in table 4 and chart 3.

TABLE 4.—Median Base Monthly Salary of Persons Employed in Chemistry and Chemical Engineering, by Educational Level and Years of Experience, 1943

Years of experience	Median base monthly salary of persons employed, with—							
	Doctor's degree	Master's degree	Bachelor's degree	Incomplete or no college	Doctor's degree	Master's degree	Bachelor's degree	Incomplete or no college
	Chemistry				Chemical engineering			
All persons.....	\$312	\$232	\$226	\$252	\$406	\$312	\$282	\$285
Less than 6 years.....	244	199	196	206	} 312	{ 235	230	(1)
6-12 years.....	297	232	232	226		{ 316	299	254
13-20 years.....	345	267	273	241	} 489	{ 389	383	329
21-30 years.....	405	313	346	323		{ 481	466	(1)
31 years and over.....	461	329	337	327		{ (1)	(1)	(1)

¹ Number too small to compute median.

Women in Chemistry

In 1943 women constituted slightly more than 4 percent of all persons employed in chemistry and considerably less than 1 percent of all employed in chemical engineering. It is impossible with so small a sample to give any reliable data for women engineers, and the number of chemists is also too small to make detailed analyses with any degree of accuracy. The material presented in this section is considered to be less reliable than for the entire group, but, in general, indicates the status of women in relation to all chemists.

The distribution of women employed in chemistry by years of experience shows a concentration in the lower experience levels. Over half the women had less than 7 years of experience. The median age was 29.4 years, as compared to a median age of 33.5 years for all chemists. Over 30 percent had been in the field less than 2 years at the time of the survey, and represent an age group of 25 years or less.

By comparing the occupational status of women (as shown in the following tabulation) with that of all chemists (p. 885), it is evident that analysis and testing is relatively a much more important field for women than for men, inasmuch as about 31 percent of all women were in that status as compared with only 23.8 percent of all chemists. Teaching in colleges and research in basic science have higher proportions of women, while the reverse is true in such fields as technical administration and industrial research. The distribution of women employed in chemistry in 1943 is shown by occupational status.

Occupational status:	Percent
Research, industrial.....	14.3
Administration, technical.....	5.1
Teaching, college or university.....	14.1
Analysis and testing.....	31.1
Research in basic science.....	13.0
Development.....	3.9
Technical service.....	3.7
Teaching, secondary school.....	4.0
All other.....	10.8
Total.....	100.0

In examining the earnings of women employed in chemistry, such factors as experience and type of job in influencing income become especially important. The largest number of women were engaged in analysis and testing—the field in which many beginners find employment, and therefore one in which the salaries are comparatively low. The concentration in the low-experience levels greatly affected the income median for the group. It is not surprising, therefore, to find the income of women considerably below that of the entire group of chemists, of which nearly 96 percent are men. While income may be influenced also by employment and personnel policies, such factors are beyond the scope of this survey.

Salaries of women were, on the average, below those of men who had the same number of years of experience. The median base monthly salaries of women employed in chemistry, by years of experience, are shown for 1943:

	Median base monthly salary, 1943
All women employed.....	\$170
Less than 6 years' experience.....	159
6-15 years' experience.....	195
16 years' experience and over.....	225

Comparison of Prewar and Wartime Data

Since information was requested for the year 1941 as well as for 1943, it is possible to make some comparisons of the prewar and wartime statuses of those employed in the field of chemistry.

Changes in employment, occupational status, and earnings are evaluated in this study, on the basis of reports by those in the occupations early in 1944 as to their experience in 1941 and in 1943. Like all retrospective surveys of individuals, therefore, it is subject to some bias resulting from the inclusion of persons who entered the field between 1941 and 1943, and the exclusion of those who left the field during that period because of death or other reasons. To some extent,

the bias is corrected by tabulating data only on those individuals reporting for both years; but even such data reflect not only the changes in the profession as a whole but also the progress of the careers of individuals—their advancement in occupational status and in income normally tending to occur with age and experience. Furthermore, the data for the earlier year do not reflect the higher incomes and advanced occupational status of the older men who died or retired during the period. Fortunately the period was so short that the data are not affected very much by deaths, and it is likely that, as in the labor force as a whole, retirement rates among chemists and chemical engineers were lower in this period because of the great wartime needs for experienced workers.

SHIFTS IN SOURCE OF EMPLOYMENT

Using only the data from those respondents who reported source of employment both in 1941 and in 1943 (86 percent of those in chemistry, 88 percent of those in chemical engineering), it was found that employment shifts among those chemists already working in the field in 1941 were mainly into manufacturing, especially into the miscellaneous chemical industries. Chemists left employment in State and local governments, educational institutions, and textile manufacturing. Chemical engineers did less shifting, because their normal employment is principally in the manufacturing industries. Some engineers left State and local government jobs, educational institutions, and paint, varnish, and color manufacturing.⁵

SHIFTS IN OCCUPATIONAL STATUS

The shifts in occupational status, or type of work, were more pronounced than the shifts in source of employment. The shifts in occupational status are shown in table 5. For chemists, the greatest increases were in the fields of industrial research and technical administration, the shift being away from analysis and testing, and teaching. For chemical engineers, the chief shift (9.7 percentage points) was into the technical administration field. Employment in production increased by 3.7 percentage points. Among the engineers, the greatest reduction (9.5 percentage points) was in analysis and testing; the proportion engaged in industrial research dropped by 3.1 percentage points. While these changes, as shown by the data, represent largely the real changes in status which took place in the field of chemistry in this period, to a small extent they also reflect the bias mentioned above.

The distribution of the "total group" of chemists and engineers in 1943 is presented in table 5 in order to show whether the shifts in occupational status of individuals responding for both years is representative of real shifts in the profession. The total group includes those entering the field in 1942 and 1943, but, of course, excludes those who left in that period. Very slight differences appear when the two groups are compared for 1943. The shifts all reflect the emphasis on war production. The greater proportion of chemists engaged in analysis and testing in the total group in 1943, as compared

⁵ A table showing these data will be included in a reprint of this article.

with the identical group in the same year, indicates that this field absorbs many beginners. Beginners in chemical engineering apparently secure jobs more readily in analysis and testing and production; a smaller proportion of beginners than of the older group were employed in technical administration.

TABLE 5.—Percentage Distribution of Persons Employed in Chemistry and Chemical Engineering Reporting Occupational Status for 1941 and 1943

Occupational status	Chemistry			Chemical engineering		
	Identical group ¹		Total group ²	Identical group ¹		Total group ²
	1941	1943	1943	1941	1943	1943
Research, industrial.....	17.6	23.1	22.6	14.6	11.5	11.9
Administration, technical.....	10.7	16.2	14.9	18.7	28.4	27.2
Teaching, college or university.....	8.0	6.6	6.5	(³)	(³)	(³)
Analysis and testing.....	25.2	21.7	23.8	11.4	1.9	2.5
Research in basic science.....	4.2	4.9	4.8	(³)	(³)	(³)
Development.....	4.5	6.0	5.9	14.1	14.9	15.1
Production.....	7.1	7.7	7.7	17.6	21.3	21.7
Technical service.....	2.1	2.1	2.1	4.8	5.9	6.2
Teaching, secondary school.....	7.5	5.6	5.7	(³)	-----	(³)
Design.....	-----	-----	(³)	4.7	5.2	5.1
All other.....	13.1	6.1	6.0	14.1	10.9	10.3
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

¹ Includes only those who reported occupational status for both years.

² Includes all who reported occupational status for 1943.

³ Number reporting is too small to be significant and is included in "all other."

CHANGES IN BASE MONTHLY SALARIES

In making comparisons of earnings in 1941 and 1943 for the same group of workers (table 6), it should be borne in mind that the respondents had 2 years more experience when reporting 1943 salaries. In 1941, 7.5 percent of those employed in chemistry earned less than \$100 per month, but in 1943 there were only 2.2 percent earning less than this amount. As many as 31.8 percent earned less than \$160 per month in 1941; 2 years later there were only 8.0 percent. It is

TABLE 6.—Percentage Distribution of Persons Employed in Chemistry and Chemical Engineering Reporting Base Monthly Salary, 1941 and 1943

Base monthly salary rate	Percentage distribution				Base monthly salary rate	Percentage distribution			
	Chemistry		Chemical engineering			Chemistry		Chemical engineering	
	1941	1943	1941	1943		1941	1943	1941	1943
Under \$100.....	7.5	2.2	2.1	.5	\$300-\$339.....	7.2	10.8	9.1	13.5
\$100-\$119.....	5.4	.9	1.7	.2	\$340-\$399.....	5.2	8.5	6.6	12.3
\$120-\$139.....	8.6	1.5	4.9	.3	\$400-\$479.....	3.5	6.5	6.6	11.4
\$140-\$159.....	10.2	3.4	9.5	.6	\$480-\$569.....	2.1	3.1	4.0	6.6
\$160-\$179.....	9.7	6.8	9.3	1.7	\$570-\$679.....	1.0	1.6	2.4	3.5
\$180-\$199.....	8.5	8.3	8.1	3.8	\$680-\$849.....	.8	1.1	1.9	2.1
\$200-\$219.....	10.6	11.9	9.3	6.3	\$850 and over.....	1.3	1.7	2.3	3.2
\$220-\$239.....	5.6	9.4	6.6	8.4	Total.....	100.0	100.0	100.0	100.0
\$240-\$259.....	5.8	9.1	6.9	10.1					
\$260-\$299.....	7.0	13.2	8.7	15.5					

not known to what extent those reporting the low salaries may have been engaged in routine work in such jobs as analysis and testing or production. At the other end of the scale, 14 percent made \$400 or more per month in 1943, compared to 8.6 percent in 1941.

Among those employed in chemical engineering, as many as 18.2 percent earned less than \$160 per month in 1941, but only 1.6 percent in 1943. In 1941, 17.2 percent earned more than \$400; 2 years later 26.8 percent fell in that salary bracket.

The extent to which the increases in earnings shown in table 6 reflect the professional advancement of individuals rather than a general advance in income levels in the field is partially suggested by data in table 7, which includes *all* persons employed in chemistry and chemical engineering who reported income in either year. The median base monthly salaries for 1941 are nearly identical in the two tables, both in the case of chemists and in that of chemical engineers. In 1943, however, the tabulation for *all* those reporting (table 7), shows lower median incomes than the tabulation (table 6) which covers only those reporting in both years (chemists, \$243 as compared with \$252; chemical engineers, \$297 as compared with \$308); i. e., those who entered the field between 1941 and 1943 had lower-than-average salaries, as would be expected. Since the survey omits the income in 1941 of persons who left the field since, including largely those who died or retired and whose incomes in 1941 were very likely higher than the average, the 1941 average shown by the survey may be slightly lower than the true average in that year, and the increase in income levels indicated by table 7 may be somewhat greater than actually took place.

Nevertheless, it is significant that an increase of nearly 22 percent occurred in the median base monthly salaries of those employed in chemistry, and that the salaries of those employed in chemical engineering advanced slightly more than 26 percent in the 2-year period, reflecting the great needs of war industry for the services of these workers. It is also of interest that the salaries of the lowest-paid groups in both fields of employment increased by the greatest amounts proportionately (table 7).

TABLE 7.—*Comparison of Five Levels of Base Monthly Salaries in 1941 and 1943 for All Persons Employed in Chemistry and Chemical Engineering*

Percent earning above specified income level	Median base monthly income		Increase from 1941 to 1943		Median base monthly income		Increase from 1941 to 1943	
	1941	1943	Amount	Percent	1941	1943	Amount	Percent
	Chemistry				Chemical engineering			
90 percent.....	\$107	\$160	\$53	49.5	\$144	\$199	\$55	38.2
75 percent.....	148	194	46	31.1	174	236	62	35.6
50 percent.....	200	243	43	21.5	235	297	62	26.4
25 percent.....	276	318	42	15.2	333	400	67	20.1
10 percent.....	383	426	43	11.2	490	540	50	10.2

Employment Conditions

Future Levels of German Industrial Employment¹

ON MARCH 28, 1946, the Allied Control Council in Berlin announced its decision regarding the character and amount of German industrial capital equipment to be retained for the maintenance of a peaceful German economy, to be allocated as reparations, or to be eliminated.

The basis for the decision was explained as follows:

In accordance with the Berlin Protocol the Allied Control Council is to determine the amount and character of the industrial capital equipment unnecessary for the German peace economy and therefore available for reparations. The guiding principles regarding the Plan for Reparations and the Level of the Postwar German Economy, in accordance with the Berlin Protocol are: (a) Elimination of the German war potential and the industrial disarmament of Germany; (b) payment of reparations to the countries which had suffered from German aggression; (c) development of agriculture and peaceful industries; (d) maintenance in Germany of average living standards not exceeding the average standard of living of European countries (excluding the United Kingdom and the Union of Soviet Socialist Republics); (e) retention in Germany, after payment of reparations, of sufficient resources to enable her to maintain herself without external assistance.

In accordance with these principles, the basic elements of the Plan have been agreed. The assumptions of the Plan are: (a) That the population of postwar Germany will be 66.5 millions;² (b) that Germany will be treated as a single economic unit; (c) that exports from Germany will be acceptable in the international markets.

In arriving at an estimate of the level of living permitted by the Potsdam agreement, an attempt was made by the experts working with the Control Council to compare the prewar consumption levels in Germany with those in neighboring continental countries through the use of per-capita national-income data. Adjustments were made to allow for a higher degree of urbanization in prewar Germany than in other European countries. The results so obtained were then checked by comparing the average per-capita consumption of individual items, principally food and clothing, in the respective countries. It was concluded that Europe would attain 1930-38 consumption levels some time before 1950, and that outside the United Kingdom and Russia, average consumption in those years was 25 to 30 percent lower than in Germany, or somewhat below the German level in 1932.

Modifications of 1932 consumption patterns were then introduced, to replace war damage to residential building and to reduce consumption of food, textiles, and clothing (other than shoes), in order to keep down imports and maximize the exports of "peaceful" industries.

¹ Prepared by Jean A. Flexner of the Bureau's Foreign Labor Conditions Staff.

² The 1939 population of Germany (not including the Saar, the Sudetenland, or Austria) was 69.3 million.

The average might provide the low income group with a better distribution of goods and services than in 1932, depending upon the levels of employment that are attained and the measures that may be adopted to reduce the inequalities of income as they existed in 1932 or to insure the direct supply of goods and services to low income groups.

The Control Council decided that, in addition to the categories prohibited at Potsdam (munitions of war, aircraft, and sea-going vessels), all industrial capital equipment for the production of certain items is to be eliminated forthwith: (1) Heavy machine tools and heavy tractors of certain types, to be specified by the Allied Control Authority; (2) primary aluminum; (3) magnesium; (4) beryllium; (5) vanadium produced from Thomas slags; (6) radioactive materials; (7) hydrogen peroxide above 50 percent strength; (8) specific war chemicals and gases; (9) radio transmitting equipment.

Capital equipment for the production of synthetic gasoline and oil, synthetic rubber, synthetic ammonia, and ball and taper-roller bearings, in quantities needed for the civilian economy, will be retained until it is possible to import them.

Industries in which varying amounts of the prewar capital equipment will be removed include steel, nonferrous metals, chemicals, the manufacture of machinery and machine tools, electrical equipment, automobiles, tractors, optical and precision instruments, and cement.

In addition, the Council estimates production in the pulp, paper and printing, rubber, textiles and clothing, and boot and shoe industries "necessary for the German economy in 1949," which may be exceeded if feasible. Unrestricted industries (in which it is hoped to maximize production) include coal, potash, building and building materials, furniture and woodwork, glass, ceramics, bicycles, and light motorcycles. The industrial capacity which remains is supposed to provide necessary exports as well as minimum domestic needs.

Effects of Allied Control Council Decisions on Employment

IN RESTRICTED INDUSTRIES

The possible effect which the announced restrictions may have in relation to the 1936 level of employment in the industries immediately affected is shown in table 1. It is assumed that productivity in 1949 will not differ much from that in 1936. During the war, productivity in many industries increased, but during later stages of war and after, low rations, displacement of labor, plant dispersal and destruction, and low-capacity operation have reversed the trend. It is also probable that removal of newer plants and restriction of the metal-fabricating and chemical industries, which were probably among the most efficient in the country, will adversely affect the efficiency of other industries.

Calculation of the number who were employed in the prohibited "aircraft and munitions of war" industries is impossible, as they do not appear in the June 1936 census of industry. Perhaps they were not reported at all, since at that time German rearmament was proceeding in violation of the treaty of Versailles. According to one

TABLE 1.—German Industrial Employment in 1936 and as Estimated for 1949¹

Industry	Number employed in 1936 (in thousands)	Percent of prewar capacity to be retained	Estimated employment in 1949 ² (in thousands)
All industrial employment	7,950.4		
Restricted industries:			
Iron and steel:			
Primary manufacturing	754.0	39	294.1
Foundries	201.6		
Wares (except hand tools and vehicle parts)	147.4		
Construction steel	357.4		
Nonferrous metals	47.6		
Primary manufacturing	324.0	53	171.7
Foundries	74.8		
Wares	26.1		
Mechanical engineering	223.1		
Heavy engineering	552.8	42	232.2
Boilers, etc.	172.6		
Fittings, etc.	22.4		
Other machinery (½)	23.8		
Light engineering	126.4		
Textile machinery	290.2		
Sewing machines, etc.	29.4		
Graphic and printing machinery	23.0		
Food processing machinery	24.5		
Business machines	27.9		
Small tools (hand)	25.5		
Other machinery (½)	33.5		
Machine tools	126.4		
Precision instruments and optics	90.0		
Automotive	97.1	70	68.0
Automobiles	159.2	26	41.4
Vehicle parts	110.1		
Electrical engineering ⁴	49.1		
Electrical generating and transmitting	294.2	50	147.1
Chemicals:	109.7	60	65.8
Basic (inorganic)	29.0		
Fertilizers (phosphates, carbides)	31.2	40	24.1
Synthetics	14.9		
Other	36.9	70	36.3
Pharmaceuticals	32.7	80	26.2
Dyestuffs	36.4	51	18.6
Organic tar dyes	27.7		
Inorganic mineral dyes	8.7		
Cement and concrete	38.1	68	25.9
Shipbuilding	76.3	13	10.0
Total	2,586.5		1,161.4
Percent of 1936 employment			44.9
Industries for which levels are estimated for 1949 (not fixed):			
Agricultural machinery	37.3	80	29.8
Textiles	911.7	77	702.0
Rubber	52.4	62.5	32.8
Pulp, paper, printing	383.5	65	249.3
Boots and shoes	103.8	70	72.7
Railroad cars, locomotives	22.5		20.0
Coal mining	505.3	75	379.0
Total	2,016.5		1,485.6
Percent of 1936 employment			73.7
Unrestricted industries:			
Manufacturing, other than shown above	2,070.8		
Mining, other than coal	56.6		
Building	1,220.0		
Total	3,347.4		

¹ Sources: 1936 employment, Die Deutsche Industrie (Berlin), 1939; Percent of prewar capacity to be retained, Allied Control Council, Plans for Reparations and Level of Postwar German Economy (Berlin), Mar. 28, 1946.

² The method used in estimating future employment (col. 3) was to apply to 1936 employment (col. 1), the percentage of prewar output to be retained (shown in col. 2). A considerable, but unavoidable, error may be present because of the difficulty of matching the categories given in the German industrial census of 1936 with the categories named by the Allied Control Council.

³ The Control Council decided that 38 percent of prewar capacity as measured by value of output in 1938 was to be retained; an adjustment has been made in order to show the percentage which this would represent of 1936 output. The percentage of 1938 output to be retained in the subgroups was fixed at 31 percent for heavy engineering, 60 percent for light engineering, and 11 percent for machine tools.

⁴ This term is taken to correspond fairly closely with the German census group, electrical industry or electrical manufacturing. The census group may, however, be too inclusive.

⁵ Ongoing vessels are prohibited. The estimate for 1949 employment is based on Foreign Economic Administration, Enemy Branch (Washington), Final Report on a Program for German Economic and Industrial Disarmament, December 1945, Part III.

authority,³ between 500,000 and 600,000 persons may have been employed in war-related industries and escaped enumeration in the 1936 industrial census. Others, however, believe this estimate is too high.

The loss of jobs estimated for the restricted industries would have thrown 1,425,100 people out of work in 1936. This means a reduction to 45 percent of the 1936 level for these industries.

Industries for which the Allied Control Council has estimated but not fixed the level of 1949 production, are not expected to regain the 1936 level by 1949 because they are dependent either upon the products of restricted industries or upon imported commodities paid for before the war by the products of the restricted industries. The Control Council's estimate of production for 1949 appears to provide 1,485,600 jobs, or about 75 percent of the 1936 number—a loss of 531,000 jobs in the group.

Because of the general shortages, coal and potash mining will be encouraged as much as mining supplies and transport will allow. Necessary supplies and services to this end, according to the Council, will be arranged. Intensive recruiting of coal miners is being carried on. Coal production is not expected to regain its former level, notwithstanding.

IN UNRESTRICTED INDUSTRIES

Manufacturing industries which have been left free to develop (within the limitations of available resources) include the building industry, building materials (except for steel and cement), furniture, woodworking, glass, ceramics, bicycles, and light motorcycles. These industries employed 3,347,000 persons in 1936 ("Unrestricted industries" in table 1).

General Factors Affecting Employment Levels

The extent of employment in other segments of the German economy (agriculture, trade, domestic service, government, etc.) cannot be obtained for 1936, but is to be found in the 1939 occupational census.⁴ The number and percentage distribution of persons in the German labor force in 1939, in the Altreich (i. e., excluding Austria, Sudeten, Saar) are given below:

	Number (in thousands)	Percentage dis- tribution
All occupational groups.....	34, 269	100. 0
Agriculture.....	8, 750	25. 5
Forestry and fishing.....	185	. 5
Mining.....	684	2. 0
Manufacturing and mechanical (including handieraft, building, etc.).....	13, 734	40. 1
Trade and finance.....	3, 419	10. 0
Communications and transportation.....	1, 873	5. 5
Service trades.....	1, 044	3. 1
Domestic service.....	1, 344	3. 9
Government ¹	3, 236	9. 4

¹ Excluding post offices and railroads, classified in communications and transportation.

³ L. Rostas, in the Economic Journal (London), April 1943, p. 42.

⁴ Die Erwerbspersonen im Deutschen Reich (Census of Occupations), May 17, 1939. Berlin, 1941.

It would be inaccurate to assume that the same volume of employment for any of these groups will be projected into 1949. Account must be taken of a number of limitations which will make the postwar employment pattern different from the prewar pattern: (1) Territorial changes and population shifts; (2) changes in the size, age, sex, composition, and adaptability of the labor force; (3) availability of imports of raw materials (dependent on exports); (4) effect of a lower-than-prewar level of consumption upon the demand for employment in connection with furnishing goods and services; and (5) indirect effects of the reparations removal program.

Whatever the future level and distribution of employment in postwar Germany, it will differ materially from that of 1939. For example, about 14 percent of the total 1939 labor force was located east of the Oder-Neisse line. About 15 percent of the coal miners, 8 percent of those employed in making agricultural machinery, 6 percent of the textile workers, 4 percent of the shoe-industry employees, and 21 percent of the paper-products industry employees, according to the 1936 industrial census, were located in the provinces of East Prussia, Pomerania, and Upper and Lower Silesia. To these must be added others in the ceded parts of Brandenburg. The transfer of a large proportion of the Germanic population of this and other neighboring regions into Germany proper will increase the number of people seeking work, while the loss of territory decreases the opportunities for employment. It cannot, however, be assumed that employment opportunities will diminish at the same rate in all fields: service jobs and certain kinds of administrative jobs that depend upon the size and density of population will be affected differently from jobs that depend upon natural resources (e. g., coal mines, agriculture) or on factories and capital equipment. It is estimated that some 4 million jobs may be eliminated by these territorial changes.

The changes which have occurred in the size and composition of the labor force are suggested by table 2.

TABLE 2.—*German Population, 1939 and 1946, by Sex and Age Groups*¹

Sex and age	1939 ²		1946 ³	
	Number (in mil- lions)	Percent	Number (in mil- lions)	Percent
Total population.....	69.3	100.0	62.8	100.0
Male population.....	33.9	48.9	27.1	43.2
Under 14 years of age.....	7.7	11.1	7.8	12.4
14-50 years of age.....	23.8	34.2	16.4	26.1
50-65 years of age.....				
Over 65 years of age.....	2.5	3.6	2.9	4.6
Female population.....	35.4	51.1	35.7	56.8
Under 14 years of age.....	7.4	10.7	7.4	11.8
14-50 years of age.....	19.6	28.3	18.9	30.1
50-65 years of age.....	5.5	7.9	6.0	9.6
Over 65 years of age.....	2.9	4.2	3.4	5.4

¹ Source: Military Government of Germany, U. S. Zone. Report on Manpower, Trade Unions, and Working Conditions, No. 7, Feb. 20, 1946, Appendix B (p. 22).

² Census data, 1937 boundaries.

³ 1946 boundaries; based on current registrations. It should be noted that these figures were compiled before the planned transfers of Germans who have been living in other countries were completed.

It is expected that still further changes will take place when the displaced Germans and those still held prisoner by the Allies return. A total labor force of some 31 to 33 million persons is anticipated by 1949, depending upon the eventual size of the German population. In 1939, the labor force in the Altreich (excluding Austria, Sudeten, and Saar) was 34.3 millions. The future labor force will be as large as, or larger than, prewar (relative to the territorial size of Germany) but will contain a much lower proportion of skilled workers of all types and relatively fewer able-bodied males. The difficulties already experienced in adapting the postwar labor force to the jobs that need to be done are expected to continue. These difficulties are vividly illustrated in current reports from the U. S. Zone.

The January 1946 labor registration in the U. S. Zone showed, as in earlier months, a very wide gap between the number of unemployed, job openings, and placements, in the month.

	<i>Total</i>	<i>Male</i>	<i>Female</i>
Total registered ¹ -----	5, 859, 871	3, 253, 425	2, 606, 546
Employed-----	4, 914, 781	2, 880, 091	2, 034, 690
Unemployed-----	945, 190	373, 334	571, 856
Job openings-----	229, 246	164, 016	65, 230
Labor office placements-----	124, 401	84, 726	39, 675

¹ Source: Eighth Report, Military Government U. S. Zone, March 20, 1946, Manpower, Trade-Unions, and Working Conditions (p. 3).

It was reported that 38 percent of the registered unemployed were unemployable for physical or other reasons. Labor shortages occurred in building, certain mechanical occupations, and in agriculture, although it was the off season. "When industrial activity increases because of the greater availability of fuel, power, and raw materials, the scarcity of suitable trained labor may reach crisis proportions," says the report of the U. S. Military Government for March 20, 1946. Conditions were not very different in the British Zone in February 1946.⁴

The targets for 1949 employment may appear extremely low when compared with prewar, but they are far higher than present day levels, at least in western Germany. Thus, it is reported that Ruhr steel mills were operating in February 1946 at less than half of the planned capacity. In the United States Zone in February, industries were operating chiefly on the basis of stock-piled materials; consumer goods industries were operating at between 5 and 25 percent of existing capacity; power generation at 45 percent; ferrous metals at 10 percent; and building materials at 20 percent.

Conditions Affecting Fulfillment of the Plan

The Allied Control Council anticipated that German industries (restricted and unrestricted) would be able to produce an export surplus in 1949 to the extent of 3 billion Reichsmarks (1936 value),⁵ in order to pay for an equal quantity of approved imports. These imports, chiefly food and raw materials, constitute an essential minimum. Without these imports, output, consumption, and employ-

⁴ For discussion of employment conditions during the occupation, see also Monthly Labor Review (Washington), February 1946 (p. 187).

⁵ The average exchange rate of the reichsmark for the year 1936 was 40.2575 cents in terms of U. S. currency.

ment would sink below the estimated levels. Yet the precarious equilibrium of Germany's foreign trade depends upon several assumed conditions stated by the Council: (1) That the population of the postwar Reich will not exceed the estimate of 66.5 millions; (2) that Germany will be treated as an economic unit; and (3) that Germany's exports will be acceptable in international markets. If one or more of these conditions fail to materialize, presumably modification of the plan would be considered.

In addition to the above assumptions, fulfillment of the Control Council's plan would seem to depend also on the following factors: (1) That labor is available for the industries it plans to encourage; (2) that the domestic economy will not require a higher level of imports to maintain the consumption level set by the Control Council; and (3) that the restrictions imposed do not impede the development of the unrestricted industries.

The Control Council obviously intends to cut back the industries supplying capital equipment only to a point which would prevent a resurgence of a German armament industry. Prior to the war these industries maintained a capacity exceeding domestic requirements by exporting, as shown by the following tabulation of German exports in 1936.

	<i>Value in million reichsmarks</i>	<i>Percent</i>
Total German exports, 1936 ¹	4, 768. 2	100. 0
War-potential industries.....	2, 925. 7	61. 3
Iron and steel products.....	724. 4	15. 2
Other metal and metal products.....	262. 1	5. 5
Machinery (excluding electrical).....	605. 7	12. 7
Electro-technical products.....	258. 3	5. 4
Optical and precision instruments.....	90. 5	1. 9
Automotive and vessels.....	217. 3	4. 5
Chemicals and their products, lubricants, and cement.....	767. 4	16. 1
Peaceful industries.....	1, 125. 8	23. 6
Textiles and fibers.....	486. 9	10. 2
Furs.....	48. 1	1. 0
Leather and shoes.....	86. 0	1. 8
Paper and paper products.....	149. 8	3. 1
Books, etc.....	36. 0	. 8
Musical instruments, toys, etc.....	96. 9	2. 1
Glass and glassware.....	76. 0	1. 6
Clay, ceramics, etc.....	66. 9	1. 4
Rubberwares.....	40. 3	. 8
Woodwork and furniture.....	38. 9	. 8
Coal and potash.....	413. 2	8. 7
Other (not specified).....	303. 5	6. 4

¹ Source: Statistisches Jahrbuch für das Deutsche Reich (Berlin), 1938 (p. 265).

In 1936, almost two-thirds of the total value of German industrial exports came from the "war potential" group, whereas only 24 percent of industrial exports came from the "peaceful" industries. If to the latter are added exports of coal and power, the proportion rises to 32.3 percent. The total value of "peaceful" exports, including coal and power, was 1,539 million RM, about half the value of planned approved 1949 exports.

Cuts made in the metal-fabricating industries by the Control Council greatly exceed the proportion of product exported in 1936:

17.5 percent of the total value produced in the "engineering" group of industries shown in table 1 was exported, whereas the Control Council cuts would eliminate capacity producing nearly 60 percent of the 1936 product. The remaining capacity is intended to furnish some exports, as well as to supply domestic needs. How this cut may affect the industries purchasing or using the products of the metal-fabricating industry is indicated by the following tabulation:

	<i>Value (in millions of reichsmarks)</i>	<i>Percent</i>
Users or purchasers, 1936: ¹		
Manufacturing industries.....	1,301	11.8
Foods, etc.....	138	
Metal fabricating.....	988	
Electrical equipment.....	63	
Furniture, woodworking.....	35	
Chemicals (including oil).....	42	
Other manufacturing.....	35	
Construction.....	1,054	9.6
Household.....	490	4.5
Transportation.....	50	.5
Agriculture.....	12	.1
Fuel and power.....	14	.1
All other domestic uses ²	6,799	62.0
 Total domestic economy.....	 9,720	 88.6
 Exports.....	 1,249	 ³ 11.4
 Grand total.....	 10,969	 100.0

¹ Source: Estimates prepared by Jerome Cornfield of the Bureau of Labor Statistics for the Allied Reparations Commission.

² This group was estimated as a residuum and consists chiefly of capital equipment produced in the metal-fabricating industries.

³ The 11.4 percent shown here and the 17.5 percent shown above do not agree, because "metal fabricating" is less inclusive than the engineering group of industries used in table 1.

It is difficult to reconcile the hopes for expansion in such lines as building, woodworking, textiles, printing, or even agriculture, with the reductions planned in steel production and metal-fabrication, since these industries depend upon the latter group to supply their capital equipment, parts, and replacements.

Furthermore, unless the machinery and mechanical equipment of the "peaceful" industries is kept up, the exports of these industries—wood products, glass, ceramics, and similar items—are likely to fall behind schedule. While less efficient methods of manufacture often result in the employment of more people, it is impossible to predict whether such methods can compete successfully with highly mechanized and more efficient industries in world markets, even though German workers are living at very low levels.

Potential Effect of the Plan

The Allied Control Council decisions appear to eliminate at least 2 million industrial jobs that were in existence in Germany in 1936. Territorial changes will decrease employment opportunities by about 4 million jobs. Employment in government appears likely to be smaller. Opportunities in the service industries will be limited by the reduced level of living. Agriculture is counted on to absorb a considerable number of additional workers through the breaking up of

large holdings and resettlement of in-migrants on the land, although western Germany already has a comparatively dense agricultural population.

In contrast, the labor force within the new boundaries may, by 1949, prove to be almost as large as that of the greater area in 1939, but inferior to it in respect to skills and adaptability for either construction tasks or highly skilled manufacturing such as Germany excelled in before. Whatever reconversion program Germany might be permitted to undertake, a large volume of unemployment would appear to be inevitable for some years ahead. Estimates given to the British Parliament, on the assumption that the Allied Control Council's plan will be carried out and that the future German population will not exceed the estimate of 66.5 million persons in 1949, run between 2.5 and 3.5 millions. American estimates have put the probable figure even higher. In 1932, there were 5,575,000 unemployed in Germany.

The Potsdam program, which the Allied Control Council was implementing in its decision of March 28, was intended to insure the peace of Europe by means of the industrial disarmament of Germany and the dispersion of its highly concentrated industry for the benefit of countries injured by German aggression. These countries will be materially assisted in the reconstruction and expansion of their war-damaged industries by receiving German facilities and tools, and in future may be able to supply themselves with some of the articles formerly imported from Germany, but it cannot currently be predicted whether this will ultimately be detrimental to the European level of living. Those who favored the transfer of industries from Germany to neighboring countries stressed the beneficial effect within those countries of broadening their base of heavy manufacturing industry. The development of large-scale unemployment in Germany, with its historical accompaniment of unrest and political instability, would challenge the feasibility of the plan, unless overcome by retraining and reallocation of the labor force, adjustment of hours, fostering of new technical processes and new industries, and other measures such as could only be put into effect by a strong central authority.

Education and Training

Standards for On-the-Job Veteran Training¹

THE Retraining and Reemployment Administration of the U. S. Department of Labor has issued a list of basic standards for approval of establishments offering veterans nonagricultural on-the-job training under the GI Bill of Rights.² In presenting suggestions for the consideration of the agencies in each State that are responsible for the approval of establishments furnishing the training, the RRA recognized that such agencies have full responsibility for fixing standards for approval, and that in many States standards are higher than those suggested. However, the Administrator of the RRA expressed the hope that the States could see fit to adopt the criteria presented as a minimum basis for approval. The recommendations referred to are those adopted by the Interagency Committee for Development of Criteria and Standards for On-the-Job Training, on April 8, 1946, and approved by representative veteran, trade-union, and educational bodies.

To promote careful attention to the maintenance of training standards among State agencies, various indirect means are available to Federal authorities. For example, the Veterans' Administration, which pays subsistence allowances to veteran trainees, has indicated (in Circular 61) that it will remove a veteran from its subsistence pay rolls if certain requirements are not met. The U. S. Employment Service, in proposing that all State agencies adopt the criteria established by the Interagency Committee, has warned its local offices against referral of veterans to on-the-job training under employers who do not meet these standards.

Minimum Standards

Federal recommendations for minimum standards to be met by employers providing nonagricultural on-the-job training to veterans are as follows:

The training content of the program is adequate to qualify the veteran for appointment to the job for which he is to be trained.

There is reasonable certainty that the job for which the veteran is to be trained will be available to him at the end of the training period, as is evidenced by such factors as the ratio of trainees, veteran and nonveteran, to trained workers.

The job is not in a standard wage classification, in which progression and appointment to the next higher classification are based upon such factors as length of service and normal turnover, and not upon skills learned through organized training on the job.

¹ Data are from U. S. Department of Labor, Retraining and Reemployment Administration (Recommended Minimum Criteria for Approval of Establishments Offering Nonagricultural On-the-Job Training for Veterans, Washington, 1946); and from Veterans Administration (press release dated April 29, 1946).

² See Monthly Labor Review, April 1946 (p. 595).

The wages to be paid the veteran for each successive period of training are not less than those customarily paid in the establishment and the community to a learner in the same job who is not a veteran, and are in conformity with State and Federal laws and applicable bargaining agreements.

The job customarily requires a period of training which justifies the setting up of a complete program of not less than 500 hours of training.

The length of the training period is no longer than that customarily required by the establishment and other establishments in the community to provide the trainee with the required skills, [and to] arrange for the acquiring of job knowledge, technical information, and other facts which the trainee will need to learn in order to become competent on the job for which he is being trained.

Provision is made for related instruction.

There is in the establishment adequate space, equipment, instructional material, and instructor personnel to provide satisfactory training on the job.

Adequate records are kept to show the progress made by the veteran toward his job objective.

Appropriate credit is given the veteran for previous job experience, whether in military service or elsewhere, his beginning wage adjusted to the level to which such credit advances him, and his training period shortened accordingly.

A copy of the training program as approved by the State agency is provided to the veteran by the employer.

Upon completion of the training, the veteran is given a certificate indicating the length and type of training provided and attesting to his competency in the job for which he was trained.

Employees of the establishment are advised of the training program.

The approving agency should have access to the establishment for the purpose of assisting in the development and improvement of the training program.

Other Requirements

In clarifying the obligations of employers under the training program, the Veterans Administration stated on April 29 that "job training establishments will not have to guarantee veterans work at the end of their training courses regardless of circumstances." VA, however, will prevent an employer from taking veterans as trainees if he has reason to think that work will not be available for the veterans when the training course ends.

The maximum monthly subsistence allowance of \$65 for a veteran without dependents, or \$90 for one having dependents, under the GI Bill of Rights, is intended to supplement wages paid by the employer during training. In combination, the subsistence allowance and wages may not exceed the wages of the experienced worker employed in the same kind of job. "The subsistence allowance is not a dole to the veteran nor is it intended as a subsidy to the employer."

On-the-job training is defined in the RRA report under review as any form of industrial or occupational training which requires a minimum of 500 hours, and in which a differential customarily exists between the beginning wage and the wage paid to a trained worker. If an employer desires to undertake such training, he should be required to make written application to the appropriate State approving agency, giving pertinent descriptive information, the length of the training period in hours, the wages to be paid at different stages and those paid to other employees already trained in the kind of work for which the veteran is to be trained, and the number of hours of supplemental instruction required.

Training Courses for Union Leaders

SIXTY high-ranking officers of 15 Building-Service Employees' unions (AFL) registered for a labor and economics course at the Industrial Relations Center of the University of Chicago.¹

The course was to include one evening session weekly for a period of 10 weeks. Lectures by national authorities were to be followed by general discussion. The proceedings were to be transcribed, and the entire work of each session condensed into four or five pages and made into a packet for distribution among the officers of the Building Service Employees International Union throughout the United States and Canada.

In addition to the course for officers, the International Union was reported arranging a course for shop stewards, also in conjunction with the Industrial Relations Center of the University of Chicago. This course was to have sections for the union's organizers and business agents. It would immediately follow the course for officers.

¹ American Federation of Labor. Weekly News Service (Washington), March 12, 1946.

Industrial Relations

An Industrial Relations Charter for the Americas¹

THE Third Regional Labor Conference of American Countries, which met in Mexico City from April 1 through April 16, 1946, adopted six resolutions which may well form the basis of an industrial relations charter for the Americas.

More than 20 countries, including the United States and Canada, participated in the work of the conference. The extent to which agreement was reached on the general principles underlying industrial relations policy speaks well for the adoption of national legislation for the protection of the freedoms outlined in the resolutions. The draft resolutions adopted by the conference cover the following aspects of industrial relations: freedom of association; protection of the right to organize and to bargain collectively, including machinery for the determination of the collective bargaining agent; procedures for voluntary conciliation and arbitration, and principles concerning the extension of collective agreements where such procedure is or may be provided for by national laws or regulations.

The industrial relations committee of the conference had before it the report, prepared by the International Labor Office, on industrial relations² which briefly outlined the problems and practices of the American countries, with particular emphasis on the Latin American countries. The Office submitted for consideration 7 draft resolutions, and representatives of the various countries submitted an additional 22 resolutions and amendments. The committee's final report was confined to 6 resolutions.³

Freedom of Association

Two resolutions adopted by the conference relate to the protection of freedom of association. The first recommends incorporation of the guaranty of freedom of association into the constitutions of the American States; the second recommends the widest extension of that freedom and security against dissolution of employers' and workers' organizations by administrative order.

¹ Prepared by Harold S. Roberts, Assistant Chief of the Bureau's Industrial Relations Branch and adviser to the delegates representing the U. S. Government at the Third Conference of the American States Members of the International Labor Organization.

² International Labor Office, Report IV, Industrial Relations, Fourth Item on the Agenda. Montreal, 1946. (Prepared for Third Conference of American States Members of the ILO.)

³ Five additional resolutions were submitted to the Conference, but they dealt with problems other than the basic protections of the right to organize and bargain collectively. These resolutions were concerned with high-wage policy; equal pay for equal work; stability of employment; the suggestion that the subject of industrial relations be placed on the agenda of other conferences; and the suggestion that the ILO study the problem of collaboration between public authorities and employers' and workers' organizations.

The committee deleted from its draft resolutions two Office draft resolutions dealing with compulsory mediation and arbitration and the enforcement of collective bargaining agreements through the establishment of labor courts.

An amendment proposed by the employers' member from Colombia to require registration of unions as a condition precedent to the grant of freedom of association was defeated. Another proposal by the employers' group to confine the activities of trade-unions to "social and economic" problems was subject to long debate, but was also defeated. An amendment offered by the government delegate for Bolivia to grant trade-union officials legislative immunity was discussed at length but voted down. The labor delegates of the committee were divided on the desirability of such immunity, but subsequently went on record against special immunities for labor leaders, proposing instead an addition to resolution No. 3 to protect labor leaders in the exercise of "legitimate" trade-union activity during the course of a strike. In their argument for the proposal workers' delegates pointed out that in certain countries labor leaders were thrown in jail during the course of a strike and that the specific language proposed was necessary. The conference adopted the amendment without opposition. The section reads as follows:

(3) Appropriate legislative measures should safeguard in each country the exercise of labor union rights and the activities of the labor leaders, particularly during the preparation and the period of strikes so that labor leaders may not be dismissed, prosecuted or deprived of their liberties because of their legitimate union activities.

Significant clauses from these two resolutions, as finally adopted, are presented below:

Draft resolution (No. 1) concerning constitutional provisions for freedom of association

The Conference therefore resolves that:

The American States should guarantee freedom of association in their constitutions.

Draft resolution (No. 2) concerning freedom of association

The Conference calls the attention of the States Members of the Americas to the following principles, which seem to constitute an adequate definition of freedom of association:

(1) Employers and workers, whether public or private, without distinction of occupation, sex, color, race, creed or nationality, should be entitled to form organizations of their own choosing without previous authorization;

(2) Organizations of employers and workers should be granted full autonomy in organizing their administration and activity, in drawing up their constitution and administrative rules, and in framing their policies;

(3) Organizations of employers and workers should not be subject to dissolution by administrative orders.

In those countries where forced dissolution is imposed by way of penalty for certain acts deemed illegal, the trade-unions should be entitled to the full protection of the appropriate procedure;

(4) Organizations should have the right to constitute federations and confederations of trade organization;

The formation, operation and dissolution of federations and confederations should not be subject to formalities other than those prescribed for employers' and workers' organizations;

(5) Where the acquisition of special privileges by organizations is subordinated to certain conditions of substance and of form, these conditions should not be such as to imperil freedom of association as defined above.

The Right To Organize and Bargain Collectively

The third resolution seeks to protect the right to organize by prohibiting employers or their agents from resorting to yellow dog contracts, discharge, or any other pressure to compel a worker to

join or not to join a trade-union. The resolution further suggests in addition to prohibition of company-dominated unions and refusal by employers to recognize and bargain in good faith, establishment of machinery to enforce these prohibitions and to hold elections for the determination of appropriate collective bargaining agencies.

The committee deleted from the International Labor Office draft a section seeking specifically to prohibit trade-unions from resorting to "coercion or intimidation" to compel unorganized workers or those belonging to a rival union to join another union or participate in trade-union activity. The committee felt that adequate remedies exist to protect individuals against coercive activities of any kind, from any source. The employer members brought this matter up in plenary session in the form of a special resolution which after much debate, was defeated by a vote of 34 to 11. A resolution by the employer group to qualify the clause protecting the closed shop was also defeated by a vote of 30 to 17. The committee also deleted that portion of the Office draft suggesting the establishment of technical services to the labor relations boards to assist the parties in collective bargaining. The committee felt that such assistance should come from the departments of labor or from the conciliation or mediation agencies. The text of resolution 3 reads as follows:

Draft resolution (No. 3) concerning protection of the right to organize and to bargain collectively

Whereas the Declaration of Philadelphia has proclaimed the need for the effective recognition of the right of collective bargaining; and

Whereas it is in the interest of all the parties that conditions of employment be determined by collective bargaining; and

Whereas collective bargaining can only be based on the due observance of the right to organize of all the interested parties and on the acceptance in good faith of the principle of collective bargaining; and

Whereas it is therefore the duty of the State to safeguard the exercise of the right to organize and to facilitate collective bargaining by all possible means,

The Conference calls the attention of the States Members of the Americas to the following principles which seem to provide a suitable basis for the regulation of collective bargaining.

I.—Protection of the Exercise of the Right to Organize

(1) In view of the fact that the individual worker's right to organize may be placed in jeopardy by discriminatory measures directed against him at the time of hiring or during tenure of employment, the law should particularly prohibit on the part of the employer or his agents all acts designed to—

(a) make the hiring of the worker subject to the express condition that he does not join a certain trade-union or withdraws from a trade-union of which he is already a member;

(b) prejudice or injure in any manner whatsoever a worker on account of his being a member, agent or official of a certain trade-union;

(c) dismiss a worker for the sole reason that he is a member, agent, or official of a certain trade-union;

(d) in general, exert any kind of pressure upon a worker with the object of compelling him to join or not to join a certain trade-union.

(2) With a view to ensuring that collective bargaining be undertaken in good faith, the law should particularly prohibit on the part of the employer or of the employers' organization or their agents, all acts designed to—

(a) promote the formation of trade-unions controlled by the employer;

(b) interfere in the formation or administration of a trade-union, or support it by financial means or other support except that an employer should not be prohibited from permitting workers to confer with him during working hours without loss of time or pay, and further that nothing in this section should prohibit the collection of dues;

(c) hamper the exercise of the worker's right to form organizations, conclude collective agreements, and take concerted action for the defense and protection of their interests;

(d) refuse to recognize trade-unions and to negotiate with them with a view to the conclusion of collective agreements.

It should, however, be understood that a clause in a collective agreement requiring compulsory membership in a certain trade-union, not only as a condition precedent to employment but also as a condition of continued employment, is not barred by this resolution.

(3) Appropriate legislative measures should safeguard in each country, the exercise of labor union rights and the activities of the labor leaders, particularly during the preparation and the period of strikes so that labor leaders may not be dismissed, prosecuted, or deprived of their liberties because of their union activities.

II.—*Collective Bargaining Machinery*

(1) The State should undertake to place at the disposal of the parties agencies to secure the due observance of the right to organize as defined above.

