

Monthly Labor Review

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Papers From the IRRA Meeting
Labor Force Projections, 1970-80
Food Expenditures of City Families
Employment Effects of Construction

UNITED STATES DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS



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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, *Editor-in-Chief*

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This Issue in Brief...

SUPERSEDING the projections published by the Bureau of Labor Statistics in 1962, *Labor Force Projections, 1970-80* (p. 129), by Sophia Cooper and Denis F. Johnston, forecasts a labor force expansion from 77 million in 1964 to 86 million in 1970 and 101 million in 1980. Based on anticipated changes in demographic composition and labor force participation changes that might occur in the various age-sex groups in the population, this 24-million worker increase over the next 16 years would require an additional 1½ million jobs each year, on the average, to absorb the growth. The increase excludes those jobs necessary to counteract the effects of increasing productivity or to reduce the unemployment level. The article contains a new analysis of the relationship between labor force growth and economic opportunity.

DESPITE RISING INCOMES and advances in retail food prices, the average urban family in the United States spent less for food (in constant dollars) in 1960-61 than in 1950. As a proportion of all family living expenditures, food constituted only 24.3 percent in the more recent period, compared with 29.7 percent in 1950. In *Food Expenditures of Urban Families, 1950 to 1960-61* (p. 150), Laura Mae Webb appraises the causes of this consumption shift. Among the contributing factors she evaluates are changes in food consumption patterns, movement of families away from central cities, and shifts by single consumers from boarding houses and rented rooms to apartments.

THE EMPLOYMENT-generating capacity of construction expenditures—an effect studied by the Bureau of Labor Statistics since 1959—created 1 of every 10 jobs in 1962. In *Employment Effects of Construction Expenditures* (p. 154), a comparative study of nine types of construction, Claiborne M. Ball demonstrates that each million dollars expended for construction yields a year of employment for about 115 workers. Over half of these

jobs are in industries producing, selling, and delivering materials required for construction activities; the remainder are in the construction industry itself. For a fixed amount of expenditures, each of the nine construction types studied generated about an equal number of jobs.

IN THE MANUFACTURING INDUSTRIES, more than three-fifths of the production and related workers were employed in 1962 by plants in which a majority were covered by labor-management agreements. Arnold Strasser, in *Factory Workers Under Bargaining Agreements* (p. 164), surveys the variations in proportions by region (from 71 percent in the North Central region to 41 percent in the South) and by industry (from 83 percent in transportation equipment to 27 percent in the textile-mill products group). He probes the probable causes of an apparent decrease between 1958 and 1962 in the proportion of factory workers (as a percent of total factory employment) in plants where a majority were covered by such agreements.

Following are some recent key statistics from continuing BLS series. See *Current Labor Statistics*, pp. 211-248

	January	1965	1964
Total civilian labor force (in thousands).....		72,992	71,793
Employment.....		68,996	67,228
Unemployment.....		3,996	4,565
Unemployment rate (seasonally adjusted) (percent).....		4.8	5.5
Earnings of production workers in manufacturing (preliminary):			
Average hourly earnings.....		\$2.58	\$2.52
Average weekly hours.....		40.9	39.8
Average overtime hours.....		3.3	2.7
	December	1964	1963
Index of average hourly earnings of production workers in manufacturing (excluding overtime and interindustry shifts) (1957-59=100).....		119.7	117.2
Consumer Price Index (including single workers) (1957-59=100).....		108.8	107.6

Joint Consultation Devices in Collective Bargaining (p. 173), excerpted from a report by the National Labor-Management Panel to the Director of the Federal Mediation and Conciliation Service, supports the need for “continuing discussion of difficult and persistent problems . . . in the intervals between contract negotiations.” The report of the 12-man advisory panel, appointed by the President and representing equally labor and management, endorses expansion of the “preventive mediation program” and discusses some of the many forms of joint consultation.

The Labor Month in Review

The Manpower Implications of Technological Change

CONTINUING THE INVESTIGATION into the nature of technological change, the Organization for Economic Cooperation and Development organized a recent conference on the impact of automation on employment and unemployment, the nature of the jobs it creates and destroys, and measures for adjusting to its effects on workers. Held in Washington, the conference was the first OECD meeting directed primarily to only two member countries, in this case the United States and Canada where the new technology has been most extensively applied.

APPRAISING THE EFFECTS of technological change on employment, Secretary of Labor W. Willard Wirtz stated: "I am presently convinced that automation makes more jobs than it destroys . . . I am equally convinced that, given automation . . . the unemployment rate in the United States [will] very probably continue at . . . 5 percent or more in the absence of an affirmative manpower policy."

Echoing the Secretary's request for such a policy, Canadian and American Government economists in addition called for accelerated economic growth in order to cope with technological displacement and "silent firings." Concluding that "technological change is not only proceeding rapidly in many industries but accelerating in at least a few," Seymour L. Wolfbein, director of the Office of Manpower, Automation, and Training, foresaw mounting unemployment unless there is sufficient economic growth.

Leon Greenberg and J. P. Francis, of the U.S. and Canadian Labor Departments, respectively, concluded that the improvement in productivity triggered by increased technological change has in the past encouraged economic growth and thus provided opportunities to facilitate manpower adjustments. Actual job displacement, Mr.

Greenberg pointed out, depends on the extent to which productivity gains are, or are not, matched by output increases at the work station or plant level. In the aggregate, he said, improved productivity and economic growth tend to go hand-in-hand, but analysis of aggregates must not hide the employment losses for particular groups of workers that technological change often causes.

Many business participants agreed with G. H. Rathe of International Business Machines that the best way to create jobs is to increase the rate of technological change. On the other hand, Irving Bluestone of the United Automobile Workers considered the speed of technological innovation the major source of automation-connected employment difficulties.

In the light of the emphasis laid by others on an active manpower policy, the view set forth by E. R. F. W. Crossman of the University of California was pessimistic. Reasoning that by mechanizing manual functions, the Industrial Revolution removed 50 percent of human participation in the production process, and that automation by mechanizing mental functions will remove the remaining 50 percent, he predicted eventual unemployment of up to 90 percent of the labor force.

TURNING TO CHANGES in job content and structure, Professor Crossman stated that in Europe, as in Canada and the United States, automation of simple information processing has already produced widespread changes in the occupational structure of industry, especially by developing jobs for technicians. As an interim phenomenon, he observed, incomplete automation of more complex mental functions produces an increase in stress and operating demands at the semiskilled level. The result is an increased skill level primarily because of the elimination of lower skill jobs, and not because individual jobs are upgraded.

Commissioner of Labor Statistics Ewan Clague presented evidence that factors other than technological innovation have played an important role in the changing skill structure of the labor force. These factors include population growth and changing age distribution, government policy (e.g., size of defense and space programs), different rates of industry employment growth caused by elements such as shifts in income distribution and changing consumption patterns, institutional factors (e.g., union-management relationships and practices), and the relative supply and demand for

persons in different occupations, as modified by the substitution of one occupation for another. Mr. Clague found that changing technology does affect the occupational composition of the work force, however, in that more education and training are required for higher skilled jobs and for adapting to frequent changes in job content.

Louis B. Levine, director of the U.S. Employment Service, noted that not only will jobs of the future require more education and training, but they will also be performed in a work environment that is more healthful and safe than today's. He pointed out that the new jobs are more likely to produce nervous tension and psychological disorders, however, because of their repetitiveness, isolation, and demands for high-speed accuracy.

WHILE AGREEING upon an overall goal to expand education and training, speakers differed in the means of reaching it. Some pleaded the greater importance of vocational education, while others argued that adapting to changing job content requires a broad academic education which provides the tools to enable individuals to educate themselves after their formal schooling ends.

The conferees recognized the need for training adults already in the labor force, in addition to making education of youth responsive to the changing demands of industry. John P. Walsh, deputy director of the Department of Labor's Office of Manpower, Automation and Training, noted that, at a minimum, Government programs were necessary to provide a coordinated approach to manpower problems that are national in nature, such as insuring that the educational resources of the work force are sufficient to the demands for them.

How collective bargaining can be used to control the effects of technological change was reviewed by Arnold R. Weber of the University of Chicago. As reported more fully by excerpts of his paper in the January issue of the *Review*, he delineated adjustment steps such as advance notice, joint study committees, attrition, sharing job opportunities, separation payments, and programs to facilitate placement with other firms or occupational retraining. Professor Weber and Irving Bluestone reminded the conference that collective bargaining is a tool of only limited application, and that other measures must be sought to help

workers who do not benefit from negotiated mitigation of the effects of automation.

Measures to promote geographic mobility were second only to training programs among the standard remedies discussed by the participants. Many of the conferees called for relocation benefits and job vacancy clearing houses. Dr. Harold L. Sheppard of the Upjohn Institute and William O. Kuhl of the Brotherhood of Boilermakers dissented from those who saw a solution in mobility, reminding the conference that resistance to moving is very strong among production workers in particular. Dr. Sheppard pointed out that even when offered transfer rights, "most manual and white-collar workers will choose to remain in their home communities."

Public and private representatives alike called for a comprehensive and active national manpower policy to prepare the labor force for the requirements of industry. In addition, insisting on Government efforts to create a full employment economy by fiscal and monetary measures as well as by manpower policies, many of the participants concluded that Government, through its research and development sponsorship, had subsidized technological change, and it was now its duty to subsidize adjustment to that change.

EVALUATING THE WORK of the conference, most participants reiterated the demands for Government policies for economic growth and manpower development heard earlier. However, Nathaniel Goldfinger, research director of the AFL-CIO, and Paul Blau, the conference participant from Austria, criticized the conference for devoting itself to the problem of fitting the individual to technological development, rather than the reverse. Mr. Blau suggested that the effects of technological change can be controlled; and that the two adjustment mechanisms most often prescribed—dovetailing education to industry needs and relocating workers to meet industry demands—would result in a barren, mechanistic life. He begged the conference to emphasize instead human values, such as preservation of family and friendship ties, and education for self fulfillment with the consequent enrichment of the culture, and suggested that the real task for conferences of this sort is to set up a priority of true needs and to figure out how to use technology to gain them.

Special Labor Force Report

Labor Force Projections for 1970-80

SOPHIA COOPER and DENIS F. JOHNSTON*

THE LATEST PROJECTIONS by the Bureau of Labor Statistics¹ indicate that the labor force may grow from 77 million in 1964 to 86 million in 1970, and to 101 million in 1980. (See table 1.)

This increase of 24 million workers in 16 years means adding 1½ million jobs a year, on the average, in order merely to absorb the growth in labor force. Such an increase would do nothing to offset the effects of increasing productivity or to reduce the level of unemployment.

Projections to 1970

The American economy is already feeling the effect on the labor force of the wartime baby boom. Since 1960, the number of teenagers in the work force has increased by 800,000. Another 1.4 million workers have been added to the group age 20 to 24 years.

The rest of this decade will show dramatic increases in the number of workers under 25, although their labor force participation rates have been declining (chart 1). There may be 1½ million more teenagers, and 2¾ million more in ages 20 to 24, bringing the total under 25 years old, in 1970, to more than 20 million. These young persons would comprise 24 percent of the labor force, compared with 21 percent in 1964 (table 2). About 6 million of them would be both working and going to school (chart 2).

Adult men may number about 2 million more than in 1964, and the number of women workers 25 years old and older may be 2½ million greater.

Population growth accounts for nearly all the labor force increase among the youth, and all of the change among adult men. For women, in-

creasing labor force participation rates will be responsible for more than half the projected growth.

Primarily because of slightly higher participation rates for women 20 to 64 years old, the labor force projection for 1970 is some 300,000 higher than the projection published in 1962, with the depressant effect of the revised population estimates offsetting in part the gain of almost 650,000 from higher labor force participation rates for women (table 3).

Projections to 1980

The 1980 labor force is projected at 101.4 million—24.4 million more than in 1964. Population increase will be responsible for about 21 million, or 87 percent of this change. The rest is attributable to the projected continuation of rising labor force participation rates for adult women (chart 3).

The changes in labor force for the three decades 1950 to 1980 are shown in table 4. The 1970 to 1980 growth is projected at 15.4 million (compared with 12.9 million from 1960 to 1970), but the percentage increase (17.9 percent) is about the same as the 17.7 percent projected for 1960 to 1970. The most dramatic contrast occurs in the changes for 1950-60 and 1960-70 among workers under 25 years of age (chart 4). In the third decade, the sharp increase is in the next age group.

*Of the Division of Population and Labor Force Studies, Bureau of Labor Statistics. The material in this article was first presented in a paper given before the American Statistical Association, Session on the Outlook for Population and Labor Force at Mid-Decade, Dec. 30, 1964, in Chicago, Ill.

¹The projections presented here supersede those published by the Bureau of Labor Statistics in 1962 as *Interim Revised Projections of U.S. Labor Force, 1965-75*, Special Labor Force Report No. 24, and in the *Monthly Labor Review*, October 1962, pp. 1089-1099. They are based upon the Series B population projections in *Projections of the Population of the United States, by Age and Sex: 1964 to 1985*, Current Population Reports, Series P-25, No. 286 (U.S. Bureau of the Census, 1964), and use, with only minor adjustments, data from *Illustrative Projections to 1980 of School and College Enrollments in the United States*, Current Population Reports, Series P-25, No. 232 (U.S. Bureau of the Census, 1961).

Between 1960 and 1970, the number of men age 35 to 44 will decline; in the following decade it will begin to rise again, as the wave of increased population reaches that age group.

Implications

Since a considerable part of the projected increase of 24 million in the total labor force between 1964 and 1980 will consist of those groups— younger workers and adult women—among whom part-time work is prevalent, the number of part-time workers will increase substantially. Moreover, many of these workers will be inexperienced and will be seeking jobs at entry levels of occupations. There will be much competition for the available jobs, both among the large numbers of youths and between the youths and older women.

If a sufficient number of part-time jobs and jobs requiring lower skill levels are not forthcoming, the projected increase in labor force activity of married women may not be realized, since the level of labor force participation among this group is to some extent a function of the availability of the desired type of job. The same situation obtains with respect to young persons still in school.