(2) These agencies should be given exclusive power insofar as the judicial system permits, to take cognizance of and impose penalties for violations of the exercise of the right to organize.

(3) The agencies should be entrusted with the authority to determine which labor organization represents a majority of the workers for collective bargaining purposes. In case of disagreement they should hold a secret ballot election and certify the union which represents the majority of those voting in the appropriate collective bargaining unit as the exclusive representative of all the employees in such unit for purposes of collective bargaining.

Voluntary Conciliation and Arbitration

The principle of voluntary conciliation and arbitration was adopted in the form of a suggestion for conciliation machinery on a large scale, free of charge and expeditious. Parties to a dispute were urged to refrain from strikes and lock-outs while conciliation is in progress. The recommendation of the conciliator, once accepted, would be binding on both parties. The Office draft suggesting public enforcement of agreements resulting from conciliation was deleted by the committee.

The resolution on voluntary arbitration recommends machinery for such purposes and prior agreement to accept the arbitration award; awards would have the same force and effect as agreements voluntarily arrived at by the parties. The Office draft suggestions for appointment of arbitrators by the State and public enforcement of arbitration awards were not followed.

Important sections of this resolution, as adopted by the conference, follow.

Draft resolution (No. 4) concerning voluntary conciliation and arbitration

The Conference calls the attention of the States Members of the Americas to the following principles which it considers should be the basis of any system for the voluntary adjustment of collective labor disputes.

1.—Voluntary Conciliation

(1) Conciliation agencies should be established on a permanent basis in all parts of the country and should be in sufficiently large number to assist the parties whenever a labor dispute becomes imminent.

(2) In those countries which have a formal conciliation machinery and the agencies operate on a group basis that they be tripartite in character. Labor organizations concerned in a dispute should be permitted to intervene in all stages of the proceedings.

(3) Conciliation procedures should be free of charge and expeditious. The delays for the appearance of the parties and the hearings of the evidence should be fixed in advance and reduced to a minimum.

(4) Recourse to conciliation procedures should be voluntary but once a dispute has been submitted to a conciliation agency by consent of all the parties concerned, the parties should agree to refrain from strike or lock-out while conciliation is in progress.

(5) The parties should be free to accept or reject the recommendation of the conciliation agencies. But once a recommendation has been accepted, it should be binding on the parties.

(6) Agreements arrived at by the parties in the course of the proceedings as well as recommendations of the conciliation agencies that are accepted by the parties should legally have the same force as voluntarily concluded collective agreements.

2.—Voluntary Arbitration

(1) There should be instituted voluntary arbitration machinery which may be resorted to either before or after conciliation procedures.

(2) Recourse to arbitration should be voluntary. But once a dispute has been submitted to arbitration by consent of all the parties concerned, the parties should agree to accept the award.

(3) Arbitration awards should have the same legal force as collective agreements voluntarily agreed to by the parties.

Validity and Extension of Collective Agreements

Two resolutions were adopted concerning the extension of collective agreements. The first recommends that employers and workers be bound by the agreement and that the provisions apply to *all* workers in the plant or plants. The International Labor Office draft dealing with the provisions of *individual* contracts of employment was not included because it was felt that individual contracts of employment were contrary to and in violation of the principle and spirit of collective bargaining.

The resolution dealing with the extension of collective agreements on a regional or industry basis was confined to those countries "where extension of collective agreements is or may be provided for by national laws or regulations."

The resolutions, as adopted by the conference, read in part as follows:

Draft resolution (No. 5) concerning the validity of collective agreements

The Conference calls the attention of the States Members of the Americas to the following principle which should serve as a guide for the future elaboration of national laws and regulations respecting the validity of collective agreements:

(1) The provisions of the collective agreement should be applicable to all the workers in the appropriate collective bargaining unit in the undertaking or undertakings even though they are not members of the organization which concluded the agreement.

Draft resolution (No. 6) concerning the extension of collective agreements

The Conference calls the attention of the States Members of the Americas (where extension of collective agreements is or may be provided for by national laws or regulations) to the following principles and conditions which should be at the basis of national laws and regulations:

(1) The collective agreements should be made applicable only to the employers and workers who operate within the industrial or territorial scope of the agreement as determined by the contracting parties.

(2) Only those collective agreements which have been voluntarily agreed to and which bind the majority of the workers and the majority of the employers (who must also employ the majority of the workers), may be the subject of the legal extension.

(3) The employers and workers who may be brought under the provisions of the collective agreement must be previously consulted and authorized to submit their observations and objections.

(4) The extension of a collective agreement should only be effected if the competent authority is satisfied that the employers to be brought under its provisions are in a position to enforce the conditions of employment stipulated in the agreement without endangering the economic existence of the undertakings.

Labor-Management and Factory Committees in Italy¹

THE types of factory committees ("internal commissions") which developed in Italy after liberation resemble the English factory committees in that they were not originally created by the Government but arose under agreement between labor and management. They are similar to the former German factory committees in that they are composed of workers' representatives only and have a definite structure and duties. They date from the early 1900's, were first recognized by formal agreement in 1906 and expanded until World War I, but disappeared under the Fascists after 1921. At the end of World War II, similar factory groups were organized in various industries. In September 1943 the National Association of Italian Industrialists ("Confindustria") signed a 3-year agreement with the Confederation of Industrial Workers providing for the formation of internal commissions and giving them certain functions of a labor-management committee. Early in 1946, the Fiat automobile company concluded an agreement on labor-management committees with representatives of workers and the local and central governments. Drafts of a law on labor-management committees were under discussion, with labor support and reported industrialist opposition.

Development of Committees

Before Fascism.—Internal commissions (or factory committees) were first formed in Italy about 1900, and consisted of the persons who represented labor in disputes. They were recognized officially by an automobile company on October 27, 1906, in an agreement which stipulated that any disputes over the collective contract should be settled by the internal commission and management. Numerous other commissions were formed, and during World War I, the Government encouraged, without making compulsory, the settlement of workers' claims through such commissions.

In 1919, automobile firms in Turin and Milan agreed that workers' groups should designate members of internal commissions, and the movement spread to the electrical, gas, textile, rubber, tanning, and shoemaking industries. These commissions met with management, to carry out, generally, the same functions as those of an American grievance committee. An attempt was made to change them into a new type of organization based on Communist principles, but the General Confederation of Labor opposed the change, as did also the National Association of Italian Industrialists. After the strikes of 1920, drafts of legislation which would have increased labor's control of industry were discussed, and the Government presented a bill that would have given labor the right to control the management of industries. The bill, which satisfied neither industry nor labor, failed to pass in the 1921 legislative session, and, owing to the rise of Fascism, was not again presented in Parliament.

After World War II.—During the period of resistance, toward the end of World War II, the Committee of National Liberation of Northern Italy installed worker groups in various industries, to act

¹ Data are from reports of John Clarke Adams, labor attaché, United States Embassy, Rome, October 2, 22, and 29, November 1, 1945, and January 7, February 2, and March 1 and 27, 1946.

in some cases as labor-management committees, and in others as internal commissions of the earlier type. In the South, labor won nonvoting membership in committees of some industries which had been taken over by the Government.

On September 2, 1943, soon after the beginning of Allied operations in Italy, Confindustria signed a 3-year agreement with the Confederation of Industrial Workers, creating internal commissions and authorizing them to act not only as grievance committees but also as consultative bodies on technical matters, or as labor-management committees.

In early 1946.—An active campaign for the establishment of labor-management committees was carried on in the North of Italy during the winter of 1945-46. On February 18, 1946, the management of the Fiat company of Turin concluded an agreement on labor-management committees or consultative councils with the Ministers of Industry and of Labor, the mayor of Turin, and representatives of the Turin Chamber of Labor, the Piedmont Regional Economic Committee, and the Fiat Factory Committee of National Liberation. The agreement provided for a consultative committee or council at the central plant and each factory. The committees were to consist of specified numbers of workers and directors and were to meet regularly, with adequate secretarial personnel, premises, and archives.

The administrative bodies and factory directors were to continue to be under the authority of the shareholders' assembly. The directors were required, however, to consult the committees or councils on the following matters, which were defined as the functions of the committees: Improvement of the workers' living conditions (within and without the factories); improvement of production and of the means of production (aiming at an increase of productive efficiency); innovation of labor-saving appliances or methods intended to reduce costs of production; increasing the means of production by development of workers' welfare initiative; and formulation of general plans, plans of production, and ways of carrying them out (estimated budgets and final balances).

Industrial Injuries

Work Accidents in Chile¹

STATISTICS on officially registered accidents, classified by extent of disability, are presented in the accompanying table for the years 1932 to 1944.² Accidents in Chile are reported by the insurance companies and factory inspectors.

Work Accidents in Chile, by Extent of Disability

Year	Total registered	Accidents resulting in—		
		Permanent disability	Temporary disability	Death
1932	12,319	1,270	10,921	128
1933	13,524	1,179	12,227	118
1934	36,070	2,821	32,975	284
1935	49,037	4,390	44,295	352
1936	48,974	3,191	45,414	369
1937	56,252	3,802	51,999	451
1938	48,098	3,170	44,539	389
1939	53,668	3,493	49,833	342
1940	67,427	4,116	62,909	402
1941	62,790	4,005	58,361	424
1942	71,207	4,609	66,148	450
1943	68,407	3,484	64,534	389
1944	65,814	3,383	62,002	429

The rapid rise in the number of registered accidents probably reflects an increase in coverage and better reporting, rather than an increase in accidents. Even in 1944 the coverage was far from complete. Among 314,000 insured persons there were 42,466 accidents—a rate of 135 accidents per thousand insured persons. If this rate were applied to the total of about 1,300,000 persons in the working population covered by safety laws, an estimate of about 180,000 would be obtained. This suggests that, in addition to the 65,814 accidents officially registered in 1944, more than 100,000 accidents were not registered. It may be assumed that many accidents result in minor injuries which are not recorded, either through some fault of management or reluctance of the worker to incur the disfavor of the employer and that the accident rate may be lower for noninsured workers.

The direct cost of registered accidents to the employers, including indemnity payments and capital value of pensions, amounted to 20,278,000 pesos.³ This amount does not include other items of direct cost, such as hospitalization, medical attention, purchase of orthopedic appliances, safety measures, and administrative expenses which are estimated to amount to 60,000,000 pesos per year. Indirect costs are probably much greater than the direct costs, but no official estimates are available.

¹ Prepared by Luis Cárcamo C., Chief of Labor Statistics, Chile.

² Accident statistics have been published in Dirección General del Trabajo since 1932; they do not, however, include government employees who are not covered by safety laws.

³ Average exchange rate of peso in 1944 (free market)=3.1 cents.

Labor-Management Disputes

Work Stoppages in April 1946

THE labor-management dispute picture for April was dominated by the industry-wide stoppage in the bituminous-coal mines, which accounted for more than one-half of the total idleness during the month. Owing largely to this stoppage, idleness increased from 14 million man-days in March to 15½ million in April.

The 465 new stoppages recorded in April, together with an estimated 380 which continued from March, made a total of 845 stoppages in effect during the month, and involved 925,000 workers. In March, the 655 stoppages in effect involved about 1,000,000 workers.

For the first 4 months of 1946 the total number of work stoppages was higher than in the comparable period in 1945, but lower than in 1944. However, idleness in January through April 1946 (70,200,000 man-days) was almost twice that for the entire year 1945 (38,025,000 man-days), and was more than eight times as great as in 1944 (8,721,000 man-days).

TABLE 1.—Work Stoppages in April 1946, with Comparable Figures for Earlier Periods

Period	Work stoppages beginning in the period		Man-days idle during period (all stoppages)	
	Number	Workers involved	Number	Percent of available working time
April 1946 ¹	465	575,000	15,500,000	2.49
March 1946 ¹	385	130,000	14,000,000	2.42
April 1945.....	431	305,500	1,472,000	.20
January-April 1946 ¹	1,435	2,235,000	70,200,000	3.00
January-April 1945.....	1,326	660,100	2,834,000	.09
January-April 1944.....	1,509	560,100	2,224,000	.07
January-April 1935-39 average.....	935	401,000	5,435,000	-----

¹ Preliminary estimates.

Bituminous-coal mine stoppage.—Failure of the bituminous-coal operators and the United Mine Workers of America (AFL) to negotiate a new agreement prior to the expiration of their existing agreement on March 31, 1946, resulted in an industry-wide stoppage from April 2 through May 29 except for a 12-day truce May 13-25, during which period the majority of the miners worked. Approximately 350,000 workers were involved in the stoppage. The mines were seized by the Government on May 22, but normal production was not resumed until after an agreement was signed on May 29 by the Secretary of the Interior and union representatives to cover the period of Federal operation of the mines.

At the outset of the controversy the union filed a 30-day notice under the Smith-Connally Act on March 1, 1946. Negotiations began March 12 but did not yield an agreement by the March 31 deadline. As a result, the miners followed their "no-contract no-work" policy and remained away from the pits on April 2 following their customary observance of April 1 as an annual holiday. Joint conferences under auspices of Federal conciliators continued until April 10 when union officials declared that further negotiations would be useless.

During this period the specific issues in dispute were not clearly defined, as the union concentrated upon its general demand for a security and welfare fund without suggesting the methods by which the fund might be raised and administered. A proposal for such a fund, to be financed by a royalty of 10 cents per ton on all coal mined, had been advanced in the 1945 negotiations but had been dropped when no agreement seemed possible at the time.

From April 10 until April 30 no meetings of the parties were held. As effects of the coal shortage on the Nation's reconversion program became increasingly serious, the Secretary of Labor insisted that negotiations be resumed. At this time the union also demanded back pay for overtime worked by the miners in connection with four holidays during the war period. Some 3 million dollars was involved.

On May 4 President Truman issued a report through the Office of War Mobilization and Reconversion in which the coal dispute was termed a "national disaster." The Office of Defense Transportation immediately ordered coal-consuming railroads to stop all freight shipments except foods, fuels, and a few other essential items. A 25-percent reduction in passenger service, effective May 10, was quickly superseded by further ODT restrictions cutting passenger service on coal-burning carriers to 50 percent by May 15. Public utility companies took drastic steps to conserve power consumption and wartime "brown-outs" were reinstated in a number of cities.

Meanwhile, negotiations continued to be stalemated over demands for the security and welfare fund, and holiday back pay. However, a 12-day truce, effective from May 13 through May 25, was agreed upon with the provision that any wage increase agreed upon would be paid retroactively to cover the period of the truce.

The back-to-work order of the union officials met with considerable opposition in certain sections of the industry, particularly in western and central Pennsylvania. At no time during the truce period were less than 100,000 miners idle and, after Government seizure on May 22, the number idle was even greater.

On May 13 the operators offered and the union accepted a \$3,000,000 settlement for all past overtime work. At this time also union spokesmen made their first concrete statement in connection with the health and welfare fund issue, demanding an amount equal to 7 percent of the industry's gross pay roll to finance the welfare plan, the fund to be administered solely by the union. It was estimated that this would total approximately \$70,000,000 annually.

On May 15 the operators rejected the union proposal of May 13 for the 7 percent pay-roll deduction to finance the health and welfare plan and the next day both the operators and the union officials rejected a proposal to arbitrate the dispute as suggested by President Truman.

On May 21 the President ordered Government seizure of the mines under authority of the War Labor Disputes Act. The Secretary of the Interior took over the properties, effective at 12:01 a. m., May 22; the operators indicated their willingness to cooperate, while union officials stated that under the Smith-Connally Act they could not order the men to work or not to work and consequently had no alternative but to leave to the individual miners any decision about continuing on the job. Thousands of miners remained idle and as the truce period expired on May 25 the Nation's bituminous mines became virtually idle again with over 300,000 miners staying away from work.

On May 29, however, an agreement, to be effective during Federal operation of the mines, was signed by the Secretary of the Interior and the union. The principal terms provided for a wage increase of 18½ cents per hour and a health and welfare fund to be financed by payment of 5 cents per ton on all coal mined—the fund to be administered by three trustees, one selected by the union, one by the Coal Mines Administrator, and the third by the other two. Other terms included mandatory compliance with a Federal Mine Safety Code to be issued by the U. S. Bureau of Mines, and an annual vacation payment of \$100 in place of the existing \$75 vacation allowance.

Activities of the United States Conciliation Service, April 1946

There were 1,814 assignments made to labor disputes, including arbitration and technical services, during April 1946, as compared with 1,765 assignments in March and 2,153 in April 1945. This represents an increase of 2.7 percent in case assignments over March and a decrease of 16.6 percent from April 1945.

During the month of April 1946, the U. S. Conciliation Service disposed of 1,704 situations in comparison with 1,921 during the fourth month of 1945. Of the 1,704 situations disposed of, 20.8 percent were strikes and lock-outs; 38.0 percent were threatened strikes; 29.5 percent were controversies; 4.4 percent were arbitration cases; 6.5 percent were investigations, elections, and special services.

According to April records, 355 strikes and lock-outs were settled by conciliation; one of these cases was a lock-out. The records show that 648 situations were threatened strikes and 504 were controversies in which the employer, employees, and other interested parties asked for the assignment of a commissioner of conciliation to assist in the adjustment of disputes. The remaining 197 situations include 75 arbitrations, 11 technical services, 38 investigations, and 73 requests for information, consultations, and special services.

Cases Closed by U. S. Conciliation Service in April 1946, by Type of Situation and Type of Disposition

Method of handling	Total	Strikes and lock-outs	Threatened strikes	Controversies	Other situations
All methods.....	1,704	355	648	504	197
Settled by conciliation.....	1,507	355	648	504	75
Decisions rendered in arbitration.....	75				11
Technical services.....	11				11
Investigations, special services.....	111				111

Labor Laws and Decisions

Recent Decisions of Interest to Labor¹

Fair Labor Standards Act

BONA FIDE settlements not binding.—On writ of certiorari to the United States Supreme Court,² the question left open by that Court in *Brooklyn Savings Bank v. O'Neil* (324 U. S. 697),³ as to whether a good-faith compromise settlement of a dispute over coverage under the Fair Labor Standards Act is a bar to a suit for liquidated damages, was answered in the negative.

Service and maintenance employees of a loft building made a claim against their employer for overtime pay and liquidated damages. The company refused the claim on the ground that its tenants did not ship their products directly in interstate commerce but delivered them to customers within the State who subsequently shipped a substantial part of these goods in interstate commerce in the regular course of their business. Under threat of suit, the company made a settlement agreement, paying all overtime compensation claimed on receiving from each employee a written release from any further obligation under the act.

One of the employees later sued, on behalf of himself and other employees, for liquidated damages. The employer pleaded the release as a bar to the suit.

A majority of the Court, in the opinion by Mr. Justice Reed, held that neither wages nor damages under the act "are capable of reduction by compromise of controversies over coverage." The remedy of liquidated damages cannot "be bargained away by bona fide disputes over coverage" since such a compromise would thwart the public policy of "minimum wages, promptly paid, embodied in the Wage-Hour Act, by reducing the sum selected by Congress as proper compensation for withholding wages."

The Court also found that the act did cover maintenance and service employees of a "building that is tenanted by occupants who receive, work on, and return in intrastate commerce goods belonging to nonoccupants who subsequently in the regular course of their business ship substantial proportions of the occupants' products to other States."

¹ Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of general 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 *D. A. Schulte, Inc. v. Gangi*, — U. S. —, Apr. 29, 1946.

³ Discussed in *Monthly Labor Review*, June 1945 (p. 1263); October 1945 (p. 759); November 1945 (p. 995).

A dissenting opinion written by Mr. Justice Frankfurter (in which the late Chief Justice Stone and Mr. Justice Burton joined), took the position that the Court should not outlaw what has always been a familiar and socially desirable practice of encouraging amicable settlement of differences unless Congress explicitly or by "broad hint" directs otherwise.

The Court specifically left open the question on the position taken by the Wage-Hour Administration that, if 20 percent of a building is occupied by firms substantially engaged in production for commerce, it is likely that maintenance employees are covered by the act.⁴

Reemployment

Veteran's reemployment rights in seasonal industries.—A veteran has reemployment rights to his former "position" in a seasonal industry under the reemployment provisions of the Selective Service and Training Act of 1940, even though he entered military service during the off-season period, if he "can establish 'customary continuance in his employment and recognition of his preferential claim to his job, when work is resumed,'" according to a decision of the Fourth Circuit Court of Appeals.⁵

The veteran in this case had been employed for a number of years by a tobacco warehouse operator. For the three tobacco seasons prior to his entry into the service he was employed as sales manager and contact man in the defendant's Asheville (N. C.) warehouse; he was required to work for a few weeks prior to the opening of the Asheville market in addition to the approximate 2-month period the market is open each year. Upon discharge the defendant refused to reinstate the veteran to his position as sales manager.

The district court had decided in favor of the employer on the ground that no reemployment rights existed, since there was no legally enforceable contract of employment at the time plaintiff was inducted into the service. That court further indicated that no reemployment rights could exist when an employee in a seasonal industry was inducted outside the period of actual employment, unless he had a contract which would sustain a breach of contract action for failure to return to the employment upon discharge.

In reversing this decision the circuit court held that proof of a legally enforceable contract of employment is no more a proper requirement in such cases than it is with respect to any other employee whose services are terminable at will. An employee may hold a position in a seasonal industry at times when no work is going on. The test is whether a continuing employment relationship existed at the time the employee was inducted.

Veterans' seniority rights not changed by collective bargaining contract.—The Sixth Circuit Court of Appeals holds that the seniority rights of a veteran as they existed at the time of his induction into the armed forces are based on a Federal statute and may not be altered by a collective bargaining agreement during the life of the pertinent provisions of the Selective Service and Training Act.⁶

⁴ Release P. R. 19 (rev.), Nov. 9, 1943, Wage-Hour Division, U. S. Department of Labor.

⁵ U. S. ex rel. *Stanley v. Wimbish*, C. C. A., 4th Circuit, Apr. 10, 1946.

⁶ *Trailmobile Co. et al. v. Whirls*, C. C. A. 6th, Apr. 5, 1946. Discussed in *Monthly Labor Review* for March 1946 (p. 437).

The veteran, Whirls, had seniority dating from 1935 at the time he entered the armed forces. He was reinstated in his former position upon his release in May 1943. In July 1944, because of a consolidation or merger involving the employer, a new collective bargaining agreement was entered into which stated that seniority of all employees should date as of January 1, 1944.

The circuit court held that the contract was invalid insofar as it attempted to alter the seniority status of employees inducted into the armed forces, since under the Selective Service and Training Act a veteran must be returned to his position without loss of seniority. The court interpreted the phrase "without loss of seniority" as creating a statutory right to seniority based on the status at the time of induction. The court further held that the veteran's right to reinstatement without loss of seniority, his right to participate in insurance or other benefits offered by the employer, and his right to the job for a year after restoration were separate, distinct, and independent benefits and should not be construed as limiting each other. Thus the right to seniority based on the statute at the time of induction is not limited to the year during which the position is guaranteed but will last as long as the Selective Service and Training Act remains in effect.

Although the superseniority question was not involved in this case the court indicated that it did not agree with the second circuit decision in the *Fishgold* case.⁷

Union official's right to reinstatement in office.—The plaintiff was elected secretary-treasurer of a local union at its annual elections in January 1942. He enlisted in the Navy in July 1942, at which time he was granted a leave of absence from the union, and the union adopted a resolution pledging his reinstatement to the office on his return from military service. The plaintiff, upon discharge from service, sought reemployment as secretary-treasurer of the union under the terms of the Selective Service and Training Act. The district court in denying his reinstatement, held that the bylaws of the local union provided for yearly elections and a leave of absence from office in the union could not be granted for a longer period than the regular term of office without amendments to the local union's bylaws and the international's constitution. The resolution of the local union only assured him reinstatement if he returned before his term of office expired and could not be considered a waiver of the bylaws of the local and the constitution of the international.⁸

National Labor Relations Board Decisions

Union violation of no-strike pledge.—Employees who engage in an economic strike in violation of a no-strike provision in an agreement between their bargaining representative and their employer have no rights to reinstatement under the National Labor Relations Act.⁹ The National Labor Relations Board ruled that this is true, even where the bargaining representative subsequent to the strike received illegal assistance from the employer, and the agreement was, therefore,

⁷ *Fishgold v. Sullivan Dry Dock & Repair*, 62 F. Supp. 25. Discussed in November 1945 Monthly Labor Review (p. 993) and now pending before the Supreme Court.

⁸ *Fraser v. Shoberg, et al.*, U. S. D. C., Eastern Dist. of Washington, Apr. 4, 1946.

⁹ *Scullin Steel Co.*, 65 NLRB No. 219, Cases Nos. 14-C-856 and 14-C-943, Feb. 21, 1946.

invalid. The no-strike provision of the agreement was binding, the Board stated, since the contract was valid at the time of the strike.

In the absence of any showing that the company had breached its agreement at the time of the strike, and in view of the admitted fact that the strike was not due to an unfair labor practice and that the striking employees had not been refused reinstatement because of outside union activities, the Board held that under the doctrine of the *Sands* case¹⁰ the company was justified in its refusal to reinstate them.

Demotion of foremen for union activities.—The National Labor Relations Board in two separate cases set forth the rights and obligations of foremen and supervisory employees. The first case¹¹ was termed by the Board as “unique” in that an assistant foreman, who was a member of the union covering production employees, actively campaigned for the union on company time, despite the fact that at a management meeting of supervisors, all supervisors were told to remain absolutely neutral on the subject of union activities. This assistant foreman was warned against future union activity and finally was asked to withdraw his membership in the union or be demoted. On refusal to give up his membership he was demoted and the Board absolved the employer of charges of discrimination, because the employer might, if the employee continued such activities, have been charged with interfering with the freedom of choice guaranteed to employees under section 7 of the act.

In the second case¹² two supervisory employees retained their membership in the union in order to keep certain legitimate union benefits such as burial insurance and the right to work in another plant in case of a reduction of force owing to reconversion problems. These employees wore their rank and file union buttons at all times. The employer gave them their choice of withdrawal of membership in the union or demotion. On refusal to withdraw from the union they were demoted and the Board held the employer guilty of discrimination. The Board pointed out that the employer could have insisted that they remove their union buttons and on refusal, would have been justified in demoting them. The record showed that the employer issued an ultimatum to the employees and that the disciplinary action was not taken to preserve the employer's neutrality but was “motivated by opposition to the mere retention of membership in the union by supervisory employees.”

Election and card check as bases of bargaining rights.—The National Labor Relations Board in absolving the employer in this case,¹³ from a charge of refusal to bargain with the union, has distinguished situations involving certifications of a union from those where the union's status is determined by a card check.

In March 1944, the Regional Board conducted a card check of employees to determine a bargaining representative in an agreed unit. The company thereafter entered into negotiations with the chosen union and some agreement provisions were tentatively agreed upon. Thereafter the number of the respondent's employees was reduced by

¹⁰ *National Labor Relations Board v. Sands Mfg. Co.*, 306 U. S. 332.

¹¹ *In re Exusta Paper Corp. et al.*, and *International Brotherhood of Paper Makers (AFL)*, 66 NLRB No. 147, Mar. 27, 1946.

¹² *In re Climax Engineering Co.*, division of *General Finance Corp.*, and *International Association of Machinists (unaffiliated)*, 66 NLRB No. 165, Mar. 29, 1946.

¹³ *In re Joe Hearin, Lumber, and Lumber & Sawmill Workers' Union, Local 2795 (AFL)* 66 NLRB No. 150, Mar. 28, 1946.

50 percent and 16 of the 25 employees remaining in the unit submitted to the respondent a petition declaring, in substance, they no longer wished the union to represent them. In July 1944, the employer refused to continue negotiations with the union on the ground that a majority of the employees had abandoned the union. There was no evidence of employer interference in the drawing up and signing of the petition. The Board stated that in an election based on a secret ballot, the union has a right to retain its bargaining status for a reasonable length of time (usually 1 year) in order to give it sufficient time to conclude an agreement. However, said the Board, a card check may not be presumed to reflect the "employees' true desires with the same degree of certainty" as an election by secret ballot and, hence, will not be given the same degree of durability.

Jurisdiction of Board over airport restaurant.—The National Labor Relations Board, stating that its policy has generally been not to assert jurisdiction over restaurants because of their local character, made an exception in the case of the restaurant at the National Airport.¹⁴ The Board stated that "the operations here involved form an integral part, and are essential to the proper functioning, of the Washington National Airport, the only federally owned and operated airport in the country." The Board ruled that the company, by assuming the peculiar status of an exclusive concessionaire under Government contract, had placed itself in a unique position whereby it serviced employees who were themselves in interstate commerce and served "in flight" meals to airline passengers. Although a strike shut-down of the restaurant probably would not affect flight schedules, the Board held, it would, nevertheless, have a detrimental effect on efficiency of airport employees and the comfort of passengers in interstate flight.

Jurisdiction of Board over branch of foreign bank.—The National Labor Relations Board, citing the *Ronrico Corp.*, (53 NLRB 1137), held that the Wagner Act covers the territory of Puerto Rico and gives the Board jurisdiction over the employees of the branch of a foreign bank.¹⁵ The employer was found guilty of discriminating against employees for their union activities by discharging them and circulating pamphlets among employees during an organizational campaign, and was ordered to cease and desist its interference and reinstate certain employees with back pay.

Unionization of plant guards.—The National Labor Relations Board filed a petition in the Circuit Court of Appeals for enforcement of an order requiring the company to bargain collectively with the plant union as representative of its plant guards. The company had formerly bargained with the union under a contract which provided that it would not apply to "foremen or assistant foremen * * * watchmen, salaried employees and nurses." During the life of the contract the union petitioned the Board for certification as the bargaining representative for the plant guards, or watchmen. Following the election, the company refused to bargain with the union concerning the guards, as they were not employees within the meaning of the act, and because they were militarized the guards could not belong to a union. The guards at the time were members of the military police

¹⁴ In re Air Terminal Services, Inc., and United Cafeteria & Restaurant Workers, Local 471 UFWA, Case No. 5-R-2144, Apr. —, 1946.

¹⁵ In re Royal Bank of Canada, 67 NLRB 56, Apr. 17, 1946.

and under control of the Army. This court, on petition, denied the Board's order to force the company to recognize the union representative for the guards. The guards were subsequently demilitarized but remained members of the Cleveland police force, and on certiorari to the U. S. Supreme Court this fact was brought to the Court's attention by the Board. The Supreme Court remanded the case to the circuit court for further consideration because of the changed status of the guards.¹⁶

On rehearing, the circuit court on the basis of the fact that the guards were members of the police force, even though demilitarized, again denied the petition for enforcement of the Board's order. The court took the position that, as members of the police force, the guards under Ohio law were public officers, regardless of the fact they were compensated by a private employer. Stating that the Board must consider the public welfare as a material factor in designating appropriate bargaining units, the court held that to decide the issue in any other manner would limit the power of the Government to furnish adequate police protection.

Two circuit courts have denied enforcement of the Board orders directing employers to bargain with unions representing guards where the guards were represented by the same union which represented production employees.¹⁷ The Board, on the other hand, has reaffirmed its own decisions that plant guards are entitled to union representation, even though represented by the union already representing production employees.

State Laws and Decisions

Anti-injunction law partially invalid.—Declaring that a provision of the State anti-injunction law, forbidding injunctions against giving publicity to a labor dispute by picketing, abridged the power of equity courts, the New Jersey Court of Chancery¹⁸ said that when it "finds that the complainant needs the protection of the court and is entitled to it by the established principles of equity * * * the legislature cannot absolve the court from this duty or impair the court's jurisdiction to perform it." Thus, the court held that mass picketing, whether peaceful or otherwise, which prevented free access to the company's property, worked an irreparable injury upon the owner, and the statute, as worded, gave him no remedy in equity nor did he have an adequate remedy at law.

The second provision attacked by the court was a provision in the statute declaring certain acts "to be lawful and in no wise to constitute a tort or nuisance." The title of the act referred only to limitations on the issuance of injunctions and gave no notice that one of the purposes of the law was to make certain acts lawful. This violated the constitutional provision that the object of every law must be expressed in the title.¹⁹

¹⁶ *National Labor Relations Board v. Jones & Laughlin Steel Corp.*, C. C. A. 7th, Apr. 4, 1946.

¹⁷ *National Labor Relations Board v. Jones & Laughlin Steel Corp.*, discussed in *Monthly Labor Review*, February 1945 (p. 344), April 1945 (p. 829).

¹⁸ *National Labor Relations Board v. E. C. Atkins & Co.*, discussed in *Monthly Labor Review*, May 1945 (p. 1045).

¹⁹ *Westinghouse Electric Corp. v. United Electrical, Radio & Machine Workers of America, Local 426, et al.* New Jersey Court of Chancery, Mar. 20, 1946.

²⁰ The New Jersey Legislature has since introduced a bill to amend the title of the act in accordance with the decision in this case.

The union contended that even if it had massed pickets in an unlawful manner around the gates of the company, the company had not fulfilled its legal obligation to comply with War Labor Board directives and exhaust all efforts to conciliate, mediate, and arbitrate the dispute as outlined by section 8 of the Norris-LaGuardia Act. The court held that directives of the War Labor Board had been advisory only and did not constitute a legal obligation. Furthermore, because the employer had not conceded to union demands, this did not prove it had not made a bona fide attempt to settle the dispute. The company, having complied with all applicable laws, the court granted a continuance of the injunction against the union granting the employers access to their properties during the strike.

Conditions precedent to relief under Norris-LaGuardia Act.—The District Court of Indiana denied an employer's request for injunctive relief because of the employer's failure to make every reasonable effort to settle the labor dispute as required by section 8 of the Norris-LaGuardia Act.²⁰

The court held that the action of mass pickets in refusing to permit non-strikers to enter the plant and the failure of the police to break through the picket line satisfied the law's requirements that unlawful acts be threatened and that the police be unable or unwilling to furnish adequate protection. However, the court declared that all statutory conditions precedent to granting relief must be present and the employers had not bargained with the union in a manner which showed that they were making all reasonable efforts to come to an agreement. The court based this conclusion on the following facts.

1. The company made no effort to rebut the arguments advanced by the union as the basis of their demand for higher wages.

2. The company's action in publicly announcing a counterproposal before discussing it with the union, with a view to settlement, showed an interest in gaining public support rather than settling the labor dispute.

3. The termination of the collective bargaining agreement by the company on the day it made a counterproposal was not consistent with the requirement of making every reasonable effort to settle the dispute.

4. The company failed to attend a scheduled mediation meeting with U. S. Department of Labor officials and offered no reason for its nonappearance.

Statute penalizing discrimination because of political affiliation upheld.—The First Circuit Court of Appeals²¹ upheld the validity of a Puerto Rico statute making it a misdemeanor to discriminate against employees "because they are affiliated with a certain political party."²²

A group of employees were discharged by the defendant because they were members of the Popular Party. Upon conviction under the statute quoted the defendant appealed, contending, among other things, that the statute violated the due process clause contained in section 2 of the Organic Act of Puerto Rico.

The court held that it was not unreasonable to prohibit an employer from interfering with an employee's democratic right to join a political

²⁰ *General Electric Co. v. Sojacket*, D. C. Northern District of Indiana, Mar. 5, 1946.

²¹ *Santiago v. People of Puerto Rico*, C. C. A. 1st, Apr. 1, 1946.

²² Act No. 114, Laws of Puerto Rico, 1942.

party and that due process, under the facts in this case, was not violated. An analogy was drawn between the statute involved and the provisions of the National Labor Relations Act prohibiting interference with employees' right to participate in labor organizations.

Colorado Labor Peace Act invalid in part.—A Colorado statute was declared unconstitutional by the State District Court (City and County of Denver) insofar as it restrained peaceful picketing.²³ This statute provided: "The term 'labor dispute' means any controversy between an employer and such of his employees as are organized in a collective bargaining unit, concerning the rights or process or details of collective bargaining. * * * It shall not be a labor dispute where the disputants do not stand in the proximate relation of employer and employee."

The case arose out of a major effort to organize the dairy industry in Denver. There was no claim of the use of violence or other unlawful means of persuasion. Pressure was exerted against stores handling nonunion milk, nonunion truck companies which haul milk, and nonunion dairies. Most of the nonunion companies employed only nonunion labor. Thus the employer-employee relationship required by the statute was not present. In dissolving the temporary injunction which had been granted against the defendants, the court ruled that the legislature could not prohibit peaceful stranger picketing; that the peaceful mass picketing engaged in by the union members was the lawful exercise of the right of assembly; and that there was sufficient unity of interest between the stores selling nonunion milk and the nonunion dairies and truck companies to remove the threat of picketing the stores from the prohibition against a secondary boycott.



Social Security Legislation in Italy, 1945-46²⁴

INCREASES in disability and old-age pensions and in family allowances, which had been provided in southern and central Italy in March and April 1945, and November 1944, were extended to northern Italy by agreement between the Allied and Italian authorities and by implementation orders of August 16, 1945. The agreement also authorized the repeal of legislation passed by the Fascist Republican Government regarding contributions and benefits. Decrees providing supplementary benefits for unemployed workers and persons suffering from tuberculosis were drafted later in the summer of 1945. The small benefits formerly received by agricultural workers were increased 500-600 percent in early 1946, for sickness, old-age, accident, and tuberculosis insurance and marriage and family allowances. Need for a reorganization of the social security system has been recognized, and in October 1945 a royal commission was preparing new legislation.

²³ *Hennigh et al. v. International Brotherhood of Teamsters*, Colorado District Court, City and County of Denver, Feb. 27, 1946.

²⁴ Data are from *Gazzetta Ufficiale* (Rome), November 16, 1944, May 12, July 7, and August 23, 1945; reports from United States Embassy, Rome, of Alexander Kirk, Ambassador, September 21, 1945, and of John Clarke Adams, labor attaché, April 27, June 25, September 14, and October 3, 1945, and April 18 and May 8, 1946.

Social Insurance to Spring of 1945

Disability and old-age benefits.—Increases in disability and old-age pensions amounting to 70 percent were granted by decree-law of March 1, 1945, in the southern and central regions of Italy, which were then under the administration of the Italian Government. Twenty-five percent of the old-age pensions being paid by the National Social Provident Institute before the decree went into effect amounted to less than 500 lire annually and another 25 percent, from 500 to 1,000 lire. The decree-law placed the annual minimum old-age pension for men at 5,400 lire and for women at 4,320 lire, or at 70 percent above the existing pension, whichever was greater. The minimum pension for disability was to be 4,320 lire for men and 3,240 lire for women (with the same provision as is given above regarding an increase of 70 percent).

Extra contributions from employers and from workers who were subject to the forms of social security on which the increased benefits were to be paid were authorized in the decree. As the National Social Provident Institute had no funds available for this expenditure, the State also was to contribute.

Cost-of-living allowances for disability pensioners.—Cost-of-living bonuses were authorized for workers in private industry by legislation of November 1944, applicable in the southern and central areas of Italy.² In order to give similar relief to injured and sick workers in the same areas, monthly cost-of-living bonuses up to 300 lire, scaled on disability ranging from 50 to 100 percent, were provided by decree-law of April 26, 1945.

Family allowances.—A scale of family allowances was also established by decree-law of November 9, 1944, for workers in industry, agriculture, commerce, and the arts and professions, and in banking, insurance, and tax-collection agencies. The decree increased to 3,000 lire per month per worker the earnings on which family-allowance contributions might be assessed, and legislation proposed in August would raise the limit to 3,600 lire.³

Measures Taken in Summer of 1945

After the liberation of northern Italy in the spring of 1945, it was necessary to unify the provisions for social insurance in operation in the southern and central parts of Italy with the provisions which had been in operation in the northern part under the Fascist Republican Government. Under an agreement reached August 7 and authorized by the Allied Military Government August 16, modification in social insurance benefits and contributions which had been instituted by the Fascist Republican Government were to be repealed, and the increases in disability and old-age pensions and family allowances provided, as noted above, were to be implemented in the north of Italy.

Unemployment and tuberculosis insurance.—Because of the increase in unemployment and tuberculosis and the rise in the cost of living, decrees were drafted in August to enlarge benefits for these two types of insurance.

² For details on the bonuses and rise in the cost of living, see Monthly Labor Review, May 1945 (p. 1013).

³ For details, see Monthly Labor Review, November 1945 (p. 941).

Supplementary benefits for tuberculosis were necessary because of a steady increase in cases during the war and a rise in the cost of medical assistance. In 1942 the average daily cost of hospitalization was 30.86 lire; in the summer of 1945 it reached 210 lire. The deficit in the tuberculosis insurance fund, a substantial sum in 1942, was estimated at 789 million lire for 1944 and possibly 3,500 million lire for 1945.

In an attempt to cover the deficit and provide better treatment for beneficiaries, a decree of August 1945 set an additional contribution to be paid half by employers and half by workers, and variable from year to year according to requirements. Contributions were to be chargeable on the first 3,600 lire of the monthly pay. The supplementary benefit would amount to 30 lire per day for those covered by compulsory tuberculosis insurance, plus 5 lire daily for each dependent child. The period of benefit payments (both basic and supplementary) would be 2 years.



Social Legislation in New Zealand, Late 1945

POSTWAR legislation in three major fields was enacted by the New Zealand Parliament late in 1945. This consisted of new wage and hour laws, increase in social security benefits, and provision for the establishment of a National Employment Service.

*Wages and Hours*¹

New basic minimum wage rates for workers in general and maximum hours for factory and for office and shop employees were provided by three laws.

Wages.—Under the Minimum Wage Act (approved December 7, 1945), all persons 21 years and over were to be paid at least the following rates, effective April 1, 1946:

	Males			Females		
	£.	s.	d. ¹	£.	s.	d.
Workers paid by the hour, per hour.....	2	9		1	8	
Workers paid by the day, per day.....	1	2	0	13	4	
Workers paid by the week, per week.....	5	5	0	3	3	0

¹ The average rate of exchange of the New Zealand pound in December 1945 was \$3.21. Use of the foreign exchange rate, however, does not give an accurate measure of the relative purchasing power of money, but information is not available showing the relative living cost in the United States and New Zealand.

Employers may make limited deductions if board and lodging are furnished. The provisions of the act apply specifically to Government, as well as to nongovernment employment; apprentices and certain trainees are exempted.

In September 1945, actual hourly rates paid to various types of unskilled laborers were under 3s., although most other workers were paid more than the rates established by the amendment. Most likely to be benefited were tobacco, truck garden, and general farm workers. Prior minimum wage regulations, established by the Court of Arbitration in 1936, provided for £3.16s.0d. a week for adult male workers and £1.16s.0d. for adult female workers.

¹ Data are from reports by J. Jefferson Jones, III, third Secretary of the American Legation, Wellington, No. 296 of December 21, 24, and 28, 1945.

Hours.—Maximum hours for factory and for shop and office employees were set at 40 a week, by the terms of the legislation of December 7, 1945, amending the Factories Act and the Shops and Offices Act.

Under the Factories Act amendment, no worker is to be employed for more than 8 hours a day, nor for more than 4¼ hours continuously without an interval of at least 45 minutes for a meal. It also prohibits specified hours of night, Sunday, and holiday work to women and boys. The Court of Arbitration is given discretionary power to adjust the rates of wages and overtime conditions of workers whose hours are reduced to 40, for the purpose of removing any anomalies or inequities, or relieving any hardship on the workers caused by the reduction in working hours.

Effective after June 30, 1946, payment of time and a half for overtime up to 4 hours a week, at the discretion of the Court of Arbitration, is provided by the amendment to the Shops and Offices Act.

*National Employment Service*²

The Employment Act of 1945 (passed in mid-October 1945) provides for the establishment of a National Employment Service. To administer the law, the Governor General was empowered to appoint a Minister of Employment, to preside over a separate Government department. This arrangement superseded the Employment Division of the Labor Department, which functioned through the States Placement Service (absorbed in January 1942 by the Industrial Manpower Division of the National Service Department).

The new department is to provide a complete service for placing workers and assisting employers in furnishing work. It is to make periodic surveys and forecasts of the classes of employment required or available, and to take necessary action to place persons in such employment, and to do everything necessary or expedient to promote and maintain full employment. The department may provide hostels and residences for workers, and a home-aid service for domestic and other workers in emergencies. For full employment, it was recognized that accurate, complete, and continually current information regarding employment trends and opportunities was fundamental.

*Social Security*³

Social security payments to the aged, the unemployed, and the sick were increased substantially under the terms of the New Zealand Social Security Amendment Act of 1945, approved on November 24, 1945. An important objective of the act was to guarantee a minimum weekly income of £5 to a married couple with two children when the principal wage earner is unable to work through no fault of his own. The benefit for an unmarried adult unable to work is generally £2 weekly. In addition, after April 1, 1946, family benefit was to be increased to 10s. weekly for each child, and superannuation

² Data are from report by J. Jefferson Jones, III, third secretary of the American Legation, Wellington, November 5, 1945.

³ Data are from New Zealand, Statutes, 2 Geo. VI, Social Security 1938, No. 7, Wellington, 1942; Social Security Department, Social Security Monetary Benefits and War Pensions, Wellington, 1944; and from report of J. Jefferson Jones, III, Third Secretary of American Legation, Wellington, December 8, 1945.

benefits for those over 65 would be paid at the rate of £25 for the year beginning April 1, 1946, and would increase by £2 10s. each year until £104 is reached in 1978; the limit previously set in 1940 was £84 10s. The old and new rates of benefit other than family and superannuation benefits are given in the accompanying table, and were effective on October 1, 1945.

No means test is required for family and superannuation benefits, nor for miners' benefits, but other benefit payments are reduced if the applicant's income from the social security fund and other sources exceeds a specified amount, usually £5 for a couple and £3 for an unmarried adult.

Social Security Benefits in New Zealand Before and After Changes Effective October 1, 1945

Type of benefit and person eligible	Previous weekly rates	New weekly rates	Total income allowable from all sources
Old-age benefit: ¹	£. s. d.	£. s. d.	£. s. d.
Couple (both eligible).....	3 5 0	4 0 0	5 0 0
Couple (wife under age).....	2 3 0	4 0 0	5 0 0
Unmarried.....	1 12 6	2 0 0	3 0 0
Unemployment benefit:			
Married man.....	1 15 0	4 0 0	5 0 0
Unmarried person over 20.....	1 0 0	2 0 0	3 0 0
Unmarried person under 20.....	10 6	1 0 0	2 0 0
Widow's benefit:			
With dependent children.....	1 10 0	2 0 0	3 10 0
With children, not dependent.....	1 5 0	2 0 0	3 0 0
Childless widow.....	1 5 0	1 10 0	3 0 0
Invalidity benefit:			
Married man.....	2 3 0	4 0 0	5 0 0
Married female.....	1 12 6	2 0 0	5 0 0
Unmarried person over 20 ²	1 12 6	2 0 0	3 0 0
Unmarried person under 20 ²	1 2 6	1 10 0	2 10 0
Miner's benefit: ³			
Married.....	2 3 0	4 0 0	No limit
Single.....	1 12 6	2 0 0	No limit
Widow ⁴	1 0 0	1 10 0	No limit
Sickness benefit: ⁵			
Married man.....	1 15 0	4 0 0	5 0 0
Single person over 20.....	1 0 0	2 0 0	3 0 0
Single person under 20.....	10 6	1 0 0	2 0 0

¹ For those 60 years of age and over.

² Former rate payable only to persons 21 years of age or over.

³ The rates set forth are payable to a person who is suffering from miner's phthisis [silicosis], if the person is "permanently or seriously incapacitated", and to a person suffering from any other miner's occupational disease or heart disease, if he is "totally or permanently incapacitated."

⁴ With option of receiving regular widow's benefit.

⁵ The total allowable income may be increased by a further £1 a week by a grant from a friendly society, etc.

Women in Industry

Will Prewar Domestic Workers Return?

ONLY one out of seventy-three women who previous to the war were household maids, cooks, or waitresses expressed the wish to go back to her old job, according to a survey made by the New York State Department of Labor.¹ Both employers and employees knew the problems in this field of employment but offered few solutions. The war affected various changes in both attitudes and actual standards.

Household Employment in New York State

The number of women in household employment in New York State declined from an estimated 223,000 in 1940 to 178,000 in 1944—a drop of 20 percent—although even in 1940 the supply of domestic workers was regarded as inadequate.

Since VJ-day a slight rise in the number of women in household employment had been noted. This was caused largely, the survey indicates, by the return of women who left the labor market when their husbands took war jobs or went into the armed services. Numerous former household workers who had become bookkeepers, clerks, and other office workers had not, at the time of the survey, been affected by the discharges of production workers.

Wages.—The hourly rate in up-State cities was substantially below that in New York City. Both the U. S. Employment Service and the private placement offices interviewed in the investigation reported that rates varied with the amount of skill required. Private agencies reported that in cases in which employers expected higher skills, wage scales were accordingly higher. The part-time or day-to-day general houseworker was paid from 50 cents an hour in certain up-State cities to the prevailing rate in New York City of \$1.00 per hour, together with a guaranty of a specified number of hours a day on a regular schedule.

Hours.—The trend toward a regular 8-hour day was becoming more pronounced in domestic work, although 10-hour and 12-hour days were more widespread.

Household employees are very hours conscious, especially after coming from factory jobs. In New York City general houseworkers are now requesting workweeks of 40 to 48 hours. Few will work longer than 48 hours. Outside of New York City the long workweek has not changed despite the shortage of help. The general work schedule for regular jobs that pay over \$20 per week still calls for six 12-hour days or a total of 72 hours a week.

Employees' viewpoint.—Factory work, in the opinion of workers, continues to be more attractive than household employment; it is

¹ Industrial Bulletin (New York City), January 1946.

considered dignified and does not have the stigma of domestic service. Women who were laid off were still seeking factory employment rather than household jobs, because they considered the 8-hour factory day more desirable, even though total pay might be less.

Employers' viewpoint.—Numerous domestic workers, employers claim, lack experience and training in household techniques. Many employers would welcome a set of standards which would enable them to evaluate the services of skilled and unskilled workers.

Employment agency's viewpoint.—All the heads of employment agencies who were interrogated were of the opinion that "the only way to attract new workers to the domestic service field is by setting and maintaining better working standards."

Scheduling of regular hours of work and regular time off is the first requirement. Agencies, however, are reluctant to take the lead in establishing standards and, at most, attempt to get employers and employees to agree in advance to some limitation of hours.

The solution, according to several agency heads, is to put household service on a professional level with regular hourly wage rates set for varying levels of skill.

Social Legislation Concerning Household Workers

Domestic workers are virtually excluded from social legislation, although a few States have made some effort to include them.

Minimum wage.—Wisconsin's wage order of 1932 provides a wage standard of \$6 a week for 50 hours with meals, and \$4.25 with both meals and room. A minimum hourly rate is also fixed for part-time work.

Hours.—Washington State restricts the hours which may be worked by household employees to 60 per week, except in emergencies.

Workmen's compensation and unemployment insurance.—In California, domestics working over 52 hours a week are covered by the workmen's compensation law. A forward step has recently been taken by New York State in amending its workmen's compensation law to include domestic workers (including chauffeurs, among others). Under chapter 311 (Laws of 1946), approved March 30, and effective January 1, 1947, domestic workers employed 48 hours or more per week by the same employer in cities and towns of 40,000 or more population, are protected. While domestic workers are not specifically denied coverage under the New York State unemployment insurance law, required insurance is limited to employers with four or more workers, thereby excluding the bulk of those employed in this field.



Women in New York Retail and Service Jobs, 1945

FOR the first time since the war began, women and children were being outstripped by men in rate of increase in retail and service employment in up-State New York. This fact was disclosed by the most recent annual survey made by the New York State Department of Labor's Division of Industrial Relations, *Women in Industry and Minimum Wage*.¹

¹ Industrial Bulletin (New York 13), January 1946.

The study, covering 17 up-State cities, found 18,336 women workers employed in 715 retail-trade and service establishments in 1945, as compared with 17,869 reported in 1944—an expansion of less than 3 percent in a period during which the total of adult male workers increased 8 percent. The 1944 survey had indicated a rise of 7 percent for women workers and a decline of 7 percent for adult male workers. The 1945 study disclosed that the number of male workers under 21 years of age had decreased 10 percent in retail and service jobs in the 17 cities under review.

In 1945, employment of women increased in clothing and department stores, food stores, restaurants, cleaning and dyeing establishments, and theaters, but declined in variety and drug stores.

Wages in Service Industries

Laundries.—In October 1945, the weekly earnings of women laundry workers averaged \$25.20—an increase of 56 cents over the wages paid in the preceding October. In all areas of the State the wages of men were 50 percent above those of women. This was caused partly by differences in occupations and by the fact that men's hours were slightly longer than women's. In September 1945, in laundry office jobs, women averaged \$27.27 a week, against \$24.81 for women factory workers.

Hotels.—A slight upward trend in women's wages in hotels over July 1944 was reported. At the earlier date women working in all-year hotels averaged \$21.09 weekly (various occupations being office workers, chambermaids, waitresses, elevator operators, cooks, and dishwashers).

Wage and Hour Statistics

Wage Structure in Machine-Tool Industry, January 1945¹

Summary

IN JANUARY 1945, plant workers in the machine-tool industry in the United States as a whole earned \$1.05 an hour, exclusive of premium pay for overtime and shift differentials. Of the 80,900 plant workers in the industry, only about 1 out of 30 earned less than 65 cents per hour; one-fifth earned \$1.25 or more. Men averaged \$1.07 per hour, and women, predominantly engaged in less-skilled operations, earned only 82 cents.

Regionally, average hourly earnings varied from 92 cents in the Middle West to \$1.08 in the Pacific region. In the three most important machine-tool manufacturing regions, Middle Atlantic, New England, and Great Lakes, earnings averaged \$1.01, \$1.03, and \$1.06, respectively. Regional differences were less marked among skilled than among lower skilled occupations.

Incentive workers, on the average, earned one-sixth more per hour than time workers in occupations where both methods of pay were widely used. Earnings also tended to be higher in large as compared with the smaller establishments and in the larger communities. Differences between union and nonunion wages varied considerably among the several regions. While rates of union workers were markedly higher than nonunion rates in the Middle Atlantic region, and somewhat higher in the Great Lakes region, the reverse situation was found in New England.

The wage data relate primarily to average hourly wage rates (or earnings) and include incentive earnings but exclude premium pay for overtime and shift differentials. Since the most typical workweek in January 1945 was 55 hours, earnings were considerably increased by overtime at premium pay. Moreover, one-fifth of the plant workers were employed on late shifts and the majority of these workers received shift differentials. In addition, five-eighths of the establishments studied paid supplementary bonuses which, averaged over all workers, amounted to about 3 cents per hour for plant workers and about 2 cents per hour for office workers.

Paid lunch periods and provisions for paid sick leave were rare. Four out of five establishments provided paid vacations for plant workers after a year or more of service and nearly all establishments

¹ This report was prepared by Donald L. Helm. T. P. Kanninen was responsible for the section on the labor force. Detailed information on wages may be obtained from a mimeographed report (Wage Structure: Machine Tools, 1945); wage statistics by locality are available in the Bureau's regional offices.

reported a formal vacation policy for office workers. About two-thirds of the establishments had insurance or pension plans for both plant and office workers.

Characteristics of the Industry

The machine tool is the very keystone of our mass-production economy. It is possible, owing to the precision with which metal parts can be shaped and cut by these tools to specifications calling for minute tolerances, to produce thousands of parts so nearly identical that they are interchangeable in assembly or repair without requiring the painstaking labor of hand fittings. The most familiar product of these tools, the automobile, best illustrates how, by their use, mass production of a highly complicated product is achieved.

When the country's rearmament program was inaugurated in 1940, thus creating a large demand for machine tools, the industry was already producing close to capacity. This was in part traceable to an earlier increase in production stimulated by European preparations for war. Machine-tool sales rose from 200 million dollars in 1939 to 1,200 millions in 1943, and employment increased by 250 percent during the same period. Although peak wartime production was reached before January 1945 (the date of the Bureau's study), production and employment were still well above prewar levels.

Since a large proportion of all the machine tools produced for war purposes during recent years are easily adapted to peacetime production and since machine tools are relatively durable, the industry is faced with the prospect of a somewhat limited market for its products in the immediate future. Several factors may operate, however, to improve the outlook for the industry. Of great importance is the ability of engineers and designers to develop tools which increase productivity and decrease costs. One example is the "progressive station" or "process" machine tool which has found increasing favor in recent years. Combining the functions of a number of machine tools, a unit handled by this machine can be progressively moved through a cycle of machining operations. On the demand side, an expansion of export trade to the devastated areas of Europe could absorb some tools. In addition, the prospect of increased uses of light-weight metals, such as aluminum and magnesium, by American manufacturers offers possibilities for greater utilization of higher-speed machine tools.

Scope of Study

The industry includes all establishments engaged primarily in the manufacture of machine tools.² These tools are defined as "power driven complete metalworking machines not portable by hand, having one or more tool and work holding devices, used for progressively removal metal in the form of chips."³ Honing machines, lapping machines, and grinders are included in this classification. The typical establishment in the industry produces both standard and special-purpose machine tools of but a single type insofar as principles of

² The scope of the present study corresponds to that of Industry Group 3541 of the Standard Industrial Classification Manual (issued by the Bureau of the Budget).

³ As defined by the United States Bureau of the Census and the National Machine Tool Builders Association.

operation or functions are concerned, though some establishments are engaged in the manufacture of many types of tools.

The data presented in this report, based on January 1945 pay rolls and other company records, were obtained by the Bureau's agents from a representative sample of 181 establishments with 77,633 employees. This sample, limited to establishments with 8 or more workers, constituted about three-fifths of the establishments in the entire industry and seven-tenths of the workers.

The Labor Force

The manufacture of machine tools involves processes common to the production of a wide variety of other metal products. Thus, machining, filing and fitting, heat treating, assembling, surface coating, and inspection work are also carried on in varying degree in the automotive, ordnance, aircraft, and electrical products industries and in the production of the great variety of equipment and machinery employed on farms and in offices and industrial establishments.

OCCUPATIONAL DISTRIBUTION

Machining occupations accounted for slightly more than one-fourth of total employment in the industry in January 1945; related to employment in processing occupations only, the proportion is nearly doubled (see table 1).⁴ Production machinists, machine-tool operators who operate several types of machines, and set-up men, who specialize in setting up and adjusting machine tools operated by others, together accounted for only a twentieth of all workers engaged in machining. Nearly all machining was carried on by operators of a single type of machine. Since there are wide differences in skill among these specialized workers, resulting from division of labor and differences in the organization of production, they have been classified by grade; a similar classification is presented for inspectors and assemblers. The latter, the second most important occupational group in the industry, accounted for one-tenth of all workers and one-sixth of all processing workers.

Nonprocessing plant jobs accounted, in the aggregate, for slightly less than one-third of the plant force (excluding office). Among the most important in this group were inspectors, material handlers, factory clerical, custodial, and maintenance workers.

Although no attempt was made to determine the distribution of workers according to lines of skill, a relatively high degree of concentration in the skilled categories is indicated. This concentration is unusual since approximately two-thirds of the workers in the machine-tool industry were employed in establishments with over 500 employees. These plants typically have a division of labor permitting employment of large numbers of workers with training in a limited phase of their work.

⁴ The classifications shown in table 1 were selected from the viewpoint of their significance in the machine-tool industry. The sum of the employment listed under "processing" understates the proportion of processing workers to the extent that some apprentices, learners, and helpers, as well as some workers classified as "other plant workers," are engaged in processing jobs. The latter category also includes workers engaged in semiprofessional operations in engineering departments, in experimental work and production control, as well as in a variety of indirect plant jobs. This grouping of occupations was resorted to because it was impractical to present data for each of these jobs separately without obscuring the relationship between the major groups of related jobs. For this one reason, the occupational categories appearing in this table are generally broader than those employed in the presentation of occupational wage rates.

TABLE 1.—Percentage Distribution of Workers in Machine-Tool Establishments, by Occupational Group and Size of Establishment, January 1945

Occupational group	Percentage of workers in establishments of—			
	All sizes	8-250 workers	251-500 workers	501 or more workers
Maintenance.....	1.8	1.4	1.7	2.0
Carpenters.....	.3	.4	.3	.3
Electricians.....	.5	.3	.5	.5
Machinists.....	.3	.2	.3	.4
Maintenance men, general utility.....	.1	.3	.1	(1)
Mechanics.....	.2	.1	.3	.2
Millwrights.....	.2	.1	.1	.3
Other maintenance workers.....	.2	.....	.1	.3
Supervision:				
Working foremen, processing departments.....	1.3	2.5	1.9	.8
Processing:				
Casting.....	1.7	3.3	3.2	1.0
Coremakers and molders.....	1.1	2.5	2.1	.6
Other foundry workers.....	.6	.8	1.1	.4
Machining.....	26.0	34.4	29.9	23.3
Set-up men, machine tools.....	.3	.3	.3	.3
Machine-tool operators, class A.....	8.4	9.3	9.9	7.9
Machine-tool operators, class B.....	8.0	11.1	8.2	7.2
Machine-tool operators, class C.....	3.4	5.2	4.4	2.7
Machine-tool operators, miscellaneous machines.....	.4	1.5	.8	.2
Other unclassified machine-tool operators.....	4.6	4.2	5.2	4.5
Machinists, production.....	.9	2.8	1.1	.5
Assembling.....	10.4	15.1	13.3	8.6
Assemblers, class A.....	4.4	5.3	7.2	3.5
Assemblers, class B.....	4.2	6.6	4.4	3.6
Assemblers, class C.....	1.8	3.2	1.7	1.5
Tool and die makers.....	1.4	2.6	1.6	1.0
Welders, solderers and brazers.....	.3	.4	.5	.2
Chippers and grinders, sand blast and tumbler operators.....	1.0	1.1	1.8	.8
Filers and burrs.....	1.3	1.2	1.5	1.4
Stamping and forming workers.....	.4	.2	.3	.5
Heat treaters.....	.6	.2	.6	.8
Painters.....	.7	1.1	1.0	.5
Polishers and buffers.....	.2	.3	.5	.3
Inspection.....	3.8	1.4	2.4	4.8
Inspectors, class A.....	1.2	.5	.5	1.6
Inspectors, class B.....	1.6	.6	.7	2.1
Inspectors, class C.....	1.0	.3	1.2	1.1
Apprentices, learners and helpers.....	1.4	.7	3.1	1.2
Factory clerical.....	2.7	3.8	3.9	2.2
Stock clerks.....	1.1	.9	1.4	1.1
Other factory clerks.....	1.6	2.9	2.5	1.1
Packing and crating.....	1.0	2.3	1.2	.6
Material handling.....	1.8	1.5	1.9	1.8
Custodial (guards, janitors and watchmen).....	2.5	2.8	2.5	2.5
Other plant workers.....	26.0	14.5	17.7	29.8
Office workers.....	13.7	9.2	9.5	15.9
Total.....	100.0	100.0	100.0	100.0

¹ Less than a twentieth of 1 percent.

VARIATION OF OCCUPATIONAL STRUCTURE WITH SIZE OF ESTABLISHMENT

The differences in the type of labor required to staff large, medium, and small machine-tool establishments are revealed in table 1. Smaller plants show the greatest concentration of labor in processing occupations; the proportion of total employment varied from seven-tenths in plants with 8 to 250 workers to slightly more than one-half in large plants employing 501 or more workers. Maintenance, inspection, and material-handling occupations engaged a smaller proportion of the staff of small plants. In these plants, also, relatively few workers were employed in engineering, experimental, and production-control work.

An examination of the machining occupations shows that plants in the 8-250 group had, proportionately, nearly 50 percent more workers engaged in such work than did the largest size group. In all groups, however, specialized machine-tool operators accounted for about three-fourths of all machining workers. This similarity among plants of different size is apparently explained by the employment, by most of the plants in the 8-250 group, of a large number of workers to turn out a limited number of types of machine tools, thus achieving a relatively high degree of labor subdivision. Even where operations are relatively highly subdivided, the manufacture of machine tools requires great precision and hence the employment of large numbers of skilled, though specialized, workers.

Employment of women.—Compared with other machinery industries, fewer women were employed in machine-tool manufacture; the proportions of total employment in January 1945 were one-fourth as against one-sixth, respectively. Women were nearly equally divided between plant and office occupations; most of the plant workers were employed as class C machine-tool operators, class C assemblers, class C inspectors, and factory clerks.

Unionization.—In 69 of the 181 plants surveyed the majority of workers were covered by union agreements. Though union plants represented slightly less than two-fifths of the establishments covered, they employed roughly three-fifths of the workers in the industry.

Wage Structure

The wage structure of the machine-tool industry is summarized in this article in terms of average straight-time hourly rates (hourly earnings in the case of piece or other incentive workers) excluding premium overtime payments and shift differentials. Incentive bonuses were included as well as cost-of-living bonuses, which were considered as part of the worker's pay; nonincentive bonuses and allowances for room or board or other payments in kind were excluded.

Wage levels for all plant workers are shown for the United States as a whole and for broad economic regions in table 2. Occupational averages are presented only for key plant and office jobs which are believed to be representative of the range of rates and skills prevailing in the industry. No attempt was made to present information for all occupations in the industry. However, all plant workers were included in the over-all averages and frequency distributions; only administrative, executive, professional, and all office employees were omitted. The wages of inexperienced beginners, apprentices, and handicapped workers were excluded from the occupational wage data but were included in the over-all averages and distributions for all workers.

Although the wage rates include differentials for late-shift work, the number of workers reported refers to all shifts, and represents the approximate employment in all establishments in the industry (excluding only those below the minimum size covered by the study) rather than merely the employment in establishments actually studied.

UNITED STATES AS A WHOLE

Average Hourly Earnings

Average straight-time hourly earnings of all plant workers in the machine-tool industry amounted to \$1.05 in January 1945 (table 2). Only 3.3 percent of the workers earned less than 65 cents an hour; one-fifth received straight-time earnings of at least \$1.25 an hour. Just about half received earnings ranging from 80 cents to \$1.149 an hour.

TABLE 2.—Percentage Distribution of all Plant Workers in Machine-Tool Establishments by Straight-Time Average Hourly Earnings¹ and Region, January 1945

Average hourly earnings ¹	United States	New England	Middle Atlantic	Great Lakes	Middle West	Pacific
Under 50.0 cents.....	0.1	0.1	(2)	0.1	0.7	-----
50.0-54.9 cents.....	.5	.4	.6	.4	3.4	-----
55.0-59.9 cents.....	.8	.7	.7	.7	4.0	-----
60.0-64.9 cents.....	1.9	2.3	1.6	1.8	5.4	-----
65.0-69.9 cents.....	3.6	4.1	3.7	3.4	6.3	0.9
70.0-74.9 cents.....	5.1	5.5	4.8	5.0	8.5	3.4
75.0-79.9 cents.....	5.8	5.4	6.9	5.7	9.9	4.4
80.0-84.9 cents.....	6.7	7.4	7.9	6.1	3.8	9.3
85.0-89.9 cents.....	7.1	6.5	9.0	7.1	5.3	7.1
90.0-94.9 cents.....	7.7	7.4	8.9	7.8	4.4	7.1
95.0-99.9 cents.....	7.6	7.9	7.9	7.1	9.1	8.5
100.0-104.9 cents.....	8.1	9.2	7.4	7.9	6.9	4.6
105.0-109.9 cents.....	6.6	7.1	6.3	6.3	8.1	6.6
110.0-114.9 cents.....	7.2	8.3	5.8	6.9	4.4	7.3
115.0-119.9 cents.....	5.8	5.7	7.7	5.6	3.7	5.5
120.0-124.9 cents.....	4.9	4.4	3.1	5.3	3.1	7.7
125.0-129.9 cents.....	4.9	3.8	7.1	4.8	5.0	11.0
130.0-134.9 cents.....	3.5	3.8	2.0	3.6	3.0	4.8
135.0-139.9 cents.....	2.4	1.9	2.9	2.6	1.9	5.7
140.0-144.9 cents.....	1.9	1.4	1.3	2.2	.7	3.9
145.0-149.9 cents.....	1.6	1.4	1.2	1.8	1.4	.7
150.0-159.9 cents.....	2.4	1.5	1.3	3.1	.3	1.3
160.0-169.9 cents.....	1.5	1.1	.4	2.0	.5	.1
170.0-179.9 cents.....	1.0	.8	.7	1.3	.2	.1
180.0-189.9 cents.....	.5	.7	-----	.6	-----	(2)
190.0-199.9 cents.....	.3	.5	.1	.3	-----	-----
200.0 cents and over.....	.5	.7	.1	.5	-----	(2)
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
Total number of workers.....	80,900	23,600	7,000	46,900	1,400	2,000
Average hourly earnings ¹	\$1.05	\$1.03	\$1.01	\$1.06	\$0.92	\$1.08

¹ Excluding premium pay for overtime and night work.

² Less than a twentieth of 1 percent.

Occupational Wage Rates

One approach to an understanding of the wage structure of an industry is to examine the wages paid to workers performing different jobs.⁵ The data on wage rates presented in table 3 cover a group of occupations selected as representative of the machine-tool industry from the viewpoint of type of operations and levels of skill utilized.

In January 1945 the range in earnings was considerable. For the country at large, the averages for men varied from 70 cents for watchmen to \$1.35 for highly skilled tool and die makers. Average earnings of \$1.34 an hour were also reported for machine-tool set-up men and class A automatic screw-machine operators. In nearly one-

⁵ A more detailed analysis of the relationship of wages among different occupational groups will appear in a forthcoming mimeographed report: Occupational Wage Relationships—Machine Tool Industry.

TABLE 3.—Average Hourly Wage Rates (Straight-Time Hourly Earnings)¹ for Selected Occupations in Machine-Tool Establishments, January 1945

PLANT WORKERS					
Men			Women		
Occupation, grade, and sex	Number of workers	Average hourly rates	Occupation, grade, and sex	Number of workers	Average hourly rates
<i>Men</i>			<i>Men—Continued</i>		
Assemblers, class A	4,540	\$1.19	Pourers, metal	45	\$0.85
Assemblers, class B	4,036	1.06	Screw-machine operators, automatic:		
Assemblers, class C	1,298	.97	Class A	239	1.34
Carpenters, maintenance	280	1.05	Class B	171	1.20
Chippers and grinders	812	.95	Class C	47	1.19
Coremakers, hand	322	1.19	Set-up men, machine tools	320	1.34
Crane operators, electric bridge	480	.92	Shake-out men	235	.81
Drill-press operators, radial, class A	777	1.23	Sheet-metal workers, production	158	1.28
Drill-press operators, radial, class B	915	1.08	Stock clerks	942	.84
Drill-press operators, radial, class C	169	.88	Tool and die makers	1,403	1.35
Drill-press operators, single and multiple spindle, class A	378	1.17	Truck drivers	277	.89
Drill-press operators, single and multiple spindle, class B	594	.99	Truckers, hand	650	.81
Drill-press operators, single and multiple spindle, class C	259	.85	Truckers, power	323	.92
Electricians, maintenance	512	1.13	Turret-lathe operators, hand (including hand-screw machine), class A	1,791	1.16
Engine-lathe operators, class A	1,838	1.20	Turret-lathe operators, hand (including hand-screw machine), class B	1,250	1.06
Engine-lathe operators, class B	1,646	1.00	Turret-lathe operators, hand (including hand-screw machine), class C	424	.90
Engine-lathe operators, class C	484	.85	Watchmen	331	.70
Grinding-machine operators, class A	1,935	1.28	Welders, hand, class A	185	1.18
Grinding-machine operators, class B	1,436	1.07	Welders, hand, class B	71	1.08
Grinding-machine operators, class C	396	.95	Working foremen, processing departments	1,291	1.23
Guards	718	.83			
Heat treaters, class A	248	1.14	<i>Women</i>		
Heat treaters, class B	406	1.00	Assemblers, class B	257	.95
Inspectors, class A	1,265	1.17	Assemblers, class C	519	.88
Inspectors, class B	1,394	1.06	Crane operators, electric bridge	73	.97
Inspectors, class C	338	.88	Drill-press operators, radial, class C	39	.97
Janitors	1,413	.77	Drill-press operators, single and multiple spindle, class B	96	.92
Machinists, maintenance	346	1.16	Drill-press operators, single and multiple spindle, class C	242	.78
Machinists, production	945	1.13	Engine-lathe operators, class B	29	.87
Machine-tool operators, miscellaneous machines	461	1.10	Engine-lathe operators, class C	180	.90
Maintenance men, general utility	74	.97	Grinding-machine operators, class B	138	.97
Mechanics, maintenance	206	1.13	Grinding-machine operators, class C	305	.89
Milling-machine operators, class A	1,610	1.21	Inspectors, class B	251	.95
Milling-machine operators, class B	1,647	1.05	Inspectors, class C	675	.81
Milling-machine operators, class C	509	.98	Janitresses	130	.76
Millwrights	253	1.05	Milling-machine operators, class B	145	.93
Molders, floor	452	1.16	Milling-machine operators, class C	205	.86
Molders, hand, bench	117	1.08	Stock clerks	213	.72
Molders, machine	252	1.18	Turret-lathe operators, hand (including hand-screw machine), class A	97	1.01
Painters, finish	284	1.04	Turret-lathe operators, hand (including hand-screw machine), class B	133	.95
Painters, rough	415	.96			
Patternmakers, wood	158	1.29			
Polishers and buffers, metal	47	1.20			
Polishing and buffing machine operators	51	.94			
OFFICE WORKERS					
<i>Men</i>			<i>Women—Continued</i>		
Bookkeepers, hand	26	\$1.34	Clerks, accounting	213	\$0.74
Clerks, accounting	66	1.05	Clerks, file, class A	58	.71
Clerks, general	62	.83	Clerks, file, class B	224	.69
Clerks, order	51	.99	Clerks, general	688	.61
Clerks, pay roll	31	.93	Clerks, order	60	.74
Office boys	26	.59	Clerks, pay roll	356	.72
<i>Women</i>			Clerk-typists	720	.66
Billing machine operators	55	.69	Office girls	91	.51
Bookkeepers, hand	132	.92	Stenographers, class A	288	.82
Bookkeeping machine operators:			Stenographers, class B	532	.69
Class A	39	.95	Switchboard operators	69	.72
Class B	90	.78	Switchboard operators-receptionists	120	.69
Class C	45	.68	Transcribing machine operators:		
Calculating machine operators:			Class A	39	.78
Class A	84	.75	Class B	76	.63
Class B	240	.72	Typists, copy, class A	129	.60
			Typists, copy, class B	112	.62

¹Excluding premium pay for overtime and night work.

half of the most highly skilled occupations average straight-time hourly earnings were \$1.20 or more.

Despite the increase in the employment of women in the machine-tool industry during the war, the number employed in skilled jobs was very small. As a result, the range of average straight-time hourly earnings of women by occupations was found to be not nearly so great as that shown for men (table 3), varying from 72 cents an hour for stock clerks to \$1.01 an hour for class B hand turret-lathe operators. In one-half of the occupations women earned between 90 and 97 cents an hour. For the three most typical occupations, however, women's earnings were somewhat lower: 89 cents for class C grinding-machine operators, 88 cents for class C assemblers, and only 81 cents for class C inspectors.

Variation of Wages by Sex

The over-all straight-time hourly earnings of men plant workers in the United States averaged \$1.07, compared with only 82 cents for women plant workers. Three inter-related factors largely account for this 30-percent difference: (a) very few women performed the more highly skilled operations; (b) since job opportunities in the industry were not opened to women until late in the war, a greater proportion of women than men were learners and beginners even as late as January 1945; and (c) even experienced women had shorter work experience.

While only 2 percent of the men plant workers received rates of less than 65 cents an hour, 13 percent of all women plant workers earned less than this amount. At the other extreme, more than one-fifth of all men received \$1.25 an hour or more as compared with only 2.6 percent of the women.

In occupations in which both men and women were employed in significant numbers, the differential in favor of men was not nearly as great as that indicated by the over-all averages. The largest difference (15 percent) occurred among class B engine-lathe operators, with men averaging \$1.00 an hour, and women, 87 cents. In 14 other occupations, a difference in favor of men was observed, while in 4, the earnings of women exceeded those of men.

REGIONAL VARIATIONS IN WAGE LEVELS⁶

In January 1945 average straight-time hourly earnings for all plant workers were highest in the Pacific region (\$1.08). Although 17 percent above the Middle West, the Pacific over-all average was only 2 percent higher than the average reported in the Great Lakes region. Earnings in the New England and Middle Atlantic regions fell below the national average of \$1.05.

While no workers received less than 65 cents an hour in the Pacific region, the other regions showed proportions varying from 3 percent in the Middle Atlantic to 14 percent in the Middle West.

In the majority of key occupations in each region, average hourly earnings for men followed the pattern for all plant workers. Thus, wages were highest in the Pacific region (nearly one-half of the occu-

⁶ The regions used in this study include: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; and *Pacific*—California, Nevada, Oregon, and Washington.

pations averaged at least \$1.20) and lowest in the Middle West region (two-thirds of the occupations averaged less than \$1.00). Where workers were classified by grade, regional differences were less marked among class A than class B workers; the greatest regional disparity occurred for class C workers.

Greater competition for the services of the highly skilled workers is probably largely accountable for the greater uniformity in their wage rates.

In general, women plant workers in the Great Lakes region earned substantially more than elsewhere. The wages of women office workers were below those of women plant workers and varied somewhat from the regional pattern of the latter group. Thus, there was a tendency for earnings of women office workers to be highest in the Middle Atlantic region, ascribable, in part, to the greater concentration of employment in cities of 100,000 and over. By applying constant weights to a group of selected office occupations it was found that wages in the Middle Atlantic region were 7 percent higher than those reported for the Great Lakes region, and 11 percent higher than those paid in New England.

VARIATION OF OCCUPATIONAL WAGE LEVELS BY SIZE OF ESTABLISHMENT AND COMMUNITY, UNIONIZATION, AND METHOD OF WAGE PAYMENT

The influence of size of establishment, size of community, unionization, and method of wage payment on the wage structure of the industry is suggested but not accurately measured by data presented here.

The number of establishments in the industry is too small, relative to the number of factors affecting wage levels, to permit separate measurement of the influence of each variable. Large machine-tool establishments were more frequently located in large than in small cities and incentive payment was relatively more important in the bigger plants. Unionization also tended to be more prevalent in large than in small plants, and was also found primarily in certain wage areas and regions.

In nearly every occupation for which data are available, earnings of workers in the largest establishments (501 or more employees) were substantially higher than in the two smaller size groups. For men in all key jobs, earnings in the largest establishments were 14 percent higher than in plants employing 8 to 250 workers and 15 percent higher than in plants with 251 to 500 workers. There was but little variation in the over-all earnings of workers in the small and intermediate-size groups, though there was a tendency for the small plants to show slightly higher earnings than the next larger size group.

An even more marked relationship was discovered between the small and intermediate-size groups with respect to the wages of skilled workers. An outstanding example is that of tool and die makers. Average earnings of these workers in all small establishments was \$1.41, which was 20 cents higher than those for similar workers in intermediate-size establishments and 2 cents higher than the average in the largest establishments. Earnings of less skilled workers,

however, were greater in the intermediate than in the smaller establishment group.

With few exceptions, workers in communities with a population of 100,000 or more had higher earnings than employees in smaller communities. Men, for example, averaged 14 percent an hour more in large than in small cities. This relationship was observed among production workers of different grades of skill as well as among custodial and maintenance workers. Regionally the differential in favor of the large cities was about 16 percent in New England, 14 percent in the Great Lakes region, and 12 percent in the Middle Atlantic region.

Average straight-time hourly earnings of union workers exceeded the earnings of nonunion workers in 6 out of every 10 occupations studied; however, the average over-all difference in favor of union workers was less than 2 percent.

The relation of unionization to the wage structure varied considerably by region. In the Middle Atlantic areas union workers held the advantage in nearly every occupation for which comparable data were available, an average advantage of 16 percent. In the Great Lakes area the over-all difference was 6 percent in favor of union workers, but rates of nonunion workers were higher in 13 occupations. The picture in New England was quite the reverse. Nonunion workers, enjoyed an average differential of 9 percent over union workers, and in roughly 7 out of every 10 of the occupations reported their average earnings exceeded those of union workers. Among the major factors responsible for this situation was the greater importance of incentive work in large nonunion establishments in this region.

With but few exceptions, workers paid on an incentive basis earned more per hour than time workers in each region and in each occupation where both methods of wage payment were widely used. Among men class A assemblers, incentive workers averaged 16 cents an hour more than time workers; at the class B level, the difference was 20 cents; at the class C level, 35 cents. In New England, men incentive workers on the average earned one-fourth more than time workers; in the Great Lakes States and for all regions combined, the difference was approximately one-seventh and one-sixth, respectively.

Wage and Related Practices

The policy of wage stabilization, invoked during the war years, focused interest not only on individual plant methods of determining pay rates but also on general working conditions and such practices as vacations, bonuses, and insurance, which tend to increase real income without increasing hourly wage rates. These wage and related practices, as they applied to the machine-tool industry in January 1945, are discussed below. In the main, the information is based on the predominant practice in each establishment studied.⁷

⁷ The information on wage and related practices is reported in terms of establishments rather than employment and reflects an over-representation of large establishments and of large cities. Proportionately larger samples of such establishments were taken in order to permit presentation of separate data for the more important wage areas and for establishments in different size groups; no attempt has been made to weight the number of establishments to correct for this over-representation. In contrast, all information based on numbers of workers rather than establishments was balanced internally. Thus, each region, each size of establishment group, and each size of city group was given proper weighting in tabulating the data on shift employment, the number of workers paid on an incentive basis, and the amount of nonproduction bonuses. The earnings data presented in the wage-structure section of this article were similarly balanced.

METHODS OF WAGE DETERMINATION

Experienced plant employees in more than three-fourths of the machine-tool establishments were paid according to a written or other generally recognized rate or scale of rates for each occupational group. In nine-tenths of these plants a range of rates for the same occupation was reported; the remainder had but a single rate for all workers performing the same operation.

While little better than 20 percent of the establishments were classified as having incentive systems, nearly 30 percent of all plant employees were found working under them. The use of such systems in the Great Lakes and New England regions was considerably greater than in the other sections of the country. By far the greatest proportion of incentive systems were predicated upon the efforts of individual workers rather than on group endeavor. Bonus systems outnumbered piece-work systems by nearly 3 to 1.

HOURS OF WORK AND SHIFT OPERATIONS

The scheduled hours of work refer to the usual workweek of full-time first-shift employees. Generally, premium overtime rates were paid for work in excess of 40 hours. Since 175 of the 181 establishments surveyed reported a workweek of 48 hours or more for men workers, it is evident that average hourly earnings of workers in the industry were considerably higher than the average straight-time wage rates discussed earlier.

A normal workweek of 55 hours was the most typical in the industry. Normal weekly hours of women workers were usually 48.

Slightly over half of the establishments surveyed operated more than one shift, but only 15 percent of all plant workers were on a second shift and only 5 percent on a third shift. The latter operation was reported by roughly one-eighth of the establishments surveyed. Second-shift operations were more extensive in the Great Lakes and Pacific regions than in the rest of the country.

Seven out of every eight plants reporting more than one shift paid an extra-shift differential, usually 5 cents or a flat 10-percent addition.

NONPRODUCTION BONUSES

Nonproduction bonuses for plant workers were reported by five-eighths of the establishments surveyed: two-thirds distributed Christmas bonuses. Reports of bonus payments to office workers were roughly comparable to those shown for plant workers. When bonus earnings were averaged over all workers, they supplemented hourly earnings of plant workers by 3.3 cents; similarly, earnings of office workers were increased by 2.1 cents. In New England the average bonus of plant workers amounted to 4.7 cents, compared with 3.0 cents in the Great Lakes region, 1.5 cents in Middle Atlantic, and only 0.5 cent in the Pacific region.

OTHER BENEFITS

Four out of every five establishments reported formal provisions for paid vacations after 1 year's service for plant workers; 90 percent of these provided 1 week's paid vacation. Provisions for office workers tended to be more liberal. A 2-week paid vacation was granted

to office employees by more than half the establishments, and nearly all plants reported a formal annual-vacation policy for these workers.

Few plant workers were covered by formal provisions for paid sick leave. Office workers fared somewhat better. Nearly one-fifth of all establishments employing office workers provided for paid sick leave, ranging from less than 1 week to as much as 1 month. The majority, however, provided for 1 week of paid sick leave after 1 year of service.

Insurance or pension plans were reported by two-thirds of the establishments. With but few exceptions these plans applied equally to plant and office workers, and the majority provided both life and health insurance plans. While various insurance or pension plans were found in all regions, this service was provided by a larger proportion of the establishments in New England than in other regions.



Salaries of Clerical Workers in 20 Cities, October 1945

WEEKLY salaries of regularly employed, full-time workers in 13 clerical positions in October 1945, as compared with October 1944, are shown in the following table giving summary data from surveys made by the National Industrial Conference Board in 20 cities.¹ The salary rates do not include overtime, but do include incentive payments and production bonuses earned during the regular working hours. However, salary rates for clerical employees working less than 40 hours per week were not converted to 40-hour rates. Working hours ranged from 35 to 48 per week among the 381 companies, with 36,039 clerical employees, represented in the October 1945 survey; about two-thirds of the companies had a 40-hour week.

Weekly Salaries of Clerical Employees, October 1944 and 1945

Position	Weekly salaries of—									
	All employees				Middle 50 percent of employees					
	Range		Mode		Low		Median		High	
	October 1944	October 1945	October 1944	October 1945	October 1944	October 1945	October 1944	October 1945	October 1944	October 1945
Billing machine operators.....	\$15-\$57	\$18-\$63	\$25	\$28	\$24	\$27	\$29	\$30	\$34	\$36
Bookkeeping machine operators...	17- 55	16- 57	28	27	25	27	28	30	32	34
Calculating machine or computer operators.....	15- 54	17- 54	28	30	26	28	30	32	35	37
Key punch operators.....	17- 45	18- 47	28	30	25	27	28	30	32	34
Junior dictating machine transcribers.....	18- 43	17- 40	22	28	23	24	25	28	28	30
Senior dictating machine transcribers.....	19- 59	20- 60	30	32	27	28	30	32	35	37
Junior copy typists.....	15- 45	16- 45	25	25	22	23	24	25	27	28
Senior copy typists.....	18- 48	17- 51	28	30	25	27	29	30	32	34
Stenographers.....	17- 55	16- 63	30	30	28	29	31	33	35	37
File clerks.....	16- 58	16- 58	22	21	21	22	24	26	30	31
Receptionists.....	18- 50	20- 58	25	28	25	28	29	32	35	36
Telephone switchboard operators.....	17- 52	16- 56	30	30	28	30	30	33	34	36
Office boys or girls.....	14- 39	15- 33	20	23	19	20	21	22	23	24

¹ Data are from National Industrial Conference Board, Inc. (New York): Studies in Personnel Policy, No. 74—Clerical Salary Survey of Rates Paid, October 1945; Conference Board Management Record, January 1945.

Wages and Hours in Egyptian Textile Industry, 1943 and 1945¹

IN MID-1945, the average daily wage for men in an Egyptian textile plant employing about 28,000 workers varied from 25 to 40 piasters, and for skilled workmen, from 25 to 50 piasters. Skilled laborers, such as print designers, were receiving from 10 to 15 pounds monthly. Wages for women in the same plant were much lower than wages for men, averaging 10 to 15 piasters daily.

Average weekly rates in the Egyptian textile industry in July 1943, shown in a sample study by the Egyptian Statistical and Census Department, ranged from 35 piasters in rope and string making to 101 piasters² in cotton ginning and pressing. The average rate for the 16,229 workers covered in the study was 69 piasters. Among those receiving the higher rates were workers in passementerie and embroidery, silk spinning and weaving, carpet and rug making, cotton spinning and weaving, and tent and sack manufacture.

Hours worked.—In mid-1943 the highest average number of hours worked per week in the Egyptian textile industry was 54 (in silk spinning and weaving), and the lowest 42 (in net making), the average for all branches being 47 hours. In cotton ginning and pressing, preparation of wool, wool spinning and weaving, tent and sack manufacture, and passementerie and embroidery, the average was 50 hours.

Two years later, in mid-1945, the large plant of approximately 28,000 workers (previously referred to) was operating 24 hours a day, with three 8-hour shifts. In certain parts of the plant, however, 10-hour shifts were being worked, 1 hour being allowed for lunch. One shift of female workers was operating on a 9-hour schedule and had 1 hour for rest, although the majority worked the straight 8-hour schedule without rest periods.

Size of plant, safety, etc.—Textile establishments in Egypt varied considerably in size. A survey of mid-1943, covering a fourth of the industry, included 1,605 establishments, which had 16,229 workers. Of these, cotton-spinning and weaving establishments predominated, with 1,250 plants and 12,383 workers.

The large establishment of 28,000 workers (previously mentioned) was operating, in mid-1945, 4 cotton-spinning, 2 wool, 1 flax, 4 ginning, and 3 weaving mills. Ten percent of its workers were women. Boys and girls from 12 to 18 years of age were employed in many parts of the plant.³ Although factory buildings were reported to be well lighted and reasonably well ventilated, with parts of the structures cooled, no safety provisions for the protection of workers (such as guards on moving machinery) were observed in April 1945. The company maintained a small clinic with two full-time doctors. A hospital with 110 beds was almost ready for use in June 1945, and was to be turned over to the Egyptian Health Service for operation.

¹ Data are from report from American Legation, Cairo, July 9, 1945, and various restricted and published sources. It should be noted that neither the 1943 nor the 1945 wage rates cover the Egyptian textile industry as a whole.

² A average exchange rate of the Egyptian pound (100 piasters) was quoted in July 1942 as \$4.15, and at the end of July 1945 at \$4.12. Studies in the interwar period showed that to convert one currency into another according to the foreign exchange rate does not give an accurate measure of the relative purchasing power of money, but information is not available showing the relative living costs in the United States and Egypt.

³ The legal minimum age is 12 years, but children 9 to 12 years of age may be engaged for a 7-hour day in certain specified industries.

Wage and Hour Regulation

Advance Approval of 65-Cent Hourly Pay by Stabilization Board

ANY wage or salary increase which does not result in an hourly rate of pay above 65 cents an hour was given advance approval under general order No. 43 issued by the National Wage Stabilization Board on March 20, 1946.¹ The increases may be used for price-relief purposes without specific application to the NWSB, under the wage-price policy established by Executive Order No. 9697 of February 14, 1946.²

Following the relaxation of direct wage controls on August 30, 1945, pay below 55 cents was considered to be substandard and subject to increase to that level. On January 18, 1946, regional boards of the NWSB were authorized to approve wage increases to bring the rates of pay up to 65 cents an hour (for price-relief purposes) in individual cases only. Thus, the action of March 20 endorses a broad extension of rates up to 65 cents hourly.

Stabilization Board Policy on Wages and Summer Workweek³

EMPLOYERS who wish to shorten their workweek for the summer season, without a reduction in the pay of employees, need not obtain approval from the National Wage Stabilization Board, if no question of price relief is involved. A reduction in the scheduled workweek may be made irrespective of the past practice of the employer regarding summer work. This practice has been customary in many establishments and is especially prevalent in retail stores which have closed for an extra day or half-day during part or all of the summer season, without reducing the pay of the employees.

As the shorter workweek is temporary, the return to the longer workweek without an increase in pay may not be considered as constituting a wage decrease. In reducing hours, the employer must make clear, however, the temporary nature of the summer hours schedule.

¹ Information is from National Wage Stabilization Board release No. 29 of March 22, 1946.

² The terms of this Executive order were summarized in the Monthly Labor Review of March 1946 (p. 397).

³ Information is from National Wage Stabilization Board release No. 48, May 16, 1946.

Prices and Cost of Living

Prices in the First Quarter of 1946

Summary

PRICE developments during the first quarter of 1946 differed significantly from the general wartime pattern. Increases were greater in primary markets than in retail stores and were larger for industrial than for agricultural commodities. In the latter respect, the situation differed from that of the fourth quarter of 1945 when movements in agricultural prices were still the major influence on average prices of all commodities.

Primary market prices continued to increase (1.7 percent) during the first quarter of 1946 as a result of increased costs of production and consequent adjustment of OPA ceilings. Both agricultural and nonagricultural commodities contributed to the rise. Farm products and foods increased 1.4 percent and 0.7 percent, respectively, while all commodities other than farm products and foods increased 1.7 percent. Retail prices of consumer goods rose slightly over the 3-month period, as higher prices for most of the principal items in the family budget, especially clothing, more than offset lower prices for foods.

The percentage changes in wholesale and retail prices are shown in table 1.

TABLE 1.—Percent of Change in Retail and Wholesale Prices, in Specified Periods

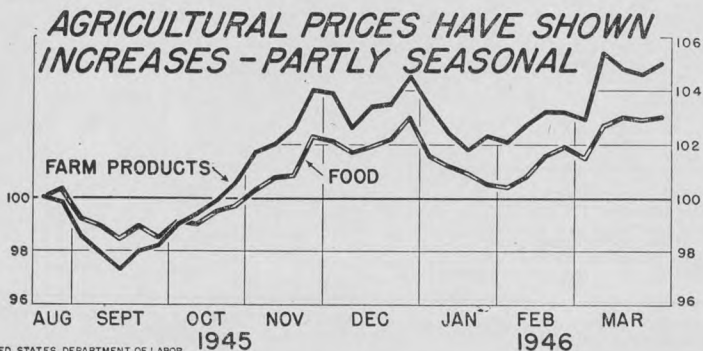
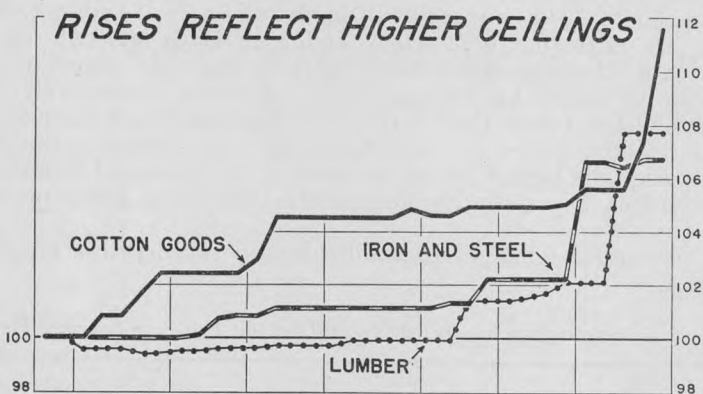
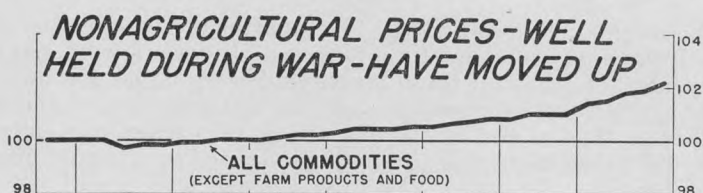
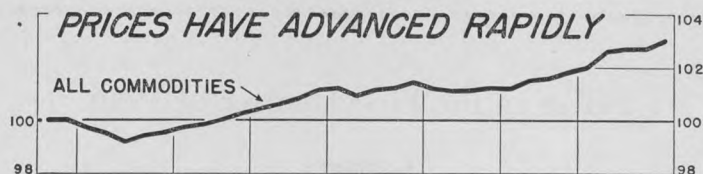
To March 1946 from—	Percent of change in—		
	Retail prices of living essentials	Wholesale prices of—	
		All commodities	All commodities, except farm products and foods
December 1945: 3 months ago.....	+0.2	+1.7	+1.7
August 1945: End of war.....	+ .7	+3.0	+2.3
March 1945: Year ago.....	+2.7	+3.4	+3.0
May 1943: Hold-the-line order ¹	+4.1	+4.6	+5.7
January 1941: Wage base date.....	+29.2	+34.8	+21.2
August 1939: Month before war in Europe.....	+32.0	+45.2	+27.6

¹ The President's hold-the-line order was issued on April 8, 1943. The peak of the price rise which had led to this order was reached in May, which is, therefore, used for this comparison.