It may be significant that the postwar period which has witnessed the large expansion in labor force activity of women has been, until the last few years, a period in which the younger population has been relatively small. For example, the group age 18 and 19 dropped from 4.6 million in 1947 to 4.1 million in 1952; the group age 20 to 24 declined from 12.1 million in 1947 to 10.7 million in 1957. By contrast, in 1970, there will be 7.3 million in ages 18 and 19, and 17.1 million in ages 20

TABLE 1. POPULATION, TOTAL LABOR FORCE, AND LABOR FORCE PARTICIPATION RATES, BY AGE AND SEX, ACTUAL 1960 AND 1964, AND PROJECTED 1970, 1975, AND 1980

Age and sex	Total population, July 1 (thousands)					Total labor force, annual averages (thousands)					Labor force participation rates, annual averages (percent)				
	1960	1964	1970	1975	1980	1960 ¹	1964	1970	1975	1980	1960 ¹	1964	1970	1975	1980
BOTH SEXES															
14 years and over.....	127,327	136,147	149,691	162,046	173,908	73,081	76,971	85,999	93,646	101,408	57.4	56.5	57.5	57.8	58.3
MALE															
14 years and over.....	62,216	66,217	72,539	78,408	84,123	49,563	51,118	55,844	60,281	64,981	79.7	77.2	77.0	76.9	77.2
14 to 19 years.....	8,194	10,019	11,641	12,583	12,809	3,792	4,307	5,164	5,589	5,744	46.3	43.0	44.4	44.4	44.8
14 and 15 years.....	2,796	3,544	4,054	4,281	4,299	630	731	884	925	920	22.5	20.6	21.8	21.6	21.4
16 and 17 years.....	2,880	3,671	3,903	4,188	4,196	1,322	1,549	1,690	1,792	1,796	45.9	42.2	43.3	42.8	42.8
18 and 19 years.....	2,518	2,804	3,684	4,114	4,314	1,840	2,026	2,590	2,872	3,028	73.1	72.3	70.3	69.8	70.2
20 to 24 years.....	5,553	6,587	8,621	9,609	10,394	4,939	5,704	7,466	8,331	9,064	88.9	86.6	86.6	86.7	87.2
25 to 34 years.....	11,347	11,069	12,540	15,557	18,285	10,940	10,636	12,063	14,966	17,590	96.4	96.1	96.2	96.2	96.2
35 to 44 years.....	11,878	12,035	11,303	11,068	12,496	11,454	11,559	10,930	10,703	12,084	96.4	96.0	96.7	96.7	96.7
45 to 54 years.....	10,148	10,640	11,289	11,379	10,757	9,568	10,043	10,725	10,810	10,219	94.3	94.4	95.0	95.0	95.0
55 to 64 years.....	7,564	8,020	8,759	9,287	9,776	6,445	6,745	7,388	7,795	8,184	85.2	84.1	84.3	83.9	83.7
55 to 59 years.....	4,144	4,366	4,794	4,990	5,296	3,727	3,914	4,339	4,516	4,793	89.9	89.6	90.5	90.5	90.5
60 to 64 years.....	3,420	3,654	3,965	4,297	4,480	2,718	2,831	3,049	3,279	3,391	79.5	77.5	76.9	76.3	75.7
65 years and over.....	7,530	7,847	8,385	8,923	9,606	2,425	2,123	2,108	2,087	2,096	32.2	27.1	25.1	23.4	21.8
65 to 69 years.....	2,941	2,855	3,137	3,362	3,651	1,348	1,191	1,142	1,136	1,143	45.8	41.7	36.4	33.8	31.3
70 years and over.....	4,590	4,992	5,248	5,561	5,955	1,077	932	966	951	953	23.5	18.7	18.4	17.1	16.0
FEMALE															
14 years and over.....	65,111	69,927	77,152	83,638	89,785	23,518	25,854	30,155	33,365	36,427	36.1	37.0	39.1	39.9	40.6
14 to 19 years.....	7,989	9,732	11,299	12,219	12,357	2,408	2,732	3,406	3,739	3,832	30.1	28.1	30.1	30.6	31.0
14 and 15 years.....	2,714	3,429	3,924	4,138	4,136	347	411	498	538	546	12.8	12.0	12.7	13.0	13.2
16 and 17 years.....	2,803	3,558	3,794	4,073	4,045	801	950	1,096	1,173	1,165	28.6	26.7	28.9	28.8	28.8
18 and 19 years.....	2,472	2,745	3,581	4,008	4,176	1,260	1,371	1,812	2,028	2,121	51.0	49.9	50.6	50.6	50.8
20 to 24 years.....	5,547	6,543	8,483	9,446	10,230	2,558	3,220	4,267	4,865	5,380	46.1	49.2	50.3	51.5	52.6
25 to 34 years.....	11,605	11,275	12,680	15,582	18,232	4,159	4,187	4,894	6,124	7,347	35.8	37.1	38.6	39.3	40.3
35 to 44 years.....	12,348	12,552	11,694	11,391	12,771	5,325	5,618	5,555	5,582	6,386	43.1	44.8	47.5	49.0	50.0
45 to 54 years.....	10,438	11,143	12,071	12,195	11,437	5,150	5,682	6,675	7,024	6,805	49.3	51.0	55.3	57.6	59.5
55 to 64 years.....	8,070	8,670	9,741	10,558	11,279	2,964	3,447	4,267	4,826	5,337	36.7	39.8	43.8	45.7	47.3
55 to 59 years.....	4,321	4,646	5,252	5,577	5,983	1,803	2,132	2,705	3,023	3,362	41.7	45.9	51.5	54.2	56.2
60 to 64 years.....	3,749	4,024	4,489	4,981	5,296	1,161	1,315	1,562	1,803	1,975	31.0	32.7	34.8	36.2	37.3
65 years and over.....	9,115	10,012	11,186	12,248	13,451	954	966	1,091	1,205	1,340	10.5	9.6	9.8	9.8	9.9
65 to 69 years.....	3,347	3,391	3,755	4,122	4,580	579	583	653	717	797	17.3	17.2	17.4	17.4	17.4
70 years and over.....	5,768	6,621	7,431	8,126	8,901	375	383	438	488	543	6.5	5.8	5.9	6.0	6.1

¹ 1960 data are based on revised population data, and therefore differ from figures published in "Labor Force and Employment in 1960," *Monthly Labor Review*, April 1961, pp. 344-354, also published as Special Labor Force Report No. 14.

NOTE: Because of rounding, sums of individual items may not equal totals.

SOURCE: Population data from the U.S. Bureau of the Census (see text footnote 1, p. 129); all other data are from the U.S. Department of Labor, Bureau of Labor Statistics.

Chart 1. Labor Force Participation Rates for Males, 14 to 19 Years Old, by Age, Annual Averages 1947 to 1964 and Projected 1970, 1975, and 1980

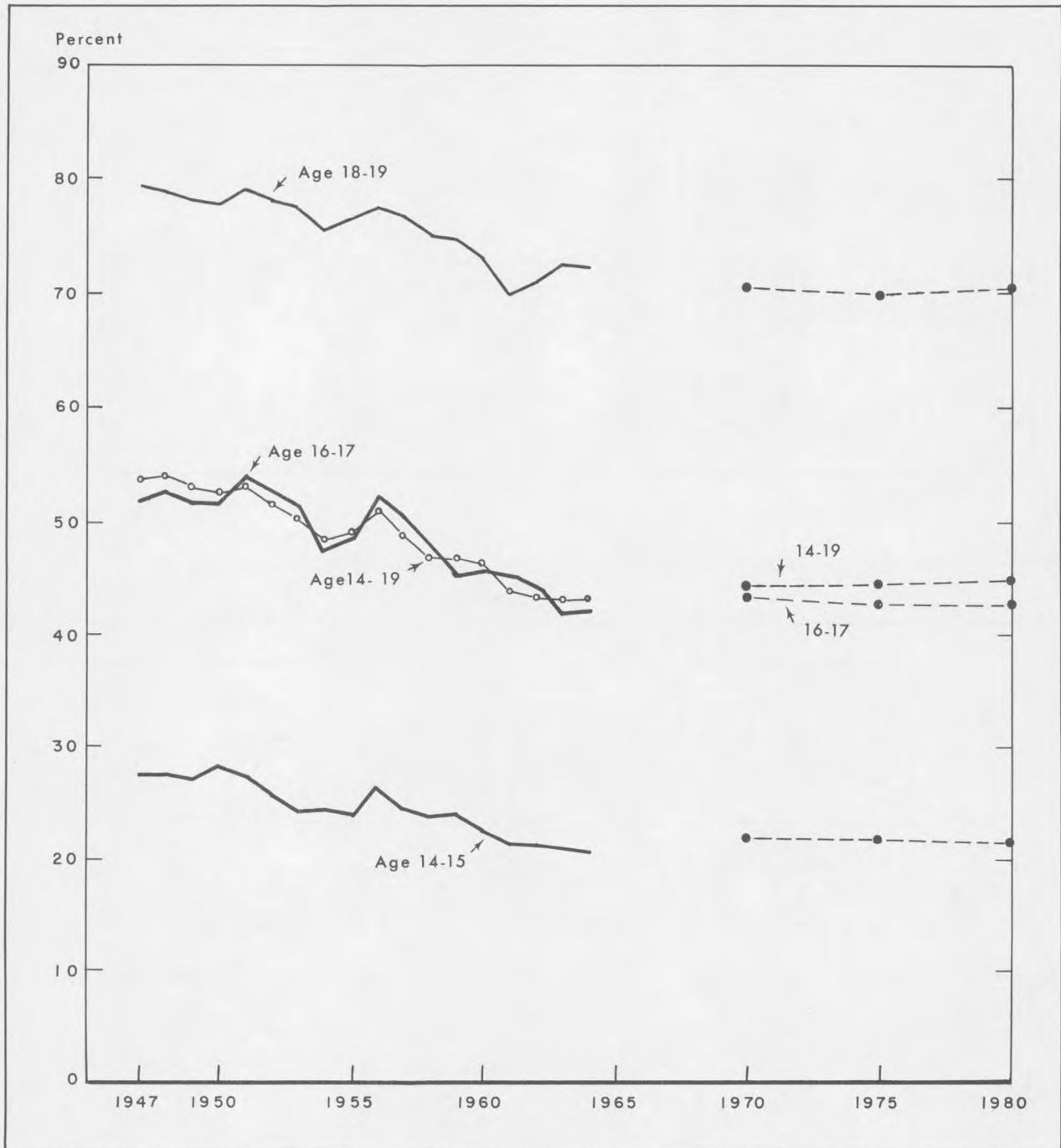


TABLE 2. DISTRIBUTION OF THE TOTAL LABOR FORCE, BY AGE AND SEX, ANNUAL AVERAGES, ACTUAL 1960, 1964 AND PROJECTED 1970, 1975, AND 1980

Age and sex	Number (in thousands)					Percent distribution				
	Actual		Projected			Actual		Projected		
	1960 ¹	1964	1970	1975	1980	1960	1964	1970	1975	1980
BOTH SEXES										
14 years and over.....	73,081	76,971	85,999	93,646	101,408	100.0	100.0	100.0	100.0	100.0
14 to 24 years.....	13,697	15,963	20,303	22,524	24,020	18.7	20.7	23.6	24.1	23.7
25 to 44 years.....	31,878	32,000	33,442	37,375	43,407	43.6	41.6	38.9	39.9	42.8
45 years and over.....	27,506	29,006	32,254	33,747	33,981	37.6	37.7	37.5	36.0	33.5
45 to 64 years.....	24,127	25,917	29,055	30,455	30,545	33.0	33.7	33.8	32.5	30.1
65 years and over.....	3,379	3,089	3,199	3,292	3,436	4.6	4.0	3.7	3.5	3.4
MALE										
14 years and over.....	49,563	51,118	55,844	60,281	64,981	67.8	66.4	64.9	64.4	64.1
14 to 24 years.....	8,731	10,011	12,630	13,920	14,808	11.9	13.0	14.7	14.9	14.6
25 to 44 years.....	22,994	22,195	22,993	25,669	29,674	30.6	28.8	26.7	27.4	29.3
45 years and over.....	18,438	18,911	20,221	20,692	20,499	25.2	24.6	23.5	22.1	20.2
45 to 64 years.....	16,013	16,788	18,113	18,605	18,403	21.9	21.8	21.1	19.9	18.1
65 years and over.....	2,425	2,123	2,108	2,087	2,096	3.3	2.8	2.5	2.2	2.1
FEMALE										
14 years and over.....	23,518	25,854	30,155	33,365	36,427	32.2	33.6	35.1	35.6	35.9
14 to 24 years.....	4,966	5,952	7,673	8,604	9,212	6.8	7.7	8.9	9.2	9.1
25 to 44 years.....	9,484	9,805	10,449	11,706	13,733	13.0	12.7	12.2	12.5	13.5
45 years and over.....	9,068	10,095	12,033	13,055	13,482	12.4	13.1	14.0	13.9	13.3
45 to 64 years.....	8,114	9,129	10,942	11,850	12,142	11.1	11.9	12.7	12.7	12.0
65 years and over.....	954	966	1,091	1,205	1,340	1.3	1.3	1.3	1.3	1.3

¹ See footnote 1, table 1.TABLE 3. COMPARISON OF PROJECTED TOTAL LABOR FORCE WITH PREVIOUS PROJECTION,¹ BY AGE AND SEX, 1970 AND 1975

[In thousands]

Age and sex	1970					1975				
	Present projection	Previous projection	Difference			Present projection	Previous projection	Difference		
			Total	Due to revised population	Due to revised labor force participation rates			Total	Due to revised population	Due to revised labor force participation rates
BOTH SEXES										
14 years and over.....	85,999	85,703	296	-349	645	93,646	93,031	615	-555	1,170
14 to 24 years.....	20,303	19,861	442	27	415	22,524	21,787	737	88	649
25 to 44 years.....	33,442	33,235	207	9	198	37,375	37,023	352	23	329
45 to 64 years.....	29,055	29,128	-73	-306	233	30,455	30,510	-55	-521	466
65 years and over.....	3,199	3,479	-280	-79	-201	3,292	3,711	-419	-145	-274
MALE										
14 years and over.....	55,844	56,295	-451	-312	-139	60,281	60,916	-635	-475	-160
14 to 24 years.....	12,630	12,594	36	10	26	13,920	13,782	138	52	86
25 to 44 years.....	22,993	23,003	-10	-10	0	25,669	25,671	-2	-2	0
45 to 64 years.....	18,113	18,414	-301	-251	-50	18,605	19,083	-478	-417	-61
65 years and over.....	2,108	2,284	-176	-61	-115	2,087	2,380	-293	-108	-185
FEMALE										
14 years and over.....	30,155	29,408	747	-37	784	33,365	32,115	1,250	-80	1,330
14 to 24 years.....	7,673	7,267	406	17	389	8,604	8,005	599	36	563
25 to 44 years.....	10,449	10,232	217	19	198	11,706	11,352	354	25	329
45 to 64 years.....	10,942	10,714	228	-55	283	11,850	11,427	423	-104	527
65 years and over.....	1,091	1,195	-104	-18	-86	1,205	1,331	-126	-37	-89

¹ As published in *Interim Revised Projections of U.S. Labor Force, 1965-75*, Special Labor Force Report No. 24 (see text footnote 1, p. 129).