Inflationary pressures remained strong during the quarter under review, and the fear of rising prices was widespread. These pressures

WHOLESALE PRICES SINCE THE WAR

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UNITED STATES DEPARTMENT OF LABOR
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were clearly evident in movements of stock and real estate prices, and of those few commodity prices which were uncontrolled, such as cotton and rye. Important among the inflationary factors were the large volume of liquid assets in the hands of business and consumers, the high level of consumer income (only slightly below last year), pressure for higher wages, deferred demand for housing, durable goods and industrial equipment, the need for inventory replenishment, foreign demand for American products for relief and rehabilitation, and the continuation of deficit financing. Consumers were spending an unusually high proportion of current income. Although income payments to individuals and gross wages and salaries were about 5 percent below levels of early 1945, the volume of retail trade was at record levels, and consumer expenditures during the first quarter of 1946, estimated at an annual rate of 120 billion dollars, were higher than during 1945.

Moreover, although production of many basic commodities was increasing, production of consumers' durable goods was lagging behind earlier expectations, and there were acute shortages of certain nondurable goods. As a result, OPA's general decontrol program was not proceeding as rapidly as had been hoped and the schedule for gradual elimination of subsidies was delayed. Because of such considerations, the Office of Price Administration sought extension of its powers under the Emergency Price Control Act, to stabilize the national economy until all-out production could be achieved, and hearings were begun before the House Committee on Banking and Currency.

The general wage-price policy continued to be of major importance as workers sought upward adjustments in wage rates. In mid-February President Truman substantially modified wage-price policy with the issuance of Executive Order No. 9697, although emphasis continued to be placed on wage adjustments through collective bargaining. The new order authorized the approval for price relief purposes of wage increases that conformed to the general pattern of increases in the industry or local labor market since VJ-day. The Price Administrator was directed to give immediate consideration to industry requests for price increases to relieve hardships resulting from approved wage adjustments. New wage agreements during the quarter were concluded in many industries.

As war contracts were canceled and manufacturers resumed production of peacetime goods, increases in maximum prices were allowed by OPA to cover wage increases under the new wage-price policy as well as higher costs of labor and materials which had accumulated during the period of war production. In addition, incentive price increases were authorized to stimulate production of scarce materials and others vital to the reconversion program, such as building materials.

Prices of Industrial Goods

Significant increases occurred in prices for important industrial commodities during the first quarter of 1946, in contrast to their comparative stability during the war. The accelerated advance which was apparent during the last quarter of 1945 continued into the new

year. As the problem of providing adequate housing grew more serious, prices of building materials rose 4.5 percent with sharp increases for lumber and structural steel. Metals and metal products as a group rose 2.7 percent, chiefly because of higher prices of basic iron and steel products. The group of miscellaneous commodities advanced 0.8 percent in price, as average prices for paper and pulp increased 4 percent. Chemicals and allied products declined fractionally.

Percentage changes in prices of the principal groups of industrial products are shown in table 2.

TABLE 2.—Percent of Change in Prices of Industrial Goods in Primary Markets, in Specified Periods

Commodity group	Percent of change—				
	In last quarter, Dec. 1945 to Mar. 1946	From end of war, Aug. 1945 to Mar. 1946	In last year, Mar. 1945 to Mar. 1946	From hold-the-line order, ¹ May 1943 to Mar. 1946	From month before war in Europe, Aug. 1939 to Mar. 1946
Metals and metal products.....	+2.7	+3.5	+4.0	+4.4	+16.3
Building materials.....	+4.5	+6.0	+6.7	+13.0	+39.4
Chemicals and allied products.....	-.1	+7	+1.2	+1.3	+29.4
Miscellaneous commodities.....	+8	+8	+1.1	+4.0	+30.4

¹ The President's hold-the-line order was issued April 8, 1943. The peak of the price rise which had led to this order was reached in May, which is, therefore, used for this comparison.

Price increases for many commodities were the largest since price controls were first established. Many of them followed OPA ceiling adjustments to cover higher costs, to restore profit margins, or to stimulate greater output of needed materials. Some of them were necessitated by cost conditions which had developed during the war. Others, however, reflected the unsettled conditions of the quarter, evidenced by growing labor unrest and outspoken industry requests for relief from OPA restrictions.

The steel strike and other work stoppages seriously affected production in many industries, notably automobiles and machinery. February output of trucks, including military types, was the lowest since Pearl Harbor. Production of automobiles dropped to 47,965 units, while output of railroad cars was considerably reduced and production of locomotives virtually ceased. More than 4 percent of rail rolling stock was awaiting repairs compared with 2.4 percent during the war. On the other hand, production of some items not affected by strikes continued to increase. Output of passenger tires, for example, averaged 1,140,000 per week in February, compared with only 630,000 in September 1945. Toward the end of the quarter, with settlement of strikes for the steel, automobile and most of the electrical goods industries, there was a decided upturn in production. Employment in manufacturing industries increased by more than 400,000 persons between February and March. However, with the advent of the bituminous-coal strike further reductions in the output of many industries was anticipated.

The price advances during the quarter were especially significant from the standpoint of future developments, because they were confined largely to basic materials and for the most part had not yet been reflected in increased prices of highly fabricated articles or consumers' goods.

BUILDING MATERIALS

Manufacturers' prices of building materials rose 4.5 percent, the sharpest quarterly price increase since the fall of 1940. The advance in general reflected higher ceilings allowed by OPA to cover increased costs or to stimulate production of materials needed for the housing program.

To encourage lumber production, OPA granted price increases during the quarter for all principal species of lumber, with major increases allowed on fir and pine construction lumber, oak flooring, and red cedar shingles. These advances, averaging about 6 percent, brought lumber prices to 78 percent above the August 1939 level. OPA indicated that these increases were tentative and would be withdrawn if production did not reach satisfactory levels. The Civilian Production Administration estimated that lumber production would have to be stepped up from the 1945 rate of 27 billion board feet per year to one of 36 billion board feet to meet the Government's housing goal of 2,700,000 homes in 2 years. CPA currently estimates a production of about 30 billion board feet for 1946.

Brick prices rose 0.6 percent during the 3-month period, with ceiling adjustments in some regions. Following the \$2 per thousand brick price increase allowed late in 1945 and a 35 percent increase in employment in the industry, production rose sharply to levels nearly double a year ago. March output, however, still was well below the minimum required for carrying out the housing program. Further production increases were expected as seasonal plants resumed operations.

An 0.6 percent increase in cement prices reflected an advance of 10 cents per barrel granted by OPA to southern producers late in February to cover increased production costs. Both production and shipments of cement were more than 60 percent above the first quarter of 1945, reflecting the increasing demand for cement as the construction industries revived.

Ceiling increases for steel, after settlement of the steel strike, were followed by the first change in structural steel prices since 1938. Quotations for steel shapes were 12 percent higher at the end of the quarter than at the beginning. Cast iron pipe, butts, and nails also reflected increases in basic steel prices.

Plumbing and heating quotations remained steady, but in March OPA granted a net increase of 5.65 cents per square foot for cast iron radiation and the USES acted to channel foundry labor into this industry. Paint and paint materials quotations were stable but the OPA made it possible for producers of paints, sold to such users as householders, farmers, and painting contractors, to raise their prices on any product which was not yielding a 1936-39 profit margin. Other building materials showing price advances with ceiling revisions included window glass, plaster, and crushed stone.

METALS AND MACHINERY

Prices of metals and metal products rose 2.5 percent on the average during the first quarter of 1946 as OPA, under the new wage-price policy, permitted producers of steel and certain other basic ferrous materials, as well as a number of machinery manufacturers and metal fabricators, to raise prices to offset wage increases. Ceiling increases also were allowed for some machinery and fabricated metal products to increase output.

These latest advances, a continuation of the upward movement begun in January 1945, brought the total increase in prices of metals and metal products from August 1939 to over 16 percent. The anticipated large expansion in production of machinery and other metal products for civilian use, after the close of the war had not materialized by the end of the quarter. Strikes early in 1946 forced curtailment of operations in most of the basic metal industries. Supplies of all important ferrous and nonferrous metals were critically short in terms of demand.

The steel strike began on January 21 when the companies refused to accept in full the President's recommendation for a wage increase of 18.5 cents per hour without compensating price relief. In order to end the strike, continuation of which would have seriously hampered the reconversion program, the Stabilization Administrator directed OPA to raise ceiling prices an average of \$5 per ton. Increases ranging from \$2 to \$12 per ton on individual products were authorized by OPA on March 1, retroactive to February 15. Although producers agreed to the 18.5 cents wage increase they stated that further price relief would be necessary.

Producers raised stainless steel prices 8.2 percent, the average amount of the ceiling increases and the first advance in prices of stainless steel since controls were removed in October 1945. Prices of tin plate were not advanced in order to protect tin can manufacturers who maintain prices announced at the beginning of the year.

The supply of raw materials for steel production including scrap, pig iron, and iron ore remained short. Imports of battlefield scrap did not arrive in expected quantities and "springboard" premiums on heavy melting grades of scrap were reported as high as \$2.50 per ton at Pittsburgh and \$3.00 per ton at Chicago. On March 15, OPA permitted producers of pig iron to advance their prices 75 cents per gross ton to offset higher production costs. This was the third increase in little more than a year, causing a price rise of about 11 percent since January 1945, but producers stated that further increases were needed to provide sufficient supplies to meet all demands. At the end of March most iron ore miners were still out on strike. The workers were demanding an increase of 18.5 cents per hour while the companies' highest offer was 10 cents.

The supply of principal nonferrous metals, particularly copper, lead, and tin, was extremely short. Domestic supplies of copper and lead were curtailed by strikes, while imports of copper were virtually nonexistent and those of lead considerably below their wartime rate. A world shortage exists for these metals, and it is becoming increasingly difficult to secure foreign supplies, while the prices at which they are obtainable are steadily rising. Prices of lead were advanced

30 percent in the London market during the quarter. Reflecting this upward pressure on prices, RFC announced a buying price of foreign lead of 7.0 cents per pound, compared with 6.5 cents per pound during the war; still higher prices are indicated for second quarter purchases. At the same time RFC announced resumption of its foreign copper purchase program, which had been discontinued in October 1945, when it was believed that existing stockpiles would be sufficient for future demands.

Metal producers generally were asking for higher prices in place of subsidies, arguing that higher prices would stimulate output of the larger producers, some of whom were receiving only a small subsidy payment. At the end of March, the Director of Economic Stabilization announced that higher labor costs resulting from recent wage increases would be provided for by the payment of higher premiums to producers, but ceilings would remain unchanged.

All of the major manufacturers of automobiles were in production by the end of the quarter, following settlement of the General Motors strike on March 11. Output fluctuated considerably as producers were forced to shut down assembly lines at frequent intervals because of material shortages or strikes in their own or their supplier's plants. Higher manufacturers' ceiling prices for Lincoln, Chrysler, Nash and Hudson cars were established early in the quarter to be absorbed in part by dealers. In general, these ceilings, including allowances for engineering changes, provided for increases at retail ranging from 3.0 to 12.0 percent above 1942 levels. On March 11, OPA allowed further increases averaging 2.5 percent at the manufacturer's level in prices of automobiles produced by Chrysler, Ford, Nash, and Hudson to compensate for higher wages granted by the industry. These advances resulted in increases in retail prices ranging from \$1 to \$51, with dealers' margins reduced further to 19.5 percent.

CHEMICALS AND ALLIED PRODUCTS

Despite relative scarcities of some products such as fats and oils, alkalis, phosphate, metallic compounds, glycerin, and casein, prices of chemicals and allied products generally have remained firm since late 1945. The fractional decline in average prices during the first quarter was due to lower prices for carbon tetrachloride, cream of tartar, and tartaric acid, which offset price increases for castor oil and ergot.

The over-all production of industrial chemicals has increased in recent months and by February 1946 was less than 6 percent below the war peak. However, production of certain important products, including sulphuric, hydrochloric, and hydrofluoric acids, ammonia, chlorine, bicarbonate and bichromate of soda, and salt cake, has not improved. Work stoppages, shortages of containers, and the transfer of box cars to the delivery of grains also have affected the production and consumption of chemicals.

March prices for drugs and pharmaceuticals were 111.7 percent of the 1926 average, 5 percent below December 1945 levels. Average prices for domestic tartaric acid declined approximately 11 percent to levels at which the imported commodity was selling. At 62½ cents per pound for the granulated or powdered grades in barrels, the large

lot price for tartaric acid was at the lowest level since April 1941. Prices for the tartrate compounds—cream of tartar, rochelle salts, and seidlitz mixture—fell 9 to 12 percent following a price decrease of 18.8 percent for argols, the raw material for these products. Effective February 18, ceiling prices for castor oil in drums were raised 9.1 percent, the first increase since February 1942. Prices for castor beans in Brazil, sole current source for the United States, rose 22 percent from September 1945. To stabilize prices in this country maximum import prices were set in February 1946 at \$118 per long ton, c. i. f., first American port or point of arrival, or \$15.38 higher than the previous ceiling established by an intergovernmental agreement with Brazil, which expired early in 1944. Ergot prices rose 6.8 percent as spot supplies were depleted and recent shipments were impounded by order of the Food and Drug Administration.

Sales of fertilizers continued their upward swing with the expanded farm production program. Tag sales in 16 States in the first quarter exceeded the corresponding period of last year by 11 percent. Difficulties were encountered in securing sufficient raw materials, particularly nitrogen bearing materials. Production of sulphate of ammonia, a byproduct of coke manufacture, was reduced by the steel strike. Demands for potash salts were large and requests were made for continuance of the wartime controls on distribution. Ceiling prices for castor pomace were raised. Fertilizer manufacturers will absorb this increase on the quantities used in mixed fertilizer but not on resales of straight material.

Supplies of fats and oils continued short and dependent upon restoration of Far East production. Government and trade officials did not foresee any marked improvement until early 1947. Under the Philippine trade bill (H. R. 5856) 200,000 tons of copra may be shipped annually to the United States free of duty until 1955; thereafter, the amount that can enter the country exempt from customs duty will be reduced 10,000 long tons annually until 1974, when all limitations will be lifted.

PAPER AND PULP AND RUBBER

During the first quarter of 1946, average prices for paper and pulp increased 4 percent to a level 42 percent above August 1939, with increased ceilings for paperboard, book paper and newsprint, to encourage production of standard items. Increasing costs had caused manufacturers of book, wrapping, and writing papers and paperboard either to shift to the production of more profitable grades or to eliminate certain finishing processes, such as sheeting and trimming of paper rolls. Newsprint ceilings were raised \$6 per ton in late 1945 to cover higher production costs.

Demand for almost all grades of paper and paperboard continued to be in excess of supply despite a higher level of current production and small withdrawals for military purposes. Publishers were unable to satisfy the demand for textbooks, and newsprint publishers had difficulty in securing supplies. Some Canadian newsprint mills shifted production from newsprint to the more profitable grades used for magazines.

As during the war years, the supply of fibrous raw materials continued to be a serious problem. To stimulate production in the South-

ern area, OPA raised ceiling prices for pulpwood in February by \$1.40 a cord. Unfavorable weather conditions, shortages of transportation equipment and the lack of woods labor have hindered production. The first postwar wood pulp was received from Finland in January. Swedish producers, however, were reported as canceling contracts to ship wood pulp to American consumers at existing ceiling prices because of increased costs for chemicals, labor, and fuel. This possibility of reduced foreign pulp shipments also strengthened the domestic wastepaper market, which had shown some weakness.

Prices for most rubber and rubber products remained unchanged during the quarter. Effective March 1, prices for synthetic butyl rubber (GR-1) were advanced 3 cents to 18.5 cents per pound. Higher costs for both raw materials and labor necessitated advances in OPA ceiling prices for a number of mechanical rubber products.

Production of rubber products still was hampered by shortages of raw materials. Political disorders and labor shortages have prevented large-scale production of natural rubber in the Far East. An interim price of 20¼ cents per pound, f. o. b. Far Eastern ports, for standard top grades of crude natural rubber was announced by the State Department in January. The Government selling price, however, remained unchanged at the wartime established level 22½ cents a pound. Tire production rose sharply, but supplies still were short compared with the large consumer demand. Dealers were experiencing difficulties in accumulating inventories of the more popular tire sizes.

Prices of Consumer Goods

Price increases for consumer goods during the first quarter of 1946 were generally larger in primary markets than in retail stores. Largest advances in primary markets occurred in prices of textile products (3.3 percent) and housefurnishings goods (2.1 percent), and there were smaller advances for agricultural products, hides and leather products, and fuel and lighting materials. Retail prices for all items averaged 0.2 percent higher. Food prices dropped 0.9 percent at retail, but clothing costs were 2.5 percent higher and there were smaller increases for other groups.

At the primary market level prices of cotton goods of unchanged specifications rose 5.9 percent, following ceiling adjustments required under the Bankhead amendment to the Stabilization Extension Act of 1944. This law provided that ceiling prices for the major individual cotton products must be high enough to reflect parity prices of cotton to growers. In addition, raw cotton quotations advanced sharply, at times reaching the highest levels in 25 years, largely in response to speculative influences. Other textile fibers and their products were generally stable in price.

Supplies of civilian goods improved somewhat during the quarter, but, in general, they remained far below demand. Most foods were in relatively good supply, but meats and fats and oils still were inadequate to meet demand, and sugar was still rationed. Supplies of moderate-priced clothing and textile housefurnishings were larger, but still far below total needs. The return to civilian life of more men from the armed services increased demands on supplies of wool clothing, and shortages of men's suits were as severe as at any time during

TABLE 3.—Percent of Change in Consumers' Prices and in Prices of Consumer Goods in Primary Markets, in Specified Periods¹

Commodity group	Percent of change—				
	In last quarter, Dec. 1945 to Mar. 1946	From end of war, Aug. 1945 to Mar. 1946	In last year, Mar. 1945 to Mar. 1946	From hold-the-line order, ² May 1943 to Mar. 1946	From month before war in Europe, Aug. 1939 to Mar. 1946
Consumers' prices: All items.....	+0.2	+0.7	+2.7	+4.1	+32.0
Food.....	-.9	-.6	+3.1	-2.0	+49.8
Clothing.....	+2.5	+4.6	+6.5	+19.7	+52.6
Rent.....	+1.1	.....	+1.1	+4.4	+3.9
Fuel, electricity, and ice.....	+2.2	-.8	+5.5	+2.7	+13.3
Gas and electricity.....	-1.2	-2.4	-2.7	-3.3	-6.2
Other fuels and ice.....	+1.3	+4.4	+2.9	+7.6	+32.6
Housefurnishings.....	+1.3	+2.9	+3.9	+20.1	+49.3
Miscellaneous.....	+9.9	+1.1	+1.9	+9.2	+25.4
Consumer goods (primary market prices):					
Farm products.....	+1.4	+5.1	+4.9	+6.1	+118.7
Foods.....	+7.7	+2.8	+4.6	-1.0	+62.8
Hides and leather products.....	+8.8	+1.5	+1.7	+1.7	+29.2
Textile products.....	+3.3	+5.1	+5.0	+7.5	+54.4
Housefurnishing goods.....	+2.1	+2.3	+2.3	+4.1	+24.9
Fuel and lighting materials.....	+2.2	+2.2	+1.9	+5.2	+17.1

¹ In comparing retail and primary-market price movements the following differences between the consumers' price and primary-market price index must be noted: The consumers' price index includes only selected goods and services purchased by moderate-income families in large cities, and reflects in part the effect of disappearance of lower-priced articles. The primary-market indexes represent all commodities and are based on goods with unchanged specifications.

² The President's hold-the-line order was issued April 8, 1943. The peak of the price rise which had led to this order was reached in May, which is, therefore, used for this comparison.

the war. Although production of nylon stockings rose rapidly, the supply remained inadequate.

Output of some consumer durable goods, such as radios, improved, but most articles still were not available in quantity. Moreover, there was a noticeable tendency for manufacturers to concentrate on production of more expensive lines. February shipments of radios, electric irons, and vacuum cleaners, for example, were 65 to 75 percent of the 1941 rate, while shipments of sewing machines, mechanical refrigerators, and electric ranges represented an even smaller proportion of the 1941 rate. Adequate housing remained one of the foremost problems of the postwar period, with the backlog of demand estimated at 10 million homes.

For some articles in tight supply, particularly poultry and meats, butter, corn, and nylon stockings, black markets were reported widely. Numerous devices, such as cash payments on the side and barter transactions, to obtain corn for feed were reported in the Chicago market, and some slaughterers complained of inability to operate at legitimate prices.

FARM PRODUCTS AND FOODS

Gradual upward trends in prices of farm products and foods in primary markets since the end of the war continued during the first quarter of 1946. Prices dropped slightly in January but advanced in February and March. The net rise amounted to 1.4 percent for farm products and 0.7 percent for foods. Retail food prices dropped 1.3 percent on the average between December and February, because of

seasonal price declines for eggs, but rose 0.4 percent in March, with increases in cereal and bakery products, fresh fruits and vegetables, dairy products, and sugar.

The advances were general, eggs being the only major commodity to decline in price. Since most foods had been selling at or near the legal maximums, the advances were the result of increases in OPA ceilings, occasioned by wage adjustments (meats), subsidy removals (butter, cheese), changes in parity (grains), rising world prices (sugar, pepper), or poor local crops (fresh vegetables). Domestic and export demand, stimulated by world food shortages, was strong, and the prevailing inflationary sentiment was given impetus by proposals to revise the parity formula, and to relax or eliminate OPA controls. Acting to prevent still further price increases, the Government, late in January, announced a revision of its subsidy withdrawal program, extending the duration of payments for the remaining commodities at least until June 30, 1946.

During the quarter domestic food shortages, particularly of sugar, butter, and fats and oils, though severe, were minor in comparison with growing famine conditions abroad. On February 6, President Truman in a drastic nine-point program ordered controls over the distribution and use of grains in order to provide supplies for export. This included a food conservation publicity campaign, limitations on the use of grains for alcoholic beverages and animal feeds, an increase to 80 percent in the wheat flour extraction rate,¹ restrictions on inventories and distribution of wheat, flour, and their products, and special preference for rail and water shipments of grains for export.

Prices for grains moved up 2.6 percent during the quarter, most of the rise occurring in March, when ceilings were increased from 2 to 4 cents per bushel to meet legal parity requirements. The tightness in other grains had spread to oats which had been comparatively abundant, while rye, still free from price control, rose 25.5 percent.

Livestock and poultry prices increased 3.0 percent in the same period, principally owing to advanced prices for cows and lambs. As in the previous quarter, demand for cows was strengthened by the high prices for steers. Packers declared that they could not buy steers at prevailing prices and stay within compliance limitations of the subsidy regulations. Lamb prices rose more than seasonally with good quality and short supply, despite the increase in subsidy payments to producers in February. Ceilings continued to govern all sales of hogs and a large percentage of steers. There was some weakness in steer quotations in March owing to packer resistance and poorer quality caused by the feed shortage. Livestock prices reflected little change in mid-January during the strike at large meat-packing establishments, since a sharp decline in marketing occurred which coincided with the reduced demand. Meat prices in primary markets remained at ceilings, moving up about 2 percent in March to the level of the new maximums granted by OPA to cover in part the cost of recent wage increases. Retail ceiling revisions were scheduled to be effective in April.

Declines in egg prices in major wholesale markets ranged from 23 to 28 percent from December to March, while retail prices in large cities dropped approximately 28 percent. Supplies were unusually large

¹ White wheat flour is obtained from a 70 to 72 percent extraction rate.

and the U. S. Department of Agriculture supported the market by purchasing eggs for drying and freezing.

Prices of dairy products rose 2 percent at wholesale and 0.6 percent at retail. The subsidy of $3\frac{1}{4}$ cents per pound on Cheddar cheese was removed February 4, resulting in a rise of 3.2 cents per pound in the average price of cheese in primary markets between December and March. Effects of the removal of the 5 cents per pound butter subsidy had been reflected largely in both wholesale and retail markets by the end of 1945. The butter shortage was acute during the first quarter of 1946, and, although fluid milk production was increasing seasonally, the supplies available to civilians were 30 million pounds less than during the previous quarter.

The stability of prices of canned and dried fruits and vegetables continued although supplies were far short of demand, while prices of most fresh fruits and vegetables increased seasonally. Primary market prices of oranges dropped when ceilings were re-imposed early in January, but rose less than usual during the ensuing months because of the preponderance of small sizes. Potatoes, not under price control, rose 17.2 percent in price in retail stores, while onions were 20.5 percent higher in March than in December.

Sugar ceilings also were increased in February in order to meet prices from Cuba, thus assuring some relief from the present shortage. The subsidy of 3 cents per pound paid to coffee importers to enable them to meet world competition was extended to June 30 to maintain ceilings on green coffee. Removal of the subsidy on peanut butter, which OPA had estimated would raise retail prices 6.4 cents per pound, was reflected in a price rise of 2 cents at retail during the first quarter of 1946 in addition to an earlier rise of 2.5 cents.

TEXTILES AND APPAREL

Retail costs of clothing continued the steady advance of recent years due to the disappearance of lower-priced goods, with a rise of 2.5 percent during the first quarter. Prices for articles of constant quality in primary markets were generally stable until late in the quarter, when substantial increases in ceilings for cotton goods were granted. Spot market prices of raw cotton, still free from price restrictions, advanced about 10 percent in March 1946 to reach the highest point in two decades. Expectation of a more liberal parity formula for agricultural products furnished the greatest stimulus to cotton purchases. Upward adjustments in ceilings for cotton yarns and fabrics in order to offset the rising cost of cotton staple averaged more than 5 percent.

Continued allocation of substantial yardages of sturdy cotton, rayon, and woolen fabrics to manufacturers of moderate-priced garments to be retailed at predetermined prices increased the flow of this class of apparel. As sales volume continued to soar, retailers were often unable to meet the demand for many important articles of apparel and housefurnishings, such as men's woolen suits and cotton apparel, as well as women's hosiery, cotton sheets, and yard goods. During the quarter, OPA exempted manufacturers' production of lower priced lines of certain scarce commodities from MAP.

Lower prices for most grades of domestic wools resulted from reductions in the selling price of Commodity Credit Corporation wool

stocks on February 21, 1946. CCC stocks of domestic wool in December 1945 totaled 449 million pounds (grease basis), about 135 million pounds larger than a year earlier, and exceeding a full year's domestic production. The reduction in CCC selling prices was the second made in a period of 3 months to encourage consumption of domestic wools by American manufacturers. In recent periods approximately 92 percent of the total amount of apparel wool consumed in this country has been of foreign origin.

Wool yarns and woolen and worsted piece goods prices remained unchanged, although there was a continued scarcity of these products for men's apparel, attributable to a high rate of consumption and a maldistribution of products rather than over-all underproduction. By the end of 1945 the number of wage earners in the woolen and worsted industry was somewhat greater than the 1935 to 1939 average, and estimated yardage produced in 1945 was 100 million yards greater than the annual production in the years 1936 to 1939. However, in recent months more than half of the mill production of woolen and worsted piece goods was utilized in women's apparel, reversing the normal relationship between men's and women's apparel.

Unfavorable price ceilings and lack of linings and pocketings reportedly also hampered the production of medium- and low-priced men's suits. CPA's allocations of needed yardage and OPA's cost-plus-margin pricing order for manufacturers were slowly alleviating the scarcity. However, preticketed suits and topcoats were not in sufficient quantity in retail stocks to cause any appreciable lowering in average cost to consumers.

Increases of approximately 15 and 5 percent, respectively, were reported in manufacturers' prices for men's business shirts and woven shorts, after the issuance of the cost-plus-margin formula, but supplies had not yet increased appreciably at consumer levels.

The quantity of preticketed boys' apparel found in retail stores in this quarter exceeded that of any recent period. Prices were generally lower than for nonpreticketed garments which were higher priced than in December.

Most of the inexpensive and medium quality women's untrimmed coats and suits in retailers' stocks in the first quarter were preticketed and generally at lower prices. Their quality compared favorably with that of higher-priced nonpreticketed garments in the same stores. Reflecting the abnormally large consumption of wool fabrics by the women's wear industry, the supply generally was more than sufficient to meet demand, although higher-quality high-cost styles, for which CPA had made no allocation of fabrics, were scarce.

Shortages of all types of leather shoes, particularly in the lower price lines, began to appear during the first quarter as purchases of staple hides continued to exceed output. Many prewar producers of inexpensive leather shoes had shifted from nonrationed to casual types of footwear after shoe rationing ended. Subnormal imports of goat skins and other skins required for shoe upper leather clouded the outlook for improved supplies of all leather shoes. To maintain footwear production at a high peacetime level the OPA permitted manufacturers to charge 4½ percent more for nearly all classes of shoes, effective January 5, 1946. Retailers were asked to absorb this increase.

FUELS AND LIGHTING MATERIALS

Average prices for fuels and lighting materials in primary markets rose slightly during the first quarter of 1946 as increases for coal more than offset decreases for petroleum products. Retail prices for the group declined 0.5 percent, chiefly because of reduced utility rates. European requirements and relaxation of fuel rationing resulted in tight supplies of space-heating fuels during the heating season, but mild weather in most areas prevented serious hardship.

Declines in refinery prices for gasoline more than offset increases for fuel oil, so that average wholesale prices for petroleum and petroleum products declined slightly during the quarter. By the end of March fuel oil prices at all levels of sale and in all areas reflected ceiling price advances to encourage greater production, which had been begun in December in the Atlantic Coast shortage area. In January ceiling increases for medium distillates (2, 3, and 4) were raised from one-fifth cent per barrel to one-half cent per barrel, the same adjustment originally allowed for kerosene, range oil, and No. 1 oil in all areas except the Pacific Coast where this level was allowed in March. In March residual fuel oil ceilings also were raised 15 to 21 cents per barrel.

Meanwhile, because of heavy inventories, refinery prices for gasoline continued to decline from ceilings. For example, the low price for Oklahoma regular grade gasoline averaged 5 cents per gallon in March, 2 percent below December 1945 and 17 percent below the previous October. During March, however, gasoline prices strengthened, partly because of an anticipated increase of 10 cents per barrel in crude oil ceilings and partly because inventories, though high, were no longer rising and the spring season of renewed heavy consumption was at hand.

Wholesale prices for anthracite and bituminous coal moved fractionally higher between December and March, but producers' prices for foundry and furnace coke remained unchanged. As the quarter closed the strike of bituminous-coal miners opened the possibility of later price increases for bituminous coal and coke. Retailers' price ceilings for sales of coal and coke to consumers were raised 10 cents per ton on January 2, to cover wartime increases in distribution costs, and most retailers took advantage of the adjustment before the close of the quarter.

Discontinuance of excess profits taxes by the Federal Government late in 1945 was followed by sizable increases in the net earnings of many utilities, with consequent renewed pressure by local authorities for lower rates. During the first quarter of 1946, domestic rates for electricity were lowered in six of the cities in which the Bureau collects such information. As a result, the composite price index of 25 kilowatt-hours of electricity for domestic consumption declined 1.7 percent, about one-third as large as the decline of the previous 5 years.

Domestic rates of gas utilities were subject to the same influences as those affecting electric utilities, and in addition the rates of natural gas distributors continued to reflect reductions instituted by their pipeline suppliers. During the first quarter of 1946, sizable rate decreases occurred in two cities consuming natural gas and smaller decreases in two cities consuming mixed gas. Changes in fuel costs

or in the heating content of the gas resulted in changes in bills in 17 cities, with the national average showing a small decline.

HOUSING

Residential rents in all large cities combined advanced fractionally during the first quarter of 1946. With more veterans returning daily, the housing situation became more critical. Reports from most large and many small cities indicated that housing shortages were worse than during the war. Instances were reported of bonuses being paid to obtain rental units.

Following the extension on September 15, 1945, of the eviction waiting period from 3 to 6 months, the rate at which tenants were evicted to make way for owner-occupants dropped temporarily. However, by March the eviction rate in areas under rent control had surpassed former high levels with over 29,000 tenants being evicted monthly. Many owners, including returned veterans, were moving back into houses which had been rented by others during the war, and brisk sales markets continued to reduce the number of dwellings for rent.

Residential construction increased during the first quarter of 1946. In January, 38,300 permits were issued for privately financed nonfarm dwellings, and in February, 42,500. This represented a substantial increase over the number issued in the first 2 months of 1945. Continued scarcity of many essential building materials, however, limited production of homes.

During the quarter a number of measures were taken to speed home construction. Thus, OPA granted price increases on a number of building materials. At the end of the quarter, legislation authorizing subsidies to encourage production of building materials was before Congress, and building restrictions were restored by Housing Expediter Wilson Wyatt.

HOUSEFURNISHINGS

Retail costs of housefurnishings advanced 1.3 percent during the first quarter of 1946. Primary market prices rose 2.1 percent.

Retail costs of wool floor covering advanced slightly as new merchandise began to appear in some cities. Although current and future supplies of jute yarn were expected to be ample to meet all trade needs, the continued shortage of labor in the carpet mills indicated that earlier predictions of production reaching the 1941 level by the end of the year may not materialize. Retailers' stocks of hard surface floor covering were reported lower than during the war and it was expected that the shortage of linseed oil would limit this year's production to about 40 percent of normal. Moreover, it was not probable that the burlap-backed article would be produced for some time. Industry-wide increases of 5 percent were granted wool floor covering manufacturers January 4, 1946, and of 9 percent to the hard-surface industry February 25, 1946, to be absorbed by retailers.

Price changes for bedding and wood household furniture were mixed. Costs of stoves showed upward and downward adjustments as OPA continued to set specific dollar-and-cents ceilings.

In January case goods shipments increased from 10 to 40 percent over those recorded for any month in 1945, although at the end of March shortages in retail outlets remained acute. The poor quality of furniture was commented upon by many retailers. Manufacturers who were expected to derive the greatest advantages from OPA's low-end furniture order issued December 18, 1945, reported they were turning out little more of the cheaper furniture because of lumber and labor shortages. One manufacturer of upholstered furniture reported retarded production during the quarter because of the steel strike's effect on supplies of springs.

Shortages of high carbon wire springs continued to handicap production of innerspring and soft mattresses. The requirement that retailers absorb the 16 percent price increase granted to manufacturers of innerspring mattresses, December 13, 1945, was eased under an order effective March 27, 1946, which reduced the retailers' absorption to an amount equivalent to a manufacturer's increase of 12.35 percent.

Output of radios increased during the period but production of other durable goods was adversely affected by work stoppages, especially in the steel and electrical industries.

MISCELLANEOUS GOODS AND SERVICES

Retail costs of miscellaneous goods and services increased 0.9 percent during the first quarter of 1946. In many service establishments prices during the past 6 months reflected the stability of prewar years. Only scattered increases were reported in the cost of newspapers, motion-picture admissions, and barber and beauty shop services. The cost of laundry work and automobile repairs showed both increases and decreases in different cities as OPA allowed individual price adjustments. Domestic service rates increased in several southern cities. In Detroit, streetcar fares jumped from 6 to 10 cents.

Fees for selected medical services and hospital rates increased in cities throughout the United States. Increases were attributed to the continued high incomes of patients coupled with the doctors' and hospitals' increased overhead expenses.

For the first time in several years, the supply of most brands of cigarettes exceeded the demand. Some stores again sold in multiple units resulting in small price decreases to customers. The Office of Price Administration announced an impending increase of approximately 25 cents per thousand to cigarette manufacturers, which would be passed on to consumers.

Some manufacturers of soap flakes, soap powder, and textile soaps for industrial use reported price increases during the quarter. Prices of household soaps remained at ceilings. In retail stores housewives were finding growing quantities of relatively high-priced soapless detergents, which were partially alleviating the existing soap shortage.

Index of Consumers' Prices in Large Cities, April 1946¹

FOR the second consecutive month, retail prices of goods and services for moderate-income city families rose 0.5 percent, as higher prices in all important groups of items except electricity were reported in mid-April. The consumers' price index is 130.9 percent of the 1935-39 average and 3.0 percent above the April 1945 level. Food, clothing, and housefurnishings costs—which represent 57 percent of the budget for wage earners and moderate-income workers in large cities—were a little over 50 percent higher than in August 1939, the month before war in Europe.²

Food prices increased 1.1 percent between mid-March and mid-April 1946. Higher prices in all major groups, except eggs and beverages, contributed to this rise. The cost of cereal and bakery products advanced 2.7 percent as the 10-percent reduction in the weight of loaves requested on March 15 by the President's Famine Emergency Committee resulted in a 4.8-percent increase in the average price per pound for breads. Fresh fruit and vegetable prices rose 1.8 percent, with prices of onions, potatoes, cabbage, and sweetpotatoes increasing seasonally more than 4 percent; lettuce and spinach declined 5 and 6 percent, respectively.

The average price of meats increased 1.1 percent during the month as OPA allowed higher ceiling prices to compensate for wage adjustments. This represents the largest monthly increase in this group since early in 1943. Chicken prices rose sharply (6 percent) between mid-March and mid-April. Sugar increased 2.5 percent.

Clothing costs advanced 0.8 percent between March and April, reflecting both the Government's policy of granting price increases to manufacturers to encourage production and, to a lesser extent, the return of some items of prewar quality at prices higher than when they were last available. Higher prices were reported for men's topcoats, wool suits, business shirts, work clothing, and socks, and for

¹ The "consumers' price index for moderate-income families in large cities," formerly known as the "cost of living index," measures average changes in retail prices of selected goods, rents and services, weighted by quantities bought by families of wage earners and moderate-income workers in large cities in 1934-36. The items priced for the index constituted about 70 percent of the expenditures of city families whose incomes averaged \$1,524 in 1934-36.

The index only partially shows the wartime effects of changes in quality, availability of consumer goods, etc. The President's Committee on the Cost of Living has estimated that such factors, together with certain others not fully measured by the index, would add a maximum of 3 to 4 points to the index for large cities between January 1941 and September 1944. If small cities were included in the national average, another ½ point would be added. If account is also taken of continued deterioration of quality and disappearance of low-priced merchandise between September 1944 and September 1945, the over-all adjustment for the period January 1941 to September 1945 would total approximately 5 points. As merchandise of prewar quality and specifications comes back into the markets and the Bureau is able regularly to price it again, this adjustment factor will gradually decrease and finally disappear.

² 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 3. For that month they were estimated for January 1 (the date used in the "Little Steel" decision 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 4 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 present, 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.

women's cotton house and street dresses, hose, and gloves. Retailers' inventories of men's apparel continued low, but some improvement over previous months was reported by individual merchants. The cost of rayon dresses declined over the month as substantial shipments of garments manufactured under the Government's program to increase stocks or lower-priced apparel reached retail stores. Increased costs of materials continued to force prices upward for cotton products. April prices for cotton clothing were 84 percent higher than in August 1939; wool clothing costs rose 48 percent, and silk, rayon, and nylon apparel, 45 percent. Men's shoe prices advanced as shoes of prewar quality became available at higher prices.

Housefurnishings costs rose 0.7 percent over the month. Prices for sheets advanced more than 6 percent owing to an increase in ceiling prices and the further disappearance of lower-priced sheets. Prices for stoves and bedroom furniture also increased.

The average cost of miscellaneous goods and services edged upward 0.1 percent on scattered increases for beauty-shop services, tobacco, household supplies, newspapers, and motion-picture admissions. Since August 1939 the cost of services has increased about 20 percent.

The cost of electricity to consumers in Minneapolis, Norfolk, Richmond, San Francisco, and Savannah was lowered from 4 to 10 percent by rate reductions between March 15 and April 15.

Rents were not surveyed in April.

TABLE 1.—Index of Consumers' Prices for Moderate-Income Families and Percent of Change, April 1946, Compared with Earlier Dates

Group	April 1946	March 1946	April 1945	May 1943	May 1942	January 1941	August 1939
	This month	Last month	Year ago	Hold-the-line" order	General Maximum Price Regulation	"Little steel" decision	Month before war in Europe
Indexes (1935-39=100)							
All items.....	130.9	130.2	127.1	125.1	116.0	100.8	98.6
Food.....	141.7	140.1	136.6	143.0	121.6	97.6	93.6
Clothing.....	154.3	153.1	144.1	127.9	126.2	101.2	100.3
Rent.....		108.4		108.0	109.9	105.0	104.3
Fuel, electricity, and ice.....	110.4	110.5	109.8	107.6	104.9	100.8	97.5
Gas and electricity.....	92.6	92.9	95.5	96.1	96.6	97.5	99.0
Other fuels and ice.....	127.7	127.7	123.7	118.7	112.9	104.0	96.3
Housefurnishings.....	151.3	150.2	144.9	125.1	122.2	100.2	100.6
Miscellaneous.....	126.0	125.9	123.8	115.3	110.9	101.8	100.4
Percent of change to April 1946							
All items.....		0.5	3.0	4.6	12.8	29.9	32.8
Food.....		1.1	3.7	-9	16.5	45.2	51.6
Clothing.....		.8	7.1	20.6	22.3	52.5	53.8
Rent ¹.....				.4	-1.4	3.2	3.9
Fuel, electricity, and ice.....		-1	.5	2.6	5.2	9.5	13.2
Gas and electricity.....		-3	-3.0	-3.6	-4.1	-5.0	-6.5
Other fuels and ice.....			3.2	7.6	13.1	22.8	32.6
Housefurnishings.....		.7	4.4	20.9	23.8	51.0	50.4
Miscellaneous.....		.1	1.8	9.3	13.6	23.8	25.5

¹ Percent of change to March 1946.

TABLE 2.—Percent of Change in Consumers' Price Index from Specified Dates to April 1946, By Cities

City	March 1946	April 1945	May 1943	May 1942	January 1941	August 1939
	Last month	Year ago	Hold-the-line order	General Maximum Price Regulation	"Little Steel" decision	Month before war in Europe
Average.....	+0.5	+3.0	+4.6	+12.8	+29.9	+32.8
Baltimore, Md.....	+9	+2.5	+4.0	+12.8	+32.4	+35.1
Birmingham, Ala.....	+2	+1.9	+6.1	+12.5	+31.4	+35.5
Boston, Mass.....	+6	+2.8	+3.4	+11.5	+27.5	+30.2
Buffalo, N. Y.....	+8	+3.2	+1.9	+8.9	+28.8	+33.2
Chicago, Ill.....	+1.2	+2.4	+4.0	+11.2	+28.0	+31.2
Cincinnati, Ohio.....	+3	+2.2	+4.8	+12.0	+30.3	+33.4
Cleveland, Ohio.....	+6	+1.8	+3.5	+11.5	+29.9	+32.5
Denver, Colo.....	+3	+2.2	+3.9	+11.9	+29.3	+31.1
Detroit, Mich.....	+9	+4.4	+4.8	+12.3	+32.1	+35.4
Houston, Tex.....	+1	+1.7	+2.7	+9.9	+25.2	+26.8
Kansas City, Mo.....	+2	+1.8	+4.4	+12.1	+30.1	+29.7
Los Angeles, Calif.....	+2	+2.6	+6.0	+13.0	+30.1	+32.7
Minneapolis, Minn.....	+3	+2.7	+3.9	+9.1	+24.3	+26.9
New York, N. Y.....	+1.0	+4.8	+7.5	+17.8	+32.2	+34.8
Philadelphia, Pa.....	+2	+2.9	+3.9	+13.1	+30.7	+32.6
Pittsburgh, Pa.....	+5	+2.9	+5.5	+13.8	+30.2	+33.9
St. Louis, Mo.....	+5	+3.0	+4.1	+11.7	+27.8	+31.6
San Francisco, Calif.....	+3	+9	+4.6	+13.9	+31.6	+34.9
Savannah, Ga.....	+3	+2.9	+5.5	+15.1	+37.2	+40.1
Seattle, Wash.....	+2	+2.4	+3.9	+11.0	+31.7	+34.1
Washington, D. C.....	+3	+4.1	+6.4	+14.7	+31.7	+33.5

TABLE 3.—Percent of Change in Consumers' Price Index, March 1946 to April 1946 by Cities and Groups of Items

City	All items	Food	Clothing	Fuel, electricity, and ice			House-furnishings	Miscellaneous
				Total	Gas and electricity	Other fuels and ice		
Average.....	+0.5	+1.1	+0.8	-0.1	-0.3	0	+0.7	+0.1
Atlanta, Ga.....	+2.3			-0.1	0	0		
Baltimore, Md.....	+9	+1.6	+1.7	0	0	0	+3	+2
Birmingham, Ala.....	+2	-6	+2.1	0	0	0	+6	+2
Boston, Mass.....	+6	+1.3	-3	+1	-1	+1	+8	+2
Buffalo, N. Y.....	+8	+1.8	+1.1	0	0	0	+2	0
Chicago, Ill.....	+1.2	+2.3	+1.0	0	0	+1	+4	+2
Cincinnati, Ohio.....	+3	+7	0	+1	0	+2	0	-1
Cleveland, Ohio.....	+6	+1.3	+8	0	0	0	+5	+2
Denver, Colo.....	+3	+4	+1.0	+1	0	+3	+6	-1
Detroit, Mich.....	+9	+2.3	+7	0	+1	0	+4	-1
Houston, Tex.....	+1	+3	0	0	0	0	+3	-1
Indianapolis, Ind.....		+1.2		0	0	0		
Jacksonville, Fla.....		+1.0		0	0	0		
Kansas City, Mo.....	+2	+3	+4	+1	0	+2	+2	0
Los Angeles, Calif.....	+2	+1	+8	0	0	0	+7	+3
Manchester, N. H.....		+1.0		+3	+2	+4		
Memphis, Tenn.....		+7		0	0	0		
Milwaukee, Wis.....		+1.3		0	0	0		
Minneapolis, Minn.....	+3	+9	+4	-1.9	-5.6	-2	+3	0
Mobile, Ala.....		+6		0	0	0		
New Orleans, La.....		+1.4		0	0	0		
New York, N. Y.....	+1.0	+1.5	+1.5	0	0	+1	+2.4	0
Norfolk, Va.....		+1.9		-1.9	-5.2	0		
Philadelphia, Pa.....	+2	+4	+3	-1	0	-2	+8	0
Pittsburgh, Pa.....	+5	+8	+8	0	+1	0	+1.6	0
Portland, Maine.....		+4		0	0	0		
Portland, Oreg.....		+1.1		+2	0	0		
Richmond, Va.....		+1		-1.6	-4.8	+2		
St. Louis, Mo.....	+5	+6	+2.2	0	0	0	+2	-1
San Francisco, Calif.....	+3	+7	+3	-2.7	-3.6	0	+1	+1
Savannah, Ga.....	+3	+6	+4	-6	-2.1	0	+5	+1
Scranton, Pa.....		+1.1		0	0	0		
Seattle, Wash.....	+2	+5	+2	+2	0	+2	-7	+1
Washington, D. C.....	+3	+6	+5	0	0	0	-7	+2

TABLE 4.—*Indexes of Consumers' Prices for Moderate-Income Families in Large Cities 1935 to April 1946*

Year and month	Indexes (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
1945.....	128.4	139.1	145.9	108.3	110.3	145.8	124.1
1945:							
Jan. 15.....	127.1	137.3	143.0	(1)	109.7	143.6	123.3
Feb. 15.....	126.9	136.5	143.3	(1)	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	(1)	109.8	144.9	123.8
May 15.....	128.1	138.8	144.6	(1)	110.0	145.4	123.9
June 15.....	129.0	141.1	145.4	108.3	110.0	145.8	124.0
July 15.....	129.4	141.7	145.9	(1)	111.2	145.6	124.3
Aug. 15.....	129.3	140.9	146.4	(1)	111.4	146.0	124.5
Sept. 15.....	128.9	139.4	148.2	108.3	110.7	146.8	124.6
Oct. 15.....	128.9	139.3	148.5	(1)	110.5	146.9	124.7
Nov. 15.....	129.3	140.1	148.7	(1)	110.1	147.6	124.6
Dec. 15.....	129.9	141.4	149.4	108.3	110.3	148.3	124.8
1946:							
Jan. 15.....	129.9	141.0	149.7	(1)	110.8	148.8	125.4
Feb. 15.....	129.6	139.6	150.5	(1)	111.0	149.7	125.6
Mar. 15.....	130.2	140.1	153.1	108.4	110.5	150.2	125.9
Apr. 15 ²	130.9	141.7	154.3	(1)	110.4	151.3	126.0

¹ Rents not surveyed in this month.² Preliminary figures.