Chart 2. School Enrollment and Labor Force Status of Population 14 to 24 Years of Age, by Sex, Actual October 1960 and 1963 and Projected 1970, 1975, and 1980

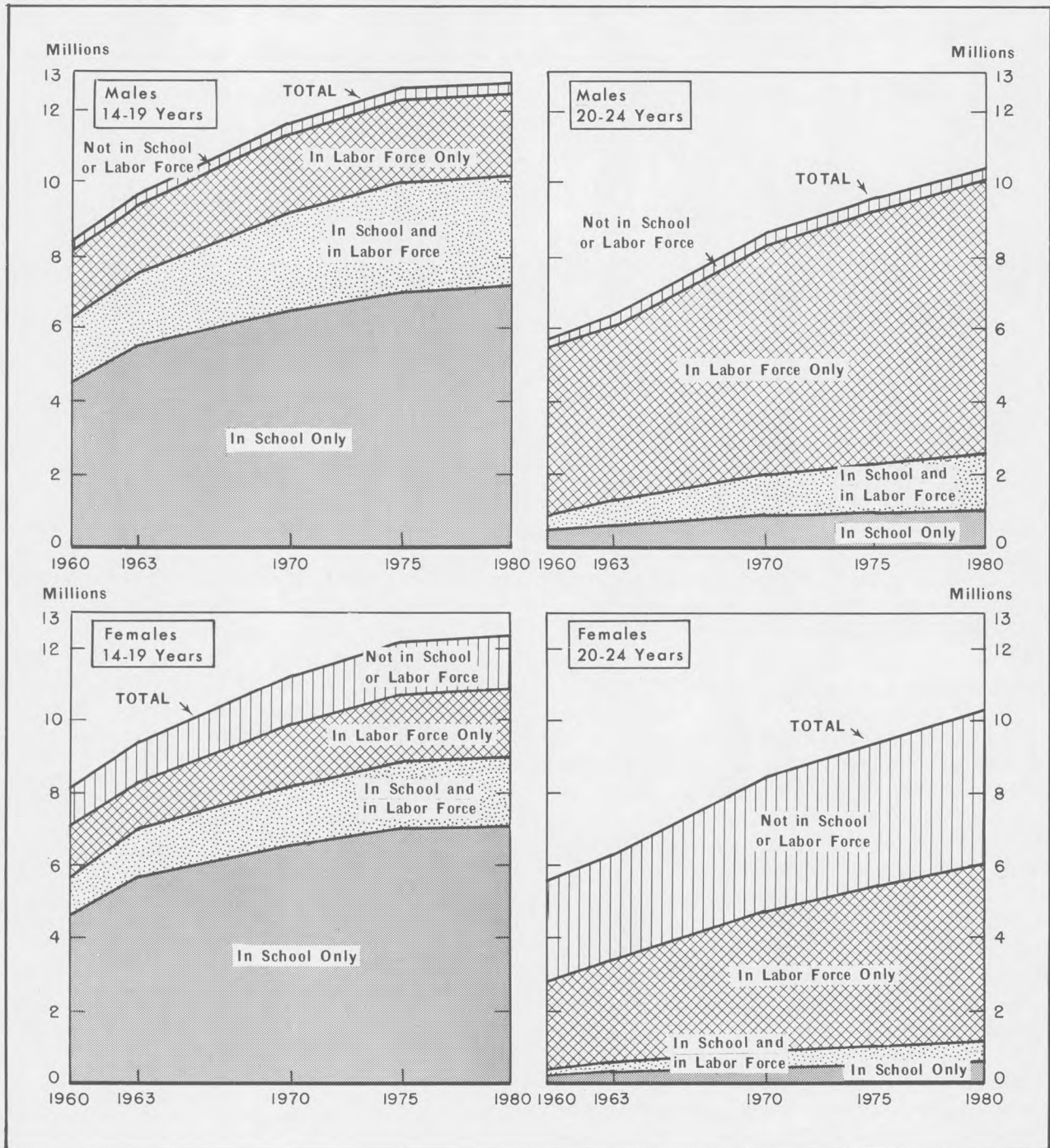


TABLE 4. CHANGES IN TOTAL LABOR FORCE, BY AGE AND SEX, ACTUAL 1950 TO 1960 AND PROJECTED 1970 TO 1980

[Number in thousands]

Age and sex	Actual		Projected		Change from 1950-60		Change from 1960-70		Change from 1970-80	
	1950	1960 ¹	1970	1980	Number	Percent	Number	Percent	Number	Percent
BOTH SEXES										
14 years and over.....	64,749	73,081	85,999	101,408	8,332	12.9	12,918	17.7	15,409	17.9
14 to 24 years.....	13,331	13,697	20,303	24,020	366	2.7	6,606	48.2	3,717	18.3
25 to 44 years.....	29,263	31,878	33,442	43,407	2,615	8.9	1,564	4.9	9,965	29.8
25 to 34 years.....	15,145	15,099	16,957	24,937	-46	-3	1,858	12.3	7,980	47.1
35 to 44 years.....	14,118	16,779	16,485	18,470	2,661	18.8	-294	-1.8	1,985	12.0
45 years and over.....	22,156	27,506	32,254	33,981	5,350	24.1	4,748	17.3	1,727	5.4
45 to 64 years.....	19,119	24,127	29,055	30,545	5,008	26.2	4,928	20.4	1,490	5.1
65 years and over.....	3,037	3,379	3,199	3,436	342	11.3	-180	-5.3	237	7.4
MALE										
14 years and over.....	46,069	49,563	55,844	64,981	3,494	7.6	6,281	12.7	9,137	16.4
14 to 24 years.....	8,668	8,731	12,630	14,808	63	.7	3,899	44.7	2,178	17.2
25 to 44 years.....	20,996	22,394	22,993	29,674	1,398	6.7	599	2.7	6,681	29.1
25 to 34 years.....	11,044	10,940	12,063	17,590	-104	-9	1,123	10.3	5,527	45.8
35 to 44 years.....	9,952	11,454	10,930	12,084	1,502	15.1	-524	-4.6	1,154	10.6
45 years and over.....	16,405	18,438	20,221	20,499	2,033	12.4	1,783	9.7	278	1.4
45 to 64 years.....	13,952	16,013	18,113	18,403	2,061	14.8	2,100	13.1	290	1.6
65 years and over.....	2,453	2,425	2,108	2,096	-28	-1.1	-317	-13.1	-12	-6
FEMALE										
14 years and over.....	18,680	23,518	30,155	36,427	4,838	25.9	6,637	28.2	6,272	20.8
14 to 24 years.....	4,663	4,966	7,673	9,212	303	6.5	2,707	54.5	1,539	20.1
25 to 44 years.....	8,267	9,484	10,449	13,733	1,217	14.7	965	10.2	3,284	31.4
25 to 34 years.....	4,101	4,159	4,894	7,347	58	1.4	735	17.7	2,453	50.1
35 to 44 years.....	4,166	5,325	5,555	6,386	1,159	27.8	230	4.3	831	15.0
45 years and over.....	5,751	9,068	12,033	13,482	3,317	57.7	2,965	32.7	1,449	12.0
45 to 64 years.....	5,167	8,114	10,942	12,142	2,947	57.0	2,828	34.9	1,200	11.0
65 years and over.....	584	954	1,091	1,340	370	63.4	137	14.4	249	22.8

¹ See footnote 1, table 1.

to 24. An increase of this magnitude may very well have a dampening effect on the labor force entry of married women.

Methods and Assumptions

The projections described above represent the authors' best judgment as to the most reasonable pattern of labor force growth to 1980. It must be stressed that these are long-term projections, reflecting anticipated changes in demographic composition and changes which might occur in the labor force activity of the several age-sex groups in the population. Many factors influence the decision to work or not to work on the part of married women, school-age persons, and men approaching retirement age. Not all of these factors can be evaluated with respect to their possible effect on labor force activity in the long run. Therefore, the projections cannot be used as a precise measure against which to judge the adequacy of actual labor force growth from year to year.²

The general approach was to project labor force participation rates for each age-sex group, to apply these rates to the future population, and thereby to derive total labor force by age and sex. The

projections are greatly dependent upon the future size and age structure of the population. They do not directly depend upon the uncertainties of estimating future births, since almost all of the workers of 1980 are already living. Nevertheless, the labor supply between now and 1980 is not entirely independent of fertility assumptions, since

² It is recognized that many other projections could be developed on the basis of different assumptions and different judgments about long-term trends. For instance, an alternate projection was prepared showing the size and composition of the labor force which would result from a growth rate similar to that which occurred in the post-World War II period. Under these assumptions, the rates for adult women would continue their substantial rise; those for young persons and for men 60 years and over would decline. Where there were no significant trends (as for men 25 to 59 years old), the rates were held constant at the same high level as in the basic projection.

The difference between the basic projection and the alternate is small in 1970, about 800,000 workers. By 1980, however, the alternate model yields a projection that is 3.5 million (about 3½ percent) higher than the basic projection. The increase would represent 3.7 million more women and 200,000 fewer men.

The greater number of women in the alternate projection implies that many more mothers of young children, as well as many more middle-age women, would be working. The labor force participation rates for these groups have already increased dramatically since World War II, and it seems likely that the increases will begin to level off. For example, in the alternate model, the rate projected for women 45 to 54 in 1980 is 68 percent. At present, the only women in this age group who have a rate as high as 68 percent are those with a college degree—a group whose desires and incentives to hold jobs have traditionally far exceeded those of women with less education.

The alternative projection, while possible, is therefore probably too high.

the presence of young children in the home has a limiting effect on labor force activity of younger married women.

Labor force participation rates for men age 25 to 59 have shown little variation in the, post-

war period. These were held constant at the average level of 1955-57, when overall unemployment was about 4 percent.

For other age groups where some consistent change is apparent, selected social and demo-

Chart 3. Labor Force Participation Rates for Selected Age-Sex Groups, Annual Averages 1947 to 1964 and Projected 1970, 1975, and 1980

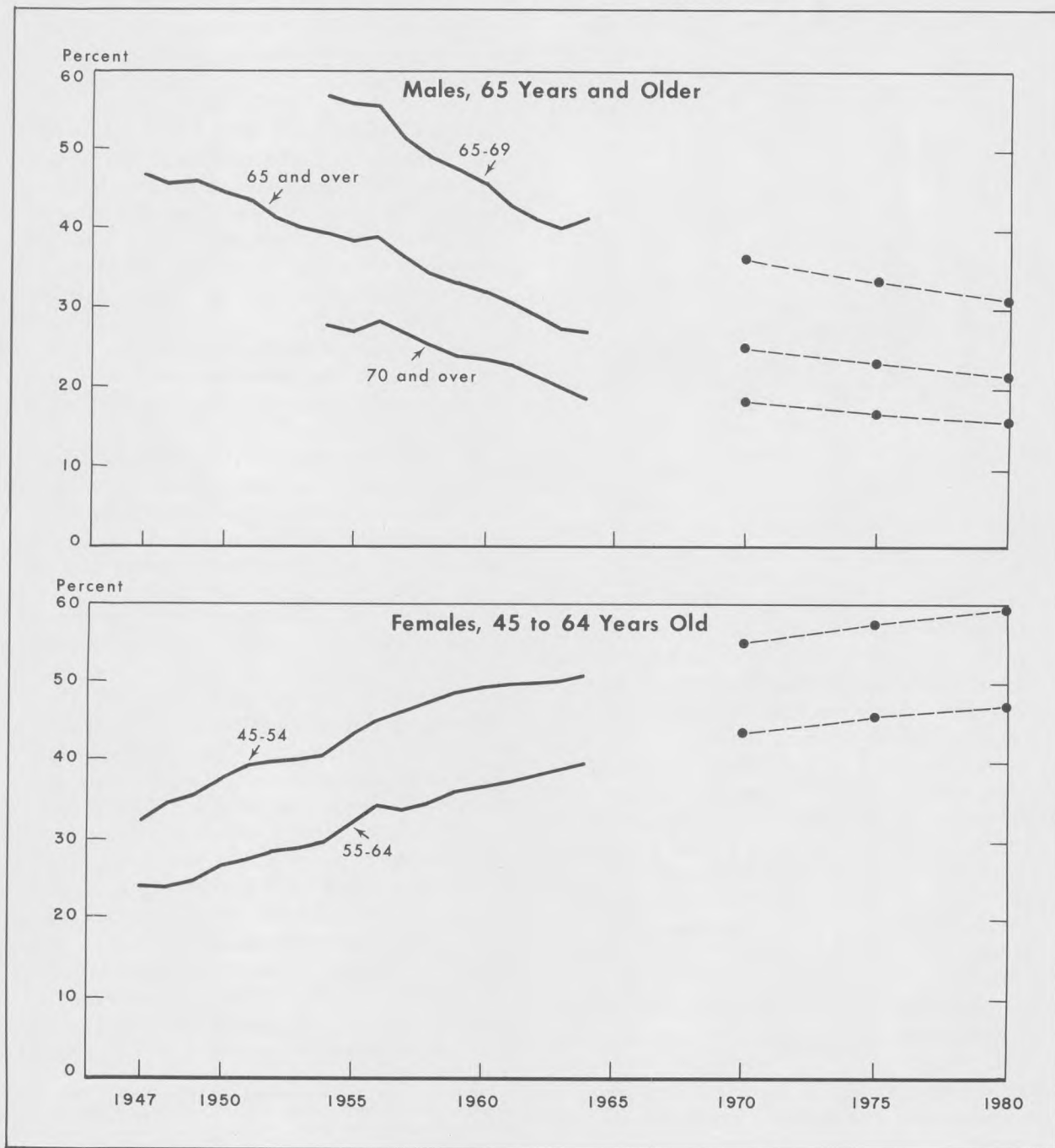
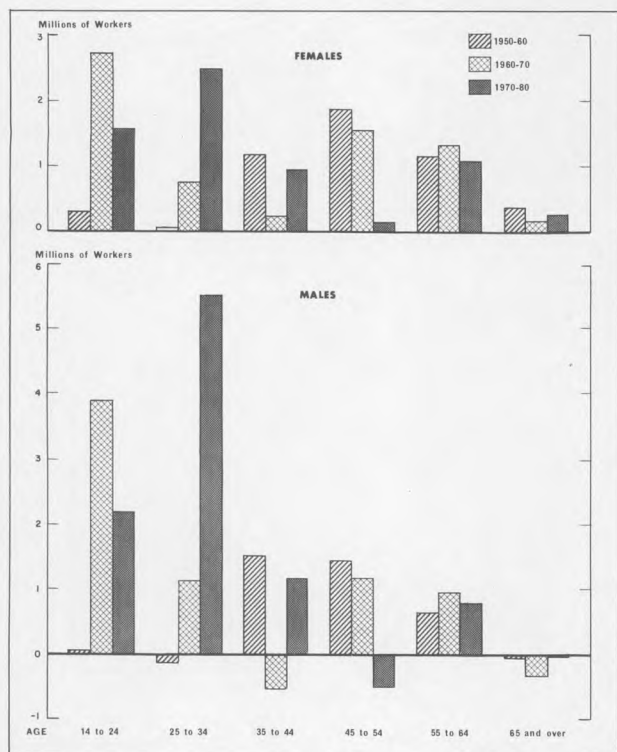


Chart 4. Change in Total Labor Force, by Age and Sex, 1950 to 1980



graphic factors which limit or encourage labor force activities were taken into account.

Women. Labor force participation rates for adult women have continued to rise, particularly in ages over 35. The gains have been smaller in the younger ages, primarily because a much larger percentage have young children, a factor which restricts work activity outside the home. In order to weight the effect of this factor, separate projections were made of the number of married women 20 to 44 years old in the population, with and without children under 5, within the framework of the Census Bureau's projections of age-specific fertility and its projections of the number of women in each age group. The labor force participation rates for women with young children and for those with no young children have each been increasing, but from different levels. These rates were projected and applied to the population in each group.

For women over 44, the important demographic factor associated with different levels and amounts

of change in labor force activity is marital status. The labor force participation rate for married women is lower than those for single women or for women who are widowed, divorced, or separated. However, rates for married women also have been increasing markedly. Separate projections of labor force rates were made for these groups, by age, and applied to population projections by marital status. The composition of the projected female labor force 20 years old and over, in terms of marital status and presence of young children, is shown in chart 5.

Young Workers. For young persons under 25, labor force participation rates were separately projected for those in school and those no longer students. The rates for some teenage groups no longer in school have been declining in recent years, possibly because they have been discouraged by growing competition for the limited number of entry jobs. The present projections assume that jobs will be available for those wanting work and that the labor force participation rates of young persons not in school will be at the high average of 1955-57.

The rates of labor force participation for the younger students have also been declining, but rates for men 18 and 19, and 20 to 24, who are in school have been increasing. For these groups, it was assumed that the trend would continue.

Older Workers. The labor force participation rates for men 60 to 64 years old have been declining in recent years, probably as a result of the proliferation of early retirement provisions in private pension plans and recent changes in the social security law allowing retirement at 62 with reduced benefits. For men 65 years and over, rates have been declining steadily since the end of World War II, in years of relatively high employment as well as in years of recession. (See chart 3.) However, some of the reduction in labor force activity in ages over 60 may represent involuntary withdrawal from the labor force because of difficulties in finding jobs in the last few years. A recent study by the Department of Health, Education, and Welfare³ suggested that about 20 percent of the men 62 and over who had retired between 1957 and 1962 could be

³ Erdman Palmore, "Retirement Patterns Among Aged Men: Findings of the 1963 Survey of the Aged," *Social Security Bulletin*, August 1964, pp. 3-10.

considered to have withdrawn from the labor force for economically based, involuntary reasons. Consequently, the decline in labor force participation rates since 1957 for men in ages 60 and over was reduced by 20 percent before the trend was extrapolated.

An additional factor was taken into account for men in ages 60 to 64, 65 to 69, and 70 and over. Agriculture is still a relatively important activity for men in these ages, and the trends differ from those in nonagricultural employment. Consequently, the proportions of the population for each of the older ages were extrapolated separately for those who were employed in agricultural and non-agricultural industries. These proportions were weighted by the projected population to derive the overall labor force participation rate for each age.

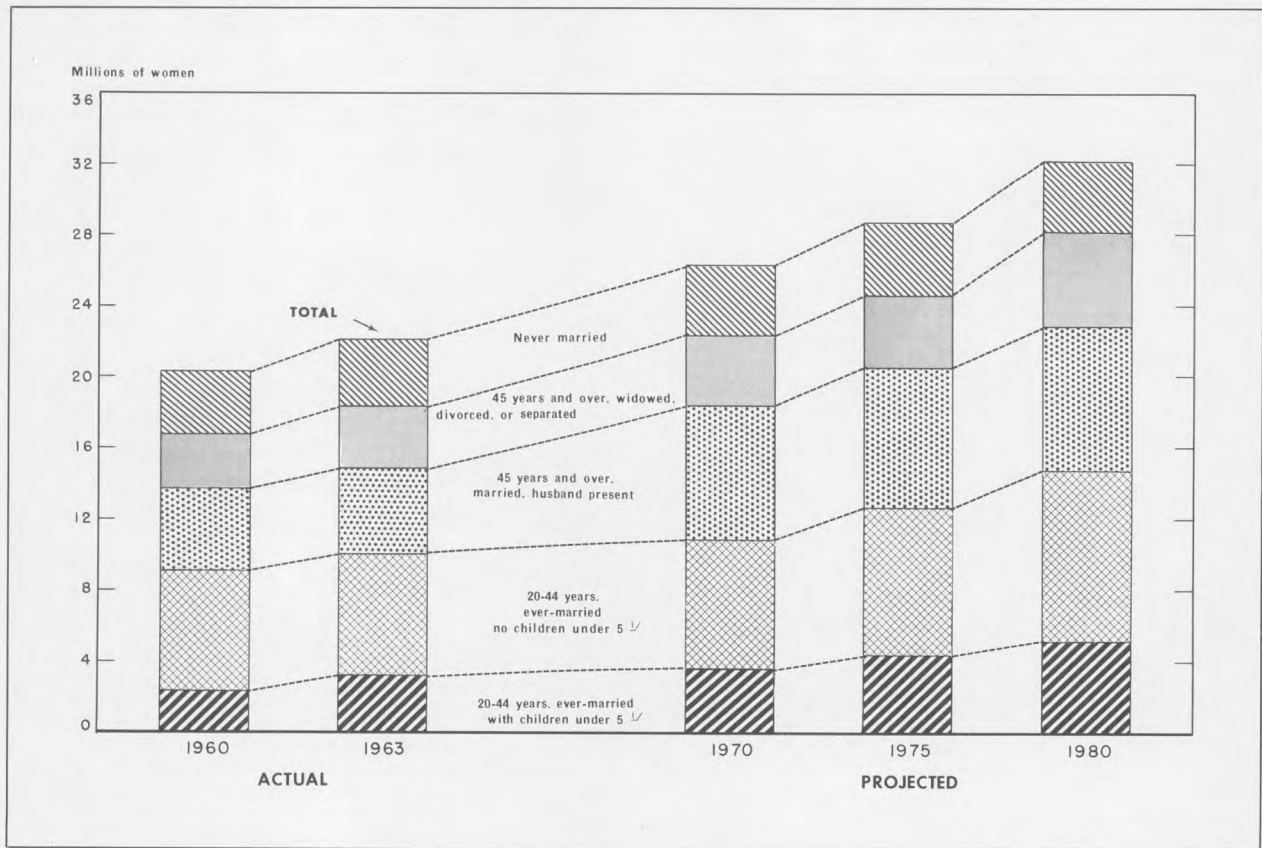
In general, the projection assumed that the changes in labor force participation rates from

1948 to the present would continue, but at a declining pace. For 1964 to 1980, it was assumed that the change in rates would be about half the amount that had occurred in the preceding 16 years.

The size of the Armed Forces was assumed to remain constant at 2.7 million, the level which has prevailed during recent years, and it was assumed that the trend toward increased school attendance beyond high school would continue.

Although there is some interest in a projection of the labor force at very low levels of unemployment—such as 3 percent—the post-World War II experience from which data for these projections are drawn imposes some constraints. There has not been sufficient experience to support an interpretation of the effect such a level of job opportunity might have on labor force participation rates over a period of time.

Chart 5. Marital and Child Status of Women 20 Years Old and Over in the Labor Force, Actual March 1960 and 1963 and Projected 1970, 1975, and 1980



¹ For 1960 and 1963, data relate to children under 6.

Therefore, the projections made in this article more nearly represent a 4-percent unemployment situation. The 1955-57 experience was used as a guide for those age groups whose labor force participation rates appear to be constant except for some sensitivity to the economic situation. For age groups whose labor force participation rates have been rising or falling consistently throughout the postwar period, it was assumed that past trends will continue but at a slower rate. These trends, however, were adjusted where it appeared that they might have been dampened in recent years by reduced job opportunities.

Labor Force Growth and Employment

The relationship between labor force growth and changes in the economic situation has been the subject of an increasing amount of research during the past few years. Earlier, many economists held that in the short run, labor supply was not responsive to moderate changes in the demand for labor. More recent research has suggested that short-term variations in labor supply are related to variations in employment, and that some population groups respond more readily than others to changing job opportunities.⁴

In theory, it would be reasonable to expect that men in the central ages would tend to remain in the labor force both in good times and in times of

shrinking job opportunities. On the other hand, it might be expected that some of the other age-sex groups (teenagers, older men, and married women) would display varying degrees of response to changes in the job situation. Persons in these groups might be encouraged to enter or to remain in the labor force during periods of rapid economic growth, whereas they might remain in or return to noneconomic pursuits when job opportunities were limited.

In the preparation of the current projection, an attempt was made to measure the elasticity of the labor force in the several age-sex groups in response to changes in the employment situation, in order to estimate the amount of change in the size of the labor force at any specific time which might accompany a postulated change in the underlying economic situation. The development of such a measure might permit an adjustment of the basic projection to reflect a particular level of unemployment. Toward this end, a procedure was adopted which relates employment and unemployment changes in terms of deviations from their long-term trends. This procedure is described in the following section.⁵

Method. For each age-sex group, the quarterly average ratio of employment plus Armed Forces (E) to population (P), from the fourth quarter of 1947 through the third quarter of 1963, was adopted as the "x" variable. This yielded a total of 64 observations. The "y" variable was the quarterly average ratio of unemployment (U) to population (P) over the same period.

A least-squares trend line was fitted to each series of ratios. These lines were employed to obtain a set of expected ratios for each variable over the 1947-63 period. The deviations of the actual from the expected ratios of employment to population ($\frac{E-E'}{P}$) were then plotted against

TABLE 5. SLOPE OF PRINCIPAL AXIS AND CONFIDENCE RANGE

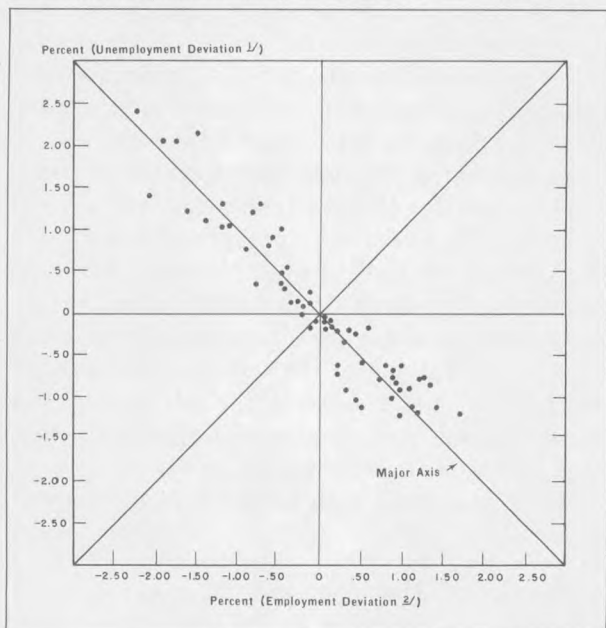
Age group and sex	Slope of major axis	95-percent confidence limits	
		Lower limit	Upper limit
Total, both sexes	-0.62	-0.83	-0.25
MALE			
Total, all ages	-0.65	-1.02	-0.25
14-19 years	-0.42	-1.36	-0.10
20-24 years	-.54	-.72	-.28
25-34 years	-.77	-.95	-.65
35-44 years	-1.00	-1.25	-.80
45-54 years	-.82	-1.12	-.55
55-64 years	-.76	-2.80	-.50
65 years and over	-.12	-.79	1.30
FEMALE			
Total, all ages	-.28	-.80	.10
14-19 years	-0.26	-1.00	0.12
20-24 years	-.41	-1.60	.70
25-34 years	-14.89	(1)	(1)
35-44 years	-.29	-1.55	.32
45-54 years	-.06	-.45	.31
55-64 years	-.26	(1)	(1)
65 years and over	-.01	(1)	(1)

¹ Any slope falls within the prescribed confidence range.