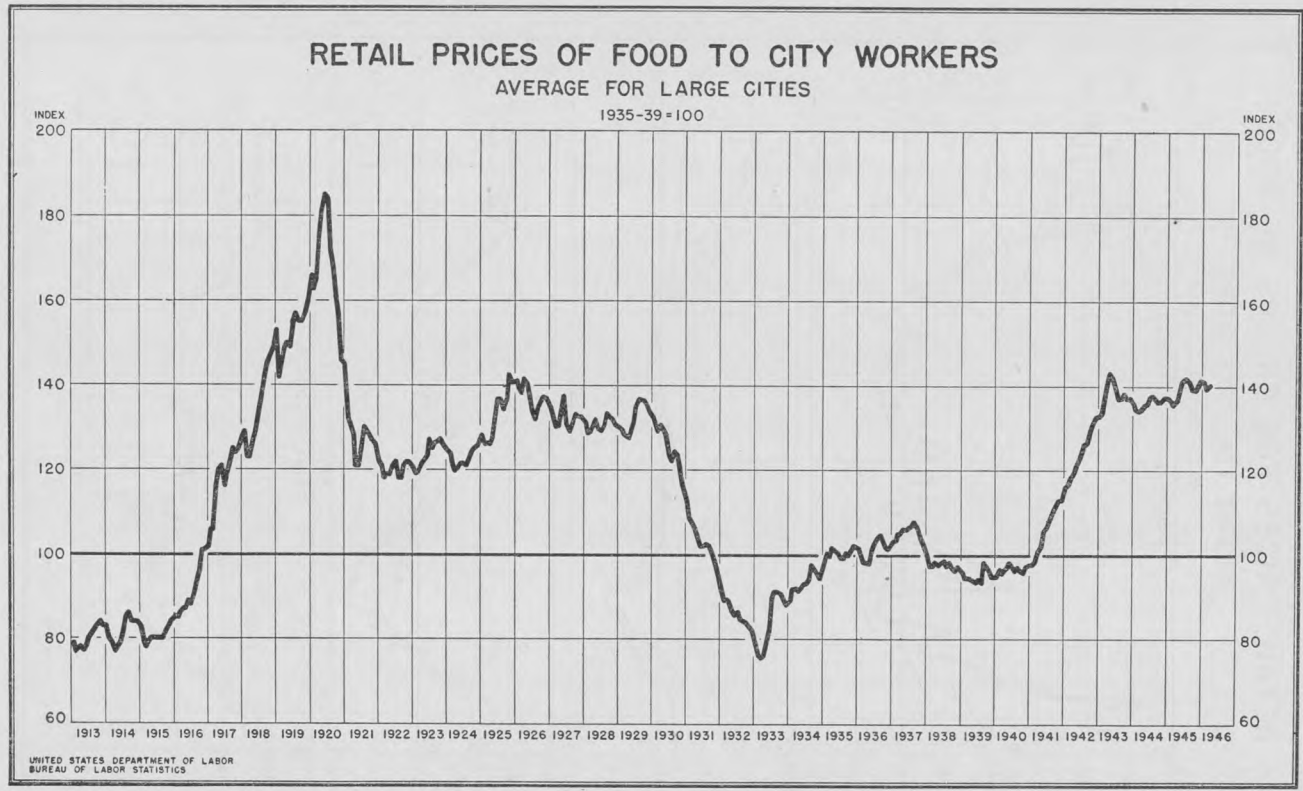
Retail Prices of Food in April 1946

RETAIL prices of food in April 1946 in relation to those in selected preceding periods are shown in the accompanying tables.

TABLE 1.—*Percent of Change in Retail Prices of Food in 56 Large Cities Combined,¹ by Commodity Groups in Specified Periods,*

Commodity group	Mar. 12, 1946, to Apr. 16, 1946	Apr. 17, 1945, to Apr. 16, 1946	May 18, 1943, to Apr. 16, 1946	Jan. 14, 1941, to Apr. 16, 1946	Aug. 15, 1939, to Apr. 16, 1946
All foods.....	+1.1	+3.7	-0.9	+44.9	+51.6
Cereals and bakery products.....	+2.7	+4.0	+5.3	+19.4	+21.3
Meats.....	+1.1	+1.5	-4.0	+31.4	+38.8
Beef and veal.....	+1.3	+1.0	-8.7	+9.5	+20.3
Pork.....	+8	+1.2	-9.4	+32.1	+29.2
Lamb.....	+8	+1.6	-2.5	+39.9	+39.8
Chickens.....	+6.1	+3.2	+7.9	+63.9	+68.4
Fish, fresh and canned.....	-2.8	+4.4	+10.4	+86.4	+122.2
Dairy products.....	+3	+2.9	+4	+30.7	+47.6
Eggs.....	-9	-1.6	-3.1	+41.4	+51.8
Fruits and vegetables.....	+1.4	+7.3	-2.6	+99.2	+101.2
Fresh.....	+1.8	+9.0	-2.9	+113.9	+115.3
Canned.....	-7	-1.0	-1.8	+40.8	+40.5
Dried.....	+4	+1.0	+7.3	+70.2	+87.7
Beverages.....	0	+2	+3	+37.4	+31.6
Fats and oils.....	+2	+1.9	-2	+57.0	+49.2
Sugar and sweets.....	+2.2	+7.0	+6.0	+42.0	+41.5

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.



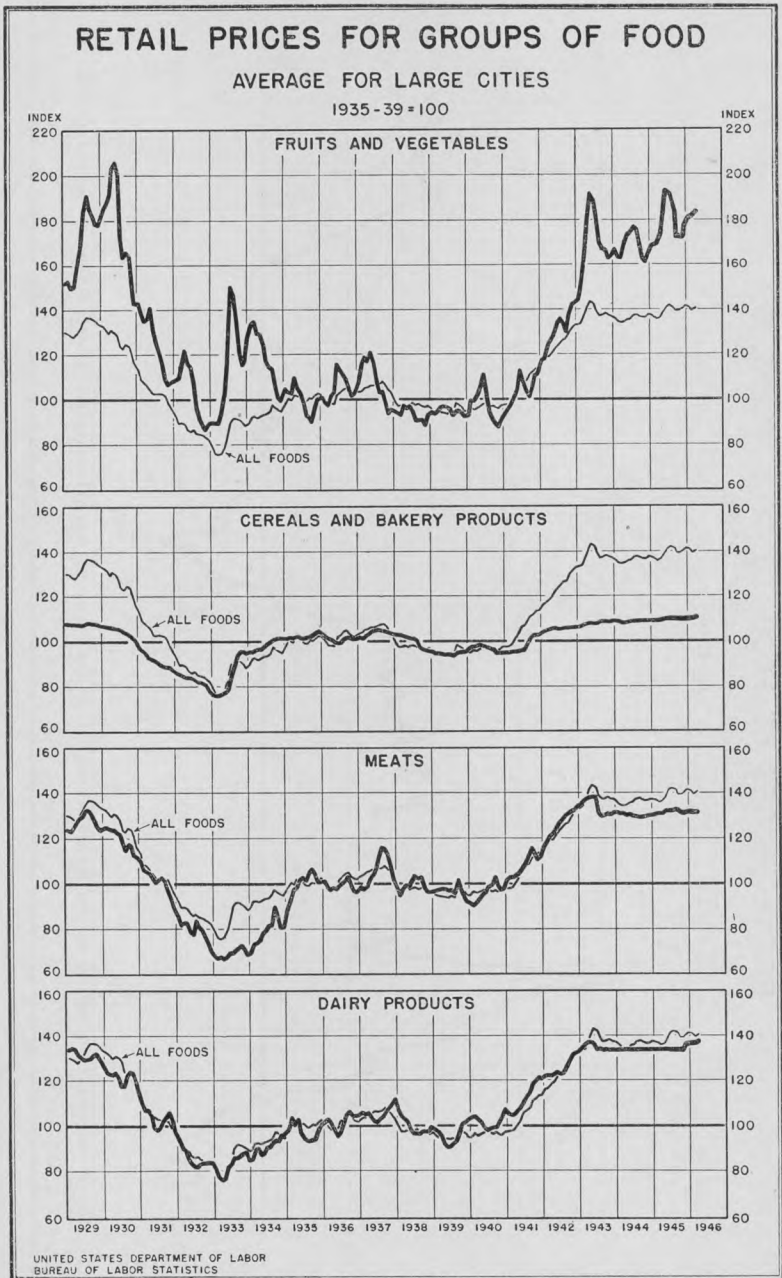


TABLE 2.—*Indexes of Retail Prices of Food in 56¹ Large Cities Combined,² by Commodity Groups, on Specified Dates*

[1935-39=100]

Commodity group	1946		1945	1943	1941	1939
	Apr. 16 ³	Mar. 12	Apr. 17	May 18	Jan. 14	Aug. 15
All foods.....	141.7	140.1	136.6	143.0	97.8	93.5
Cereals and bakery products.....	113.3	110.3	108.9	107.6	94.9	93.4
Meats.....	132.8	131.3	130.8	138.3	101.1	95.7
Beef and veal.....	119.8	118.3	118.6	131.2	109.4	99.6
Pork.....	113.7	112.8	112.4	125.5	86.1	88.0
Lamb.....	138.1	137.0	135.9	141.6	98.7	98.8
Chickens.....	159.3	150.2	154.3	147.6	97.2	94.6
Fish, fresh and canned.....	221.3	227.7	211.9	200.5	118.7	99.6
Dairy products.....	137.4	137.0	133.5	136.9	105.1	93.1
Eggs.....	137.7	139.0	139.9	142.1	97.4	90.7
Fruits and vegetables.....	185.9	183.4	173.3	190.8	93.3	92.4
Fresh.....	199.8	196.3	183.3	205.8	93.4	92.8
Canned.....	128.7	129.6	130.0	131.1	91.4	91.6
Dried.....	169.5	168.9	167.9	168.0	99.6	90.3
Beverages.....	124.9	124.9	124.6	124.5	90.9	94.9
Fats and oils.....	126.1	125.9	123.8	126.3	80.3	84.5
Sugar and sweets.....	135.3	132.4	126.4	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 by 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 April 1946, Compared with Earlier Months*

Article	1946		1945	1941	1939
	Apr. 16 ²	Mar. 12	Apr. 17	Jan. 14	Aug. 15
Cereals and bakery products:					
Cereals:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Flour, wheat ³.....5 pounds.....	31.9	31.9	32.2	20.7	17.9
Macaroni..... pound.....	15.7	15.6	15.8	13.8	14.0
Wheat cereal ⁴.....28 ounces.....	23.1	23.2	23.2	23.5	24.2
Corn flakes ⁵.....11 ounces.....	9.3	9.3	9.0	9.8	9.7
Corn meal..... pound.....	6.5	6.5	6.4	4.2	4.0
Rice ⁴ do.....	13.0	12.9	12.8	7.9	7.5
Rolled oats..... do.....	10.4	10.4	10.3	7.1	7.1
Flour, pancake ⁴.....20 ounces.....	12.4	12.4	12.3	(⁶)	(⁶)
Bakery products:					
Bread, white..... pound.....	9.3	8.9	8.8	7.8	7.8
Bread, whole-wheat..... do.....	10.0	9.7	9.6	8.7	8.8
Bread, rye..... do.....	10.5	9.9	9.9	9.0	9.2
Vanilla cookies..... do.....	30.0	29.6	28.9	25.1	(⁶)
Soda crackers..... do.....	18.6	18.6	18.9	15.0	14.8
Meats:					
Beef:					
Round steak..... do.....	41.2	40.8	40.4	38.6	36.4
Rib roast..... do.....	33.6	33.3	32.7	31.5	28.9
Chuck roast..... do.....	28.9	28.3	28.0	25.2	22.5
Stew meat ⁴ do.....	30.2	⁹ 29.9	29.3	(⁶)	(⁶)
Liver..... do.....	37.8	37.4	36.9	(⁶)	(⁶)
Hamburger..... do.....	27.7	27.2	27.4	(⁶)	(⁶)
Veal:					
Cutlets..... do.....	45.1	44.6	43.6	45.2	42.5
Roast, boned and rolled ⁴ do.....	35.7	⁹ 35.8	34.6	(⁶)	(⁶)
Pork:					
Chops..... do.....	37.4	37.0	36.9	29.1	30.9
Bacon, sliced..... do.....	41.5	40.9	41.0	30.1	30.4
Ham, sliced..... do.....	50.5	⁹ 50.8	49.3	45.1	46.4
Ham, whole..... do.....	36.0	35.9	34.5	26.2	27.4
Salt pork..... do.....	22.6	22.2	22.1	16.7	15.4
Liver ⁴ do.....	22.4	22.4	22.1	(⁶)	(⁶)
Sausage ⁴ do.....	38.9	38.6	38.1	(⁶)	(⁶)
Bologna, big ⁴ do.....	34.2	33.9	33.9	(⁶)	(⁶)

See footnotes at end of table.

TABLE 3.—Average Retail Prices of 78 Foods in 56 Large Cities Combined,¹ April 1946, Compared with Earlier Months—Continued

Article	1946		1945	1941	1939
	Apr. 16 ²	Mar. 12	Apr. 17	Jan. 14	Aug. 15
Meats—Continued					
Lamb:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Leg.....pound.....	40.7	40.4	39.9	27.8	27.6
Rib chops.....do.....	46.3	45.9	45.4	35.0	36.7
Poultry: Roasting chickens.....do.....	48.3	45.5	46.5	31.1	30.9
Fish:					
Fish (fresh, frozen).....do.....	(⁷)	(⁷)	(⁷)	(⁷)	(⁷)
Salmon, pink.....16-ounce can.....	24.8	24.9	23.4	15.7	12.8
Salmon, red ⁴.....do.....	43.9	43.3	40.8	26.4	23.1
Dairy products:					
Butter.....pound.....	55.0	54.8	49.9	38.0	30.7
Cheese.....do.....	38.4	38.1	35.6	27.0	24.7
Milk, fresh (delivered).....quart.....	15.4	15.4	15.6	13.0	12.0
Milk, fresh (store).....do.....	14.6	14.5	14.5	11.9	11.0
Milk, evaporated.....14½-ounce can.....	9.9	9.9	10.1	7.1	6.7
Eggs: Eggs, fresh.....dozen.....	47.8	48.3	49.5	34.9	32.0
Fruits and vegetables:					
Fresh fruits:					
Apples.....pound.....	14.8	14.5	11.8	5.2	4.4
Bananas.....do.....	10.9	10.9	10.4	6.6	6.1
Oranges.....dozen.....	45.0	44.8	45.7	27.3	31.5
Grapefruit ⁴.....each.....	8.6	8.3	9.4	(⁶)	(⁶)
Fresh vegetables:					
Beans, green.....pound.....	20.5	20.2	20.0	14.0	7.2
Cabbage.....do.....	8.0	7.6	6.6	3.4	3.9
Carrots.....bunch.....	8.8	8.6	8.0	6.0	4.6
Lettuce.....head.....	11.4	11.9	12.4	8.4	8.4
Onions.....pound.....	9.6	8.8	5.2	3.6	3.6
Potatoes.....15 pounds.....	78.0	74.6	79.7	29.2	34.4
Spinach.....pound.....	10.2	10.9	11.7	7.3	7.8
Sweetpotatoes.....do.....	11.4	10.9	9.5	5.0	5.5
Beets ⁴.....bunch.....	10.2	9.5	9.6	(⁶)	(⁶)
Canned fruits:					
Peaches.....No. 2½ can.....	28.0	28.1	27.6	16.5	17.1
Pineapple.....do.....	26.4	26.4	26.9	20.9	21.0
Grapefruit juice.....No. 2 can.....	14.0	14.1	14.4	(⁶)	(⁶)
Canned vegetables:					
Beans, green.....do.....	13.6	13.6	13.0	10.0	10.0
Corn.....do.....	14.8	14.8	14.8	10.7	10.4
Peas.....do.....	13.6	13.6	13.3	13.2	13.6
Tomatoes.....do.....	12.7	12.9	12.2	8.4	8.6
Soup, vegetable ⁴.....11-ounce can.....	13.3	13.3	13.4	(⁶)	(⁶)
Dried fruits: Prunes.....pound.....	17.6	17.6	17.7	9.6	8.8
Dried vegetables:					
Navy beans.....do.....	11.9	11.7	11.4	6.5	5.8
Soup, dehydrated, chicken noodle ⁴.....ounce.....	3.9	3.9	3.8	(⁶)	(⁶)
Beverages:					
Coffee.....pound.....	30.5	30.4	30.4	20.7	22.3
Tea.....¼ pound.....	24.0	24.0	24.1	17.6	17.2
Cocoa ⁴.....½ pound.....	10.4	10.4	10.4	9.1	8.6
Fats and oils:					
Lard.....pound.....	18.7	18.6	18.8	9.3	9.9
Shortening other than lard—					
In cartons.....do.....	20.2	20.1	20.2	11.3	11.7
In other containers.....do.....	24.8	24.8	24.6	18.3	20.2
Salad dressing.....pint.....	28.3	28.2	25.5	20.1	(⁶)
Oleomargarine.....pound.....	24.1	24.1	24.2	15.6	16.5
Peanut butter.....do.....	33.3	33.2	28.4	17.9	17.9
Oil, cooking, or salad ⁴.....pint.....	30.4	30.6	30.8	(⁶)	(⁶)
Sugar and sweets:					
Sugar.....pound.....	7.2	7.1	6.7	5.1	5.2
Corn sirup.....24 ounces.....	15.6	15.8	15.8	13.6	13.7
Molasses ⁸ ⁴.....16 fluid ounces.....	20.3	20.3	20.2	17.3	17.6
Apple butter ⁴.....16 ounces.....	15.1	14.9	13.8	(⁶)	(⁶)

¹ Data are based on 51 cities combined prior to January 1943.

² Preliminary.

³ Price formerly published for 10 pounds.

⁴ Not included in index.

⁵ Price formerly published for 8 ounces.

⁶ Not priced.

⁷ Composite price not computed.

⁸ Price formerly published for 18 ounces avoirdupois.

⁹ Revised.

TABLE 4.—Indexes of Average Retail Prices of All Foods, by Cities,¹ on Specified Dates

[1935-39=100]

City	1946		1945	1941	1939
	Apr. 16 ²	Mar. 12	Apr. 17	Jan. 14	Aug. 15
United States.....	141.7	140.1	136.6	97.8	93.5
Atlanta, Ga.....	140.8	137.7	137.3	94.3	92.5
Baltimore, Md.....	149.4	147.1	144.9	97.9	94.7
Birmingham, Ala.....	142.0	142.8	141.1	96.0	90.7
Boston, Mass.....	135.9	134.1	130.8	95.2	93.5
Bridgeport, Conn.....	135.2	136.9	133.9	96.5	93.2
Buffalo, N. Y.....	138.8	136.4	134.7	100.2	94.5
Butte, Mont.....	135.9	135.7	134.2	98.7	94.1
Cedar Rapids, Iowa ³	144.9	144.1	140.5	95.9	-----
Charleston, S. C.....	138.9	138.3	133.5	95.9	95.1
Chicago, Ill.....	141.9	138.7	136.2	98.2	92.3
Cincinnati, Ohio.....	137.9	136.9	135.0	96.5	90.4
Cleveland, Ohio.....	144.5	142.7	140.7	99.2	93.6
Columbus, Ohio.....	133.3	131.2	128.4	93.4	88.1
Dallas, Tex.....	138.2	138.3	134.4	92.6	91.7
Denver, Colo.....	140.5	139.9	137.9	94.8	92.7
Detroit, Mich.....	140.1	137.0	132.1	97.0	90.6
Fall River, Mass.....	133.7	133.8	130.1	97.5	95.4
Houston, Tex.....	139.7	139.3	136.7	102.6	97.8
Indianapolis, Ind.....	137.7	136.0	133.3	98.2	90.7
Jackson, Miss. ³	145.2	146.6	148.3	105.3	-----
Jacksonville, Fla.....	148.0	146.5	145.5	98.8	95.8
Kansas City, Mo.....	134.0	133.6	131.5	92.4	91.5
Knoxville, Tenn. ³	159.7	159.1	156.5	97.1	-----
Little Rock, Ark.....	141.2	137.9	137.6	95.6	94.0
Los Angeles, Calif.....	149.0	148.9	144.4	101.8	94.6
Louisville, Ky.....	133.8	132.9	130.6	95.5	92.1
Manchester, N. H.....	137.8	136.4	132.7	96.6	94.9
Memphis, Tenn.....	149.8	148.8	145.2	94.2	89.7
Milwaukee, Wis.....	138.3	136.5	134.3	95.9	91.1
Minneapolis, Minn.....	133.0	131.8	129.5	99.0	95.0
Mobile, Ala.....	148.6	147.7	144.9	97.9	95.5
Newark, N. J.....	143.1	140.8	138.0	98.8	95.6
New Haven, Conn.....	136.8	137.0	134.1	95.7	93.7
New Orleans, La.....	153.6	151.5	152.5	101.9	97.6
New York, N. Y.....	144.5	142.3	136.8	99.5	95.8
Norfolk, Va.....	147.2	144.5	140.1	95.8	93.6
Omaha, Nebr.....	134.6	132.5	130.3	97.9	92.3
Peoria, Ill.....	146.8	143.9	140.9	99.0	93.4
Philadelphia, Pa.....	139.6	139.0	134.2	95.0	93.0
Pittsburgh, Pa.....	142.5	141.4	135.4	98.0	92.5
Portland, Maine.....	135.4	134.8	131.3	95.3	95.9
Portland, Oreg.....	151.5	149.9	147.4	101.7	96.1
Providence, R. I.....	141.8	139.9	134.1	96.3	93.7
Richmond, Va.....	136.7	136.5	133.2	93.7	92.2
Rochester, N. Y.....	138.6	135.9	133.7	99.9	92.3
St. Louis, Mo.....	143.4	142.6	139.0	99.2	93.8
St. Paul, Minn.....	131.9	131.1	128.5	98.6	94.3
Salt Lake City, Utah.....	143.5	142.5	140.1	97.5	94.6
San Francisco, Calif.....	149.3	148.3	148.4	99.6	93.8
Savannah, Ga.....	155.7	154.7	150.8	100.5	96.7
Scranton, Pa.....	143.3	141.8	136.4	97.5	92.1
Seattle, Wash.....	146.3	145.6	143.0	101.0	94.5
Springfield, Ill.....	145.8	144.1	142.0	96.2	94.1
Washington, D. C.....	142.2	141.3	137.8	97.7	94.1
Wichita, Kans. ³	149.4	148.0	149.9	97.2	-----
Winston-Salem, N. C. ³	141.7	141.5	138.0	93.7	-----

¹ Aggregate costs of 61 foods in each city (54 foods prior to March 1943), weighted to represent total purchases by 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.

TABLE 5.—*Indexes of Retail Food Prices in 56 Large Cities Combined,¹ 1913 to April 1946*

[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	1945—Con.	
1914	81.8	1928	130.8	1942	123.9		
1915	80.9	1929	132.5	1943	138.0	August	140.9
1916	90.8	1930	126.0	1944	136.1	September	139.4
1917	116.9	1931	103.9	1945	139.1	October	139.3
1918	134.4	1932	86.5			November	140.1
1919	149.8	1933	84.1			December	141.4
				1945			
1920	168.8	1934	93.7	January	137.3	1946	
1921	128.3	1935	100.4	February	136.5		
1922	119.9	1936	101.3	March	135.9	January	141.0
1923	124.0	1937	105.3	April	136.6	February	139.6
1924	122.8	1938	97.8	May	138.8	March	140.1
1925	132.9	1939	95.2	June	141.1	April	141.7
1926	137.4	1940	96.6	July	141.7		

¹ Indexes based on 51 cities combined prior to March 1943.

Wholesale Prices in April 1946

HIGHER prices for both agricultural and industrial commodities raised average primary market prices 1.2 percent during April 1946, the sharpest monthly advance in more than 4 years. The wholesale¹ price index prepared by the Bureau of Labor Statistics, rose to 110.2 percent of the 1926 average, 4.3 percent above the level at the end of the war, and 47 percent above the level of August 1939, prior to the start of war in Europe.

In sharp distinction to wartime price movements, industrial and agricultural products have shared almost equally in price advances in recent months. This trend continued in April, with farm products rising 1.5 percent, foods 1.3 percent, and all other commodities 1.1 percent. Prices for nonagricultural commodities in April were 4 percent above the level of a year earlier, and 29 percent above the August 1939 average.

Price advances during the month for agricultural commodities were largely seasonal, or reflected inadequate supplies. Competitive bidding by buyers, prior to the imposition of slaughter controls, raised quotations for cattle, and sheep prices advanced seasonally. Prices for chickens rose sharply, stimulated by the shortage of meats. Rye quotations rose 15 percent to levels approximately \$1 per bushel above the ceiling which becomes effective June 1. Most fresh fruits and vegetables were higher. In addition, there were advances to new ceilings for citrus fruits, to cover higher labor costs of producers. Egg prices were generally lower, as storage stocks reached an all-time high. Cotton quotations continued to advance, while prices for foreign wools weakened with increased imports and poorer quality.

¹ The Bureau of Labor Statistics wholesale price data, for the most part, represent prices in primary markets. In general, the prices are those charged by manufacturers or producers or are those prevailing on commodity exchanges. The monthly index is calculated from a monthly average of one-day-a-week prices. It should not be compared directly with the weekly wholesale price index, which is designed as an indicator of week-to-week changes. Indexes for the last 2 months are preliminary.

Higher prices for processed foods resulted from a number of OPA ceiling adjustments made to cover higher costs. Thus, prices of fresh meats averaged higher in April, and most dried fruits increased in price. Buying prices for fluid milk in Chicago rose as the usual seasonal decrease in prices, under the Milk Marketing Agreement, was suspended and producers were given a temporary price advance. Bread prices rose in some areas as OPA permitted a 10 percent reduction in loaf weight without a corresponding reduction in the price per loaf, in order to encourage the saving of cereal grains for foreign relief shipment. Black pepper prices averaged higher in April, following earlier ceiling adjustments.

Textile products rose 3.1 percent on the average during April, with the sharpest increases for clothing. Men's and boys' suits and top-coats rose from 7 to 15 percent in price, following readjustment of OPA ceilings to allow cost-plus-margin pricing and stimulate production of lower price lines. Work clothing prices also were higher with ceiling adjustments to restore profit margins to manufacturers. Cotton goods averaged 3.5 percent higher in April, reflecting ceiling adjustments in earlier months.

Crude-petroleum prices were increased 10 cents per barrel early in April, and gasoline quotations, which had been below ceiling for several months, advanced, reflecting partly the higher crude prices and partly increased demand with the coming of summer.

Metals and metal products rose 0.4 percent as a group, with higher ceilings allowed to cover increased labor and material costs for agricultural implements, rivets, bolts and screws, and copper and brass-mill products.

OPA ceiling adjustments to stimulate output of materials needed for the housing program continued to be reflected in higher prices for building materials. These commodities rose 1.3 percent as a group to a level 7.4 percent higher than at the end of the war. Price increases were reported for common and refractory brick, cement, and practically all types of construction lumber except southern pine, and for sewer pipe, radiators, range boilers, and plumbing fixtures.

Housefurnishing goods rose 0.6 percent during April, largely because of higher prices for textile furnishings. Cotton blankets, sheets, and pillowcases advanced about 2 percent under OPA regulations to stimulate production of certain staple commodities. Manufacturers raised prices of wool floor coverings approximately 4.5 percent under the second ceiling adjustment for these commodities in recent months. Hard-surfaced floor coverings also were higher with additional ceiling increases.

Continuing the recent program to stimulate production of standard products, OPA raised ceiling prices for container board and wood pulp. The higher prices for wood pulp also were designed to encourage increased imports. Manufacturers' prices for cigarettes were increased late in the month to cover higher labor and material costs, and soap prices continued to advance fractionally. Ceilings for quebracho were raised to allow domestic purchasers to meet world market prices

TABLE 1.—Indexes of Wholesale Prices by Groups and Subgroups of Commodities, April 1946, Compared with Previous Months

Groups and subgroups	Indexes (1926=100)				Percent of change to April 1946 from—		
	April 1946	March 1946	April 1945	August 1939	March 1946	April 1945	August 1939
All commodities.....	110.2	108.9	105.7	75.0	+1.2	+4.3	+46.9
Farm products.....	135.4	133.4	129.0	61.0	+1.5	+5.0	+122.0
Grains.....	137.0	136.7	130.5	51.5	+2	+5.0	+166.0
Livestock and poultry.....	135.1	133.5	136.4	66.0	+1.2	-1.0	+104.7
Other farm products.....	134.2	131.4	123.2	60.1	+2.1	+8.9	+123.3
Foods.....	110.8	109.4	105.8	67.2	+1.3	+4.7	+64.9
Dairy products.....	116.3	116.1	110.7	67.9	+2	+5.1	+71.3
Cereal products.....	99.4	96.2	95.4	71.9	+3.3	+4.2	+38.2
Fruits and vegetables.....	138.2	133.1	123.4	58.5	+3.8	+12.0	+136.2
Meats.....	110.3	109.6	108.2	73.7	+6	+1.9	+49.7
Other foods.....	97.7	97.7	94.7	60.3	0	+3.2	+62.0
Hides and leather products.....	119.8	119.8	117.9	92.7	0	+1.6	+29.2
Shoes.....	128.6	128.6	126.3	100.8	0	+1.8	+27.6
Hides and skins.....	117.6	117.6	117.0	77.2	0	+5	+52.3
Leather.....	104.0	104.0	101.3	84.0	0	+2.7	+23.8
Other leather products.....	115.2	115.2	115.2	97.1	0	0	+18.6
Textile products.....	107.9	104.7	99.6	67.8	+3.1	+8.3	+59.1
Clothing.....	117.4	109.5	107.4	81.5	+7.2	+9.3	+44.0
Cotton goods.....	137.6	132.9	119.7	65.5	+3.5	+15.0	+110.1
Hosiery and underwear.....	75.5	75.5	71.5	61.5	0	+5.6	+22.8
Rayon.....	30.2	30.2	30.2	28.5	0	0	+6.0
Silk.....				44.3			
Woolen and worsted goods.....	112.7	112.7	112.7	75.5	0	0	+49.3
Other textile products.....	110.5	109.6	100.9	63.7	+8	+9.5	+73.5
Fuel and lighting materials.....	86.1	85.0	83.5	72.6	+1.3	+3.1	+18.6
Anthracite.....	104.0	104.0	95.3	72.1	0	+9.1	+44.2
Bituminous coal.....	125.2	125.2	120.6	96.0	0	+3.8	+30.4
Coke.....	133.5	134.9	130.7	104.2	-1.0	+2.1	+28.1
Electricity.....	(1)	(1)	58.7	75.8			
Gas.....	(1)	79.6	77.0	86.7			
Petroleum and products.....	62.8	61.2	64.2	51.7	+2.6	-2.2	+21.5
Metals and metal products.....	108.8	108.4	104.2	93.2	+4	+4.4	+16.7
Agricultural implements.....	98.6	98.5	97.5	93.5	+1	+1.1	+5.5
Farm machinery.....	99.6	99.6	98.7	94.7	0	+9	+5.2
Iron and steel.....	107.4	107.0	98.1	95.1	+4	+9.5	+12.9
Motor vehicles.....	112.8	112.8	112.8	92.5	0	0	+21.9
Nonferrous metals.....	87.1	86.1	85.9	74.6	+1.2	+1.4	+16.8
Plumbing and heating.....	100.8	95.1	92.4	79.3	+6.0	+9.1	+27.1
Building materials.....	126.5	124.9	117.1	89.6	+1.3	+8.0	+41.2
Brick and tile.....	119.9	117.4	110.6	90.5	+2.1	+8.4	+32.5
Cement.....	102.4	102.3	99.4	91.3	+1	+3.0	+12.2
Lumber.....	171.4	167.6	154.4	90.1	+2.3	+11.0	+90.2
Paint and paint materials.....	108.0	107.8	106.3	82.1	+2	+1.6	+31.5
Plumbing and heating.....	100.8	95.1	92.4	79.3	+6.0	+9.1	+27.1
Structural steel.....	120.1	120.1	107.3	107.3	0	+11.9	+11.9
Other building materials.....	112.8	112.3	103.8	89.5	+4	+8.7	+26.0
Chemicals and allied products.....	96.1	96.0	94.9	74.2	+1	+1.3	+29.5
Chemicals.....	97.1	97.0	95.8	83.8	+1	+1.4	+15.9
Drugs and pharmaceuticals.....	112.4	111.7	106.8	77.1	+6	+5.2	+45.8
Fertilizer materials.....	81.9	81.9	81.9	65.5	0	0	+25.0
Mixed fertilizers.....	86.6	86.6	86.6	73.1	0	0	+18.5
Oils and fats.....	102.1	102.1	102.0	40.6	0	+1	+151.5
Housefurnishing goods.....	107.5	106.9	104.5	85.6	+6	+2.9	+25.6
Furnishings.....	112.1	110.9	107.5	90.0	+1.1	+4.3	+24.6
Furniture.....	102.9	102.9	101.5	81.1	0	+1.4	+26.9
Miscellaneous.....	95.7	95.6	94.8	73.3	+1	+9	+30.6
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.....	113.9	113.7	109.0	80.0	+2	+4.5	+42.4
Rubber, crude.....	46.2	46.2	46.2	34.9	0	0	+32.4
Other miscellaneous.....	99.2	98.9	98.9	81.3	+3	+3	+22.0
Raw materials.....	122.2	120.5	116.8	66.5	+1.4	+4.6	+83.8
Semimanufactured articles.....	101.1	100.4	95.0	74.5	+7	+6.4	+35.7
Manufactured products.....	105.5	104.5	101.8	79.1	+1.0	+3.6	+33.4
All commodities other than farm products.....	104.5	103.4	100.5	77.9	+1.1	+4.0	+34.1
All commodities other than farm products and foods.....	103.3	102.2	99.3	80.1	+1.1	+4.0	+29.0

1 No quotation.

Index Numbers by Commodity Groups, 1926 to April 1946

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1945, and by months from April 1945 to April 1946 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
1945.....	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	105.8
<i>1945</i>											
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
July.....	129.0	106.9	118.0	99.6	84.3	104.7	117.5	95.3	104.5	94.8	105.9
August.....	126.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	105.7
September.....	124.3	104.9	118.7	100.1	84.1	104.9	118.0	95.3	104.6	94.8	105.2
October.....	127.3	105.7	118.6	101.0	84.2	105.0	118.3	95.5	104.7	94.8	105.9
November.....	131.1	107.9	118.8	101.1	84.6	105.2	118.7	95.7	104.7	94.8	106.8
December.....	131.5	108.6	118.9	101.4	84.8	105.6	119.5	96.1	104.7	94.8	107.1
<i>1946</i>											
January.....	129.9	107.3	119.4	101.6	84.9	105.7	120.0	96.0	106.2	95.3	107.1
February.....	130.8	107.8	119.6	102.2	85.1	106.6	120.9	95.9	106.5	95.6	107.7
March.....	133.4	109.4	119.8	104.7	85.0	108.4	124.9	96.0	106.9	95.6	108.9
April.....	135.4	110.8	119.8	107.9	86.1	108.8	126.5	96.1	107.5	95.7	110.2

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	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured 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	1945					
1929	97.5	93.9	94.5	93.3	91.6	April	116.8	95.0	101.8	100.5	99.3
1932	55.1	59.3	70.3	68.3	70.2	May	117.7	95.0	101.8	100.6	99.4
1933	56.5	65.4	70.5	69.0	71.2	June	118.2	95.4	101.8	100.7	99.6
1936	79.9	75.9	82.0	80.7	79.6	July	117.5	95.3	101.8	100.7	99.7
						August	116.3	95.5	101.8	100.9	99.9
1937	84.8	85.3	87.2	86.2	85.3	September	114.8	96.5	101.7	100.9	99.8
1938	72.0	75.4	82.2	80.6	81.7	October	116.6	96.8	101.9	101.0	100.1
1939	70.2	77.0	80.4	79.5	81.3	November	118.9	96.9	102.2	101.3	100.2
1940	71.9	79.1	81.6	80.8	83.0	December	119.2	97.6	102.5	101.6	100.5
1941	83.5	86.9	89.1	88.3	89.0	1946					
1942	100.6	92.6	98.6	97.0	95.5	January	118.3	97.6	102.9	101.9	100.8
1943	112.1	92.9	100.1	98.7	96.9	February	118.9	98.8	103.4	102.5	101.3
1944	113.2	94.1	100.8	99.6	98.5	March	120.5	100.4	104.5	103.4	102.2
1945	116.8	95.9	101.8	100.8	99.7	April	122.2	101.1	105.5	104.5	103.3

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during March and April 1946 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, March and April 1946

[1926=100]

Commodity group	Apr. 27	Apr. 20	Apr. 13	Apr. 6	Mar. 30	Mar. 23	Mar. 16	Mar. 9	Mar. 2
All commodities	109.6	¹ 109.6	109.3	109.1	108.7	108.4	108.4	108.2	107.6
Farm products	135.5	¹ 135.4	135.1	135.2	133.3	132.9	133.1	133.9	130.7
Foods	110.3	110.4	109.9	109.7	109.5	109.4	109.5	109.2	107.9
Hides and leather products	120.3	120.3	120.3	120.1	120.1	120.1	120.1	120.1	120.1
Textile products	105.5	105.2	105.0	104.5	104.3	102.4	101.9	101.9	101.4
Fuel and lighting materials	86.6	86.6	86.5	85.5	85.4	85.4	85.4	85.4	85.4
Metals and metal products	109.0	109.0	108.2	108.0	107.9	107.9	107.7	107.8	107.8
Building materials	126.0	126.0	124.0	124.0	123.6	123.6	123.3	121.1	121.6
Chemicals and allied products	96.1	96.1	96.1	96.0	96.0	96.0	96.0	96.0	96.0
Housefurnishing goods	108.7	108.7	108.7	108.7	108.5	108.4	108.4	108.3	108.0
Miscellaneous	95.5	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
Raw materials	123.0	¹ 123.0	122.8	122.2	121.1	120.9	121.0	121.4	119.5
Semimanufactured articles	101.2	100.8	100.8	100.6	100.5	100.3	99.7	99.6	99.6
Manufactured products	105.1	105.1	104.8	104.6	104.5	104.3	104.3	103.8	103.7
All commodities other than farm products	103.9	103.9	103.7	103.4	103.3	103.0	103.0	102.6	102.5
All commodities other than farm products and foods	103.1	103.1	102.8	102.4	102.3	102.0	101.9	101.6	101.5

¹ Revised.

Building Operations

Building Construction in Urban Areas, April 1946

THE value of building construction scheduled to be started in urban areas of the United States during April 1946 amounted to 398 million dollars as compared to 741 million dollars in March. It is significant that nonresidential building made up nearly seven-tenths of the 343-million-dollar drop. April valuations could not be expected to approximate the March figures, because building "starts" in that month were given an extra stimulus by builders who rushed plans for certain types of projects in order to get operations under way before the construction limitation order was issued on March 26.

Although building permit valuations were much lower in April 1946 than in March, they were 10 percent above the February level; yet valuations in February 1946 were higher than in any month since the beginning of 1942 when monthly data first became available. The higher value of building scheduled to start in April, as compared with February, was accounted for entirely by the fact that residential building was 56 percent greater; the value of nonresidential building and additions, alterations, and repairs was lower.

During April, 46,388 dwelling units were scheduled to be started in urban areas, 16 percent less than the 55,332 reported in March but 41 percent more than the 32,936 units scheduled in February. A year ago only 12,511 units were started and nearly a fourth of these were Federal projects. Federal housing dwindled from 5,266 units in March to 970 in April.

TABLE 1.—Permit Valuation¹ of Building Construction in All Urban Areas, by Class of Construction and by Source of Funds, April 1946²

Class of construction	Valuation (in millions)								
	Total			Non-Federal			Federal		
	April 1946	Percent of change from—		April 1946	Percent of change from—		April 1946	Percent of change from—	
		March 1946	April 1945		March 1946	April 1945		March 1946	April 1945
All construction.....	\$398	-46.3	+237.4	\$394	-45.1	+372.1	\$4	-84.2	-89.7
New residential.....	226	-17.8	+465.2	224	-15.0	+583.2	2	-86.3	-79.5
New nonresidential.....	109	-68.4	+163.6	107	-67.9	+534.5	2	-81.8	-92.2
Additions, alterations, and repairs.....	63	-48.2	+72.6	63	-47.7	+86.6	(³)	-86.9	-93.2

¹ Includes value of Federal construction contracts awarded.

² Percentage change computed before rounding.

³ Value less than \$500,000.

TABLE 2.—Number of New Dwelling Units and Permit Valuation¹ of Building Construction in All Urban Areas, by Source of Funds and by Type of Dwelling, April 1946

Source of funds and type of dwelling	Number of dwelling units			Valuation (in thousands)		
	April 1946	Percent of change from—		April 1946	Percent of change from—	
		March 1946	April 1945		March 1946	April 1945
All dwellings.....	46,388	-16.2	+270.8	\$223,208	-15.0	+462.0
Privately financed.....	45,418	-9.3	+378.0	221,754	-12.2	+580.1
1-family.....	39,000	-6.7	+454.4	195,969	-9.9	+664.0
2-family ²	2,571	-4.2	+197.6	10,688	-9.0	+320.0
Multifamily ³	3,847	-31.3	+139.8	15,097	-35.5	+242.4
Federally financed.....	970	-81.6	-67.8	1,454	-85.4	-79.6

¹ Includes value of Federal construction contracts awarded.

² Includes 1- and 2-family dwellings with stores.

³ Includes multifamily dwellings with stores.

TABLE 3.—Permit Valuation¹ of Building Construction in All Urban Areas, by Class of Construction and by Source of Funds, First 4 Months of 1945 and 1946

Class of construction	Valuation (in millions)								
	Total			Non-Federal			Federal		
	First 4 months of—		Per- cent of change	First 4 months of—		Percent of change	First 4 months of—		Per- cent of change
	1946	1945		1946	1945		1946	1945	
All construction.....	\$1,806	\$383	+371.5	\$1,757	\$253	+594.5	\$49	\$130	-62.3
New residential.....	771	102	+655.9	748	91	+722.0	23	11	+109.1
New nonresidential.....	725	168	+331.5	706	61	+1,057.4	19	107	-82.2
Additions, alterations and repairs.....	310	113	+174.3	303	101	+200.0	7	12	-41.7

¹ Includes value of Federal construction contracts awarded.

Comparison of First 4 Months of 1945 and 1946

The value of urban building construction started during the first 4 months of 1946, amounting to over 1,800 million dollars, is approximately five times greater than the 383-million-dollar figure for the corresponding period of 1945. Residential building valuations rose nearly eightfold, from 102 to 771 million dollars; and nonresidential building rose more than 4 times, from 168 to 725 million dollars. Non-Federal building as a whole increased nearly seven times, from 253 to 1,757 million dollars; but the value of all Federal contracts awarded declined from 130 million to 49 million dollars even though Federal residential construction increased.

TABLE 4.—Number of New Dwelling Units and Permit Valuation ¹ of Building Construction in All Urban Areas, by First 4 Months of 1945 and 1946

Source of funds and type of dwelling	Number of dwelling units			Value (in thousands)		
	First 4 months of—		Percent of change	First 4 months of—		Percent of change
	1946	1945		1946	1945	
All dwellings	162,259	31,764	+410.8	\$746,932	\$100,255	+645.0
Privately financed	149,905	27,843	+438.4	725,163	89,839	+707.2
1-family	126,643	21,807	+480.7	635,023	72,360	+777.6
2-family ²	8,355	2,344	+256.4	34,043	6,627	+413.7
Multifamily ³	14,907	3,692	+303.8	56,097	10,852	+416.9
Federally financed	12,354	3,921	+215.1	21,769	10,416	+109.0

¹ Includes value of Federal construction contracts awarded.

² Includes 1- and 2-family dwellings with stores.

³ Includes multifamily dwellings with stores.

Construction From Federal Funds, April 1946

The value of contracts awarded and force-account work started during March and April 1946 and April 1945 on all construction projects financed wholly or partially from Federal funds and reported to the Bureau of Labor Statistics is shown in table 5. This table includes all types of construction both inside and outside the corporate limits of cities in continental United States.

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 \$3,560,496 in April 1946; \$22,579,797 in March 1946; and \$34,424,801 in April 1945.

TABLE 5.—Value of Contracts Awarded and Force-Account Work Started on Federally Financed Construction in Continental United States, by Type of Project, April 1946

Type of project	Value (in thousands)		
	April 1946 ¹	March 1946 ²	April 1945 ³
All types	\$55,992	\$85,153	\$63,293
Airports ³	1,973	743	1,666
Buildings:			
Residential	1,538	14,999	10,339
Nonresidential	5,530	15,692	41,766
Electrification ⁴	768	3,593	737
Highways, streets, and roads	31,068	24,992	2,686
Reclamation	2,821	7,501	1,938
River, harbor, and flood control	5,035	12,318	787
Water and sewer	309	61	1,435
Miscellaneous	6,950	5,254	1,939

¹ Preliminary; subject to revision. Because of delay in receipt of contract notifications the total shown is probably an understatement of from 20 to 30 percent. The revised figure will be shown next month. The greater part will be for nonresidential building. Water and sewer and miscellaneous projects (most dual or multipurpose projects that cannot be classified separately) will probably also be changed materially but to a lesser degree. Little or no change can be expected in the following: Highways, streets and roads; river, harbor and flood control; and reclamation.

² Revised.

³ Exclusive of hangars and other buildings which are included under building construction.

⁴ Includes the value of loan agreements made for Rural Electrification projects.

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 builders when applying for permits to build and the value of contracts awarded by the Federal Government. 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 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.