⁴ See Alfred Tella, "The Relation of Labor Force to Employment," *Industrial and Labor Relations Review*, April 1964, pp. 454-469, and "Age-Sex Sensitivity of Labor Force to Employment," to be published in *Industrial Relations*, February 1965; also an unpublished manuscript by W. G. Bowen and T. A. Finegan, of the Department of Economics, Princeton University, "Labor Force Participation and Unemployment."

⁵ The basic procedure was suggested by W. Duane Evans, Professor of Economics, Cornell University. George R. Methee of the Division of Population and Labor Force Studies and Morton S. Raff, Mathematical Statistician, Division of Statistical Standards, Bureau of Labor Statistics, carried out the analysis.

Chart 6. Deviations From Trend of Employment and Unemployment Ratios, Males 35 to 44 Years Old



¹ Ratio of unemployed persons to population, less "expected" ratio $\left(\frac{U-U'}{P}\right)$.

² Ratio of employed persons to population, less "expected" ratio $\left(\frac{E-E'}{P}\right)$.

the corresponding deviations of the actual from the expected ratios of unemployment to population $\left(\frac{U-U'}{P}\right)$. The relationship between these 64 pairs of deviations was estimated by computing the slope of the principal axis of the scatter diagram for each age-sex group. The slope of the major axis reflects the amount and direction of change which could be expected in the employment-population ratio, given a specified change in the unemployment-population ratio.

Upper and lower limits of the 95-percent confidence range were established for each age-sex group (table 5). The formula employed for establishing these confidence limits is $\frac{1 \pm K}{2 \sqrt{N}}$, where $K=1.96$ and N (the number of independent observations) is assumed to be 20.⁶ This compu-

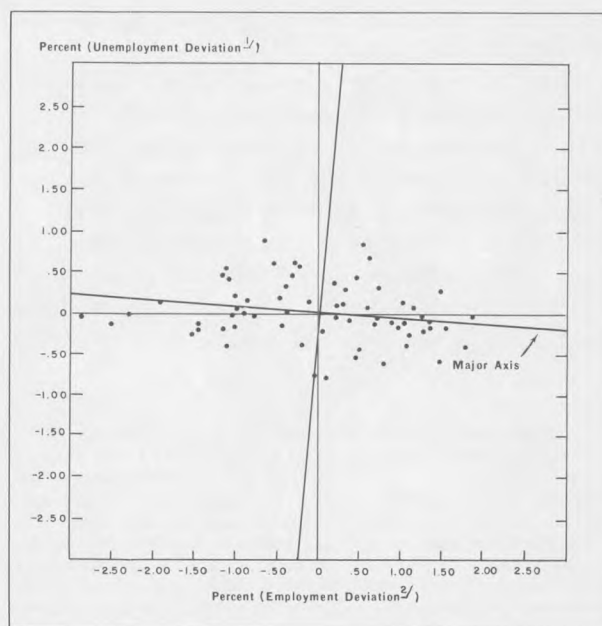
⁶ The 64 quarterly values in each series cannot be considered statistically independent, because of the strong serial correlation between the data for successive quarters. The equivalent number of independent observations was estimated by doubling the average number of reversals of sign when the deviations of each ratio from its trend are arranged in chronological order. This seems logical, because the expected number of sign reversals in a random series of independent deviations is exactly half the number of observations.

tation yields values of .72 and .28. When various slopes are considered for a pair of perpendicular axes through the point of means, it follows that at the slope of the principal axis, the total number of points in quadrants I and III should be approximately equal to the number of points in quadrants II and IV. Rotation of the principal axis will increase the disparity between the number of points in these pairs of quadrants.

The confidence range about the estimated slope of the principal axis was established by rotating the principal axis until 72 percent (or 46) of the 64 points fell in quadrants I and III, and then reversing the direction of the rotation until 28 percent (or 18) of the points fell in these two quadrants.

Results. The results can best be understood by examining the scatter diagrams for three selected age-sex groups. Chart 6 illustrates the results which might be expected where the labor force is a closed system: that is, where a change in the unemployment-population ratio is associated with an opposite and equal change in the employment-

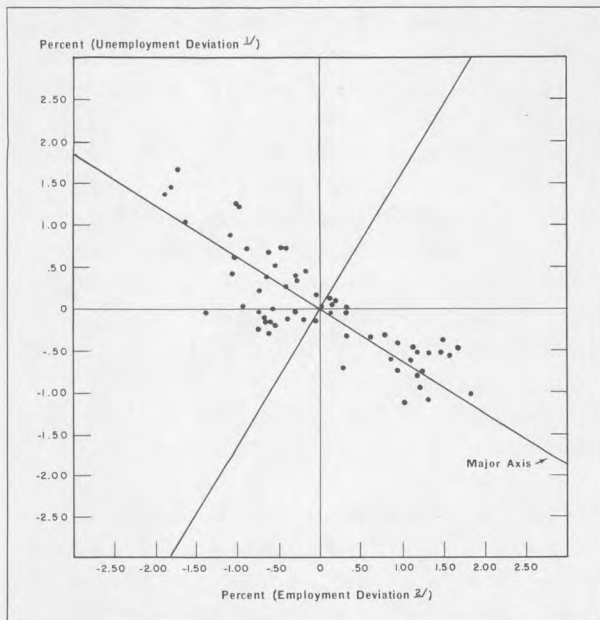
Chart 7. Deviations From Trend of Employment and Unemployment Ratios, Females 45 to 54 Years Old



¹ See footnote 1, chart 6.

² See footnote 2, chart 6.

Chart 8. Deviations From Trend of Employment and Unemployment Ratios, Total, Both Sexes



¹ See footnote 1, chart 6.

² See footnote 2, chart 6.

population ratio. In other words, a decline of 10,000 in the unemployment level implies an increase of 10,000 in the employment level, with no net change in the labor force. The results obtained for men age 35 to 44 correspond precisely to such a system, and are quite similar for men in age groups 25 to 34, 45 to 54, and 55 to 64.

Unfortunately, the results obtained for other age-sex groups are not nearly so reasonable. Chart 7 illustrates the pattern of relationships that was obtained for each of the age groups of women. Among these groups, the effect of a change in either ratio is not predictive of the change in the other one. The confidence limits for each group were either indeterminate or of different signs, indicating that it is not possible even to determine the

⁷ Further study of some modifications of this approach might be fruitful. For example, it might be reasonable to lag the employment-population ratio by one or two quarters, on the assumption that a decline in this ratio might have a changing effect on the unemployment-population ratio through time.

⁸ A similar computation, using monthly data for both sexes, yielded a value of $-.68$ as the median ratio of unemployment deviations to employment deviations. This value would imply an increase of exactly 3 employees for every 2 unemployed persons who found work.

direction of the change in one ratio, given a change in the other.

It is evident that—so far as specific age-sex groups are concerned—the results obtained thus far cannot be relied upon to yield significant estimates of the relationship between the employment situation and labor force growth.⁷

For projection purposes, therefore, the relationship obtained for all ages, both sexes, was utilized (chart 8). This relationship implies that a decline of 100,000 in the level of unemployment would be accompanied by a rise of about 160,000 in the employment level, for a net increase of 60,000 in the labor force. In view of the wide confidence range associated with this measure, the relationship has been expressed in more general terms as a 3 to 2 ratio. That is, a decline of 2 in unemployment would be associated with a rise of about 3 in employment.⁸

Implications. The magnitude of this effect can be assessed by referring to the basic projections. As was explained earlier, the projection corresponds roughly to a 4-percent unemployment rate. If the unemployment rate were to be reduced from 4 to 3 percent in 1970, the net effect would be to reduce the number of unemployed by about 800,000 workers. Employing the 3 to 2 ratio obtains an estimated increase of about $1\frac{1}{4}$ million in the employment level, for a net increase of about 400,000 in the size of the labor force in 1970.

The distribution of this added labor force would probably be significantly affected both by the timing of the increased employment, and by the means by which unemployment was reduced. If the movement from higher to lower levels of unemployment were gradual, it might not have the same effect as if it were sudden. The expansion of employment opportunities that accompanies a rise in the aggregate level of demand might have a greater impact upon the number of additional workers drawn into the labor force than would a program of retraining focused upon specific groups of unemployed workers.

It must be reiterated that these relationships reflect postwar phenomena. There is no certainty that the same relationships would hold in circumstances that fall outside the range of postwar experience.

Papers From the IRRA Annual Meeting

An Introductory Note

ALTHOUGH there is always some artificiality in arranging research papers around a conference theme, the 1975 horizon used to organize the Industrial Relations Research Association annual meeting in Chicago in December worked rather successfully. The presidential address, the sessions on social security and manpower policy, and the evaluations of union strength all converged on the assigned date and helped to focus the discussions and furnish a perspective.

A secondary theme also kept reappearing that may be symptomatic of the direction toward which a good deal of research is driving. This area was developments abroad. The international scope was explicitly introduced into sessions on overseas industrial relations practices, in the evaluations of manpower and area development policies, and in the discussions of labor-management cooperation. It showed up in other ways, too. One participant, for example, contended that the American collective bargaining system has already become obsolete, and only our high unemployment rates prevent us from discovering that it has; he brought recent British experience to bear in defense of this proposition.

The conference participants returned frequently to some old needs and sounded a few new unfamiliar notes. Many of them urged the collection of still more data, especially on labor force questions. Several papers asked for further thinking about basic concepts and approaches, such as the utility of the insurance principle in social welfare, the scope of training and education efforts, the proper role of government in collective bargain-

ing. The new suggestions appeared most often during the discussions. One discussant outlined some new things that labor unions might do, short of reorganizing themselves, to make greater organizing inroads into the professional and technical fields. (His suggestions included dual membership and joint campaigns with professional and unaffiliated associations.) Nathan Feinsinger pointed out as developments that will bear close watching the tendency in governmental bargaining units to permit proportional representation and to create new procedures to resolve bargaining deadlocks in such units where the traditional strike or arbitration sanction is absent.

Many of these new ideas and urgings elude the papers that appear in the following section, and those that will appear in the March issue. As has always been the case, the *Review* has been forced to select from among the papers presented and to make drastic cuts in the ones that are used. The editors have added titles and subtitles, and have not indicated cuts by typographical markings.

As an example of the kind of material space limitations preclude, Solomon Barkin's presidential address calling for a major change and reorientation of research effort also contained an historical analysis of the relationship of research to policy in the field. Another kind of example: After the presentation of the papers on industrial relations practices of American corporations overseas that are excerpted in the following pages, discussants challenged some of the premises and furnished additional information that must be omitted here. So, like the limerick book, this section must be dedicated to the ones we could not print. Full proceedings will be available later in the year from the association, Social Science Building, Madison, Wis.

Industrial Relations Policy and "Action-Oriented" Research

SOLOMON BARKIN*

IN THE ATTAINMENT of a wholesale restructuring of our institutions and behavior patterns, the modern industrial relations researcher has his most clearly defined mandate. His task is to define and evaluate the goals and beliefs more precisely, particularly in the individual fields, to identify the forms of dysfunctionality, to examine conflicts and identities, to spell out the alternative courses for the attainment of goals, to identify the sources of resistance to change and indicate strategies for overcoming them, to outline the progressive steps for the ultimate realization of the ends, to assist in the preparation of lists of priorities, and to calculate the costs and benefits of innovations.

In the wholesale reexamination of our industrial relations structures, institutions, policies, and beliefs, the industrial relations researcher will move from the preparation of disparate, uncoordinated research efforts into a program with grand design, even if the specific tasks are individually conceived. Research will become action-oriented, even when the procedure is completely theoretical and the methodology and data are not immediately understandable by the ultimate policymaker. The research will contribute to smoother adjustment through the restructuring of our industrial relations system to the needs of the day.

Manpower and Social Policy

An active manpower policy can be described as embracing placement of those employed, underemployed, or unemployed who are seeking jobs; supply of labor to employers in need of employees; counseling of employees and employers on how best to meet impending manpower demand and supply conditions; and assumption of the initiative in proposing and implementing policies that assure employment of the underutilized (whether due to part-time work, uneconomic employer practices, excessive employee restrictions, or low productivity) and the unemployed.

Such a manpower policy will make an outstanding contribution not only to the fullest utilization of human resources but also to relief of manpower bottlenecks and moderation of inflationary pressures stemming from such shortages. By facilitating the movement of people from areas of labor surplus to those of great demand, and fostering a better allocation of the work force according to the changing patterns of industrial and occupational needs, the process of economic growth itself will be stimulated.

The Industrial Relations System

Many employer-employee relations institutions are entire subsystems in themselves, derived from and deeply rooted in the past. Revision and reorganization will require profound efforts at reconstruction of attitudes, beliefs, and behavior patterns. Moreover, the changes may have to be effected largely through persuasion and internal reexamination and at the initiative of the agencies themselves, possibly with some assistance from without the system. Few leaders of these institutions are ready to stand off at a distance and envisage long-term needs. It would be more singular for them to yield positions in the interest of effective operation of the total system. They are ever suspicious of changes that might strengthen the adversary's power position. Nevertheless, vast significant alterations are imperative if the total system is to operate effectively.

The established procedure of collective bargaining is proving inadequate in the present environment. How is the setting of discrete negotiations in a specific plant to be related to the national process of bargaining and policies? How is the unending series of problems arising from constantly changing economic and technical conditions to be dealt with? Are they to be held off until the periodic period for negotiations? How are negotiations on complicated technical problems to be conducted? To what extent is the government to aid in solving the difficult issues confronting the participants for which they have neither the re-

*Organization for Economic Cooperation and Development, from the presidential address, entitled "A Current Focus for Industrial Relations Research."

sources, skills, nor personnel? Shall all agreements become legal instruments to be integrated into master contracts? How much reliance should be made on third-party assistance in effecting agreements between parties? What is the role of the strike, threat of economic force, quickie, or authorized stoppage? Should there be compulsory arbitration? Should national agreements on all economywide bases provide the pattern and range for local, corporate, and industrial agreements?

Not only have these questions of structure and procedure been relatively unexplored in a systematic manner, but many fundamental policies and issues underlying the system of industrial relations need review.