Trends of Employment and Labor Turn-Over

Labor Force, April 1946

UNEMPLOYMENT declined by 360,000 persons between March and April to a level of 2,350,000, according to the Bureau of the Census Monthly Report on the Labor Force. Employment rose by 1,600,000, and the civilian labor force increased by 1,240,000 to reach 56,900,000.

The decrease in the number of unemployed persons between March and April reversed the upward movement which had prevailed since the war's end. A substantial reduction in unemployment of veterans was the main factor underlying the total decline during the month. In April, male unemployment (1,890,000) was over four times the VJ-day level, whereas female unemployment (460,000) was approximately the same as at the end of the war.

Total Labor Force in the United States, Classified by Employment Status, Hours Worked, and Sex, March and April 1946

[Source: U. S. Department of Commerce, Bureau of the Census]

Item	Estimated number (in thousands) of persons 14 years of age and over ¹					
	Total, both sexes		Male		Female	
	March	April	March	April	March	April
Total labor force ²	60,040	60,740	43,650	44,070	16,390	16,670
Civilian labor force	55,660	56,900	39,370	40,310	16,290	16,590
Unemployment	2,710	2,350	2,200	1,890	510	460
Employment	52,950	54,550	37,170	38,420	15,780	16,130
Nonagricultural	45,370	46,360	30,750	31,590	14,620	14,770
Worked 35 hours or more	38,070	39,000	26,770	27,570	11,300	11,430
Worked 15-34 hours	4,020	4,290	2,010	2,100	2,010	2,190
Worked 1-14 hours ³	1,270	1,120	560	440	710	680
With a job but not at work ⁴	2,010	1,950	1,410	1,480	600	470
Agricultural	7,580	8,190	6,420	6,830	1,160	1,360
Worked 35 hours or more	5,540	6,260	5,190	5,780	350	480
Worked 15-34 hours	1,690	1,590	990	850	700	730
Worked 1-14 hours ³	200	160	120	(*)	(*)	(*)
With a job but not at work ⁴	150	180	120	100	(*)	(*)

¹ Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution; those under 100,000 are not presented in the table but are replaced with an asterisk (*). All data exclude persons in institutions.

² Total labor force consists of the civilian labor force and the armed forces. Estimates of the armed forces during the census week are projected from data on net strength as of the first of the month.

³ Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

⁴ Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute, or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

Increases of 610,000 in agricultural employment and 990,000 in nonagricultural employment accounted for the gain in total employment between March and April. The gain in farm employment was largely seasonal in character, continuing the upswing which began in February. The unusually large increase in nonfarm employment during the month took place principally among veterans.

It is significant that for the second successive month there was an increase in the number of women engaged in nonagricultural pursuits. Although this may partly reflect the pre-Easter expansion of retail trade, it also indicates the cessation of large-scale withdrawals of women from the labor force following the end of the war.



Summary of Employment Reports for April 1946

EXPANDING employment in virtually all industry divisions in April raised the total number of nonagricultural employees to 36,928,000, the highest level since the end of the Second World War. At the same time unemployment declined by 13 percent, according to the Bureau of the Census, to a level of 2,350,000.

Sizable increases in employment between mid-March and mid-April were reported by manufacturing, construction, and trade establishments. The increase of almost 200,000 workers raised employment in construction to 1,549,000, the highest number since the beginning of 1943. The only significant employment decline among the major industry divisions was in mining as a result of the coal strike.

Industrial and Business Employment

The number of production workers in manufacturing increased over the month by 510,000 to a level of 11,153,000. For the most part this increase was concentrated in the durable-goods group and reflected primarily the resumption of operations after the settlement of labor-management disputes.

Employment increases in the lumber, furniture, and stone groups amounted to almost 40,000 between March and April. Employment in each of these groups is above the level in April 1945 and combined employment for the 3 groups is more than 130,000 (11 percent) above that of last year.

The net increase in employment in the nondurable-goods group amounted to 16,000, with a pronounced upward trend in 7 of the 11 major groups. Contraseasonal employment gains were reported in the leather, paper, and printing groups. Employment in the apparel group increased by 2,000, rather than experiencing the usual seasonal decline.

Although seasonal increases occurred in several industries of the food group, employment for the group as a whole declined by 11,000. Government restrictions affecting the baking industry and livestock shortages curtailing operations in slaughtering and meat packing were primarily responsible for this decline.

TABLE 1.—Estimated Number of Employees in Nonagricultural Establishments, by Industry Division

Industry division	Estimated number of employees (in thousands)			
	April 1946 ¹	March 1946	February 1946	April 1945
Total estimated employment ²	36,928	36,281	35,374	37,791
Manufacturing ³	12,551	12,014	11,401	15,102
Mining.....	505	801	808	761
Contract construction and Federal force-account construction.....	1,549	1,345	1,260	699
Transportation and public utilities.....	3,922	3,929	3,907	3,792
Trade.....	7,759	7,622	7,505	6,990
Finance, service, and miscellaneous.....	5,140	5,076	5,031	4,444
Federal, State, and local government, excluding Federal force-account construction.....	5,502	5,494	5,462	6,003

¹ Preliminary.² 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.³ 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 final 1944 data, subsequent to December 1942, the two sets of estimates are not comparable.TABLE 2.—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 (thousands)				Production-worker indexes (1939=100)	
	Apr. 1946 ²	Mar. 1946	Feb. 1946	Apr. 1945	Apr. 1946 ²	Mar. 1946
All manufacturing.....	11,153	10,643	9,989	13,356	136.1	129.9
Durable goods.....	5,497	5,003	4,427	7,854	152.2	138.5
Nondurable goods.....	5,656	5,640	5,562	5,502	123.5	123.1
Iron and steel and their products.....	1,348	1,268	843	1,707	135.9	127.9
Electrical machinery.....	448	367	348	715	172.9	141.8
Machinery, except electrical.....	948	880	831	1,184	179.3	166.5
Transportation equipment, except automobiles.....	496	464	467	1,964	312.8	292.6
Automobiles.....	624	445	415	691	155.1	110.7
Nonferrous metals and their products.....	332	317	291	423	144.9	138.4
Lumber and timber basic products.....	558	534	521	510	132.6	127.0
Furniture and finished lumber products.....	367	361	355	342	111.5	109.9
Stone, clay, and glass products.....	377	367	356	318	128.4	124.9
Textile-mill products and other fiber manufactures.....	1,183	1,176	1,157	1,074	103.4	102.8
Apparel and other finished textile products.....	1,018	1,016	993	932	128.9	128.6
Leather and leather products.....	356	355	348	314	102.5	102.4
Food.....	1,023	1,034	1,045	1,014	139.8	121.0
Tobacco manufactures.....	85	82	81	81	90.8	87.9
Paper and allied products.....	357	353	348	312	134.5	132.9
Printing, publishing, and allied industries.....	374	372	367	319	114.2	113.5
Chemicals and allied products.....	493	494	491	693	170.9	171.4
Products of petroleum and coal.....	146	145	138	134	138.2	136.7
Rubber products.....	220	220	214	205	182.0	181.5
Miscellaneous industries.....	401	393	380	424	163.7	160.5

¹ The estimates and indexes presented in this table have been adjusted to levels indicated by the final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency and should not be compared with the manufacturing employment estimates of production workers plus salaried employees appearing in table 1. These data are not comparable with data published in mimeographed releases dated prior to April 1946 or the May 1946 issue of the Monthly Labor Review. Comparable data from January 1944 are available upon request.² Preliminary figures.

Public Employment

Civilian.—The only Federal agency showing a sizable increase in employment in the month ending April 1 was the Veterans Administration with an increase of 18,000. The creation of the War Assets Administration under the Office of Emergency Management on March 25 resulted in a decrease of 24,000 in the Reconstruction Finance Corporation. This transfer, together with the Veterans Administration gain and minor changes in other agencies, brought total employment of the peacetime-agency group to 1,057,000—a level 7,500-higher than in the preceding month.

During the month, the War and Navy Departments continued their postwar contraction with respective employment declines of 24,000 and 33,000 within continental United States. Outside the continent, employment of the War Department declined 16,000, but in the Navy Department, employment continued its steadily upward 1946 trend and rose by 600. The Navy Department expansion is occasioned by construction work on new bases in the Pacific.

TABLE 2.—*Employment and Pay Rolls for Regular Federal Services and for Government Corporations in Selected Months*

Year and month	Total	Executive ¹		Legis- lative	Judicial	Govern- ment corpora- tions ²	
		All areas	Continental United States				
			Total				Washing- ton, D. C., area
Employment ³							
April 1939	928,467	896,128	859,707	121,390	5,292	2,317	24,730
April 1940	1,003,682	969,155	916,800	128,939	5,860	2,379	26,288
April 1941	1,286,094	1,248,662	1,166,751	167,471	6,033	2,509	28,890
April 1942	1,992,037	1,951,686	1,782,352	239,589	6,339	2,606	31,406
April 1943	3,188,126	3,144,683	2,868,633	287,065	6,119	2,583	34,741
April 1944	3,256,494	3,211,583	2,837,492	263,392	6,147	2,675	36,089
April 1945	3,613,169	3,570,080	2,920,353	256,262	6,346	2,626	34,117
January 1946	2,973,297	2,929,899	2,378,916	229,389	6,401	3,011	33,986
February 1946 ⁴	2,926,050	2,882,635	2,373,885	232,981	6,433	3,023	33,959
March 1946 ⁴	2,898,455	2,855,223	2,370,116	235,667	6,459	3,053	33,720
April 1946	2,860,388	2,817,396	2,347,272	236,724	6,480	3,070	33,442
Pay rolls (in thousands) ⁵							
April 1943	\$662,685	\$655,240	(e)	\$58,178	\$1,417	\$763	\$5,265
April 1944	691,043	683,048	\$625,755	54,793	1,500	761	5,734
April 1945	687,700	679,932	620,009	54,399	1,627	782	5,359
January 1946 ⁴	528,365	520,011	475,581	49,653	1,766	968	5,620
February 1946 ⁴	502,043	493,818	452,929	49,921	1,768	940	5,517
March 1946 ⁷	520,506	512,301	472,041	51,895	1,771	930	5,504
April 1946 ⁷	522,379	514,098	474,658	51,345	1,780	939	5,562

¹ Includes employees on force-account construction who are also included under construction projects (table 6). Beginning July 1945, data include approximately 22,000 clerks at third-class post offices who were previously working on a contract basis. Data exclude substitute rural mail carriers.

² Data are for employees of the Panama Railroad Co., 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 Figures are as of the first of the calendar month.

⁴ Revised.

⁵ Data are for all pay periods ending within the calendar month.

⁶ Data not available.

⁷ Preliminary.

Aside from the increase resulting from the War Assets Administration transfer, employment of emergency war agencies¹ showed little change during the month—a decline of 1,300 within continental United States, and 200 outside.

Although Federal employment in the Washington, D. C., metropolitan area has crept upward since the first of January 1946, it has been so widely distributed among the almost 60 agencies that growth in any one (except the Veterans Administration) is almost imperceptible.

On April 1, 1946, total Federal employment in all areas amounted to 2,860,000 or 753,000 less than in April 1945. Within continental United States, Federal employment was 2,383,000 or 573,000 less than a year ago.

TABLE 3.—*Employment and Pay Rolls for the Executive Branch of the Federal Government in Selected Months*¹

Year and month	All agencies	War agencies ²			Other agencies ³		
		Total	Continental United States	Outside continental United States ⁴	Total	Continental United States	Outside continental United States ⁴
Employment ⁵							
April 1939	896,128	190,106	162,363	27,744	706,022	697,345	8,677
April 1940	969,155	246,861	205,804	41,057	722,294	710,996	11,298
April 1941	1,248,662	479,297	410,304	68,993	769,365	756,447	12,918
April 1942	1,951,686	1,102,428	947,119	155,309	849,258	835,233	14,025
April 1943	3,144,683	2,335,763	2,074,686	261,077	808,920	793,947	14,973
April 1944	3,211,583	2,392,207	2,033,498	358,709	819,376	803,994	15,382
April 1945	3,570,080	2,689,936	2,056,697	633,239	880,144	863,656	16,488
January 1946	2,929,899	1,945,206	1,416,285	528,921	984,693	962,631	22,062
February 1946 ⁶	2,882,635	1,863,334	1,377,049	486,285	1,019,301	996,836	22,465
March 1946 ⁶	2,855,223	1,805,832	1,343,592	462,240	1,049,391	1,026,524	22,867
April 1946	2,817,396	1,760,505	1,313,751	446,754	1,056,891	1,033,521	23,370
Pay rolls (in thousands) ⁷							
April 1943	\$655,240	\$299,714	(8)	(8)	\$155,526	(8)	(8)
April 1944	683,048	518,657	\$464,612	\$54,045	164,391	\$161,143	\$3,248
April 1945	679,932	512,058	455,785	56,273	167,874	164,224	3,650
January 1946 ⁶	520,011	321,448	282,707	38,741	198,563	192,875	5,688
February 1946 ⁶	493,818	294,207	258,010	36,167	199,611	194,919	4,692
March 1946 ⁶	512,301	304,544	269,117	35,427	207,757	202,924	4,833
April 1946 ⁶	514,098	305,936	271,390	34,546	208,162	203,268	4,894

¹ Includes employees on force-account construction who are also included under construction projects (table 6).

² Covers War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and the emergency war agencies.

³ Beginning July 1945, data include approximately 22,000 clerks at third-class post offices who previously were working on a contract basis. Data exclude substitute rural mail carriers.

⁴ Includes Alaska and the Panama Canal Zone.

⁵ Figures are as of the first of the calendar month.

⁶ Revised.

⁷ Data are for all pay periods ending within the calendar month.

⁸ Data not available.

⁹ Preliminary.

¹ In addition to the agencies created for the war emergency, this group includes the Maritime Commission, National Advisory Committee for Aeronautics, and The Panama Canal.

Military.—Armed forces personnel declined 600,000 during the month ending April 1, 1946. This was the smallest drop since VJ-day and indicates a tendency toward a leveling off of discharges for both the Army and Navy. Although the 4.4 million level on April 1, 1946, was 7.7 million lower than that for April 1945, the actual number of persons discharged during the war was approximately 9.2 million. The difference was made up by new inductions and enlistments.

TABLE 4.—*Personnel of the Military Branch of the Federal Government, in Selected Months*¹

[In thousands]

Year and month	Total ²	Branch		Sex	
		Army ³	Navy ⁴	Men	Women
April 1939	354	203	151	(9)	(9)
April 1940	433	249	184	(9)	(9)
April 1941	1,426	1,109	317	1,423	4
April 1942	3,052	2,388	665	3,041	11
April 1943	8,409	6,509	1,900	8,318	91
April 1944	11,034	7,758	3,276	10,842	192
April 1945	12,092	8,157	3,935	11,826	266
July 1945	12,295	8,266	4,029	12,020	275
October 1945	11,519	7,565	3,955	11,261	259
January 1946	7,048	4,229	2,819	6,883	165
February 1946 ⁶	5,952	3,469	2,483	5,811	142
March 1946 ⁶	4,973	2,786	2,187	4,855	118
April 1946 ⁶	4,360	2,428	1,932	4,260	100

¹ Data are as of the first of the calendar month.

² Because of rounding, totals will not necessarily agree with the sum of the items shown.

³ Prior to March 1944, persons on induction furlough are included. Prior to June 1942 and after April 1945, Philippine Scouts are included.

⁴ Covers Navy, Marine Corps, and Coast Guard. Includes missing personnel and personnel in the hands of the enemy.

⁵ Data not available.

⁶ Preliminary.

TABLE 5.—*Pay of the Military Branch of the Federal Government, in Selected Months*

[In thousands]

Year and month	Total ¹	Branch		Type of pay		
		Army ²	Navy ³	Pay roll ^{2,4}	Mustering-out pay ⁵	Family allowances ⁶
April 1939	\$27,851	\$13,575	\$14,276	\$27,851		
April 1940	32,165	15,322	16,843	32,165		
April 1941	93,001	60,496	32,505	93,001		
April 1942	239,417	154,576	84,842	239,417		
April 1943	885,667	672,199	213,468	810,676		\$74,991
April 1944	1,386,475	923,948	462,528	1,141,145	\$46,962	198,365
April 1945	1,614,725	1,037,063	577,662	1,353,847	11,733	249,145
July 1945	1,684,712	1,079,480	605,232	1,378,785	46,939	258,988
October 1945	1,859,636	1,179,249	680,387	1,323,369	284,476	251,791
January 1946	1,493,875	995,167	498,708	861,673	480,350	151,852
February 1946	1,182,242	749,482	432,761	716,094	355,005	111,143
March 1946	985,996	600,303	385,692	598,296	302,602	85,098
April 1946 ⁷	834,028	480,820	353,208	558,549	208,304	67,175

¹ Because of rounding, totals will not necessarily agree with the sum of the items shown.

² Army pay rolls have been revised.

³ Covers Navy, Marine Corps, and Coast Guard.

⁴ Includes men's share of family allowances but excludes the Government's contribution. For the war period, data for the Army represent obligations. Data for the Navy proper for January and October include cash payments for clothing allowances.

⁵ Although payments may extend over a period of 3 months, data for the Navy proper and Coast Guard include the entire amount in the month of discharge. Data for the Marine Corps for January-April 1946 are estimated.

⁶ Represents Government's contribution. Men's share is included under pay roll.

⁷ Partially estimated.

The peak in expenditures for pay rolls and family allowances was reached at the point of greatest military strength during the summer of 1945. The peak for mustering-out pay of the armed forces, on the other hand, was not reached until January 1946. Since then, the three types of pay combined have declined \$659,000,000 and in April 1946 aggregated approximately \$834,000,000. The Army expenditures amounted to almost half a billion dollars, those of the Navy to over a third of a billion.

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. Employment on Federal force-account construction is included in both the executive branch (tables 2 and 3) and in construction employment (table 6).

Military personnel and pay figures are reported monthly to the Bureau of Labor Statistics. They will be published quarterly hereafter.

Mimeographed tables giving civilian employment and military personnel and pay, monthly, 1939 to date, and civilian pay rolls, monthly, 1943 to date, are available upon request.

Construction

EMPLOYMENT

The employed construction labor force continued to expand in April, reaching a total of 1,717,500. Nearly half the month's increase of 220,800 is accounted for by employment on housing which rose from 417,500 to 521,200. Nonresidential building accounted for a fifth of the increase and a third of total construction employment in April. Housing employment, with 30 percent of all construction workers in April 1946, increased 25 percent over March and was more than five times greater than it was a year ago in April 1945.

More than half the employment increase of 11,200 construction workers on all Federal work was in residential building as employment on Federal housing more than doubled over March. Expansion in public housing reflects operation of the program approved last December for transferring temporary dwellings from previously war-congested areas for the use of veterans in locations where emergency housing conditions exist.

Since the beginning of the year total construction employment has increased by over a third (35.6 percent), employment on housing by three-fifths (63.6 percent), and on nonresidential building by one-fifth (21.5 percent).

TABLE 6.—*Estimated Employment and Pay Rolls on Construction in Continental United States, April 1946*

Type of project	Employment (in thousands)			Pay rolls (in thousands)		
	April 1946 ¹	March 1946	April 1945	April 1946 ¹	March 1946	April 1945
New construction, total ²	1,717.5	1,496.7	808.7	(3)	(3)	(3)
At the construction site.....	1,495.4	1,302.7	715.6	(3)	(3)	(3)
Federal projects ⁴	\$ 88.1	\$ 76.9	\$ 248.2	\$16,520	\$14,352	\$49,967
Airports.....	2.6	2.2	5.5	538	350	1,036
Buildings.....	39.5	34.2	200.4	7,513	6,386	40,612
Residential.....	11.8	5.0	11.1	2,075	915	2,434
Nonresidential ⁷	\$ 27.7	\$ 29.2	\$ 189.3	\$ 5,438	\$ 5,471	\$ 38,178
Electrification.....	3.2	2.6	5.5	480	388	97
Reclamation.....	7.6	6.4	6.7	1,453	1,245	1,508
River, harbor, and flood control.....	16.4	15.9	13.9	3,050	3,037	2,600
Streets and highways.....	14.3	11.7	7.8	2,637	2,174	1,430
Water and sewer systems.....	1.4	1.3	3.4	267	253	587
Miscellaneous.....	3.1	2.6	10.0	582	489	2,097
Non-Federal projects.....	1,407.3	1,225.8	467.4	(3)	(3)	(3)
Buildings.....	1,079.0	932.7	264.1	250,328	215,454	62,592
Residential.....	509.4	412.5	86.0	(3)	(3)	(3)
Nonresidential.....	569.6	520.2	178.1	(3)	(3)	(3)
Farm dwellings and service buildings.....	98.0	78.7	67.7	(3)	(3)	(3)
Public utilities.....	135.8	130.0	102.7	(3)	(3)	(3)
Streets and highways.....	34.5	27.8	18.7	(3)	(3)	(3)
State.....	10.0	8.6	7.5	(3)	(3)	(3)
County and municipal.....	24.5	19.2	11.2	(3)	(3)	(3)
Miscellaneous.....	60.0	56.6	14.2	(3)	(3)	(3)
Other ⁸	222.1	194.0	93.1	(3)	(3)	(3)
Maintenance of State roads ⁹	95.5	94.1	82.2			

¹ Preliminary.

² Data for all construction workers (contract and force account) engaged on new construction, additions, 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.

³ Data not available.

⁴ Includes the following force-account employees, hired directly by the Federal Government, and their pay rolls: April 1946—16,423, \$3,033,501; March 1946—16,593, \$3,024,907; and April 1945—19,556, \$3,695,141. These employees are also included under the Federal executive service (tables 2 and 3); all other workers were employed by contractors and subcontractors.

⁵ Includes employment on construction of plants to produce atomic bombs, which, for security reasons, was not previously included in these estimates but was shown in the classification "other", as follows: April 1946, 1,800; March 1946, 2,600; and April 1945, 30,000.

⁶ Excludes pay-roll data for construction of plants to produce atomic bombs.

⁷ Employees and pay rolls for Defense Plant Corporation projects are included, but those for projects financed from RFC loans are excluded. The latter are considered non-Federal projects.

⁸ Includes central office force of construction contractors, shop employees of special trades contractors, such as bench sheet-metal workers, etc.

⁹ Data for other types of maintenance not available.

EARNINGS AND HOURS

Revised February and March 1946 data on hours and earnings in private construction show little fluctuation from January despite the continued increase in private construction activity. Although materials shortage was still a serious problem in March, the average work-week of employees engaged in both building and nonbuilding construction increased over February. Among the special building trades, the most significant rise in weekly hours was recorded by the masonry (2.8 hours) and excavation and foundation (1.7 hours) groups.

A fairly steady increase in hourly earnings in private building assisted in practically maintaining average weekly earnings in March 1946 at the level of March 1945, despite the 2½-hour decrease in the average workweek.

Reports on number of employees, weekly pay rolls, and weekly hours are received monthly from approximately 11,000 different contractors. Data published are summaries of all reports received during the months shown and do not necessarily represent reports from identical firms.

TABLE 7.—Average Hours Worked Per Week and Average Weekly and Hourly Earnings on Private Construction Projects, for Selected Types of Work, March 1946¹

[Subject to revision]

Type of work	Average hours per week			Average weekly earnings ²			Average hourly earnings		
	March 1946	February 1946 ³	March 1945	March 1946	February 1946 ³	March 1945	March 1946	February 1946 ³	March 1945
All types of work.....	37.8	37.5	(4)	\$52.74	\$52.74	(4)	\$1.395	\$1.406	(4)
Building construction.....	37.5	37.3	40.0	52.87	53.04	\$54.49	1.411	1.422	\$1.363
General contractors.....	37.0	36.8	39.9	50.40	50.80	52.01	1.362	1.379	1.303
Special building trades ⁴	38.0	37.8	40.0	55.58	55.37	56.21	1.463	1.465	1.406
Plumbing and heating.....	38.9	40.0	41.0	55.65	56.92	55.77	1.430	1.423	1.361
Painting and decorating.....	37.8	37.1	39.4	56.31	55.16	54.95	1.492	1.487	1.396
Electrical work.....	40.3	40.9	43.6	65.25	65.28	67.73	1.619	1.596	1.555
Masonry.....	36.6	33.8	36.2	51.91	48.91	48.89	1.419	1.448	1.352
Plastering and lathing.....	35.0	34.9	35.0	56.32	55.81	54.27	1.611	1.601	1.550
Carpentry.....	39.3	38.7	39.7	54.44	53.37	53.64	1.385	1.379	1.353
Roofing and sheet metal.....	36.5	35.7	38.8	48.76	48.45	52.70	1.335	1.356	1.358
Excavation and foundation.....	36.9	35.2	38.2	48.70	45.97	46.76	1.319	1.306	1.225
Nonbuilding construction.....	39.9	39.0	(4)	51.92	50.60	(4)	1.300	1.296	(4)
Highway and streets.....	39.4	39.5	(4)	49.88	51.98	(4)	1.265	1.316	(4)
Heavy construction.....	41.0	40.4	(4)	55.94	54.74	(4)	1.363	1.355	(4)
Other.....	38.9	40.3	(4)	48.21	49.27	(4)	1.240	1.224	(4)

¹ Includes all firms reporting during the month shown.

² Hourly earnings, when multiplied by weekly hours of work, may not exactly equal weekly earnings because of rounding.

³ Revised.

⁴ Not available prior to February 1946.

⁵ Includes types not shown separately.



Detailed Reports for Industrial and Business Employment, March 1946

MONTHLY reports on employment and pay rolls are presented below for more than 150 manufacturing industries and for 27 non-manufacturing industries, including water transportation and class I steam railroads. Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the period ending nearest the 15th of the month.

TABLE 1.—Estimated Number of Production Workers in Manufacturing Industries ¹

Industry	Estimated number of production workers (in thousands)			
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945
All manufacturing ¹	10,624	9,983	10,666	13,601
Durable goods ¹	4,986	4,417	5,205	8,039
Nondurable goods ¹	5,638	5,566	5,461	5,562
<i>Durable goods</i>				
Iron and steel and their products ¹	1,268	843	1,308	1,733
Blast furnaces, steel works, and rolling mills.....	467.3	169.9	448.7	478.5
Gray-iron and semisteel castings.....	76.5	71.6	74.3	74.6
Malleable-iron castings.....	20.1	17.7	24.5	25.5
Steel castings.....	37.6	25.6	52.6	71.8
Cast-iron pipe and fittings.....	16.2	14.6	15.4	15.6
Tin cans and other tinware.....	33.4	28.9	38.0	41.9
Wire drawn from purchased rods.....	20.6	15.1	29.4	32.7
Wirework.....	32.4	28.8	33.9	34.7
Cutlery and edge tools.....	22.5	21.6	23.1	24.4
Tools (except edge tools, machine tools, files, and saws).....	22.2	21.5	24.2	27.5
Hardware.....	39.9	38.3	38.2	46.8
Plumbers' supplies.....	23.0	22.0	21.6	23.2
Stoves, oil burners, and heating equipment, not elsewhere classified.....	47.6	44.0	51.6	63.6
Steam and hot-water heating apparatus and steam fittings.....	36.1	34.1	44.0	55.2
Stamped and enameled ware and galvanizing.....	64.9	57.8	68.6	86.9
Fabricated structural and ornamental metalwork.....	43.2	32.0	44.7	70.0
Metal doors, sash, frames, molding, and trim.....	7.7	6.8	7.9	10.7
Bolts, nuts, washers, and rivets.....	19.3	14.8	20.9	23.9
Forgings, iron and steel.....	25.2	22.9	25.6	35.4
Wrought pipe, welded and heavy riveted.....	10.8	7.1	14.5	24.4
Screw-machine products and wood screws.....	26.1	25.9	26.8	43.0
Steel barrels, kegs, and drums.....	4.7	2.7	6.3	8.4
Firearms.....	11.4	10.9	10.9	30.7
Electrical machinery ¹	367	348	476	726
Electrical equipment.....	186.5	175.3	290.6	426.4
Radios and phonographs.....	68.2	64.9	65.5	116.7
Communication equipment.....	68.6	66.4	63.9	104.8
Machinery, except electrical ¹	880	833	956	1,206
Machinery and machine-shop products.....	313.9	295.0	333.7	449.9
Engines and turbines.....	24.8	24.5	39.0	66.7
Tractors.....	39.1	24.3	53.3	57.2
Agricultural machinery, excluding tractors.....	33.6	32.7	38.9	43.9
Machine tools.....	56.8	58.2	58.1	74.6
Machine-tool accessories.....	46.8	46.7	46.8	64.4
Textile machinery.....	27.2	26.6	29.0	26.4
Pumps and pumping equipment.....	48.9	47.5	52.8	71.5
Typewriters.....	16.2	15.3	14.7	13.1
Cash registers, adding and calculating machines.....	30.2	30.1	29.5	29.8
Washing machines, wringers and driers, domestic.....	9.4	9.6	9.9	12.8
Sewing machines, domestic and industrial.....	8.7	8.4	8.1	11.1
Refrigerators and refrigeration equipment ²	43.6	43.9	47.4	51.1
Transportation equipment, except automobiles ¹	462	469	519	2,061
Locomotives.....	5.0	4.2	23.3	34.0
Cars, electric- and steam-railroad.....	42.6	41.9	47.2	58.6
Aircraft and parts, excluding aircraft engines.....	117.1	119.1	118.6	637.6
Aircraft engines.....	22.1	21.2	21.3	210.6
Shipbuilding and boatbuilding.....	220.4	227.6	249.0	917.1
Motorcycles, bicycles, and parts.....	8.1	8.7	8.5	9.5
Automobiles ¹	430	401	416	700
Nonferrous metals and their products ¹	317	291	333	426
Smelting and refining, primary, of nonferrous metals.....	30.1	33.7	35.3	39.5
Alloying and rolling and drawing of nonferrous metals, ex- cept aluminum.....	48.0	47.0	55.7	72.6
Clocks and watches.....	25.2	24.7	23.7	26.3
Jewelry (precious metals) and jewelers' findings.....	16.9	16.5	15.8	13.2
Silverware and plated ware.....	13.2	12.7	12.2	11.0
Lighting equipment.....	18.4	17.2	17.8	26.2
Aluminum manufactures.....	40.3	24.6	42.0	70.5
Sheet-metal work, not elsewhere classified.....	22.0	20.4	22.5	32.0
Lumber and timber basic products ¹	534	521	514	517
Sawmills and logging camps.....	206.5	202.2	201.7	218.4
Planing and plywood mills.....	66.2	65.9	64.8	69.8

See footnotes at end of table.

TABLE 1.—Estimated Number of Production Workers in Manufacturing Industries¹—Con.

Industry	Estimated number of production workers (in thousands)			
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945
<i>Durable goods—Continued</i>				
Furniture and finished lumber products ¹	361	355	348	348
Mattresses and bedsprings.....	17.8	18.4	18.0	17.6
Furniture.....	154.3	151.9	149.7	152.6
Wooden boxes, other than cigar.....	24.6	24.1	23.9	27.1
Caskets and other morticians' goods.....	13.3	12.9	12.5	12.2
Wood preserving.....	11.7	11.7	11.6	10.1
Wood, turned and shaped.....	22.7	21.9	21.4	21.3
Stone, clay, and glass products ¹	367	356	335	322
Glass and glassware.....	101.9	99.3	86.9	88.3
Glass products made from purchased glass.....	12.3	11.8	10.9	11.1
Cement.....	23.6	22.4	21.8	16.1
Brick, tile, and terra cotta.....	54.3	52.9	52.0	40.9
Pottery and related products.....	43.6	42.9	41.6	38.9
Gypsum.....	5.1	4.9	4.7	4.1
Wallboard, plaster (except gypsum), and mineral wool.....	10.0	10.0	10.1	9.4
Lime.....	8.5	8.0	8.2	7.7
Marble, granite, slate, and other products.....	15.2	14.8	13.7	13.8
Abrasives.....	17.7	16.9	16.8	21.6
Asbestos products.....	14.6	14.5	14.3	20.1
<i>Nondurable goods</i>				
Textile-mill products and other fiber manufactures ¹	1,176	1,157	1,127	1,095
Cotton manufactures, except smallwares.....	442.4	437.3	428.7	424.2
Cotton smallwares.....	14.3	13.9	13.5	13.5
Silk and rayon goods.....	89.8	89.2	87.5	88.0
Woolen and worsted manufactures, except dyeing and finishing.....	158.1	153.9	149.1	145.2
Hosiery.....	111.5	109.8	106.3	98.6
Knitted cloth.....	11.2	11.1	10.7	10.3
Knitted outerwear and knitted gloves.....	30.6	29.6	28.7	28.6
Knitted underwear.....	34.9	34.5	33.6	34.1
Dyeing and finishing textiles, including woolen and worsted.....	62.9	62.5	60.5	58.8
Carpets and rugs, wool.....	22.4	21.6	20.1	20.0
Hats, fur-felt.....	10.9	10.6	10.3	9.3
Jute goods, except felts.....	4.0	3.8	3.8	3.2
Cordage and twine.....	14.4	14.2	14.7	14.9
Apparel and other finished textile products ¹	1,016	993	956	945
Men's clothing, not elsewhere classified.....	189.9	186.5	180.6	201.4
Shirts, collars, and nightwear.....	52.3	51.7	50.5	49.4
Underwear and neckwear, men's.....	12.0	11.7	11.3	12.1
Workshirts.....	13.6	13.6	12.7	14.3
Women's clothing not elsewhere classified.....	218.5	213.7	207.1	212.7
Corsets and allied garments.....	16.0	15.7	15.0	14.4
Millinery.....	21.3	20.8	19.6	20.6
Handkerchiefs.....	2.5	2.5	2.3	2.6
Curtains, draperies, and bedspreads.....	12.2	12.1	11.6	10.3
Housefurnishings, other than curtains, etc.....	10.5	10.3	9.6	11.2
Textile bags.....	12.9	14.5	14.7	14.7
Leather and leather products ¹	355	348	338	317
Leather.....	44.0	44.7	43.5	39.3
Boot and shoe cut stock and findings.....	18.0	17.4	17.1	16.1
Boots and shoes.....	191.6	187.0	182.1	172.3
Leather gloves and mittens.....	11.9	11.7	11.2	11.9
Trunks and suitcases.....	14.0	13.6	12.6	12.6
Food ¹	1,034	1,045	1,051	1,016
Slaughtering and meat packing.....	147.0	151.2	152.6	136.2
Butter.....	22.4	21.7	21.0	22.6
Condensed and evaporated milk.....	13.1	12.8	12.6	13.9
Ice cream.....	16.4	15.5	15.0	14.0
Flour.....	30.2	31.3	31.5	29.0
Feeds, prepared.....	22.6	23.5	23.8	21.2
Cereal preparations.....	10.9	11.0	10.4	9.3
Baking.....	254.5	253.2	254.1	256.8
Sugar refining, cane.....	12.9	12.3	12.6	15.0
Sugar, beet.....	4.5	4.9	7.8	3.9
Confectionery.....	52.5	51.4	52.8	58.1
Beverages, nonalcoholic.....	22.6	22.4	22.8	25.7
Malt liquors.....	51.5	55.5	54.8	49.9
Canning and preserving.....	84.9	89.6	92.5	95.8

See footnotes at end of table.

TABLE 1.—Estimated Number of Production Workers in Manufacturing Industries¹—Con.

Industry	Estimated number of production workers (in thousands)			
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945
<i>Nondurable goods—Continued</i>				
Tobacco manufactures ¹	82	81	81	82
Cigarettes.....	32.0	31.9	32.5	34.8
Cigars.....	37.2	36.4	35.2	33.2
Tobacco (chewing and smoking) and snuff.....	7.3	7.8	8.0	8.7
Paper and allied products ¹	353	348	341	318
Paper and pulp.....	162.0	159.8	156.6	146.1
Paper goods, other.....	46.2	45.6	44.4	44.8
Envelopes.....	10.1	10.0	9.8	9.4
Paper bags.....	14.2	14.0	13.6	12.9
Paper boxes.....	83.9	83.1	82.6	77.4
Printing, publishing, and allied industries ¹	372	367	359	322
Newspapers and periodicals.....	127.0	124.9	122.3	109.3
Printing, book and job.....	154.2	152.7	148.6	132.4
Lithographing.....	28.3	27.9	27.3	24.5
Bookbinding.....	30.1	29.8	29.1	27.6
Chemicals and allied products ¹	494	491	489	698
Paints, varnishes, and colors.....	34.8	33.8	33.0	29.4
Drugs, medicines, and insecticides.....	50.8	50.8	49.7	49.9
Perfumes and cosmetics.....	12.1	12.1	12.0	12.1
Soap.....	14.2	13.9	13.6	13.4
Rayon and allied products.....	59.7	59.7	59.4	54.6
Chemicals, not elsewhere classified.....	115.4	114.8	114.6	115.3
Explosives and safety fuses.....	14.6	15.5	17.3	98.7
Compressed and liquefied gases.....	5.5	5.3	5.6	5.9
Ammunition, small-arms.....	8.3	8.4	9.6	67.2
Fireworks.....	2.5	2.4	2.1	23.8
Cottonseed oil.....	13.9	15.4	17.7	16.3
Fertilizers.....	31.4	28.5	24.9	26.9
Products of petroleum and coal ¹	145	142	142	134
Petroleum refining.....	96.9	96.4	96.1	91.8
Coke and byproducts.....	25.4	22.6	23.8	22.0
Paving materials.....	1.8	1.5	1.4	1.5
Roofing materials.....	10.5	10.8	10.4	9.5
Rubber products ¹	220	214	209	209
Rubber tires and inner tubes.....	103.7	101.4	98.8	95.7
Rubber boots and shoes.....	17.3	16.9	16.3	17.4
Rubber goods, other.....	68.1	66.7	65.7	72.6
Miscellaneous industries ¹	391	380	368	426
Instruments (professional and scientific) and fire-control equipment.....	22.7	22.3	22.1	59.9
Photographic apparatus.....	23.5	22.5	22.0	28.0
Optical instruments and ophthalmic goods.....	21.1	20.7	20.2	23.6
Pianos, organs, and parts.....	8.1	7.5	6.8	7.4
Games, toys, and dolls.....	19.6	18.7	17.6	15.9
Buttons.....	10.1	10.2	9.6	9.8
Fire extinguishers.....	2.3	2.3	2.3	4.7

¹ Estimates for the major industry groups have been adjusted to levels indicated by the final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency and should not be compared with the manufacturing employment estimates of production workers plus salaried employees appearing in table 6. Data for the major industry groups are not comparable with data published in mimeographed releases dated prior to April 1946 or the May 1946 issue of the Monthly Labor Review. Comparable series from January 1944 are available upon request. 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 the totals shown for the major industry groups.

² Revisions have been made as follows in the data for earlier months:

Refrigerators and refrigeration equipment.—December 1945 production workers to 44.7; 1945 annual average to 45.2.

EMPLOYMENT AND PAY ROLLS ALL MANUFACTURING INDUSTRIES

1939=100



TABLE 2.—*Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries*¹

[1939 average=100]

Industry	Employment indexes				Pay-roll indexes			
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945
All manufacturing ¹	129.7	121.9	130.2	166.0	232.5	210.2	229.2	341.7
Durable goods ¹	138.1	122.3	144.1	222.6	235.7	198.7	243.0	465.1
Nondurable goods ¹	123.1	121.5	119.2	121.4	229.3	221.5	215.7	221.0
<i>Durable goods</i>								
Iron and steel and their products ¹	127.9	85.0	131.9	174.8	211.1	127.2	216.1	333.5
Blast furnaces, steel works, and rolling mills.....	120.3	43.7	115.5	123.2	181.5	47.6	173.2	229.1
Gray-iron and semisteel castings.....	131.0	122.6	127.2	127.2	254.0	230.0	247.0	269.4
Malleable-iron castings.....	111.2	98.3	135.9	141.7	212.6	187.3	264.8	298.9
Steel castings.....	125.0	85.1	174.9	238.7	206.5	143.9	263.6	457.7
Cast-iron pipe and fittings.....	97.9	88.5	93.4	94.2	192.3	174.1	186.4	190.2
Tin cans and other tinware.....	105.2	91.0	119.7	131.8	178.1	149.2	208.0	231.2
Wire drawn from purchased rods.....	93.9	68.9	134.0	148.6	142.9	99.2	199.2	257.5
Wirework.....	106.7	94.6	111.6	114.1	194.1	165.3	206.2	235.9
Cutlery and edge tools.....	146.0	140.2	150.1	158.1	306.9	288.2	305.3	332.4
Tools (except edge tools, machine tools, files, and saws).....	145.0	140.6	158.3	179.7	275.5	262.3	290.3	352.1
Hardware.....	111.8	107.5	107.1	131.4	209.2	195.7	203.0	280.7
Plumbers' supplies.....	93.1	89.4	87.8	94.2	157.1	148.5	146.8	180.4
Stoves, oil burners, and heating equipment, not elsewhere classified.....	103.2	95.4	111.9	137.8	181.5	159.4	197.2	269.7
Steam and hot-water heating apparatus and steam fittings.....	119.2	112.5	145.1	182.1	204.2	191.8	225.9	349.7
Stamped and enameled ware and galvanizing.....	116.8	104.1	123.4	156.4	215.9	188.7	251.0	331.4
Fabricated structural and ornamental metal-work.....	121.7	90.2	125.9	197.2	205.0	136.9	196.3	368.7
Metal doors, sash, frames, molding, and trim.....	99.1	88.4	101.6	138.1	170.4	144.7	168.0	273.1
Bolts, nuts, washers, and rivets.....	135.2	103.4	145.8	166.8	219.3	179.9	248.4	344.8
Forgings, iron and steel.....	163.9	149.3	166.4	230.0	271.2	242.1	294.4	472.0
Wrought pipe, welded and heavy riveted.....	128.7	84.6	172.8	291.1	202.3	133.9	279.0	609.3
Steel-machine products and wood screws.....	154.0	153.0	158.4	253.9	281.7	268.9	290.1	515.3
Steel barrels, kegs, and drums.....	77.3	44.5	103.4	138.9	145.0	84.8	191.5	268.8
Firearms.....	227.6	217.9	217.0	614.4	420.4	399.9	398.1	1404.6
Electrical machinery ¹	141.8	134.2	183.7	280.2	225.1	211.1	302.6	528.6
Electrical equipment.....	103.2	97.0	160.8	235.9	156.3	145.3	258.9	452.5
Radios and phonographs.....	156.7	149.1	150.6	268.3	285.9	271.8	271.9	528.7
Communication equipment.....	213.7	206.7	199.0	326.4	351.2	334.6	327.4	554.1
Machinery, except electrical ¹	166.5	157.7	180.9	228.3	277.9	255.9	297.5	438.7
Machinery and machine-shop products.....	155.1	145.8	164.9	222.3	258.0	239.4	272.8	419.8
Engines and turbines.....	132.9	131.3	209.0	357.7	230.2	230.5	371.4	769.3
Tractors.....	125.1	77.8	170.5	183.0	190.2	99.9	249.2	287.5
Agricultural machinery, excluding tractors.....	120.9	117.6	139.8	157.7	192.6	185.8	233.7	324.6
Machine tools.....	155.1	159.0	158.6	203.8	256.0	256.8	262.3	382.0
Machine-tool accessories.....	185.9	185.7	186.1	255.8	286.8	276.7	284.1	456.9
Textile machinery.....	124.2	121.5	132.6	120.6	232.5	222.7	247.5	236.4
Pumps and pumping equipment.....	202.0	195.9	217.9	295.0	355.0	345.8	391.4	630.4
Typewriters.....	99.7	94.5	90.7	80.6	189.1	174.4	166.2	165.9
Cash registers, adding and calculating machines.....	133.6	153.0	149.9	151.4	270.4	253.9	262.0	298.9
Washing machines, wringers and driers, domestic.....	126.4	128.7	133.1	171.4	194.9	200.9	213.1	315.4
Sewing machines, domestic and industrial.....	111.2	106.7	102.8	142.1	205.1	195.8	185.3	304.7
Refrigerators and refrigeration equipment ²	123.9	124.7	134.9	145.3	194.0	168.4	164.1	266.0
Transportation equipment, except automobiles ¹	290.8	295.7	326.9	1298.4	511.0	493.6	559.1	2767.9
Locomotives.....	77.1	64.3	360.8	525.7	154.5	123.6	735.5	1233.2
Cars, electric, and steam-railroad.....	173.5	171.0	192.3	239.1	306.3	290.2	329.7	506.4
Aircraft and parts, excluding aircraft engines.....	295.1	300.2	298.9	1607.0	525.0	520.8	514.3	3190.3
Aircraft engines.....	248.6	239.0	239.7	2368.8	379.7	369.1	356.6	4279.7
Shipbuilding and boatbuilding.....	318.3	328.7	359.6	1324.5	553.5	530.4	602.5	2906.6
Motorcycles, bicycles, and parts.....	116.3	125.2	122.0	136.8	190.3	201.0	204.4	263.3
Automobiles ¹	107.0	99.6	103.5	173.9	158.2	135.5	153.5	325.5
Nonferrous metals and their products ¹	138.4	126.8	145.3	185.6	250.8	228.7	256.1	364.0
Smelting and refining, primary, of nonferrous ¹ metals.....	108.9	121.9	127.8	143.0	190.8	210.5	224.7	265.4
Alloying and rolling and drawing of nonferrous metals, except aluminum.....	123.7	121.1	143.5	187.1	222.0	221.6	256.7	367.0
Clocks and watches.....	124.2	121.6	116.7	129.5	248.2	233.6	219.8	287.5
Jewelry (precious metals) and jewelers' findings.....	116.9	114.0	109.5	91.2	221.9	211.5	203.1	164.4
Silverware and plated ware.....	109.0	104.5	100.7	90.4	217.5	208.5	197.2	169.5
Lighting equipment.....	89.6	84.1	87.1	127.9	139.0	133.0	137.7	236.1
Aluminum manufactures.....	171.1	104.3	178.5	209.2	290.5	172.8	269.1	556.0
Sheet-metal work, not elsewhere classified.....	117.4	108.8	119.8	170.8	218.2	197.1	214.1	335.4

See footnotes at end of table.