Equally troublesome are the substantive issues of the agreement itself. These overlap with varied other fields of public interest. Wages and benefits impinge on wage and salary levels, income policies, national economic measures and policies, and the behavior of people in the job market and varied phases of life. The provisions for working conditions affect the personal well-being of the individual employee as well as costs. The provisions for hours of work and overtime have equally ramified significance beyond their meaning to those immediately concerned.

Arrangements concerning adjustments to technological and economic changes are intimately related to active labor policies. The two should be coordinated and should reinforce one another.

The provisions respecting employee rights to a job also affect the public interest. The administrative machinery can not only create an orderly procedure of industrial government, but may also have a substantial effect on the acceptance of these systems by the community. Finally, the rights of the union in the operation or making of policy within the firm or to information about the firm can have major implications for the industrial structure.

This is only a summary listing of subjects and issues that scarcely reveals the multiplicity of problems facing us and only shows how vague is our sense of direction in this field. Certainly the discordancy, lack of integration, and piecemeal consideration of problems in this industrial relations system must be replaced by more fundamental appraisal of the entire industrial relations system.

Innocents Abroad: The Expatriates' Lot

GEORGE F. DICKOVER*

THE NUMBER of American firms with affiliates, branches, and subsidiaries abroad has more than doubled within the last 10 years. There are now at least 3,000 companies with various types of holdings in foreign areas; each year they produce, on foreign soil, more than \$35 billion worth of commodities. These companies employ more than 3 million people overseas, of whom only about 1 in every 100 is an American citizen. Foreign business accounts for half, or more, of the sales volume of many prominent U.S. companies: in many instances, companies that only a few years ago had international sales that accounted for only 10 to 15 percent of their total sales volume.

As American industry has expanded operation abroad, it has generally chosen, at least in the initial stages, to fill the top management positions with U.S. citizens. Obviously, the recruitment, placement, and other logistics associated with the movement of these people is not a simple matter, nor can personnel be dispersed in worldwide operations without careful attention being given to their social and economic aspirations.

Thus, in recent years, American business has given considerable attention to employees sent abroad specifically with respect to compensation, allowances, and benefits for themselves and their families. The interesting fact is that, although a pattern of allowances and other benefits has been developed by each company by dealing pragmatically with problems as they arose, company policies and practices, on a worldwide basis, are surprisingly uniform and consistent.

The Role of the Expatriate

Expatriate employees are generally assigned to overseas positions because qualified nationals are not available. They are required, therefore, not only to perform their jobs, but also to train the nationals of the country so that the latter ulti-

*Of the Industrial Relations Counselors Service, Inc., New York.

mately can take over. To successfully train nationals, the expatriate employee needs a command of the foreign language and must be able to make effective use of certain fundamental training techniques. Much of his progress will depend upon his acceptance by the nationals of the country, the effectiveness of the leadership he provides, and the training job he performs.

The expatriate employee also carries substantial responsibility for promoting industrial and public relations as a representative of the company. Within his circle of contacts, he represents not only the company but, to a large extent, the United States as well.

Recognizing that recruitment of competent employees for overseas assignment is much more difficult than finding employees for similar domestic jobs, companies increasingly are exercising extreme care, as well as using the most modern devices and procedures, in selecting the individual—and his family—to be sent abroad. Preferring, where possible, to use employees already indoctrinated in company policies and objectives, they are surveying their organizations for young people who show promise and who, because of previous experience abroad, family ties, foreign travel or education, are particularly interested in foreign assignment. Some companies canvass their entire organizations to locate such individuals; others have engaged in a wide variety of promotional activities to solicit applications from interested individuals. In the more progressive companies, selection is followed up with a program of orientation and indoctrination tailored specially for the overseas employee.

The American Employee Abroad

The American going abroad will certainly expect to be treated as well as his counterpart at home. Thus, in considering compensation, benefits, and other related practices, we must start with the assumption that the practices developed will be at least equally as attractive as those at home.

To be universally applicable, any method for determining compensation must be related to generally available and acceptable measures of living conditions, as well as to current indexes of costs. Among other things, it must take account of local shelter, tax, educational, and medical conditions.

It must adequately reflect the ratio of purchases made abroad to purchases made in the home country for use abroad. It must be extremely sensitive to changes in exchange rates. It must be applicable to individuals or to groups of employees, regardless of income level or family status. Finally, it must be simple and clear enough so that it can be readily and continually maintained and explained to employees so that the results will be understood and accepted by them.

To meet these needs, U.S. industry has developed, and widely adopted, the "balance sheet" approach. This approach includes eight specific factors that comprise the total compensation of most American expatriate employees:

Pay Factors. (1) A base pay equivalent to what the company would pay for a comparable position in the United States. (2) A premium, or bonus, varying from country to country, designed to attract and retain employees in foreign operations and related to specific environmental factors. These pay factors are additive and paid in every foreign country. They constitute total foreign compensation. (3) From the total of base pay and premium, a hypothetical income tax is deducted, equivalent to the amount of Federal income tax the employee would pay on his base pay in the United States.

Allowance Factors. The following factors are possible allowances that are paid only if local conditions make a positive differential payment necessary. Following such a course means that the expatriate employee neither gains nor loses as a result of cost of living, education, income tax, or other costs that differ from those in the United States. (4) An income tax adjustment to reimburse the employee for any income tax paid on his earnings and allowances. (5) A shelter allowance, designed to compensate for the excess, if any, of shelter costs above those the employee would normally incur in the United States. (6) A post allowance, to compensate for any excess living costs (excluding quarters) at the foreign location. (7) An education allowance, paid only to the employee with children in school abroad and designed to offset the extra cost of elementary education frequently incurred in foreign locations. (8) An adjustment factor, to offset the employee's gain from legally required profit sharing or other bene-

fits, such as the use of company-supplied automobiles or other facilities and to offset the employee's loss from required contributions to government schemes under which he will not benefit.

Emerging Principles

With the emergence of so many new countries, there seems to be no end to, or indeed no way to keep up with, the constant changes and problems that arise. And yet, in one way or another, sooner or later, we must face these problems if we are to continue to expand in the international field. Among these many problems are nationalism, oppressive or restrictive social legislation, and advancing technology. Increasingly, this latter problem clashes head on, especially in the lesser developed economies, with the national need for maximum employment and income.

Let me indicate some of the fundamental principles that I think are beginning to emerge as a result of the experience gained in meeting these problems. (1) The company must aid the country to improve its own standard of living and contribute to its economic development and stability. (2) Employee relations policies and programs must be related to the social, legislative, economic, and cultural patterns existing at a given time in the specific country or region in which the company is operating. (3) Neither the company nor its employees can afford to become involved in local politics; all local laws must be observed both in the letter and the spirit. (4) Overseas operations must be staffed at all levels with qualified nationals, as fully and as rapidly as possible. (5) Employee relations policies affecting national employees must be subject only to the most generalized standards and statements of objectives of top management of the corporate organization. (6) Policies governing U.S. expatriate employees and nationals of third countries must be coordinated and centralized by the corporate organization. (7) Employee relations values must be considered along with all other values and risks in determining the extent of ownership and management control of any particular foreign operation. (8) Every action and every decision must increase the probability that the company will be allowed to continue its operation in the host country.

Exporting U.S. Standards to Underdeveloped Countries

JOHN C. SHEARER*

THE U.S. FIRM operating in an underdeveloped country faces formidable obstacles in devising and executing viable industrial relations policies. Union ideologies in underdeveloped countries tend to be quite different from the job-centered U.S. labor movement. Government institutions and attitudes toward many aspects of industrial relations tend to be far more interventionist, proprietary, and all-encompassing than our own public policy. Disputes, generally handled at home through a negotiated, bipartite grievance procedure with voluntary arbitration as the last resort, go instead almost immediately into tripartite machinery in which the labor ministry or the labor courts exercise decisive influence. Detailed legislation covers many aspects of industrial relations, including fringe benefits and security provisions. The U.S. company is often regarded as an unwelcome intruder from a hostile culture. As such, it is almost automatically suspect.

Local Practice Versus Imported Standards

Industrial relations policies in the United States are designed mainly to maintain or improve the efficiency of organizations through constructive, integrated programs for recruiting, developing, motivating, and utilizing their human resources. However, a major goal of industrial relations policies of the same firms in Latin America¹ is to reduce their vulnerability by adopting the coloration of their environments. They want to be as inconspicuous as possible. Unfortunately, such a policy often harms the long-term interests of the

*Graduate School of Industrial Administration, Carnegie Institute of Technology.

¹My interest in this subject stems from my involvement in Latin America as a researcher with the Inter-University Study of Labor Problems in Economic Development, as an advisor to Latin American governments, and as an international civil servant for periods ranging from a few weeks to 1½ years in five Latin American countries. Although some of my observations are necessarily impressionistic, the findings of the last section of this paper, especially, are based upon my systematic investigation of certain aspects of industrial relations policies and practices of U.S. firms in Latin America.

firm. It undertakes a defensive posture in industrial relations wherein it often sacrifices organizational efficiency to the futile pursuit of anonymity. It is almost impossible for a U.S. firm simply to merge with its overseas environment. Inevitably, it will create its own special image that will almost surely have "foreign" as a major element. A more important concern is whether the rest of the image will be good or bad.

For pragmatic reasons, U.S. companies are seldom content to adopt completely the much less sophisticated level of industrial relations policies and practices characteristic of the host environments. The general pattern is a mixture of imported and local standards and techniques. However, such a mixture often contains serious contradictions that preclude the development of sound industrial relations and interfere with efficiency and the formation of a good image.

There are a number of areas where companies are faced with a choice between coloration and efficiency and have generally opted for the latter by following U.S. practices where it is clear that doing so better serves their ends. This is particularly true in such areas as training, where most U.S. firms are far in advance of their overseas neighbors. U.S.-type training programs are extensively adapted to local needs, and local personnel are often sent to the United States for training—hardly a way for a company to remain inconspicuous.

In the general area of human relations and attitudes toward workers, U.S. firms invariably import practices that are far more professional and progressive than those of their environments. Their industrial relations decisions are usually much more objective and based on the merits of the circumstances rather than upon intricate personal relationships and class prejudices.

Many useful standard industrial relations tools are lamentably absent abroad. Systematic procedures for describing and evaluating jobs are rare, even though all firms studied use them routinely in the United States. They pay little attention to the use of monetary incentive systems, nonmonetary incentives, or promotion procedures as means to stimulate efficiency. Few firms have even considered the possibility of establishing or negotiating procedures, however informal, for the internal adjustment of disputes to avoid government in-

volvement. Because the government has such procedures, the U.S. companies merely sit back and complain bitterly about the inequities that result from the alleged anti-employer and anti-U.S. biases of the government agencies.

In labor relations, U.S. companies tend to follow local practice—that is, they buy peaceful labor relations through regular patterns of bribes to union officials and government labor inspectors. Managers of a majority of 39 Latin American subsidiaries that I studied informed me that such bribery was standard local practice and was essential to peaceful labor relations. However, managers of some U.S. firms strongly resent this local practice and especially its adoption by their compatriots, and they refuse to conform for moral reasons and for the longrun interest of their firms.

In wage policy, most firms I studied happily conform to the prevailing local practice of paying only the legal minimum rates, or slightly above. This was true despite the fact that they were generally engaged in areas of greater profitability and growth than most local firms. In many underdeveloped countries, it is impossible for semi-skilled and even for many skilled industrial workers working full time to support a family at levels above those that characterized the darkest days of England's Industrial Revolution.

On the other hand, U.S. firms generally tolerate the very low levels of labor productivity characteristic of their overseas environments. It is not unusual for a firm to report that whereas one worker in its Latin American plants tends one machine, one worker in its U.S. plants tends three identical machines with much better quality output and considerably less spoilage.

Citizenship of Key Personnel

Every company realizes that probably the most important determinant of its overseas success controllable by the firm is its ability to build, staff, and maintain an efficient human organization. Operations in underdeveloped countries invariably involve a crucial consideration not relevant for domestic operations: the question of the citizenship of key personnel. My investigation²

² John C. Shearer, *High-Level Manpower in Overseas Subsidiaries: Experience in Brazil and Mexico* (Princeton, N.J., Princeton University, Industrial Relations Section, 1960).

strongly suggests that in the vast majority of the firms studied, ambiguous policies and contradictory implementation have seriously reduced efficiency and have caused considerable damage to their images.

To investigate these matters, I interviewed approximately 200 executives of 52 representative U.S. firms with significant foreign operations, concentrating on 23 of them and on their 39 subsidiaries in Brazil and Mexico. Subsequent exposure to other companies in other Latin American countries has convinced me of the general validity of my major findings.

The vast majority of home offices have established a basic policy of "the maximum possible use of nationals consistent with the control and efficiency of the subsidiary." They regard this as the best way to adjust the subsidiary's actions and appearance to the overseas environment, and they are cognizant of the vastly greater costs of employing Americans in high-level posts.

Despite much higher costs, most of the subsidiaries rely heavily on Americans. Although they usually constitute only a small percentage of total employment, they dominate most of the organizations because they hold most of the top positions.

Because well-trained talent is scarce, one would expect firms to seek it actively as they do at home through such mechanisms as college recruiting. In Latin America, however, only an exceptional subsidiary conducts any systematic college recruiting. The usual explanation of overseas executives is that college recruiting "isn't done very much here." I regard this as an outstanding example of the failure of U.S. firms to apply to their overseas operations the imagination and attention that they have long applied to similar manpower problems at home.

Another source of uniquely qualified nationals lies almost untapped by most U.S. firms. This is the considerable number of Latin American students in U.S. colleges. Almost 13,000 were enrolled here for the last school year. The heaviest

concentrations tend to be in precisely those areas of greatest interest to U.S. companies: engineering, sciences, and management related areas. Typically, recruiters of the very firms whose subsidiaries claim that they "can't find" good national talent are unprepared to handle the applications of Latin Americans who present themselves for U.S. campus interviews.

Despite often sizable investments in the training of nationals, their efficient utilization and development are seriously impeded by the usual reluctance of Americans to entrust them with challenging responsibilities. The presence of Americans in most of the top jobs seems to constitute a low ceiling on opportunities for nationals, with consequent heavy penalties to their morale and effectiveness.

The results of such impediments are manifest in the very high quit rates by high-level nationals. The problem of promising nationals "running off" with the company's investment in them is one of the most pressing in overseas operations. With few exceptions, firms reported losses soon after the completion of training programs of at least 25 percent of participants

The high loss rates are clearly related to the discrimination against nationals for top posts, the great differentials in compensation between Americans and nationals, and the closure of opportunities because of the general disposition of overseas Americans to protect their jobs at any cost.

My findings do not suggest that it would be best for all companies to eliminate all overseas Americans. Individual situations are too diverse to permit such a generalization. My findings do suggest that those few firms that do not assume the necessity for overseas Americans have obtained more optimal mixtures of domestic and imported manpower resources and, therefore, higher quality human organizations than is possible with the approach of the vast majority of firms. Whereas the employment of Americans by these few firms is reliable evidence that they are needed and are worthy of their hire, their employment by the great majority of firms allows no such presumption.

The Case for a Consistent Company Labor Policy

JOHN A. BELFORD*

MASSEY-FERGUSON'S commitment to international operations 7 years ago raised important questions about local operating autonomy and the role of central management in all functions, including personnel and industrial relations. It was quite clear that centralized administration of industrial relations in a worldwide enterprise was not feasible; but more important, even if it were, it was a basic point of our philosophy that it would not be as effective as decentralized executive management.

While technical assistance and advice on industrial relations is theoretically practicable without worldwide policy, effective centralized direction, control and audit of performance cannot be real and valid without it.

Without basic corporate policy and consistent subsidiary functional policies, a truly integrated worldwide enterprise cannot be built. Apart from this general consideration, there are particularly compelling reasons for consistent industrial relations policies at all locations in the international enterprise. With the shrinkage of time and space by modern communication and transportation technology, it is important that the company should take a consistent position on principle in its relations with individual employees and with employee representatives at all locations. We cannot assume that the right hand will not know what the left hand is doing. Consistent and comprehensive policy avoids, for example, the company taking a strike in Coventry on an issue of principle conceded to a union in Detroit.

Massey-Ferguson's experience with personnel and industrial relations policy in an international company convinces us in a number of ways that working to policy is good business. Policy orients operating management to defined objectives. It gives practical effect to the philosophy of management by objectives. Industrial relations policy provides operating management with a basis for consistency and integrity in its relation with employees, employee representatives, and Government agencies. At the same time, it permits—indeed, it encourages—innovation and flexibility in practices. Contrary to the view of managers

who have not worked to written policy, policy is not restrictive. Rather it serves to free management by providing an authoritative framework within which to act promptly, confidently, and decisively on problems as they arise. When policy is developed, as it should be, with the participation of operating management, it helps build a cohesive and coordinated management group, spread through all the national locations. Finally, it provides a medium for control, in the sense of measuring results against a standard, at the corporate and at the operating level.

I should like to give an example of the liberating effect of policy. It's a simple one but it makes the point. Earlier this year, we were involved in a union-management dispute in the United Kingdom. The British Government's policy of moving industry into "development areas" was directly affected. The issue was wage rates in a contemplated new plant in a development area. A failure to agree would cancel the move. Because of national policy implications, two major departments of the British Government became actively involved—the Board of Trade and the Department of Labor. Meetings of representatives of these departments with management and union officials were arranged. At one of these meetings, Government representatives proposed arbitration. As our U.K. director of personnel and industrial relations told me later, he didn't have to think twice to give the company reply; nor did he have to consult with his managing director or the corporate vice president of Personnel and Industrial Relations. He knew it is the policy of the company to settle rights disputes by arbitration; to settle interest disputes by negotiations or, failing that, by a trial of economic strength. The issue in dispute was interests. Our U.K. director was able immediately and confidently to state the position of the company; to know that he was being backed by the highest level of authority in the corporation; and to know that his position was consistent with that of his colleagues in similar circumstances in any other part of the world. Not only was he able immediately to give the company reply, but he was also able to give a full explanation of the reasons for the company's position. After all, he had participated in making the policy, and he knew its logic and values base.

*Vice president Massey-Ferguson Limited, Toronto, Canada.

The Labor Movement Today: A Diagnosis

JOEL SEIDMAN*

PROBABLY the most fundamental factor now weakening union effectiveness is the technological advance that is eroding the base of union membership in a wide variety of industries. While the advancing technology affects white-collar as well as blue-collar workers, for the union movement, the effect on blue-collar workers is more important, since large numbers of blue-collar workers assembled in the mass production industries for the past generation have constituted a major source of union support.

While other types of work will be needed as the direct or indirect results of automation, most of these workers, because of skill, working conditions, or physical location, are not likely to respond to the appeals of unionism as readily as those who are being displaced.

Automation affects the bargaining power of unions in still other ways. Automatic equipment in industries such as oil refineries and telephone communication makes it possible for companies, with the aid of supervisors and others outside the bargaining units, to maintain production or service despite strikes by union members.

Union bargaining strength is also affected adversely by unemployment, which has been fluctuating between 5 and 5½ percent of the labor force. The presence of 3½ to 4 million unemployed constitutes serious pressure on wage rates, particularly in mobile industries without high skill requirements.

Another long-range trend is the growing proportion of women in the labor force, now at about one-third. Women are more difficult to organize than men, because of a primary orientation toward family and homemaking rather than the workplace. Nor should it be forgotten that large numbers of women are also white-collar workers, so that behavior may reflect two sets of factors that weaken the response to unionism.

To the problems caused by impersonal factors must be added changes in the policy of management and of government. Personnel practices of nonunion firms have improved enormously with the expansion of unionism. Along with generous compensation policies go training of the supervisory staff in human relations problems and provision of some system of handling whatever grievances may arise. Workers employed in establishments following such policies simply do not have the dissatisfactions that led to the ready pronoun attitudes in years past.

Government policy has also intensified some of the problems confronting labor—notably by permitting employers far greater latitude in communications with workers during preelection campaigns that was once thought proper.

Yet, the evidence suggests that unions have also contributed to the difficulties that confront them, by outmoded structure, by inadequate organizing efforts, and by faulty internal practices. The number of small national unions remains large. Though some small unions have substantial bargaining power, for the most part this proliferation of small national unions makes little sense in relationship to the organizing and collective bargaining problems of today.

Another structural problem concerns the relationship between the national unions and the federation. It would be strange if the growth of a complex society and an integrated economy, bringing with it a flow of power from the States to the Federal Government, did not also call for more power in the hands of the labor federation than has yet been granted it by the national unions.

Union growth, throughout its history in this country, has tended to come in spurts, associated with such factors as reviving prosperity, war, resentment against poor personnel practices, or the passage of favorable labor legislation. It would be rash to try to predict the time or the extent of the next upsurge; but it would be equally rash, in view of labor history, to assert that we have seen the last of the great membership advances of the American labor movement.

*Professor of Industrial Relations, Graduate School of Business, University of Chicago.

Food Expenditures of Urban Families, 1950 to 1960-61

LAURA MAE WEBB*

AVERAGE ANNUAL FOOD EXPENDITURES of urban families¹ in the United States were approximately 16 percent higher in 1960-61 than in 1950—\$1,311, compared with \$1,130, according to Bureau of Labor Statistics Surveys of Consumer Expenditures and Incomes. During this period, retail food prices as measured by the Consumer Price Index (CPI) advanced 18.9 percent. Accordingly, the average urban family spent less in constant dollars for food in the later period than in the earlier, a surprising decrease in view of the increase in personal income over the period. This article discusses some of the developments over the decade that probably contributed to this decline.

Food Expenditure Comparisons

Current Dollars. As the following tabulation shows, urban families' total expenditures for current consumption were about 42 percent higher in 1960-61 than in 1950.

	Expenditure per family		Percent of expenditures for current consumption	
	1950	1960-61	1950	1960-61
Expenditures for all current consumption.....	\$3,808	\$5,390	100.0	100.0
Food.....	1,130	1,311	29.7	24.3
Prepared at home.....	915	1,036	24.0	19.2
Away from home.....	216	275	5.7	5.1

NOTE: Because of rounding, sums of individual items may not equal totals.

Because their current dollar food expenditures increased considerably less than the average spent for other family living items,² food accounted for only 24.3 percent of expenditures for current consumption in 1960-61, compared with 29.7 percent in the earlier period. This change corroborates

findings of earlier Bureau and other surveys that, as incomes rise, the proportion of expenditures going to food declines.

The average family spent a slightly smaller proportion of its food dollar for food purchased to be eaten at home or for lunches to be carried from home in 1960-61 (79 percent) than in 1950 (81 percent). A correspondingly larger percent was spent for meals and snacks purchased and eaten away from home. The higher proportion spent for food away from home in this later period of increased real income was consistent with earlier survey findings that families with higher incomes usually spend more of their food dollar for food away from home.

Constant Dollars. Although average annual expenditures for food at home were 13.2 percent higher in 1960-61 than in 1950, retail prices for food at home advanced somewhat more than this (16 percent) during the period, according to the CPI. Thus, expenditures for food at home in constant 1960-61 dollars were 2.4 percent lower in the later period, even though the average family size (3.1 persons) was slightly larger than in the earlier year (3.0 persons).

This lower constant dollar expenditure does not necessarily mean that urban families ate less at home in the early 1960's than in 1950. The food-at-home component of the CPI for this period measures changes in prices for the quantities and qualities of food purchased by urban families in the early 1950's.³ By using this index to convert

*Of the Division of Price and Index Number Research, Bureau of Labor Statistics.

¹The family was defined in these surveys as a group of people usually living together who pooled their incomes and drew from a common fund for their major items of expense or as a person living alone or in a household with others, but who was financially independent.

²For a discussion of changes in expenditure patterns during this period, see "Contrasts in Spending by Urban Families—Part I. Trends Since 1950; Part II. Variations in 1960-61," *Monthly Labor Review*, November 1964, pp. 1249-1253, and December 1964, pp. 1408-1415, respectively.

³Weights for the 1950 food index were based upon food expenditures reported in consumer expenditure surveys conducted in 7 cities in the late 1940's, adjusted to the 1950 level on the basis of price changes and other related information. Weights for the 1960-61 index were based on expenditures reported in the 1950 national urban survey that were linked into the index in December 1952. The 1950-52 index was not recomputed on the basis of the weights linked in December 1952, but differences between the two sets of weights were relatively small, and it is believed that an index for 1950-52, based on the later weights, would not have been very different from the index based on the earlier weights.

1950 expenditures to 1960-61 dollars, we are assuming that families purchased the same quantities and qualities of food in 1960-61 as in 1950. U.S. Department of Agriculture data on food consumption provide evidence, however, that families did in fact change their food consumption patterns rather substantially during this period. Comparability of the reported expenditures would also be affected by savings resulting from shifts to stores with lower markups by the time of the later survey.

Food away from home was not priced for the CPI until December 1952. To evaluate changes in these expenditures in constant dollars between 1950 and 1960-61, it was assumed that food away from home increased the same percent from 1950 to 1953 as did food at home—11.1 percent. Combining this estimate for the earlier period with the actual CPI for food away from home from 1953 to 1960-61, it was estimated that these prices were 32.6 percent higher in 1960-61 than in 1950. Expressed in 1960-61 dollars, expenditures for food away from home were 3.8 percent lower in 1960-61 than in 1950, as the following tabulation indicates:

Food expenditures of all families combined

	Total	At home	Away from home
1950:			
Current dollars.....	\$1,130	\$915	\$216
1960-61 dollars.....	1,347	1,061	286
1960-61.....	1,811	1,036	275
Percent change, 1950 to 1960-61:			
Current dollars.....	+16.0	+13.2	+27.3
1960-61 dollars.....	-2.7	-2.4	-3.8

Factors in Expenditure Changes

In view of the higher real incomes in 1960-61 than in 1950 and the tendency of higher income families to spend a larger proportion of their food dollar for food away from home than lower income families, higher expenditures for food away from home in constant dollars might have been expected in the later period. However, differences in certain characteristics of the population and changes in the manner of living of urban families over the period give some insight into the reason

⁴ Indexes of per capita civilian food consumption, including home-produced food of the U.S. civilian population. Individual food items are combined in terms of 1947-49 prices through 1954 and in terms of 1957-59 prices thereafter. Indexes are linked at 1955.

for lower constant dollar expenditures for food away from home.

Food Consumption Patterns. Data are not yet available from the BLS Survey of Consumer Expenditures and Incomes to indicate differences in quantities of the various foods purchased in the two survey periods. However, U.S. Department of Agriculture data ⁴ on the type of food consumed indicate that some rather substantial changes occurred in food consumption patterns of the average U.S. family between 1950 and 1960-61. Since the urban population constituted 64 percent of the U.S. population in 1950 and 70 percent in 1960, it is reasonable to assume that these changes in average U.S. per capita food consumption are indicative of trends of urban families' purchases. These changes explain at least in part the lower constant dollar expenditure by urban families for food in 1960-61.

While the average quantity of food consumed per person increased about 1 percent between 1950 and 1960-61, consumption changes ranged from an increase of about 47 percent in poultry to a decrease of 14 percent in eggs. The CPI indicates that generally prices over this period increased most for those food groups for which per capita consumption declined, as shown in the following tabulation:

Percent change between 1950 and 1960-61 in indexes of—

	Per capita food consumption	Retail food prices
Average change ¹	+1.3	+16.0
Eggs.....	-14.4	-4.4
Cereal and bakery products.....	-12.1	+32.4
Fish.....	-8.1	+17.5
Dairy products.....	² -1.0	³ +22.8
Fats and oils.....	² -4.8	² +1.3
Sugar and sweets.....	+1.0	+17.8
Fruits and vegetables.....	0.0	+31.6
Meat.....	+6.8	+9.2
Poultry.....	+46.6	-28.3

¹ Includes some items (e.g., coffee, tea, and cocoa) not shown.

² Excludes butter.

³ Includes butter.