TABLE 2.—Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries ¹—Continued

Industry	Employment indexes				Pay-roll indexes			
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945
<i>Durable goods—Continued</i>								
Lumber and timber basic products ¹	127.0	124.0	122.3	123.0	233.2	218.7	207.7	226.2
Sawmills and logging camps.....	71.7	70.2	70.0	75.8	131.9	123.0	118.2	140.4
Planing and plywood mills.....	91.2	90.8	89.2	96.0	161.5	157.8	148.9	168.0
Furniture and finished lumber products ¹	109.9	108.1	96.0	106.2	209.0	200.4	192.9	201.3
Mattresses and bedsprings.....	96.9	100.2	97.9	95.7	169.6	173.1	173.2	172.4
Furniture.....	97.0	95.4	94.0	95.8	184.3	176.7	169.3	181.8
Wooden boxes, other than cigar.....	97.0	95.2	94.2	106.8	199.8	190.1	185.4	214.2
Caskets and other morticians' goods.....	107.2	103.7	90.6	97.9	184.8	179.7	169.8	175.9
Wood preserving.....	103.9	103.8	102.9	89.5	226.8	213.4	206.8	192.3
Wood, turned and shaped.....	103.4	99.4	97.3	96.9	195.9	183.0	180.2	179.4
Stone, clay, and glass products ¹	124.9	121.4	114.3	109.8	216.3	203.9	185.4	190.5
Glass and glassware.....	146.0	142.3	124.5	126.5	246.7	236.5	192.1	207.1
Glass products made from purchased glass.....	123.3	117.8	108.6	110.8	220.2	205.2	178.9	192.6
Cement.....	99.0	94.0	91.5	67.6	155.3	141.6	135.1	108.3
Brick, tile, and terra cotta.....	95.6	93.2	91.5	72.0	169.1	158.3	155.2	121.0
Pottery and related products.....	131.7	129.6	125.8	117.6	217.3	209.5	195.5	191.3
Gypsum.....	104.0	99.6	95.8	82.4	178.5	172.3	160.5	144.6
Wallboard, plaster (except gypsum), and mineral wool.....	122.7	122.9	124.7	115.8	232.4	228.5	233.2	214.0
Lime.....	90.2	84.8	86.2	81.8	190.8	167.7	169.8	159.8
Marble, granite, slate, and other products.....	82.2	79.8	74.0	74.7	129.5	121.5	109.6	114.7
Abrasives.....	228.9	218.9	217.6	279.7	360.5	301.5	325.3	495.0
Asbestos products.....	91.8	91.1	89.9	126.5	183.8	181.5	177.8	266.5
<i>Nondurable goods</i>								
Textile-mill products and other fiber manufactures ¹	102.8	101.2	98.6	95.7	212.6	203.7	190.7	177.5
Cotton manufactures, except smallwares.....	111.7	110.4	108.3	107.1	242.3	230.0	217.0	206.5
Cotton smallwares.....	107.1	104.6	101.6	101.4	200.8	200.0	195.6	198.0
Silk and rayon goods.....	75.0	74.4	73.0	73.5	163.6	158.3	149.4	139.3
Woolen and worsted manufactures, except dyeing and finishing.....	105.9	103.1	99.9	97.3	234.2	226.9	206.6	193.4
Hosiery.....	70.1	69.0	66.8	62.0	129.0	125.3	115.7	101.2
Knitted cloth.....	102.2	101.2	98.3	94.1	208.5	202.3	190.8	170.3*
Knitted outerwear and knitted gloves.....	108.8	105.4	102.1	101.6	226.9	211.0	196.3	195.2
Knitted underwear.....	90.5	89.4	87.3	88.5	182.7	174.4	165.9	169.1
Dyeing and finishing textiles, including woolen and worsted.....	94.1	93.4	90.5	87.9	180.7	177.8	167.7	151.2
Carpets and rugs, wool.....	87.7	84.5	78.7	78.0	153.2	146.4	135.1	140.9
Hats, fur-felt.....	74.6	73.2	70.7	63.7	166.6	153.4	151.9	128.3
Jute goods, except felts.....	110.2	105.6	105.0	90.1	224.5	211.8	205.0	178.0
Cordage and twine.....	118.8	117.0	121.4	123.3	225.5	208.1	229.2	236.1
Apparel and other finished textile products ¹	128.6	125.8	121.0	119.7	263.6	240.2	228.0	233.1
Men's clothing, not elsewhere classified.....	86.8	85.3	82.6	92.1	170.0	158.1	148.0	174.4
Shirts, collars, and nightwear.....	74.2	73.4	71.7	70.1	152.7	147.7	135.9	132.9
Underwear and neckwear, men's.....	74.1	72.2	70.1	75.0	169.4	159.8	147.5	158.3
Work shirts.....	101.0	100.9	94.2	106.5	201.4	197.7	181.6	208.7
Women's clothing, not elsewhere classified.....	80.4	78.7	76.3	78.3	172.6	153.3	149.4	157.2
Corsets and allied garments.....	85.1	83.4	79.9	76.9	165.2	156.1	147.5	136.7
Millinery.....	87.7	85.7	80.6	84.8	169.6	152.6	146.6	160.0
Handkerchiefs.....	50.8	51.2	47.2	52.7	105.9	105.1	87.9	99.8
Curtains, draperies, and bedspreads ²	72.2	71.4	68.3	60.6	149.1	139.8	136.3	125.2
Housefurnishings, other than curtains, etc.....	98.9	96.5	90.6	105.1	194.5	174.7	165.9	198.9
Textile bags.....	107.7	120.7	122.5	127.9	181.2	207.3	204.2	214.1
Leather and leather products ¹	102.4	100.4	97.4	91.4	202.1	194.5	185.2	172.3
Leather.....	93.2	94.5	92.0	83.2	163.9	165.3	163.2	151.1
Boot and shoe cut stock and findings.....	95.5	92.6	90.6	85.9	170.5	165.0	160.8	150.1
Boots and shoes.....	87.9	85.8	83.5	79.0	182.7	174.1	164.0	153.6
Leather gloves and mittens.....	119.0	117.1	111.7	119.5	216.3	211.8	203.2	215.1
Trunks and suitcases.....	168.6	163.0	151.2	151.8	304.8	280.6	262.8	254.8
Food ¹	121.0	122.2	123.0	118.9	206.6	211.5	215.0	194.4
Slaughtering and meat packing.....	122.0	125.5	126.7	118.1	191.1	199.4	217.9	178.2
Butter.....	124.7	120.7	117.2	125.9	211.3	200.9	195.1	196.3
Condensed and evaporated milk.....	135.1	132.3	130.2	149.9	236.7	225.8	219.3	238.7
Ice cream.....	104.4	98.5	95.3	80.4	163.3	152.3	146.2	130.8
Flour.....	121.8	126.5	127.0	117.0	214.1	241.6	228.0	201.0
Feeds, prepared.....	146.8	152.6	154.7	137.5	259.7	272.7	276.4	235.6

See footnotes at end of table.

TABLE 2.—Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries¹—Continued

Industry	Employment indexes				Pay-roll indexes			
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945
<i>Nondurable goods—Continued</i>								
Food—Continued								
Cereal preparations.....	146.8	147.3	139.6	124.5	256.4	248.6	228.3	232.6
Baking.....	110.3	109.7	110.2	111.3	182.8	181.2	180.1	170.2
Sugar refining, cane ²	91.2	86.8	89.0	106.2	137.1	121.4	132.1	181.3
Sugar, beet.....	43.1	46.7	74.7	37.6	68.3	74.0	121.2	58.1
Confectionery.....	105.6	103.4	106.2	116.7	185.7	183.2	191.1	198.5
Beverages, nonalcoholic.....	106.3	105.5	107.4	120.8	148.1	144.9	146.3	159.7
Malt liquors.....	142.6	153.9	151.9	136.1	200.2	237.8	228.1	200.9
Canning and preserving.....	63.2	66.6	68.8	71.2	132.1	136.6	144.1	142.6
Tobacco manufactures¹.....								
Cigarettes.....	87.9	87.3	87.0	87.8	171.3	165.2	166.7	166.0
Cigars.....	116.6	116.1	118.3	126.8	201.7	194.3	201.4	207.4
Tobacco (chewing and smoking) and snuff.....	73.1	71.5	69.2	65.3	156.4	148.9	145.7	135.3
Tobacco (chewing and smoking) and snuff.....	79.9	84.6	87.7	94.8	129.0	133.4	137.4	156.9
Paper and allied products¹.....								
Paper and pulp.....	132.9	131.0	128.6	119.7	233.3	226.2	221.7	201.9
Paper goods, other.....	117.9	116.3	113.9	106.3	208.1	203.6	198.4	183.4
Envelopes.....	122.6	121.2	118.0	119.1	214.0	206.6	201.8	198.2
Paper bags.....	116.6	115.1	113.2	108.1	197.7	185.4	185.5	170.0
Paper boxes.....	128.1	126.6	122.9	116.7	230.4	221.6	218.5	208.3
Paper boxes.....	121.3	120.1	119.5	111.9	212.5	204.0	204.2	182.3
Printing, publishing, and allied industries¹.....								
Newspapers and periodicals.....	113.5	112.1	109.4	98.2	176.8	170.6	165.7	139.4
Printing, book and job.....	107.0	105.3	103.1	92.1	154.4	148.9	143.5	120.2
Lithographing.....	122.1	120.9	117.6	104.8	200.2	193.9	188.8	157.2
Bookbinding.....	108.9	107.3	105.2	94.2	167.5	161.8	163.4	136.9
Bookbinding.....	116.8	115.0	112.9	107.2	224.6	215.1	205.5	186.0
Chemicals and allied products¹.....								
Paints, varnishes, and colors.....	171.4	170.3	169.7	242.3	292.3	286.3	285.2	431.0
Drugs, medicines, and insecticides.....	123.6	120.1	117.4	104.4	192.3	185.2	180.1	169.5
Perfumes and cosmetics.....	185.5	185.5	181.5	182.0	301.0	297.2	281.4	280.2
Soap.....	116.9	116.8	115.4	116.9	185.0	184.9	174.9	168.0
Rayon and allied products.....	104.4	102.2	100.3	98.3	169.7	167.2	169.1	170.7
Chemicals, not elsewhere classified.....	123.7	123.6	123.0	113.1	199.6	197.3	197.0	181.8
Explosives and safety fuses.....	165.9	165.0	164.7	165.7	281.4	275.9	276.8	296.7
Compressed and liquefied gases.....	201.2	215.3	238.7	1361.1	314.7	328.2	365.1	2091.6
Ammunition, small-arms.....	138.3	132.7	141.0	149.7	220.7	208.6	263.5	270.7
Fireworks.....	193.6	197.5	225.8	1576.2	376.8	384.0	428.2	3167.0
Cottonseed oil.....	216.8	203.3	183.4	2059.2	647.6	509.9	474.3	5759.0
Fertilizers.....	91.7	101.4	116.8	107.1	198.4	215.3	252.8	224.5
Fertilizers.....	167.6	151.7	132.5	143.4	387.0	335.9	282.7	340.5
Products of petroleum and coal¹.....								
Petroleum refining.....	137.2	133.7	134.0	126.6	231.0	224.7	220.9	224.6
Coke and byproducts.....	133.1	132.3	131.9	126.1	217.9	217.4	210.6	220.6
Paving materials ²	116.9	104.0	109.7	101.5	210.7	179.3	189.3	184.0
Roofing materials.....	72.8	60.3	58.3	62.8	129.5	115.4	111.8	119.5
Roofing materials.....	130.5	134.4	128.8	117.7	229.1	241.0	237.1	213.9
Rubber products¹.....								
Rubber tires and inner tubes.....	181.5	177.1	172.7	173.2	302.8	292.1	290.1	315.4
Rubber boots and shoes.....	191.6	187.3	152.4	176.8	281.1	271.9	272.6	301.9
Rubber goods, other.....	116.7	113.9	109.7	117.4	217.9	211.5	203.6	216.3
Rubber goods, other.....	131.5	128.8	126.9	140.3	242.4	233.8	231.8	264.5
Miscellaneous industries¹.....								
Instruments (professional and scientific) and fire-control equipment.....	160.0	155.4	150.4	174.3	293.1	278.8	271.0	348.0
Photographic apparatus.....	205.3	201.3	200.2	541.4	347.6	321.7	330.4	1068.3
Optical instruments and ophthalmic goods.....	136.2	130.1	127.1	162.1	215.3	204.5	195.7	275.4
Pianos, organs, and parts.....	181.3	178.0	173.7	202.7	309.4	300.8	295.9	354.3
Games, toys, and dolls.....	105.8	98.5	88.9	97.5	179.4	159.8	148.5	188.0
Buttons.....	105.2	100.4	94.1	85.3	212.6	199.2	179.2	180.5
Fire extinguishers.....	92.1	92.7	87.7	88.4	190.1	185.5	177.5	180.2
Fire extinguishers.....	228.9	227.2	231.3	470.4	471.1	466.9	458.0	1076.9

¹ Indexes for the major industry groups have been adjusted to levels indicated by the final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency. Indexes for the major industry groups are not comparable with those published in mimeographed releases dated prior to April 1946 or the May 1946 issue of the Monthly Labor Review. Comparable series from January 1944 are available upon request.

² Revisions have been made as follows in the indexes for earlier months:
Refrigerators and refrigeration equipment.—December 1945 employment index to 127.1, pay-roll index to 198.2; 1945 annual averages to 128.5 for employment and 221.0 for pay roll.
Curtains, draperies, and bedspreads.—December 1945 pay-roll index to 137.1.
Sugar refining, cane.—December 1945 pay-roll index to 140.1.
Paving materials.—December 1945 pay-roll index to 128.1.

TABLE 3.—Estimated Number of Employees in Selected Nonmanufacturing Industries

Industry	Estimated number of employees (in thousands)			
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945
Mining: ¹				
Anthracite	67.7	67.2	65.7	65.4
Bituminous coal	342	341	338	334
Metal	55.7	63.5	67.3	69.1
Iron	14.0	21.9	22.9	23.9
Copper	17.8	17.9	20.5	22.1
Lead and zinc	14.4	14.6	14.9	14.8
Gold and silver	7.2	7.1	6.7	5.6
Miscellaneous	2.3	2.0	2.3	2.7
Telephone	504	488	465	404
Telegraph ²	(²)	46.9	42.3	44.8
Electric light and power	236	231	227	201
Street railways and busses	244	243	240	231
Hotels (year-round)	385	383	378	352
Power laundries	(³)	(³)	(³)	(³)
Cleaning and dyeing	(³)	(³)	(³)	(³)
Class I steam railroads ⁴	1,367	1,365	1,393	1,423
Water transportation ⁵	156	166	165	152

¹ Data are for production workers only.

² Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies. March 1946 data are not available.

³ The change in definition from "wage earner" to "production worker" in the power laundries and cleaning and dyeing industries results in the omission of driver-salesmen. This causes a significant difference in the data. New series are being prepared.

⁴ Source: Interstate Commerce Commission.

⁵ 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 4.—Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries

[1939 average=100]

Industry	Employment indexes				Pay-roll indexes			
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1945
Mining:								
Anthracite	81.7	81.1	79.3	79.0	178.5	178.3	149.3	149.7
Bituminous coal	92.2	92.0	91.2	90.2	227.2	222.8	209.9	204.3
Metal	63.1	72.0	76.3	78.4	94.5	94.6	118.0	130.9
Iron	69.1	109.2	113.9	118.8	75.5	78.9	170.8	213.1
Copper	74.9	74.9	85.9	92.8	120.6	121.3	137.1	153.2
Lead and zinc	92.9	94.1	95.6	95.0	182.0	183.0	180.4	180.4
Gold and silver	29.1	28.6	27.2	22.6	39.9	38.5	35.8	29.5
Miscellaneous	57.8	49.2	56.9	69.2	88.0	75.8	83.7	114.4
Quarrying and nonmetallic	88.8	84.3	83.3	76.6	172.6	157.2	150.9	142.5
Crude-petroleum production ¹	90.8	91.0	90.0	82.6	144.4	142.0	139.0	132.8
Public utilities:								
Telephone	158.6	153.7	146.3	127.1	237.0	230.7	205.2	162.4
Telegraph	(⁴)	124.7	112.4	118.9	(⁴)	176.9	155.3	170.8
Electric light and power	96.4	94.7	92.9	82.1	140.4	138.3	133.7	116.8
Street railways and busses	126.1	125.7	123.7	119.0	187.2	187.2	181.4	176.2
Wholesale trade	106.6	105.5	104.7	95.3	167.5	165.0	161.2	141.4
Retail trade	106.1	104.2	104.1	99.3	160.9	157.4	154.9	133.0
Food	106.9	106.8	106.6	105.9	163.9	161.6	159.7	141.2
General merchandise	118.6	114.6	116.8	117.4	173.3	165.5	165.8	147.6
Apparel	109.7	104.8	105.5	111.0	170.2	162.3	163.2	153.4
Furniture and housefurnishings	74.1	72.9	70.9	62.0	115.1	112.5	107.1	88.6
Automotive	88.2	86.9	85.8	68.6	142.6	140.5	139.0	104.3
Lumber and building materials	104.7	103.3	101.9	89.4	165.5	161.6	158.6	131.5
Hotels (year-round) ²	119.3	118.7	117.3	109.0	201.1	199.8	196.4	166.7
Power laundries	109.6	109.0	109.3	105.5	181.3	177.0	178.7	162.2
Cleaning and dyeing	124.3	121.5	120.3	117.4	213.4	199.1	201.7	192.3
Class I steam railroads ³	138.4	138.3	141.0	144.1	(⁴)	(⁴)	(⁴)	(⁴)
Water transportation ⁵	297.8	316.9	314.8	290.4	550.6	577.3	575.3	724.7

¹ Does not include well drilling or rig building.

² Cash payments only; additional value of board, room, and tips, not included.

³ Source: Interstate Commerce Commission.

⁴ Not available.

⁵ 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.

Labor Turn-Over in Manufacturing, Mining, and Public Utilities, March 1946

WITH accessions averaging 70 and separations 66 per 1,000 employees, labor turn-over rates in manufacturing continued in March to approximate wartime levels more closely than those of prewar years. Quits, both among men and among women, remained high—42 per 1,000, as compared with prewar levels under 10. Lay-offs, however, were approximating their 1939 rates, in both the nondurable- and durable-goods groups.

Although the hiring rate in the nondurable-goods group declined, in the durable-goods group of industries this rate increased from 70 to 78 per 1,000, indicating that many plants which had been affected by material shortages were beginning to expand. Among the durable-goods groups, the highest accession rate—104 per 1,000 workers—was reported by the automobile industry, in which reconversion had been slowed by steel shortages.

The impending strikes in metal and bituminous-coal mining prompted miners to quit their jobs, which raised the quit rate in metal mining to 50 per 1,000, and in bituminous-coal mining to 42 per 1,000. The accession rate in the latter dropped from 52 in February to 33 per 1,000 in March.

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:												
1946.....	6.8	6.3	² 6.6									
1945.....	6.2	6.0	6.8	6.6	7.0	7.9	7.7	17.0	12.0	8.6	7.1	5.9
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:												
1946.....	4.3	3.9	² 4.2									
1945.....	4.6	4.3	5.0	4.8	4.8	5.1	5.2	6.2	6.7	5.6	4.7	4.0
1943.....	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	4.4
1939.....	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1946.....	.5	.5	² .4									
1945.....	.7	.7	.7	.6	.6	.7	.6	.7	.6	.5	.5	.4
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												
1946.....	1.8	1.7	² 1.8									
1945.....	.6	.7	.7	.8	1.2	1.7	1.5	10.7	4.5	2.3	1.7	1.3
1943.....	.7	.5	.5	.6	.5	.6	.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												
1946.....	.2	.2	² .2									
1945.....	.3	.3	.4	.4	.4	.4	.4	.3	.2	.2	.2	.2
1943.....	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6
Accession:												
1946.....	8.5	6.8	² 7.0									
1945.....	7.0	5.0	4.9	4.7	5.0	5.9	5.8	5.9	7.4	8.6	8.7	6.9
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 production workers. The 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.

The accession rate for men continued to be considerably higher than for women in the durable-goods group. For the first time since VJ-day, however, the reverse was true in the nondurable-goods division, where more than half of the groups reported a greater accession rate for women than for men.

TABLE 2.—Monthly Labor Turn-Over Rates (per 100 Employees) in Selected Groups and Industries,¹ March 1946²

Group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
<i>Manufacturing</i>												
Durable.....	6.9	6.4	4.1	3.4	0.5	0.5	2.1	2.3	0.2	0.2	7.8	7.0
Nondurable.....	6.4	6.1	4.3	4.3	.4	.4	1.5	1.2	.2	.2	6.2	6.7
Iron and steel and their products.....	5.8	5.2	3.7	3.0	.4	.4	1.4	1.6	.3	.2	7.5	5.8
Blast furnaces, steel works, and rolling mills.....	4.8	(3)	2.8	(3)	.2	(3)	1.5	(3)	.4	(3)	6.4	(3)
Gray-iron castings.....	8.7	7.0	6.4	5.3	1.3	.9	.6	.5	.4	.3	11.7	9.5
Malleable-iron castings.....	7.6	7.1	6.7	5.2	.5	.5	.1	1.2	.3	.2	9.9	8.8
Steel castings.....	5.6	4.1	3.5	2.7	.5	.4	1.4	.8	.2	.2	4.8	5.0
Cast-iron pipe and fittings.....	6.7	6.8	5.6	5.9	.3	.4	.6	.3	.2	.2	9.5	11.6
Tin cans and other tinware.....	10.5	9.0	5.3	4.4	1.6	1.8	3.3	2.5	.3	.3	8.0	5.3
Wire products.....	5.7	5.7	2.6	1.7	.2	.2	2.6	3.6	.3	.2	6.8	2.0
Cutlery and edge tools.....	5.1	4.0	3.9	3.1	1.0	.6	.1	.2	.1	.1	8.5	5.9
Tools (except edge tools, machine tools, files, and saws).....	5.4	3.7	3.8	2.5	.6	.5	.7	.5	.3	.2	6.7	4.5
Hardware.....	7.6	6.4	5.5	4.7	1.0	.9	.8	.5	.3	.3	9.5	8.5
Stoves, oil burners, and heating equipment.....	10.8	11.7	5.2	4.1	.6	.8	4.7	6.4	.3	.4	9.9	6.4
Steam and hot-water heating apparatus and steam fittings.....	6.0	6.0	5.1	4.7	.5	.7	2.2	.4	.2	.2	7.7	8.0
Stamped and enameled ware and galvanizing.....	7.0	8.8	5.3	3.9	.5	.3	1.1	4.3	.1	.3	10.6	6.8
Fabricated structural-metal products.....	7.8	5.7	4.3	3.0	.5	.7	2.8	1.9	.2	.1	7.2	6.3
Bolts, nuts, washers, and rivets.....	4.6	3.5	2.6	2.1	.3	.2	1.4	.8	.3	.4	5.8	4.0
Forgings, iron and steel.....	5.2	2.9	3.1	1.7	.3	.3	1.6	.7	.2	.2	5.9	4.5
Electrical machinery.....	5.9	5.9	3.7	3.4	.5	.5	1.6	1.8	.1	.2	7.2	7.7
Electrical equipment for industrial use.....	6.4	6.5	3.8	3.4	.6	.7	1.8	2.2	.2	.2	6.2	6.3
Radios, radio equipment, and phonographs.....	6.9	6.7	4.2	3.8	.6	.5	2.0	2.1	.1	.3	8.4	9.2
Communication equipment, except radios.....	3.4	3.1	2.2	2.1	.2	.2	.8	.7	.2	.1	6.4	5.9
Machinery, except electrical.....	5.1	4.6	2.9	2.4	.4	.4	1.6	1.6	.2	.2	5.5	4.9
Engines and turbines.....	8.6	6.4	3.0	2.1	.4	.5	5.1	3.7	.1	.1	6.3	6.0
Agricultural machinery and tractors.....	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Machine tools.....	3.6	4.1	2.0	1.7	.2	.4	1.3	1.9	.1	.1	4.2	4.0
Machine-tool accessories.....	5.7	4.9	2.9	2.2	.5	.5	2.2	2.1	.1	.1	5.4	5.0
Metalworking machinery and equipment, not elsewhere classified.....	4.6	3.7	3.4	2.6	.5	.5	.4	.4	.3	.2	5.8	4.8
General industrial machinery, except pumps.....	4.8	4.5	2.9	2.4	.4	.5	1.3	1.3	.2	.3	5.0	4.7
Pumps and pumping equipment.....	4.5	5.0	3.0	2.2	.5	.5	.9	2.0	.1	.3	6.2	5.1
Transportation equipment, except automobiles.....	11.6	11.3	3.6	3.5	.5	.6	7.4	7.0	.1	.2	8.6	7.2
Aircraft.....	8.2	8.5	3.4	3.0	.3	.3	4.4	5.1	.1	.1	7.6	6.8
Aircraft parts, including engines.....	8.9	8.8	2.9	2.5	.3	.3	5.6	5.9	.1	.1	7.8	6.7
Shipbuilding and repairs.....	14.8	13.7	3.9	3.9	.7	.9	10.1	8.6	.1	.3	9.6	7.6
Automobiles ⁴	5.4	5.3	2.4	1.8	.3	.3	2.6	2.8	.1	.4	10.4	7.6
Motor vehicles, bodies, and trailers ⁴	5.0	4.3	2.1	1.6	.3	.2	2.5	2.1	.1	.4	11.5	8.0
Motor-vehicle parts and accessories ⁴	6.2	7.5	3.0	2.3	.3	.4	2.7	4.6	.2	.2	8.3	6.7
Nonferrous metals and their products.....	5.9	5.5	4.2	3.5	.6	.5	.9	1.3	.2	.2	7.9	7.6
Primary smelting and refining, except aluminum and magnesium.....	3.0	3.8	1.9	2.3	.4	.2	.6	1.2	.2	.1	4.5	5.3

See footnotes at end of table.

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Employees) in Selected Groups and Industries,¹ March 1946²—Continued*

Group and industry	Total separation		Quit		Dis-charge		Lay-off		Military and miscellaneous		Total accession	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
<i>Manufacturing—Continued</i>												
Nonferrous metals and their products—Continued												
Rolling and drawing of copper and copper alloys.....	5.5	4.5	4.7	3.3	0.5	0.3	0.2	0.8	0.1	0.1	5.9	5.9
Lighting equipment.....	6.5	5.4	4.8	4.8	.1	.2	1.4	.3	.2	.1	9.0	10.3
Nonferrous-metal foundries, except aluminum and magnesium.....	6.5	5.8	4.4	3.2	.7	.7	1.1	1.6	.3	.3	8.5	6.8
Lumber and timber basic products.....												
Sawmills.....	8.2	7.5	6.6	5.6	.4	.5	1.0	1.2	.2	.2	8.2	8.5
Planing and plywood mills.....	7.8	7.3	6.1	5.4	.4	.4	1.1	1.4	.2	.1	7.8	8.4
	5.4	4.6	4.1	3.7	.4	.4	.7	.3	.2	.2	5.6	6.5
Furniture and finished lumber products.....												
Furniture, including mattresses and bedsprings.....	9.0	8.3	7.0	5.9	.6	.7	1.2	1.5	.2	.2	10.2	9.4
	9.4	8.8	7.3	6.2	.6	.7	1.3	1.7	.2	.2	10.5	10.0
Stone, clay, and glass products.....												
Glass and glass products.....	5.2	4.9	3.8	3.5	.5	.5	.6	.6	.3	.3	7.2	8.1
Cement.....	5.3	4.9	3.3	3.2	.6	.5	.9	.8	.5	.4	6.7	10.0
Brick, tile, and terra cotta.....	5.1	5.3	4.1	4.2	.5	.5	.2	.3	.3	.3	9.2	7.2
Pottery and related products.....	6.8	5.8	6.0	4.8	.5	.6	.1	.2	.2	.2	9.2	8.3
	5.0	4.7	4.1	3.8	.5	.5	.2	.2	.2	.2	5.9	6.3
Textile-mill products.....												
Cotton.....	6.3	5.8	5.3	4.8	.4	.4	.4	.4	.2	.2	6.7	7.3
Silk and rayon goods.....	7.5	7.1	6.5	6.1	.4	.5	.4	.3	.2	.2	7.6	8.2
Woolen and worsted, except dyeing and finishing.....	6.5	5.8	5.5	4.5	.4	.4	.4	.7	.2	.2	6.6	7.2
Hosiery, full-fashioned.....	4.9	4.1	3.9	3.1	.5	.4	.3	.4	.2	.2	5.7	6.4
Hosiery, seamless.....	3.4	3.2	3.1	2.8	.2	.3	.1	.1	(5)	(5)	5.0	5.5
Knitted underwear.....	5.4	5.5	4.9	5.0	.2	.2	.2	.3	.1	(5)	6.2	7.0
Dyeing and finishing textiles, including woolen and worsted.....	5.7	5.0	4.9	4.3	.5	.4	.2	.3	.1	(5)	5.9	6.5
	4.5	4.3	2.8	2.8	.7	.6	.7	.7	.3	.2	5.0	5.9
Apparel and other finished textile products.....												
Men's and boys' suits, coats, and overcoats.....	5.4	5.2	4.7	4.3	.2	.2	.4	.6	.1	.1	6.3	6.1
Men's and boys' furnishings, work clothing, and allied garments.....	4.0	3.9	3.5	3.3	.1	.2	.3	.3	.1	.1	6.2	5.6
	5.9	5.4	5.2	4.4	.1	.2	.5	.7	.1	.1	5.7	5.6
Leather and leather products.....												
Leather.....	5.4	5.1	4.7	4.5	.3	.2	.3	.3	.1	.1	6.2	6.3
Boots and shoes.....	4.8	4.1	3.8	3.2	.3	.2	.6	.5	.1	.2	4.9	4.8
	5.5	5.5	4.9	4.8	.3	.3	.2	.3	.1	.1	6.4	6.6
Food and kindred products.....												
Meat products.....	9.9	9.7	4.6	5.7	.6	.7	4.5	3.0	.2	.3	6.4	8.1
Grain-mill products.....	12.0	12.4	4.6	6.8	.7	.9	6.4	4.3	.3	.4	6.8	10.0
	8.0	6.7	5.1	4.5	1.1	1.0	1.7	.9	.1	.3	5.7	6.2
Tobacco manufactures.....												
	6.7	6.2	5.2	4.3	.3	.2	.9	1.5	.3	.2	7.5	6.4
Paper and allied products.....												
Paper and pulp.....	6.1	5.8	4.8	4.3	.5	.5	.6	.8	.2	.2	7.1	7.1
Paper boxes.....	5.3	4.8	4.1	3.3	.5	.4	.5	.9	.2	.2	6.7	6.3
	8.3	8.3	6.8	6.5	.6	.7	.5	.8	.4	.3	8.4	8.8
Chemicals and allied products.....												
Paints, varnishes, and colors.....	4.2	4.2	2.4	2.3	.4	.4	1.2	1.3	.2	.2	4.6	4.6
Rayon and allied products.....	4.2	3.6	2.9	2.6	.3	.4	.8	.4	.2	.2	4.9	5.0
Industrial chemicals, except explosives.....	4.5	3.9	2.6	2.3	.6	.6	1.1	.8	.2	.2	3.9	4.6
	3.4	3.5	2.1	2.1	.3	.4	.8	.8	.2	.2	4.7	4.4
Products of petroleum and coal.....												
Petroleum refining.....	2.7	2.8	1.2	1.2	.2	.2	1.1	1.2	.2	.2	3.2	3.0
	2.3	2.7	1.0	1.1	.1	.2	1.0	1.2	.2	.2	2.9	2.8
Rubber products.....												
Rubber tires and inner tubes.....	4.6	4.7	3.7	3.8	.3	.3	.4	.4	.2	.2	5.9	6.6
Rubber footwear and related products.....	3.7	4.1	3.0	3.4	.2	.2	.2	.3	.3	.2	5.1	5.8
Miscellaneous rubber industries.....	6.0	5.3	5.1	4.4	.3	.3	.4	.4	.2	.2	6.9	7.4
	6.3	5.9	4.7	4.3	.5	.6	.9	.8	.2	.2	7.1	7.9
Miscellaneous industries ⁴												
	5.9	4.1	3.6	2.7	.4	.3	1.7	1.0	.2	.1	6.6	6.0

See footnotes at end of table.

TABLE 2.—Monthly Labor Turn-Over Rates (per 100 Employees) in Selected Groups and Industries,¹ March 1946²—Continued

Group and industry	Total separation		Quit		Dis-charge		Lay-off		Military and miscellaneous		Total accession	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
<i>Nonmanufacturing</i>												
Metal mining.....	6.2	5.4	5.0	4.6	0.5	0.4	0.4	0.3	0.3	0.1	6.6	6.1
Iron-ore.....	2.5	(3)	1.4	(3)	(5)	(3)	.5	(3)	.6	(3)	4.3	(3)
Copper-ore.....	8.6	7.9	6.9	6.8	1.1	.7	.4	.2	.2	.2	8.3	8.9
Lead- and zinc-ore.....	7.4	5.6	6.7	4.9	.4	.4	.1	.2	.2	.1	7.0	6.6
Coal mining:												
Anthracite mining.....	2.1	2.4	1.7	1.8	(5)	(5)	.3	.4	.1	.2	2.7	3.1
Bituminous-coal mining.....	5.6	4.8	4.2	3.9	.2	.2	.9	.4	.3	.3	3.3	5.2
Public utilities:												
Telephone.....	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Telegraph.....	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	(3)

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.

³ Not available.

⁴ Current month data based on incomplete returns. Data for miscellaneous industries based on incomplete returns for both February and March.

⁵ Less than 0.05.

TABLE 3.—Monthly Labor Turn-Over Rates (per 100 Employees) for Men and Women in All Manufacturing and Selected Groups,¹ March 1946²

Industry group	Total separation				Quit				Accession			
	Men		Women		Men		Women		Men		Women	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
All manufacturing.....	6.4	5.9	7.1	7.0	3.8	3.4	5.2	5.1	7.2	6.8	6.4	6.4
Durable.....	6.6	6.1	7.8	8.1	3.9	3.2	4.9	4.5	8.0	6.9	6.5	5.8
Nondurable.....	6.2	5.7	6.8	6.7	3.6	3.6	5.3	5.2	6.1	6.7	6.3	6.5
Iron and steel and their products.....	5.6	4.8	9.0	7.7	3.7	2.7	5.2	5.0	7.7	5.8	6.7	5.6
Electrical machinery.....	4.5	5.3	7.8	6.9	2.6	2.4	5.0	4.6	6.5	7.0	8.1	8.7
Machinery, except electrical.....	5.0	4.3	6.2	6.3	2.8	2.1	3.9	3.5	5.8	5.2	4.0	3.3
Transportation equipment, except automobiles.....	11.3	10.8	13.6	13.7	3.6	3.5	4.2	4.1	9.3	7.6	4.4	3.8
Automobiles.....	5.2	5.0	7.3	8.3	2.3	1.7	3.8	3.8	10.6	5.5	8.7	6.9
Nonferrous metals and their products.....	5.9	5.2	6.0	6.1	4.3	3.3	3.9	4.2	8.2	7.7	7.1	7.6
Lumber and timber basic products.....	8.4	7.3	6.0	9.4	6.7	5.5	5.1	6.3	8.6	8.9	3.2	3.0
Furniture and finished lumber products.....	9.1	8.0	8.1	9.3	7.1	5.7	6.6	6.5	10.7	10.2	8.1	6.1
Stone, clay, and glass products.....	5.1	4.8	5.5	5.4	3.7	3.4	4.5	4.0	7.7	8.6	5.6	6.0
Textile-mill products.....	6.3	5.7	6.2	5.9	5.1	4.5	5.5	5.2	7.1	8.0	6.2	6.5
Apparel and other finished textile products.....	3.8	3.4	5.8	5.5	3.1	2.8	5.1	4.6	5.6	5.7	6.4	6.1
Leather and leather products.....	4.6	4.4	6.3	6.0	4.0	3.8	5.5	5.3	5.7	6.0	6.7	6.7
Food and kindred products.....	9.9	9.3	10.6	11.3	4.1	5.1	6.1	7.9	6.2	7.9	7.1	9.0
Tobacco manufactures.....	4.8	5.2	7.8	6.7	3.9	4.5	6.0	4.1	6.1	6.5	8.3	6.3
Paper and allied products.....	5.7	5.2	7.4	7.4	4.4	3.7	5.8	5.9	7.2	7.2	6.5	6.1
Chemicals and allied products.....	3.6	3.6	6.6	6.6	2.1	1.9	3.7	3.7	4.8	4.9	3.7	3.5
Products of petroleum and coal.....	2.3	2.4	7.6	7.2	1.1	1.0	3.2	3.5	3.1	3.0	3.8	2.3
Rubber products.....	4.2	4.2	6.0	6.1	3.3	3.3	4.8	5.0	5.8	6.5	6.1	7.1
Miscellaneous industries ³	5.1	3.2	7.2	5.7	2.8	1.9	5.1	4.0	6.9	5.8	6.1	6.3

¹ 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.

² Preliminary figures.

³ Based on incomplete returns.

Trends of Earnings and Hours

Summary of Earnings and Hours Data for March 1946

WIDESPREAD wage-rate increases raised gross average hourly earnings for all manufacturing industries to \$1.03 in March, the highest level since VJ-day. Preliminary estimates indicate that hourly earnings rose to \$1.06 in April, exceeding the wartime peak.

Weekly earnings in manufacturing rose \$1.59 as a result of higher wage rates and a slight rise in the workweek to 40.8 hours in March 1946, but averaged 11 percent below a year ago because of the 10.2 percent reduction in the workweek and substantial elimination of overtime premium pay.

Increases in average hourly earnings were evident in March in both the durable- and nondurable-goods groups. Earnings in the former averaged \$1.10 in March, while in the latter the average was 97½ cents. The difference in earnings between these two major divisions is considerably less than the 20½ cents difference that existed when the war ended.

The nondurable-goods industries are paying workers the highest average hourly earnings ever reported. The figure for March—97½ cents—represents an increase of almost 8 cents from a year ago and is 6½ cents higher than in August 1945. Each of the major nondurable-goods groups contributed to this increase.

While workers in the durable-goods group averaged \$44.72 a week, 16 percent below last year, those in the nondurable group earned \$39.87, on an average, a gain of 3 percent.

When the war ended, three of the major nondurable-goods groups reported average weekly earnings of less than \$30. Each of these—textiles, apparel, and tobacco—averaged \$33 or better in March.

Preliminary April averages are presented below:

	<i>Weekly earnings</i>	<i>Weekly hours</i>	<i>Hourly earn- ings (in cents)</i>
All manufacturing.....	\$42. 92	40. 6	105. 8
Durable goods.....	45. 80	40. 5	113. 1
Nondurable goods.....	40. 11	40. 6	98. 8

Earnings and Hours in Manufacturing and Nonmanufacturing Industries, March 1946

MANUFACTURING

Industry	Average weekly earnings ¹			Average weekly hours ¹			Average weekly earnings ¹		
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1946	Feb. 1946	Jan. 1946
All manufacturing.....	\$42.14	\$40.55	\$41.15	40.8	40.5	41.0	Cents	Cents	Cents
Durable goods.....	44.72	42.49	43.67	40.6	40.0	40.8	103.4	100.1	100.4
Non-durable goods.....	39.87	39.03	38.75	40.9	40.9	41.2	110.1	106.3	107.0
							97.5	95.3	94.1
<i>Durable goods</i>									
Iron and steel and their products.....	46.79	42.49	44.95	40.1	39.2	41.1	116.8	108.4	109.5
Blast furnaces, steel works, and rolling mills.....	45.26	36.75	44.93	37.9	30.4	38.5	129.0	(?)	116.9
Gray-iron and semisteel castings.....	49.51	47.70	49.37	43.8	43.4	45.0	112.3	110.0	109.7
Malleable-iron castings.....	47.24	47.17	48.27	41.8	42.9	43.9	112.5	109.8	110.1
Steel castings.....	46.21	47.15	42.09	38.9	41.6	37.6	119.3	113.9	111.9
Cast-iron pipe and fittings.....	40.85	40.93	41.69	41.7	43.0	44.5	97.7	95.2	93.6
Tin cans and other tinware.....	40.29	38.84	41.38	39.9	41.0	44.4	101.6	94.7	93.7
Wirework.....	45.61	44.00	46.52	42.1	41.5	44.1	108.4	106.0	105.5
Cutlery and edge tools.....	44.83	43.84	43.42	44.7	44.2	44.5	99.8	99.1	97.4
Tools (except edge tools, machine tools, files, and saws).....	46.14	45.57	44.87	45.0	44.8	45.0	102.6	101.8	99.8
Hardware.....	42.04	40.95	42.61	43.0	42.6	44.1	97.7	96.1	96.6
Plumbers' supplies.....	44.38	43.57	43.85	42.2	42.2	42.5	105.2	103.1	103.2
Stoves, oil burners, and heating equipment, not elsewhere classified.....	44.01	41.81	43.97	41.2	40.8	42.7	107.0	102.6	103.1
Steam and hot-water heating apparatus and steam fittings.....	44.38	44.17	44.99	41.2	41.6	42.9	107.7	106.2	104.9
Stamped and enameled ware and galvanizing.....	42.90	41.78	42.03	40.6	40.9	41.8	105.0	102.2	100.5
Fabricated structural and ornamental metalwork.....	47.44	42.72	43.90	42.1	39.4	40.9	111.8	107.5	106.4
Metal doors, sash, frames, molding, and trim.....	45.68	43.73	44.12	44.4	43.0	41.9	104.4	102.4	106.2
Bolts, nuts, washers, and rivets.....	41.25	44.10	43.01	38.3	42.5	41.4	107.8	104.3	104.6
Forgings, iron and steel.....	49.85	48.85	53.31	39.1	39.3	42.8	127.2	124.4	124.6
Screw-machine products and wood screws.....	47.06	45.22	47.09	42.5	41.7	43.3	109.7	107.5	107.9
Steel barrels, kegs, and drums.....	40.86	41.47	40.32	38.6	41.0	40.6	106.2	101.2	99.4
Firearms.....	48.93	48.44	48.55	42.6	43.5	43.8	114.9	111.3	110.8
Electrical machinery.....	41.86	41.49	43.52	40.4	40.3	41.3	103.7	102.9	105.3
Electrical equipment.....	41.61	40.94	44.05	40.1	40.0	41.3	103.2	102.3	106.7
Radios and phonographs.....	39.23	39.01	38.78	39.4	39.7	40.5	96.6	98.7	95.8
Communication equipment.....	46.15	45.41	46.13	42.0	41.8	42.3	108.8	108.1	108.5
Machinery, except electrical.....	48.66	47.49	47.84	41.6	41.4	42.0	116.9	114.7	113.9
Machinery and machine-shop products.....	48.29	47.91	47.81	41.7	42.3	42.5	115.4	112.9	112.3
Engines and turbines.....	46.03	46.66	49.61	38.9	39.2	41.5	117.8	119.0	119.6
Tractors.....	51.40	46.52	49.34	41.7	38.2	41.9	123.4	121.2	117.6
Agricultural machinery, excluding tractors.....	44.34	43.98	45.02	40.4	40.2	40.6	109.0	108.5	110.9
Machine tools.....	53.05	51.74	53.07	43.5	43.0	44.4	121.7	120.5	119.5
Machine-tool accessories.....	53.15	51.43	52.53	41.6	41.4	42.5	128.2	124.4	124.0
Textile machinery.....	48.87	47.87	48.28	44.7	45.7	46.3	109.4	104.8	104.4
Typewriters.....	45.69	44.42	44.12	43.1	43.6	43.4	105.9	102.0	101.8
Cash registers, adding and calculating machines.....	53.56	50.49	53.18	41.3	39.3	42.5	130.9	129.2	126.3
Washing machines, wringers and driers, domestic.....	40.73	41.23	42.28	40.1	40.0	42.7	101.6	103.2	98.9
Sewing machines, domestic and industrial.....	49.84	49.59	48.75	43.9	44.0	43.6	113.8	113.1	112.5
Refrigerators and refrigeration equipment ³	44.91	38.74	34.62	39.0	34.8	32.7	115.6	111.7	106.4
Transportation equipment, except automobiles.....	50.63	48.03	49.29	40.0	38.9	40.0	126.6	123.5	123.1
Locomotives.....	56.92	54.58	57.89	42.7	43.2	42.3	133.3	126.2	136.8
Cars, electric and steam-railroad.....	46.40	44.33	45.14	41.8	41.0	41.5	110.7	107.9	108.5
Aircraft and parts, excluding aircraft engines.....	50.56	49.29	48.84	41.0	40.3	41.1	123.3	122.2	118.8
Aircraft engines.....	52.82	53.43	51.48	41.9	42.1	40.9	125.8	126.8	125.8
Shipbuilding and boatbuilding.....	51.46	47.61	49.44	38.8	37.3	38.8	132.5	127.8	127.3
Motorcycles, bicycles, and parts.....	45.27	44.41	46.36	41.5	41.9	43.3	109.3	106.0	107.0
Automobiles.....	46.09	42.36	46.19	36.9	34.1	37.5	125.0	124.2	123.0

See footnotes at end of table.

Earnings and Hours in Manufacturing and Nonmanufacturing Industries,
March 1946—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings ¹			Average weekly hours ¹			Average weekly earnings ¹		
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1946	Feb. 1946	Jan. 1946
<i>Durable goods—Continued</i>									
Nonferrous metals and their products.....	\$47.31	\$47.13	\$46.13	42.4	43.2	43.3	<i>Cents</i> 111.6	<i>Cents</i> 109.1	<i>Cents</i> 106.6
Smelting and refining, primary, of nonferrous metals.....	46.72	46.06	46.91	41.1	42.1	43.3	113.9	109.4	108.4
Alloying and rolling and drawing of nonferrous metals, except aluminum.....	51.70	52.89	51.69	43.2	45.1	45.5	119.6	117.4	113.5
Clocks and watches.....	41.58	39.96	39.31	42.2	41.6	41.0	98.5	96.0	95.8
Jewelry (precious metals) and jewelers' findings.....	48.25	47.14	47.12	45.2	44.6	44.6	106.4	105.7	105.6
Silverware and plated ware.....	52.61	52.59	51.92	46.5	46.8	47.0	113.2	112.5	110.7
Lighting equipment.....	41.79	42.58	42.54	40.2	40.9	41.1	104.0	104.2	103.6
Aluminum manufactures.....	46.49	45.96	41.85	40.8	42.0	41.0	114.0	109.4	102.1
Lumber and timber basic products.....	34.87	33.54	32.15	41.1	40.1	38.8	84.8	83.6	83.0
Sawmills and logging camps.....	33.51	31.91	30.58	40.5	39.4	38.0	82.7	81.0	80.4
Planing and plywood mills.....	39.18	38.69	37.14	43.0	42.3	40.9	90.9	91.2	90.4
Furniture and finished lumber products.....	37.71	36.79	36.07	42.4	42.2	41.8	88.9	87.3	86.4
Furniture.....	38.46	37.46	36.56	42.2	42.1	41.4	91.3	89.1	88.2
Caskets and other morticians' goods.....	40.41	40.60	39.19	43.3	43.5	43.7	93.2	93.2	89.6
Wood preserving.....	34.88	32.84	32.11	42.2	40.6	39.3	82.7	80.9	81.7
Stone, clay, and glass products.....	40.89	39.64	38.33	41.5	41.0	40.7	98.5	96.7	94.2
Glass and glassware.....	42.84	42.10	38.81	40.1	39.9	38.8	107.0	105.7	100.3
Glass products made from purchased glass.....	37.08	36.22	34.13	42.1	41.6	39.5	86.1	84.9	85.3
Cement.....	42.17	40.50	39.72	43.1	42.5	42.1	97.8	95.4	94.3
Brick, tile, and terra cotta.....	36.83	35.25	35.16	41.6	40.6	40.9	88.0	86.3	85.7
Pottery and related products.....	38.12	37.61	36.22	40.9	41.0	39.6	94.4	92.7	92.7
Gypsum.....	45.14	45.44	43.88	46.8	47.5	46.3	96.5	95.8	94.7
Lime.....	41.15	38.58	38.28	46.7	45.3	44.9	87.3	84.5	84.3
Marble, granite, slate, and other products.....	41.39	40.22	38.88	42.1	41.3	41.2	98.4	97.1	94.4
Abrasives.....	44.68	38.94	42.10	39.8	36.8	40.0	112.2	105.9	105.2
Asbestos products.....	46.61	46.27	45.96	43.3	43.6	44.3	107.7	106.2	103.8
<i>Nondurable goods</i>									
Textile-mill products and other fiber manufactures.....	34.68	33.76	32.44	40.4	40.5	40.4	85.8	83.3	80.3
Cotton manufactures, except smallwares.....	31.36	30.14	29.01	39.8	40.0	40.1	78.8	75.3	72.4
Cotton smallwares.....	36.59	35.59	35.81	42.2	42.1	42.4	86.7	84.6	84.6
Silk and rayon goods.....	34.76	33.74	32.42	41.5	41.5	41.0	83.8	81.2	79.0
Woolen and worsted manufactures, except dyeing and finishing.....	41.29	41.04	38.52	41.4	41.6	41.8	99.9	98.8	92.2
Hosiery.....	33.83	33.15	31.68	38.6	38.4	37.4	87.1	86.2	84.6
Knitted cloth.....	38.53	37.73	36.66	43.7	43.8	43.5	88.0	86.2	84.3
Knitted outerwear and knitted gloves.....	34.50	33.14	31.87	39.9	39.3	38.3	85.6	83.8	82.2
Knitted underwear.....	29.64	28.67	27.90	39.1	39.3	38.4	75.5	73.3	72.5
Dyeing and finishing textiles, including woolen and worsted.....	40.23	39.89	38.84	43.2	43.9	44.1	93.1	90.9	88.2
Carpets and rugs, wool.....	40.31	40.09	39.62	40.5	40.7	40.4	99.7	98.5	98.3
Hats, fur-felt.....	51.93	48.75	50.03	42.6	41.2	42.1	121.0	118.1	118.5
Jute goods, except felts.....	36.39	35.86	34.89	43.4	43.3	42.7	84.1	83.1	81.6
Cordage and twine.....	33.78	31.70	33.58	41.5	40.4	42.8	81.3	78.5	78.2
Apparel and other finished textile products.....	36.04	33.71	33.24	37.5	36.5	36.7	96.2	92.3	90.6
Men's clothing, not elsewhere classified.....	37.04	34.94	33.88	37.5	36.8	37.0	98.1	94.7	91.2
Shirts, collars, and nightwear.....	28.54	28.06	26.54	37.3	36.9	36.2	77.1	76.1	72.8
Underwear and neckwear, men's.....	30.44	29.61	28.13	36.2	36.9	36.0	83.9	79.8	78.1
Work shirts.....	21.29	21.08	20.73	35.1	35.0	34.9	61.0	60.2	59.4
Women's clothing, not elsewhere classified.....	47.02	42.70	42.95	37.3	35.7	36.1	122.8	117.1	116.6
Corsets and allied garments.....	33.77	32.58	32.10	39.8	38.7	38.9	85.2	84.3	82.6
Millinery.....	47.17	43.45	44.32	34.7	33.5	34.3	109.2	107.1	105.2
Handkerchiefs.....	27.28	26.98	24.47	36.9	37.0	35.0	74.2	73.1	70.4
Curtains, graperies, and bedspreads.....	27.93	26.47	26.98	37.0	35.5	36.2	74.8	73.4	73.8
Housefurnishings other than curtains, etc.....	33.96	31.22	31.50	39.1	38.3	38.5	86.2	81.1	81.5
Textile bags.....	29.89	30.12	29.16	38.6	40.0	39.6	77.5	75.4	73.6

See footnotes at end of table.

Earnings and Hours in Manufacturing and Nonmanufacturing Industries,
March 1946—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings ¹			Average weekly hours ¹			Average weekly earnings ¹		
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1946	Feb. 1946	Jan. 1946
<i>Nondurable goods—Continued</i>									
Leather and leather products.....	\$37.37	\$36.69	\$36.03	40.8	40.4	39.9	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Leather.....	43.70	43.49	44.06	42.6	42.6	42.8	102.8	102.2	103.0
Boot and shoe cut stock and findings.....	35.95	35.99	35.85	40.5	40.7	40.9	89.2	89.0	88.2
Boots and shoes.....	36.67	35.83	34.71	40.6	40.2	39.2	89.6	88.5	87.7
Leather gloves and mittens.....	30.72	30.56	30.78	36.6	37.3	36.9	84.1	82.4	83.8
Trunks and suitcases.....	37.81	35.98	36.35	40.6	39.6	40.0	92.5	90.2	90.5
Food.....	40.50	40.93	41.37	42.9	44.3	44.9	94.4	92.4	92.1
Slaughtering and meat packing.....	42.56	43.23	46.68	40.6	46.1	48.7	104.8	93.9	96.1
Butter.....	37.77	37.06	37.20	46.4	45.9	46.1	80.9	80.2	80.6
Condensed and evaporated milk.....	40.38	39.31	38.72	47.6	47.6	46.7	84.9	82.5	82.9
Ice cream.....	42.87	42.24	41.82	47.6	47.0	46.8	87.4	86.7	86.3
Flour.....	44.56	48.33	45.58	47.7	50.7	49.4	93.6	95.5	92.4
Cereal preparations.....	44.17	42.92	41.60	42.4	41.4	40.8	104.9	103.7	102.0
Baking.....	41.49	41.15	40.95	45.1	45.1	45.4	92.0	91.3	90.4
Sugar refining, cane ²	35.97	33.45	35.49	39.4	37.6	39.9	91.0	89.0	88.9
Sugar, beet.....	38.97	38.94	39.95	39.1	38.8	40.9	99.6	100.3	97.6
Confectionery.....	32.31	32.60	33.21	39.8	40.0	40.3	80.2	80.3	80.2
Beverages, nonalcoholic.....	36.75	36.24	35.90	42.7	42.0	42.1	84.6	84.9	84.2
Malt liquors.....	49.50	54.55	53.06	40.5	44.3	43.9	122.0	123.2	120.9
Canning and preserving.....	33.71	33.18	33.86	39.6	39.5	40.2	85.9	84.4	84.6
Tobacco manufactures.....	32.95	31.98	32.36	39.7	38.5	39.3	83.0	83.2	82.4
Cigarettes.....	36.71	35.50	36.13	40.8	38.7	40.3	90.1	91.7	89.7
Cigars.....	30.62	30.01	30.27	39.3	38.5	39.0	78.0	77.6	77.1
Tobacco (chewing and smoking) and snuff.....	28.18	27.49	27.28	37.3	37.1	36.5	75.5	74.1	74.8
Paper and allied products.....	41.99	41.19	41.17	43.9	43.9	44.3	95.7	93.8	92.8
Paper and pulp.....	44.80	44.34	44.08	44.7	45.2	45.5	100.1	98.2	96.9
Envelopes.....	40.52	38.47	39.09	43.7	43.0	43.6	92.7	89.5	89.6
Paper bags.....	36.23	35.27	35.80	41.2	40.8	41.4	88.7	86.7	86.7
Paper boxes.....	38.73	37.30	37.55	43.0	42.7	43.2	89.6	87.5	86.9
Printing, publishing, and allied industries.....	50.76	49.65	49.36	41.3	40.8	41.1	123.0	121.6	120.0
Newspapers and periodicals.....	54.99	53.62	52.95	38.7	38.6	38.0	139.5	137.1	136.4
Printing, book and job.....	49.51	48.16	48.18	42.7	42.0	42.9	116.1	115.2	113.0
Lithographing.....	51.03	50.09	52.01	43.0	42.4	43.7	118.8	118.2	119.0
Chemicals and allied products.....	43.29	42.73	42.61	41.8	41.8	42.0	103.5	102.2	101.5
Paints, varnishes, and colors.....	45.89	45.49	45.17	43.1	43.4	43.5	106.6	105.0	104.0
Drugs, medicines, and insecticides.....	38.35	37.64	36.28	40.6	40.8	39.6	93.9	92.2	91.9
Soap.....	46.43	46.76	48.17	41.6	43.3	45.2	111.5	108.0	106.5
Rayon and allied products.....	39.53	39.13	39.23	38.9	39.1	39.2	101.6	100.1	100.0
Chemicals, not elsewhere classified.....	51.14	50.60	50.66	42.3	42.2	42.9	121.4	120.0	118.0
Explosives and safety fuses.....	47.98	47.25	46.96	40.2	40.1	40.2	120.2	118.5	117.4
Ammunition, small-arms.....	44.01	43.97	42.89	40.2	42.4	41.4	109.6	103.6	103.7
Cottonseed oil.....	29.73	29.26	29.76	49.7	49.4	51.5	59.8	59.3	57.7
Fertilizers ⁴	31.93	30.68	29.88	44.4	42.9	41.2	71.9	71.6	72.5
Products of petroleum and coal.....	53.12	52.93	52.06	40.8	41.4	41.7	130.2	127.9	124.9
Petroleum refining.....	55.81	56.25	54.59	40.4	40.8	40.9	138.2	136.9	133.0
Coke and byproducts.....	46.73	44.42	44.95	40.8	41.9	42.5	115.1	106.4	106.0
Roofing materials.....	44.49	45.86	47.00	44.3	45.7	46.0	100.5	100.4	100.9
Rubber products.....	46.27	45.85	46.71	40.7	40.6	41.7	113.8	112.9	112.1
Rubber tires and inner tubes.....	49.72	48.90	50.29	38.4	38.4	39.9	127.5	126.6	125.5
Rubber boots and shoes.....	41.94	41.69	41.72	44.0	43.9	44.2	95.3	95.1	94.5
Rubber goods, other.....	43.27	42.65	42.91	43.3	43.2	43.7	100.0	98.8	98.2
Miscellaneous industries.....	42.24	41.25	41.45	42.3	41.9	41.8	99.9	98.5	99.1
Instruments (professional and scientific), and fire-control equipment.....	48.62	46.13	47.56	40.7	40.2	41.4	118.4	113.2	113.9
Pianos, organs, and parts.....	41.60	39.66	40.74	41.7	40.3	41.9	100.4	98.7	97.6

See footnotes at end of table.

*Earnings and Hours in Manufacturing and Nonmanufacturing Industries,
March 1946—Continued*

NONMANUFACTURING

Industry	Average weekly earnings ¹			Average weekly hours ¹			Average weekly earnings ¹		
	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1946	Feb. 1946	Jan. 1946	Mar. 1946	Feb. 1946	Jan. 1946
Mining:							<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Anthracite.....	\$56.10	\$56.84	\$48.63	41.0	41.2	36.4	137.6	137.6	133.9
Bituminous coal.....	58.30	57.37	54.16	45.9	45.5	43.3	127.4	126.5	125.9
Metal.....	42.52	37.31	43.66	39.6	35.2	42.1	107.3	106.0	103.6
Iron ⁴	28.93	19.12	39.55	26.6	18.6	39.9	108.3	102.1	99.2
Copper ⁴	45.65	45.90	45.07	43.8	44.1	43.6	104.2	104.0	103.4
Lead and zinc ⁴	49.84	49.48	47.89	45.2	44.8	43.9	110.3	110.4	109.2
Quarrying and nonmetallic.....	41.91	40.25	39.25	45.1	44.1	43.3	93.0	91.3	90.7
Crude-petroleum production.....	53.40	52.45	51.89	40.8	40.5	41.1	131.8	128.9	125.7
Public utilities:									
Telephone.....	43.76	44.37	41.19	40.2	40.7	40.1	110.5	109.5	103.0
Telegraph ⁵	(9)	36.73	35.78	(9)	44.1	44.0	(9)	83.3	81.3
Electric light and power.....	50.75	50.63	50.32	41.6	42.4	42.7	122.2	119.5	117.7
Street railways and busses.....	49.91	50.29	49.74	49.4	49.2	49.2	100.1	101.1	100.7
Wholesale trade.....	46.31	46.07	45.14	41.9	41.9	41.8	110.1	109.5	107.0
Retail trade.....	31.12	30.77	30.54	40.5	40.5	40.5	84.1	83.7	82.8
Food.....	36.76	36.36	36.23	40.7	40.5	40.7	86.7	85.7	84.2
General merchandise.....	25.75	25.37	25.05	36.8	36.8	36.7	68.9	68.4	68.2
Apparel.....	32.40	32.00	31.83	37.1	37.6	37.5	87.9	87.1	87.2
Furniture and housefurnishings.....	42.65	42.32	41.44	43.3	43.4	43.6	99.6	99.7	98.0
Automotive.....	45.90	45.87	46.05	46.3	46.1	45.8	101.0	100.1	99.4
Lumber and building materials.....	40.92	40.73	40.37	43.1	42.9	43.0	96.1	96.0	95.5
Hotels (year-round) ⁶	26.57	26.43	26.21	44.1	43.7	43.4	60.0	60.2	60.4
Power laundries.....	29.81	29.22	29.38	43.5	43.3	43.6	68.4	67.5	67.5
Cleaning and dyeing.....	34.77	33.33	33.83	43.4	42.5	43.1	81.5	79.3	79.3
Brokerage.....	68.24	72.52	71.77	(7)	(7)	(7)	(7)	(7)	(7)
Insurance.....	51.09	50.45	49.90	(7)	(7)	(7)	(7)	(7)	(7)

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 To prevent misinterpretation of the average of \$1.217 for those workers who were employed in February in blast furnaces, steel works, and rolling mills, it is not shown in the table. The increase from 116.9 to 121.7 cents per hour does not measure the increase awarded when the steel strike was settled. Maintenance workers were kept on during the strike, while low-paid production workers were out. Since hours and weekly earnings are normally used only to interpret what has happened to those people who were employed, these figures are shown but should be used with caution.

³ Revisions have been made as follows in the data for earlier months:

Refrigerators and refrigeration equipment.—December 1945 to \$44.72 and 109.7 cents.

Curtains, draperies, and bedspreads.—December 1945 to \$27.29, 36.1 hours, and 74.1 cents.

Sugar refining, cane.—December 1945 to \$36.83 and 42.2 hours.

⁴ Comparable data from January 1939 are available upon request.

⁵ Excludes messengers and approximately 6,000 employees of general and divisional headquarters, and of cable companies. March 1946 data are not available.

⁶ Cash payments only; additional value of board, room, and tips, not included.

⁷ Not available.

Trend of Factory Earnings, 1939 to March 1946

THE published average earnings of factory workers are summarized in the accompanying table for selected months from January 1939 to March 1946.¹ 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 \$42.14 in March 1946—81.7 percent above the average in January 1939, 58.2 percent above January 1941, and 8.4 percent above October 1942. Weekly

¹ Compare Trends in Factory Wages, 1939-43, in Monthly Labor Review, November 1943 (p. 869), especially table 4 (p. 879). For detailed data regarding weekly earnings, see preceding table.

pay for March 1946 dropped 11.1 percent below that of March 1945, as the result of deductions in both hourly pay and working hours. However the average earnings of factory workers were still higher than before the war, as a result of such wartime factors as changing composition of the labor force within plants, shifts in the distribution of workers among plants and among industries, as well as wage-rate increases.

Gross hourly earnings in all manufacturing averaged 103.4 cents in March 1946—63.6 percent above the average in January 1939, 51.4 percent above January 1941, and 15.8 percent above October 1942.

Straight-time average hourly earnings, as shown in columns 7 to 9, are weighted by man-hours of employment in the major divisions of manufacturing for January 1941. These earnings are estimated to exclude premium pay at time and a half for work in excess of 40 hours. However, the effect of extra pay for work on supplementary shifts and on holidays is included. For all manufacturing, the straight-time average in March 1946 was 100.7 cents per hour; this was 57.1 percent higher than in January 1939, 51.7 percent above January 1941, and 24.8 percent above October 1942.

Earnings of Factory Workers in Selected Months, 1939 to March 1946

Month and year	Average weekly earnings			Average hourly earnings			Estimated straight-time average hourly earnings ¹ weighted by January 1941 employment		
	All manufacturing	Durable goods	Non-durable goods	All manufacturing	Durable goods	Non-durable goods	All manufacturing	Durable goods	Non-durable goods
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1939: January	\$23.19	\$25.33	\$21.57	\$0.632	\$0.696	\$0.583	\$0.641	\$0.702	\$0.575
1940: January	24.56	27.39	22.01	.655	.717	.598	.652	.708	.589
1941: January	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601
1942: January	33.40	38.98	26.97	.801	.890	.688	.751	.826	.668
July	36.43	42.51	28.94	.856	.949	.725	.783	.863	.696
October	38.89	45.31	30.66	.893	.990	.751	.807	.888	.718
1943: January	40.62	46.68	32.10	.919	1.017	.768	.819	.905	.726
April	42.48	48.67	33.58	.944	1.040	.790	.833	.916	.742
July	42.76	48.76	34.01	.963	1.060	.806	.850	.939	.753
October	44.86	51.26	35.18	.988	1.086	.824	.863	.950	.768
December	44.58	50.50	35.61	.995	1.093	.832	.873	.962	.775
1944: January	45.29	51.21	36.03	1.002	1.099	.838	.877	.965	.780
April	45.55	51.67	36.16	1.013	1.110	.850	.889	.976	.794
July	45.43	51.07	37.05	1.018	1.116	.862	.901	.993	.802
October	46.94	53.18	37.97	1.031	1.129	.878	.908	.991	.817
December	47.44	53.68	38.39	1.040	1.140	.883	.912	.997	.820
1945: January	47.50	53.54	38.66	1.046	1.144	.891	.920	1.005	.827
April	47.12	52.90	38.80	1.044	1.138	.899	.925	1.007	.836
July	45.12	50.60	38.59	1.032	1.126	.902	.933	1.017	.842
October	40.97	44.23	37.76	.985	1.063	.909	.942	1.014	.863
December	41.21	44.08	38.52	.994	1.066	.927	.957	1.028	.880
1946: January	41.15	43.67	38.75	1.004	1.070	.941	.970	1.037	.895
February ²	40.55	42.49	39.03	1.001	1.063	.953	.982	1.047	.911
March ²	42.14	44.72	39.87	1.034	1.101	.975	1.007	1.076	.932

¹ The method of estimating straight-time average hourly earnings makes no allowance for special rates of pay for work done on major holidays. Estimates for the months of January, July, September, and November, therefore, may not be precisely comparable with those for the other months in which important holidays are seldom included in the pay periods for which manufacturing establishments report to the Bureau. This characteristic of the data does not appear to invalidate the comparability of the figures for January 1941 with those for the preceding and following months.

² Preliminary.

Recent Publications of Labor Interest

June 1946

Education and Training

Forty years in vocational education. By J. C. Wright. (In *School Life*, Federal Security Agency, U. S. Office of Education, Washington, May 1946, pp. 13-16. 10 cents, Superintendent of Documents, Washington.)

A new frontier: Workers' education and the university. By John D. Connors. (In *Adult Education Journal*, New York, April 1946, pp. 73-77.)

One of the most marked trends in workers education, the author states, is the increasing cooperation between higher educational institutions and labor.

Postwar education of Negroes: Educational implications of Army data and experiences of Negro veterans and war workers. By Ambrose Caliver. Washington, Federal Security Agency, Office of Education, [1945?]. 71 pp., bibliography, illus.

Vocational training program for office machine mechanics. Cleveland, National Office Machine Dealers Association, 1945. 51 pp., illus. \$2.

Brazil—where education keeps pace with industry. By Francisco Montojos. (In *American Vocational Journal*, New York, February 1946, pp. 14, 15, 36, 37; illus. 25 cents.)

Account of the aims, organization, and operation of industrial education in Brazil, by the director of the Division of Industrial Education, Brazilian Ministry of Education.

Forty-second annual report of the Workers' Educational Association, [London], for the year ended May 31, 1945. London, 1945. 50 pp. 6d.

Guaranteed Wage

Annual wage guarantee plans. By Rita Ricardo. (In *American Economic Review*, Menasha, Wis., December 1945, pp. 870-890. \$1.25.)

An attempt to evaluate the claims made in behalf of guaranteed-wage plans by analyzing the interaction of various forms of guaranties and labor costs, labor turn-over, product output, supply of raw materials, consumer demand, and the business cycle; and the possible effects of the adoption of a guaranty by (a) a single firm, (b) an entire industry, and (c) all industry.

Annual wage plans in the United States. (In *International Labor Review*, Montreal, January-February 1946, pp. 49-58. 50 cents. Distributed in United States by Washington branch of I. L. O.)

Reviews advantages of, objections to, and conditions of operation of annual wage plans; some outstanding practical examples; and various recent proposals for more widespread introduction of such plans.

Guaranteed-wage plans in practice. By F. Beatrice Brower. (In *Conference Board Management Record*, National Industrial Conference Board, Inc., New York, April 1946, pp. 101-105.)

Brief summary, based on data for 61 active or discontinued annual wage and employment-guaranty plans, of motives for adoption, duration, benefits, and disadvantages, and effects of depression and war on such plans.

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.

The pure theory of the guaranteed annual wage contract. By Wassily Leontief. (In *Journal of Political Economy*, Chicago, February 1946, pp. 76-79. \$1.)

Develops the theory that the guaranteed annual wage type of union-management agreement is comparable to monopoly trading in which both price (wages) and quantity (number of workers) are subject to restriction. The author concludes that the introduction of the guaranty agreement in place of the conventional wage agreement makes the total amount of labor to be hired as well as the wage rates to be paid objects of collective bargaining and thus constitutes the exercise of monopoly power by the stronger of the two contracting parties to the agreement. The basic data of the argument is demonstrated by a complex linear graph.

Housing

Breaking the building blockade. By Robert Lasch. Chicago, University of Chicago Press, 1946. 316 pp., charts. \$3.

The author's thesis is that America will have good housing when the people demand it. A plan is offered for providing adequate shelter.

Housing: Part I, Prewar and war homebuilding; Part II, Postwar problems and programs. (In *Index*, Vol. XXVI, No. 1, New York Trust Co., New York, spring 1946, pp. 1-12; charts.)

Shows the inadequacy of housing even before the war, and the special postwar problems.

Inflation in homes and home sites—report on a Nation-wide survey. Washington, U. S. National Housing Agency, 1946. 37 pp., charts; processed.

Results of a study made in the latter part of March 1946 to find out how much house and lot prices advanced in recent years. Information is given by region.

New types of housing. By Frank P. Huddle. Washington (1205 Nineteenth Street NW.), Editorial Research Reports, 1946. 16 pp. (Vol. 1, 1946, No. 9.) \$1.

Deals with the changes in methods of construction and materials used and the obstacles to making full use of these advances.

Ordinance No. 327-45 constituting a building code enacted by the Council of the City of Toledo, Ohio, December 26, 1945. Toledo, Commission of Publicity and Efficiency, 1946. 109 pp. (Supplement to Toledo City Journal, January 5, 1946.)

This new code, according to the Toledo City Journal for December 29, 1945, incorporates "all of the best thought on modern regulation of construction. * * * It's an antidote for slums."

Income

City-family composition in relation to income, 1941 and 1944. Washington, U. S. Bureau of Labor Statistics, 1946. 6 pp. (Serial No. R. 1824; reprinted from *Monthly Labor Review*, February 1946.) Free.

From estimates of national income to projections of the Nation's budget. By Gerhard Colm. (In *Social Research*, New York, September 1945, pp. 350-369. 75 cents.)

The author emphasizes policy uses of national income statistics, and devotes the final section of his article to national income estimates as an aid in postwar policies. Economic projections beyond present data are described not as forecasts but as "extremely useful tools of policy formulation."

Statistics of income for 1942, Part 1, compiled from individual income tax returns, taxable fiduciary income tax returns, estate tax returns, and gift tax returns. Washington, U. S. Treasury Department, Bureau of Internal Revenue, 1945. 375 pp., forms. 55 cents, Superintendent of Documents, Washington.

Redistribution of incomes in Great Britain through public finance in 1937. By Tibor Barna. Oxford, Clarendon Press, 1945. 289 pp., charts. 18s.

An attempt to estimate the actual change in the distribution of incomes brought about by the Government's activities in the expenditure and tax fields.

Industrial Accidents and Workmen's Compensation

- Code for the prevention of dust explosions in the plastics industry (ASA Z12.16-1945).* Boston, National Fire Protection Association, [1946?]. 22 pp. 25 cents.
- Inspection standards for strip mines (coal and lignite), revised October 1945.* Washington, U. S. Department of the Interior, Bureau of Mines, 1946. 32 pp.; mimeographed. (Information circular No. 7350.)
- Use gas welding and cutting equipment safely. Safe operation of punch presses. Use hand trucks safely.* Washington, U. S. Department of Labor, Division of Labor Standards, 1946. (Industrial safety charts, series M-O.) 5 cents, Superintendent of Documents, Washington.
- 1946 annual safety equipment issue, National Safety News.* Chicago, National Safety Council, March 1946. 228 pp., illus. 60 cents to nonmembers of Council.
- Contains nine sections on safeguards and related topics in various fields of safety and industrial hygiene. Pertinent codes and standards are cited.
- Compilation of Industrial Insurance and Medical Aid Acts, [State of Washington], as amended by session laws of 1945.* Olympia, Department of Labor and Industries, Division of Industrial Insurance, [1945]. 72 pp.
- Legislation relating to workmen's compensation and medical aid for injured workers. Under the Medical Aid Act employers are required to contribute to a State medical aid fund for the purpose of furnishing adequate medical, surgical, and hospital care to their injured workers.
- What you are entitled to under the Workers' Compensation Acts of Queensland.* Brisbane, State Government Insurance Office, [1945?]. 27 pp.

Industrial Hygiene

- Medicine in industry.* By Bernhard J. Stern. New York, Commonwealth Fund, 1946. 209 pp., bibliographies. \$1.50.
- Socio-economic analysis of development, status, and needs of industrial health and industrial medicine in the United States. Special attention is given to the extent of industrial disability, the handicapped worker in industry, preventive services, the industrial physician, and medical care and health insurance.
- Nursing in commerce and industry.* By Bethel J. McGrath. New York, Commonwealth Fund, 1946. 356 pp., bibliographies, charts, forms, illus. \$3.
- Comprehensive concept and treatment of industrial nursing, with background information in a variety of fields. There are chapters dealing, respectively, with industrial hazards, mental hygiene, sight conservation, orthopedic nursing, rehabilitation, nutrition, women in industry, and workmen's compensation.
- The organization of a mental hygiene unit in industry.* By Keeve Brodman, M.D. (In *Industrial Medicine*, Chicago, April 1946, pp. 259-262; bibliography. 50 cents.)
- Actual causes of certain occupational dermatoses: II, A further study of 532 cases with special reference to dermatitis caused by certain petroleum solvents.* By Joseph V. Klauder, M.D., and Marjory K. Hardy, M.D. (In *Occupational Medicine*, Chicago, February 1946, pp. 168-181; chart, illus. 75 cents.)
- Formaldehyde.* Washington, U. S. Department of Labor, Division of Labor Standards, 1945. 12 pp., bibliography. (Controlling chemical hazards series, No. 3.) 5 cents, Superintendent of Documents, Washington.
- A medical study of the effect of TNT on workers in a bomb and shell loading plant and report of fatal cases of aplastic anemia.* Washington, Federal Security Agency, Public Health Service, 1945. 98 pp., pasters, charts, illus. (Public health bull. No. 291.) 25 cents, Superintendent of Documents, Washington.

Industrial Relations

Human leadership in industry—the challenge of tomorrow. By Sam A. Lewisohn. New York, Harper & Bros., 1945. 112 pp. \$2.

A past president of the American Management Association pleads for the development of a "new leadership" among employers and for elevation of the study of "human engineering" to the level of importance now accorded technical engineering in the training of management personnel.

New concepts in collective bargaining. New York, American Management Association, 1946. 47 pp. (Personnel series No. 97.)

Presents some management viewpoints on certain controversial provisions in postwar union agreements.

Pay day: Labor and management in the American system of free enterprise. By Ray Millholland. New York, William Morrow & Co., 1946. 240 pp. \$2.50.

Analysis of the basic causes of controversy between labor and management, with constructive suggestions for the prevention of industrial conflict by the application of intelligence, cooperation, and compromise.

Profitable labor relations and how to develop them. By Paul Mooney. New York, Harper & Bros., 1946. 209 pp. \$2.50.

The author proposes that management develop positive and constructive leadership in industrial relations. He believes this will eliminate many of the present labor troubles and bring greater returns to management and labor.

Seniority and ability in promotion and lay-off. Princeton, N. J., Princeton University, Industrial Relations Section, March 1946. 4 pp. (Selected references, No. 8.) 10 cents.

Strikes and lock-outs in Canada during 1945. (In Labor Gazette, Department of Labor, Ottawa, March 1946, pp. 365-389; charts.)

Statistics are given by years, 1901 to 1945, on number of strikes and lock-outs, number of workers involved, and time loss in man working days, for coal mining, for industries other than coal mining, and for all industries combined, with more detailed data for 1945 on these and other points, by individual industries, methods of settlement, etc.

Union status in collective agreements in the manufacture of nonferrous metal products, nonmetallic mineral products and chemical products, Canada, 1945. (In Labor Gazette, Department of Labor, Ottawa, March 1946, pp. 268-277.) [Collective agreement studies No. 3.]

[*Labor Legislation*]

Annual digest of State and Federal labor legislation, enacted August 1, 1944, to August 1, 1945. Washington, U. S. Department of Labor, Division of Labor Standards, 1946. 84 pp. (Bull. No. 75.) 20 cents, Superintendent of Documents, Washington.

The Supreme Court and fair labor standards, 1941-45. By E. Merrick Dodd. (In Harvard Law Review, Cambridge, Mass., February 1946, pp. 321-373. 75 cents.)

Cites the cases that have come to the U. S. Supreme Court as a result of the enactment of the Fair Labor Standards Act of 1938, and the decisions made under important provisions such as those concerning wages and hours.

Labor laws of Indiana. Indianapolis, Division of Labor, 1945. 107 pp.

Some problems of labor law enforcement in China. By T. K. Djang. (In International Labor Review, Montreal, January-February 1946, pp. 39-48. 50 cents. Distributed in United States by Washington branch of I. L. O.)

Legislación del trabajo, [Colombia]—disposiciones, reglamentarias y jurisprudencia. By Campo E. Baron S. Bogotá, Editorial de la Librería Voluntad, S. A., 1944. 1065 pp.

Collection of Colombian labor laws, decrees, and resolutions, together with relevant rulings by administrative agencies, etc., issued or passed after 1941.

• *Labor Organization*

Labor unionism in American agriculture. Washington, U. S. Bureau of Labor Statistics, 1945. 457 pp., bibliography. (Bull. No. 836.) 70 cents, Superintendent of Documents, Washington.

Extracts from this report were published in the Monthly Labor Review for January 1946 (pp. 25-36).

The Brotherhood of Sleeping Car Porters, its origin and development. By Brailsford R. Brazeal. New York, Harper & Bros., 1946. 258 pp., bibliography. \$3.

The Brotherhood of Sleeping Car Porters was the first Nation-wide all-Negro union that succeeded in becoming an effective organization. This book gives a detailed account of the conditions which brought about the porters' attempts at organization, the difficulties they encountered, the setting up of the union in August 1925, their long struggle to gain recognition, and their final success in securing a written agreement in October 1937.

Employee organizations in the public service. New York, National Civil Service League, [1946?]. 31 pp. 25 cents.

Statement concerning the relations of government with its employees.

State regulation of labor unions. (In Yale Law Journal, New Haven, Conn., February 1946, pp. 440-445. \$1.25.)

The international labour movement. By John Price. London, Oxford University Press, 1945. 273 pp. 15s. net.

This study is concerned with the structure and work of the international labor movement between the two World Wars and with its outlook for the future.

Medical Care and Sickness Insurance

National Health Act of 1945. Reports to Senate Committee on Education and Labor relating to the bill (S. 1606) to provide for a national health program. Washington, Government Printing Office, 1945, 1946. 36, 113, 206, 36 pp. (Senate committee prints Nos. 1-4, 79th Cong., 1st and 2d sess.)

Print 1 includes the message of the President requesting legislation for a national health program and outlining five major fields for inclusion, a statement summarizing provisions of Senate bill 1606, and questions and answers about the prepaid medical-care provision of the bill. Print 2 reproduces documents giving views of medical and other professional groups and individuals regarding the health-insurance feature of S. 1606. Print 3 contains documents concerning hospital construction and maintenance with reference to provisions of S. 1606 and S. 191 (Hospital Survey and Construction Act), and on hospital insurance. Print 4 presents a memorandum prepared by the Bureau of Research and Statistics, Social Security Board, dealing with barriers to adequate medical service, measurement of need for such service, and ways of spreading the costs, including discussion of both voluntary and compulsory aspects of sickness insurance, and a bibliography.

Illness and medical care among 2,500,000 persons in 83 cities, with special reference to socio-economic factors, [based on National Health Survey of 1935-36].

Washington, Federal Security Agency, U. S. Public Health Service, 1945. Various pages; bibliographies, charts.

Collection of 27 reprints.

Migration

Civilian migration in the United States, December 1941 to March 1945. Washington, U. S. Department of Commerce, Bureau of the Census, 1945. 8 pp., map; processed. (Population—special reports, series P-S, No. 5.)

Harvest nomads. Washington, U. S. Department of Labor, Division of Labor Standards, 1945. 21 pp., map, illus. (Bull. No. 73.) 10 cents, Superintendent of Documents, Washington.

Pictorial record, with some text, showing living and working conditions of migrant agricultural workers.

Outstanding facts about citizens naturalized in 1945. By Helen F. Eckerson. (In Monthly Review, U. S. Department of Justice, Immigration and Naturalization Service, Washington, April 1946, pp. 293-297. 10 cents.)

Includes data on countries of origin, years of arrival, ages, and occupations.

What shall we do about immigration? By Maurice R. Davie. New York, Public Affairs Committee, Inc., 1946. 32 pp., bibliography, charts. (Public affairs pamphlet No. 115.) 10 cents.

Reviews the history of immigration into the United States and the development of restrictive legislation, and discusses various proposals for liberalizing without basically changing the immigration policy. The author holds that the problem of postwar immigration can be solved only through international cooperation.

Occupations and Occupational Adjustment

Occupational information, its development and application. By Carroll L. Shartle. New York, Prentice-Hall, Inc., 1946. 339 pp., bibliographies, charts, forms, illus. \$3.50.

One chapter is devoted to jobs for the handicapped.

101 ways to be your own boss: A practical, expert guide to small businesses that can be started with \$200 to \$5,000, including exceptional, little-known opportunities, in profitable, uncrowded fields. By Michael Gore. New York, Arco Publishing Co., 1945. 128 pp. \$2.49 (\$1, paper cover).

Six ways to get a job. By Paul W. Boynton. New York, Harper & Bros., 1945. 142 pp. \$1.50.

The author suggests how to get a job, where to look for one, how to get the necessary training for the desired job, and how to get ahead in the business selected. He emphasizes the desirability of "making a plan and following it out."

Chemistry as a profession. Washington, U. S. Department of Labor, U. S. Employment Service, National Roster of Scientific and Specialized Personnel, 1946. 20 pp., bibliography, illus. (Vocational booklet No. 2.) 10 cents, Superintendent of Documents, Washington.

Establishing and operating a grocery store. By Nelson A. Miller and others.

Establishing and operating an automobile repair shop. By W. K. Toboldt and others.

Establishing and operating a painting and decorating contracting business. By M. L. Way and others. Washington, U. S. Department of

Commerce, Bureau of Foreign and Domestic Commerce, 1946. 375, 141,

116 pp., respectively; illus. (Industrial (small business) series, Nos. 21,

24, 27.) 55, 35, 25 cents, Superintendent of Documents, Washington.

Nursing—a profession for college women. New York, American Nurses' Association, Nursing Information Bureau, 1945. 35 pp., bibliography. 25 cents.

Prices, Price Control, and Rationing

Prices in fourth quarter and year 1945. Washington, U. S. Bureau of Labor Statistics, 1946. 17 pp. (Serial No. R. 1828; reprinted from Monthly Labor Review, March 1946.) Free.

Price spreads between farmers and consumers for food products, 1913-44. Washington, U. S. Department of Agriculture, Bureau of Agricultural Economics, 1945. 290 pp., charts. (Department of Agriculture miscellaneous publication No. 576.) 45 cents, Superintendent of Documents, Washington.

This study contains a new series of farm-retail price spreads, showing retail cost per unit of farm products, farm value of equivalent produce, the price spread or marketing margin, an estimate of marketing charges, and the farmer's share of retail cost. Statistics are given on the cost of the market basket or the retail cost of 1935-39 average annual purchases of farm food products by a family of three average consumers.

Food subsidies and parity prices. By Frank P. Huddle. Washington (1205 Nineteenth Street NW.), Editorial Research Reports, 1946. 16 pp. (Vol. 1, 1946, No. 6.) \$1.

Regulation of prices in the reconversion period. By Jules Backman. New York and Washington, American Enterprise Association, 1945. 38 pp. (Economic survey series, No. 413.) 50 cents.

In a series of 27 pertinent questions and answers the author presents and analyzes what he considers the basic policy considerations in price regulation in the transition period.

Statutes and executive orders relating to price control and rationing. Washington, U. S. Office of Price Administration, 1945. 46 pp. 10 cents, Superintendent of Documents, Washington.

Wartime prices, price control, and rationing in foreign countries. Washington, U. S. Bureau of Labor Statistics, 1946. 36 pp. (Bull. No. 851; reprinted from Monthly Labor Review for October and November 1945, with additional data.) 10 cents, Superintendent of Documents, Washington.

Profit Sharing

Experience with profit sharing. By F. Beatrice Brower. (In Management Record, National Industrial Conference Board, Inc., New York, February 1946, pp. 33-38.)

Summarizes conclusions from earlier studies and discusses salient features of recently adopted profit-sharing plans.

Profit sharing and stock ownership for wage earners and executives. By Bryce M. Stewart and Walter J. Couper. New York, Industrial Relations Counselors, Inc., 1945. 142 pp., bibliography. (Monograph No. 10.) \$1.25.

Sharing profits in industry. By Thomas K. Ford. Washington (1205 Nineteenth Street NW.), Editorial Research Reports, 1946. 14 pp. (Vol. 1, 1946, No. 8.) \$1.

The subject is examined under three main heads: Labor's claim to share in industrial profits, cycles in development of profit sharing, and profit sharing in the postwar period.

Social Security (General)

Issues in social security. A report to the Committee on Ways and Means, House of Representatives, by the Committee's social security technical staff, established pursuant to H. Res. 204 (79th Cong., 1st sess.). Washington, Government Printing Office, 1946. 742 pp., charts.

Assembles and evaluates basic data pertaining to the programs under the Federal Social Security Act and proposals before the Committee on Ways and Means for their extension and liberalization. Part I deals with old-age and survivors insurance, Part II with public assistance, and Part III with unemployment compensation. The study suggests approaches and procedures, presents conclusions, and embodies considerable statistical material. Related studies are appended.

Social insurance. By Frank P. Huddle. Washington (1205 Nineteenth Street NW.), 1946. 16 pp. (Vol. 1, 1946, No. 14.) \$1.

Reviews the protection afforded under the present social-security system and proposals now before Congress to strengthen the system.

Community resources for relief for strikers and their families: A study of the policies and practices of representative public and voluntary social welfare agencies. New York, National CIO Community Services Committee, Division of Social Research, 1946. Variously pagged; mimeographed.

Public aid in Ohio, 1941-44. Columbus, Department of Public Welfare, 1945. 73 pp., charts; mimeographed.

Shows extent of public assistance (Federal, State, and local, excluding institutional care) as administered by the Ohio Department of Public Welfare. Includes data on costs, recipients, etc., of programs of general relief, soldiers' and sailors' relief, aid for the aged, aid to dependent children, and aid to the blind.

Reglamento general que regula las relaciones entre la Caja del Seguro, [Ecuador], patronos y afiliados, en vigencia desde el 1° de Julio de 1945. [Quito], Caja del Seguro, 1945. 38 pp.

Unemployment Insurance

Synopsis of major amendments to 44 State unemployment compensation laws, 1945 legislative sessions. Washington, Federal Security Agency, Social Security Board, Bureau of Employment Security, 1945. 87 pp.; mimeographed.

Summarizes major amendments and shows provisions of the laws before amendment. Arranged by topics—coverage, financing, eligibility, disqualifications, benefits, military service, and administration.

Unemployment insurance abstract—program statistics and legal provisions, 1937-45. Washington, Federal Security Agency, Social Security Board, Bureau of Employment Security, 1946. 70 pp., loose-leaf; processed. (Supplement to Employment Security Statistics, January 1946.)

Should state unemployment insurance be federalized? By Herman Gray. New York and Washington, American Enterprise Association, 1946. 71 pp. (National economic problems, No. 419.) 50 cents.

Comissariado do Desemprego, [Portugal], Boletim número 26, ano de 1944. Lisbon, Ministério das Obras Públicas e Comunicações, 1945. 271 pp., charts.

Annual report for 1944 of the Portuguese Unemployment Commission, including a brief summary of the work of the Commission since 1933, and data on unemployment in Portugal in 1944, scheme of classification of the unemployed, direct aid given and public works carried on or assisted by the Commission, and vocational rehabilitation and training of the unemployed.

Veterans' Affairs

Apprenticeship and on-the-job training for veterans: A bulletin for business and industrial employers of Kalamazoo. Kalamazoo, Mich., W. E. Upjohn Institute for Community Research, 1946. 38 pp.

Describes Federal Government programs for training veterans and procedure to be followed in providing on-the-job or apprenticeship training.

Educational opportunities for veterans in approved institutions of higher education. Washington, U. S. Veterans Administration, 1946. 61 pp.; processed.

Lists approved schools by State and city and the number of applications that each will accept in the term under way and later in 1946.

Counseling with returned servicemen. By Carl R. Rogers and John L. Wallen. New York, McGraw-Hill Book Co., Inc., 1946. 159 pp., bibliography. \$1.60.

Exemplifies methods for use in counseling veterans by citing interviews in individual cases in which the initiative was always left with the returned serviceman.

Instructor's manual for use with veterans' training program. Cleveland, National Office Machine Dealers Association, [1945?]. 16 pp., forms.

Endeavors to show instructors ways of helping trainees over learning difficulties.

The veterans' best opportunities, with basic business principles and their application. By Edward R. Fiske. New York, Duell, Sloan & Pearce, 1946. 324 pp., bibliographies. \$2.50.

Prepared for veterans but equally applicable to others, including students, who are seeking careers, the book is intended to aid in discriminating between genuine opportunity and hazardous propositions. Opportunities in individual pursuits are described by specialists.

What you can do with your Army training as a civilian. What you can do with your Navy training in a civilian job. What you can do with your officer training in a civilian job. Washington, B'nai B'rith Vocational Service Bureau, 1944-46. 3 large folded charts. 20 cents each, but free to agencies counseling veterans.

Compensation or pension to veterans or their dependents: Analysis of elements of entitlement to and rates of compensation or pension. By U. S. Veterans Administration. Washington, Government Printing Office, 1945. 29 pp. (Senate doc. No. 99, revision of No. 15, 79th Cong., 1st sess.)

Postwar code of pay, allowances and service pensions, and gratuities for members of the forces below officer rank, [Great Britain]. London, His Majesty's Stationery Office, 1945. 32 pp. (Cmd. 6715.) 6d. net.

Postwar code of pay, allowances, retired pay, and service gratuities for commissioned officers of the armed forces, [Great Britain]. London, His Majesty's Stationery Office, 1946. 32 pp. (Cmd. 6750.) 6d. net.

Wages and Hours of Labor

Union wage scales in the building trades, 1946. Washington, U. S. Bureau of Labor Statistics, 1946. 76 pp.; mimeographed. Free.

Present salaries being paid in fire departments in the United States and Canada, January 1946. (In *International Fire Fighter*, Washington, April 1946, pp. 6-16.)

Wage structure, iron and steel forgings, 1945. Washington, U. S. Bureau of Labor Statistics, 1946. 35 pp.; mimeographed. (Wage structure, series 2, No. 6.) Free.

Wages in the basic lumber industry, 1944. Washington, U. S. Bureau of Labor Statistics, 1946. 47 pp. (Bull. No. 854.) 15 cents, Superintendent of Documents, Washington.

Union wage rates of city streetcar and bus operators, July 1, 1945. Washington, U. S. Bureau of Labor Statistics, 1946. 11 pp. (Bull. No. 856; reprinted from *Monthly Labor Review*, January 1946, with additional data.) 5 cents, Superintendent of Documents, Washington.

Index numbers of wage rates in Canada, 1939 to 1944. (In *Labor Gazette*, Department of Labor, Ottawa, March 1946, pp. 284, 285.)

Statistics relative to wages, hours of work, and employees in the printing industry of Montreal and district, 1937-44. Montreal, Printing Industry Parity Committee for Montreal and District, [1946?]. 48 pp., charts.

Wage rates [in New Zealand, 1945]. (In *Research Bulletin*, New Zealand Federation of Labor, Wellington, February 22, 1946, pp. 1-55.)

Summarizes changes in wage policy and in wage rates during 1945 and gives actual basic wage rates for a wide variety of industries and occupations.

General Reports

Report and recommendations of California State Reconstruction and Reemployment Commission, for the year ending December 31, 1945. Sacramento, 1946. 167 pp., chart.

This report presents the commission's comprehensive program to develop new industries and markets, promote reemployment of veterans and readjustment of displaced war workers, meet the housing crisis, and encourage future economic and social improvements. Specific recommendations include those dealing with improvement of wage standards and employment practices, better housing, and educational, health, and welfare services.

Czechoslovak industry after nationalization. By J. Goldman. (In *Bulletin of Institute of Statistics*, Oxford University, Oxford, England, March 1946, pp. 88-90. 2s. 6d.)

With the use of statistical data, it is shown that the postwar productivity of labor in Czechoslovakia was in upward swing by the fall of 1945, though still considerably below prewar levels. The percentage distribution of the labor force as compared with 1935 and the impact of nationalization are also treated.

Work and welfare in Delhi Cloth and General Mills. Delhi, Delhi Cloth and General Mills Co., Ltd., Chief Labor Officer, 1945. 41 pp., illus. 2d ed. Re. 1, post-free.

Contains information on recruitment of workers, pay, vacations with pay, and welfare arrangements at factories of the Delhi Cloth and General Mills Co., said to employ over 15,000 permanent workers and about 5,000 seasonal workers.

Report of the CIO delegation to the Soviet Union, [October 11-19, 1945]. Washington, Congress of Industrial Organizations, [1946]. 28 pp., illus. (Publication No. 128.) 15 cents.

Account of visits to various Soviet factories, with comments on working conditions, wages, standard of living, social insurance, and social services available to workers. The structure and functions of the Soviet trade-union system are also outlined.

Report of delegation to the U. S. S. R., July-August 1945. London, Iron and Steel Trades Confederation, 1945. 36 pp.

Description of iron and steel plants of the Soviet Union visited by a delegation of the British Iron and Steel Trades Confederation, trade-unions and their activities, welfare schemes, and social conditions. General impressions of Soviet industry and life are also given.

A critique of Professor Hutt's "Two studies in the statistics of Russia." By C. A. Friedmann. *Reply: Further aspects of Russian statistics.* By W. H. Hutt. (In South African Journal of Economics, Johannesburg, December 1945, pp. 332-343, 344-363. 6s. net.)

"Two studies in the statistics of Russia" appeared in the South African Journal of Economics for March 1945. Additional information is presented and discussed in the criticism and reply published in the December issue of the Journal, with the purpose of correctly estimating the Soviet standard of living.

Summarized departmental report of Department of Labor, Union of South Africa, 1944, including the report of the Workmen's Compensation Commissioner. Pretoria, 1945. 10 pp. 1s. 3d.

Covers such subjects as employment applications and placements, reemployment of returned soldiers, and administration of labor laws.

Memoria del Ministerio del Trabajo y de Comunicaciones presentada al Congreso de los Estados Unidos de Venezuela en 1945, Tomo I. Caracas, 1945. 536 pp. and pasters.

This volume contains the report of the Labor Bureau (*Dirección del Trabajo*) of Venezuela for the year 1944, including data on labor inspection, collective labor agreements, hours of work, labor organizations, cost of living, wages, profit-sharing, cooperative movement, and decisions of the Superior Labor Court.