SOURCES: *National Food Situation* (U.S. Department of Agriculture, November 1964), table 2, p. 2; *Consumer Price Index, Price Indexes for Selected Items and Groups, Annual Averages 1935-1961* (Bureau of Labor Statistics, September 1962).

This decline in per capita food consumption of food types for which prices increased more than average and the increase in some groups for which prices increased relatively little or declined probably accounts in part for lower total food expenditures in 1960-61 than might have been anticipated.

Movement of Families From Central Cities. Both the 1950 and 1960-61 BLS surveys indicate that families living in cities with 50,000 inhabitants or more spend a slightly greater proportion of their food dollar for food away from home (22.4 percent) than do families living near large cities in places with fewer than 50,000 inhabitants (21.2 percent) and that families living in areas with fewer than 50,000 inhabitants but not near large cities spend an even smaller proportion (17.5 percent).

Approximately 64 percent of the families included in the 1950 survey lived in large cities, compared with nearly 50 percent in the 1960-61 survey.⁵ Thus, this movement away from central cities to outlying areas and small urban communities partially accounts for the lower constant dollar expenditures in 1960-61 for food away from home.

Manner of Living of Single Consumers. In 1950, the average single consumer spent \$284, or 52 percent of his total food bill, for food away from home; the average family of two persons or more spent only \$205, or 17 percent of its food dollar, for food away from home. By 1960-61, the single consumer was spending only 42 percent of his food budget for food away from home. Rather than living in boarding houses or renting a room and eating in restaurants as in 1950, many more younger consumers were living in apartments and preparing many of their meals. Furthermore, the proportion of elderly single consumers maintaining independent living quarters had increased.

While the average single consumer spent less for food away from home in 1960-61, the average family of two persons or more increased its expenditures by 36 percent, as shown in the following tabulation:

	Single consumers			Families		
	Total	At home	Away from home	Total	At home	Away from home
1950:						
Current dollars.....	\$549	\$264	\$284	\$1,221	\$1,016	\$205
1960-61 dollars.....	682	306	376	1,450	1,178	272
1960-61.....	619	361	258	1,451	1,173	278
Percent change, 1950 to 1960-61:						
Current dollars.....	+12.8	+36.7	-9.2	+18.8	+15.5	+35.6
1960-61 dollars.....	-9.2	+18.0	-31.4	+1	-.4	+2.2

The decline (2.7 percent) in constant dollar total food expenditures of all families combined would have been considerably less if the relative proportions of single consumers and families of two persons or more had been the same in the two periods. However, the proportion of single consumers was 16.8 percent in 1960-61, compared with 13.5 percent in 1950. Since constant dollar food expenditures of single persons declined about 9 percent, while those of families of two persons or more were practically identical in the two periods, the decline in the average for all families combined was augmented by the shift in relative importance of these two population groups. Using the 1950 ratios of these two population groups, constant dollar expenditures for all families combined were 0.6 percent lower in 1960-61 than in 1950; using the 1960-61 ratios, these expenditures are 0.8 percent lower, as indicated in the following tabulation:

	1950			1960-61		
	Total	At home	Away from home	Total	At home	Away from home
1950:						
Current dollars.....	\$1,130	\$915	\$216	\$1,108	\$890	\$218
1960-61 dollars.....	1,347	1,061	286	1,321	1,032	289
1960-61.....	1,339	1,063	275	1,311	1,036	275
Percent change, 1950 to 1960-61:						
Current dollars.....	+18.5	+16.2	+27.3	+18.3	+16.4	+26.1
1960-61 dollars.....	-.6	+2	-3.8	-.8	+4	-4.8

NOTE: Because of rounding, sums of individual items may not equal totals.

Other Factors. The value of a part of the food consumed by many urban families is not reflected in the food expenditure data of the BLS surveys. For example, families may acquire food as a gift or from public or private welfare agencies. Survey respondents receiving food from these sources are requested to estimate its value; these estimates are not included in food expenditures but are published separately. The average value of food from these sources was estimated to be \$14 in 1960-61. Even if the value of such food was underestimated by the respondent, the amount of food received from these sources must have ac-

⁵ Although the definitions of classes of cities were not identical in the two surveys, the differences would not affect this comparison appreciably.

counted for a very small proportion of the food used by the average family.

Several developments in the 1950's may have caused an increasing proportion of the value of food consumed by the average urban family not to be reflected in their food expenditures. Among these were the expansion of the school lunch and special milk programs, expansion of employee cafeterias, and increase in expense-account eating. Although most urban families probably were affected by at least one of these, there is no way of measuring their effects on the average urban family's food expenditures.

The annual cost of Federal assistance to the school lunch and special milk programs increased from approximately \$118 million in 1950 to about \$360 million in 1960-61. While the average child paid for his lunch and for milk distributed under these programs, the charge was relatively low because of the Federal Government's contribution. To the extent that the average family discontinued packing school lunches and patronized the school lunch program, expenditures for food at home were decreased and expenditures for food away from home increased. If the school lunch program replaced a nonsubsidized school lunch, expenditures for food away from home were probably decreased. Similarly, the growth of employee cafeterias has probably meant that the average urban worker has paid less for his lunch than he would at commercial establishments.

Expenditures for meals for which the employee was reimbursed by his employer are not included in BLS data which relate only to expenditures of family funds. In the 1950's, expense-account eating increased substantially. This trend may have affected expenditures of middle- and upper-income profession and managerial families by reducing

family expenditures both for family members and for business entertaining.

The 1950's was a period of rapid expansion in the marketing of prepared and partially prepared foods such as frozen dinners, canned meat stews, cake mixes, citrus fruit juices, instant tea and coffee, and dehydrated potatoes. According to a Department of Agriculture study, the cost of a group of 158 of these foods, referred to as "convenience foods," was approximately 7 percent less than the cost of equivalent amounts of fresh or home-prepared foods.⁶ These lower costs reflected lower transportation and storage charges for many convenience foods. Judicious use of convenience foods in 1960-61 may have accounted for a part of the reduction in food expenditures below 1950 levels.

The proportion of food sales accounted for by chain stores increased appreciably during the 1950's. Data are not available relative to the change for the period between the two surveys of consumer expenditures, but Census of Business reports show that sales by chain stores accounted for 44 percent of total food sales in 1958, compared with 34 percent in 1948.

Savings resulting from a shift in purchases to lower markup food stores between the two survey periods would be reflected in the comparison of reported food expenditures in the two surveys. That some savings did accrue as a result of such shifts is indicated by a BLS study of food prices reported by chain and independent stores in five large cities between December 1955 and December 1961. The food-at-home component increased 8 percent during this period in these five cities, using the CPI index procedure that links changes in relative weights of chain and independent stores into the index. It was estimated in this study that if changes in the proportion of sales in chain and independent stores had been reflected directly in average food prices used in the index computation, the food-at-home index in these five cities would have increased 7.3 percent.⁷

⁶ See *Comparative Costs to Consumers of Convenience Foods and Home Produced Foods* (U.S. Department of Agriculture, Economic Research Service, 1963, Marketing Research Report 609).

⁷ "Food Distribution Changes and the CPI," *Monthly Labor Review*, January 1964, pp. 58-64.

Employment Effects of Construction Expenditures

CLAIBORNE M. BALL*

ABOUT 115 WORKERS are employed for 1 year for each million dollars spent for constructing new facilities, such as buildings or highways. More than half the jobs created by construction expenditures are in the various stages of manufacturing, mining, trade, and transportation industries that produce, sell, and deliver materials required for construction activities; slightly less than half the jobs are in the construction industry. Since the value of new public and private construction in 1962 was nearly \$60 billion, approximately 7 million jobs (on-site and off-site)—1 of every 10 jobs during that year—resulted from expenditures for new construction.

Each type of construction creates about an equal number of jobs in the economy for a fixed dollar volume of construction expenditures. However, the effect on individual industries, construction occupations, and regions varies considerably.

The Studies

The initiation of construction projects is frequently considered as one means for counteracting cyclical unemployment. To provide factual data on the employment-generating effects of construction expenditures, the Bureau of Labor Statistics initiated in 1959 a continuing study program of the labor and material requirements for various types of construction that might be affected by government action. This article compares the labor requirements for the various types of construction activity studied to date; the studies include schools, Federal office buildings, hospitals, public housing, college housing, private one-family housing, high-

ways, and dredging and land construction operations (dams, levees, dikes, etc.)—referred to as civil works projects—under contracts awarded by the Army Corps of Engineers.¹ Although the data relate to various construction periods between 1959 and 1962 and are therefore not strictly comparable, they provide a general picture of the labor generating effect and the industries affected by expenditures for construction.

Labor requirements for each type of construction are expressed in terms of man-hours of employment required for each \$1,000 of construction contract cost. The man-hours include both on-site and off-site construction employment and other off-site employment required to produce and distribute the materials and equipment used in the construction.²

Total Labor Requirements

For most types of construction activity, approximately 225 man-hours of employment were created by each \$1,000 of construction contract cost, as shown in table 1.³ More man-hours were required for public housing construction (236), while fewer were required for civil works land projects (208) and for private one-family housing (204).

*Of the Division of Productivity Measurement, Bureau of Labor Statistics.

¹Detailed BLS bulletins of each study (except highways) have been published, and summaries of all studies appeared in the *Monthly Labor Review* (issues in parenthesis): *Labor Requirements for School Construction* (BLS Bulletin 1299, 1961) (*Review*, July 1961, pp. 724-730); *Labor Requirements for Federal Office Building Construction* (BLS Bulletin 1331, 1962) (*Review*, August 1962, pp. 889-893); *Labor Requirements for Hospital Construction* (BLS Bulletin 1340, 1962) (*Review*, October 1962, pp. 1120-1124); "Labor and Material Requirements: Highway Construction, 1958 and 1961" (*Review*, April 1963, pp. 394-398); *Labor and Material Requirements for Civil Works Construction by the Corps of Engineers* (BLS Bulletin 1390, 1964) (*Review*, May 1964, pp. 532-535); *Labor and Material Requirements for Private One-Family House Construction* (BLS Bulletin 1404, 1964) (*Review*, July 1964, pp. 797-800). A summary of the labor and material requirements for college housing will appear in a forthcoming issue of the *Review*.

²The studies do not include hours for work not included in contract costs, such as installations by public utility companies, nor do they include employment generated by responding and investing of the wages and profits arising from the construction.

³Text and table data incorporate revised estimates of man-hour requirements shown in previous published reports for schools, Federal office buildings, hospitals, and highways. The revised data include estimates of the man-hour requirements associated with contractors' overhead costs (not estimated previously) and updated information on the man-hours of employment generated by the construction materials used.

The relatively high employment-generating effect of public housing expenditures may be traced to the architectural designs for such projects and to the large proportion of public housing projects located in low-wage areas. Designs for public housing generally eliminate the installation of luxury or highly fabricated equipment, such as central air conditioning. Consequently, the proportion of the total cost of such housing allocated to materials is smaller and the importance of on-site employment, a large percentage of which is composed of unskilled labor (who more significantly increase man hours per dollar), is greater than for most other types of construction (table 2). Furthermore, the high man-hour requirements for public housing are also reflected in the high proportion of public housing projects located in the nonmetropolitan areas of the South where lower wage levels exist. Apparently, contractors in these areas find it economically advantageous to hire more unskilled workers and expend less for construction equipment.

The low man-hour requirements for private one-family housing are attributable primarily to the

large share of total costs for overhead and profits.⁴

Although total man-hours per \$1,000 of contract differ only slightly, variations that do exist among different types of construction (as well as differences among similar types of projects) are attributable primarily to: architectural or engineering design; materials and equipment used; required occupational skills of on-site labor; price and wage levels; and the amount of overhead and profit. Most of these factors are interrelated.

On-Site Labor Requirements

Man-hour requirements at the site of construction varied widely from 72 per \$1,000 of construction cost for private one-family housing to 134 per \$1,000 for dredging. These variations reflect factors mentioned earlier, including the relationship of other costs, particularly the cost of purchased materials, to labor costs; the degree to

⁴ Furthermore, private housing data refer to construction price rather than construction contract cost. Construction price includes selling and other speculative costs and may not be fully comparable to the \$1,000 of construction contract cost used for studying other types of construction.

TABLE 1. DISTRIBUTION OF MAN-HOURS PER \$1,000 OF CONTRACT COST, BY MAJOR TYPES OF CONSTRUCTION, INDUSTRY, AND OCCUPATION, 1959-62

Industry and occupation	Year and type of construction								
	1962	1961		1960		1959			
	Private one-family housing	College housing ¹	Highways ²	Civil works		Schools ²	Federal office buildings ²	Hospitals ²	Public housing
				Land operations	Dredging				
Total man-hours.....	204	227	224	208	224	223	227	223	236
Construction industry.....	84	105	96	89	144	96	107	100	126
On-site.....	72	94	91	85	134	86	97	89	114
Administrative and supervisory.....	2.1	3.2	9.3	9.3	8.6	3.3	5.8	3.5	4.5
Construction trades.....	52.9	59.8	54.5	42.9	62.7	55.1	58.7	60.7	72.5
Bricklayers.....	3.9	9.4	(³)			7.8	5.0	4.8	8.6
Carpenters.....	24.9	15.8	(³)	5.4		15.7	12.2	11.7	21.8
Electricians.....	2.0	6.2	(³)	.1		6.0	8.8	7.8	4.7
Ironworkers.....		3.6	(³)	2.6		2.3	4.1	3.1	2.3
Operating engineers.....	1.0	1.6	(³)	20.4	1.5	1.6	2.3	1.4	3.1
Painters.....	6.9	3.3	(³)	.1		2.8	2.0	2.5	5.0
Plasters and lathers.....	1.7	3.2	(³)			2.3	3.8	5.6	7.7
Plumbers.....	3.8	9.1	(³)	.1		7.9	8.5	12.7	8.9
Unskilled and others.....	17.1	30.6	27.2	32.5	62.6	25.6	32.6	24.6	36.7
Off-site.....	12	11	5	4	10	10	10	11	12
Other industries.....	120	122	128	119	80	127	120	123	110
Manufacturing.....	58	73	66	53	47	75	73	75	64
Trade and transportation and services.....	49	32	44	47	24	41	37	38	36
Mining and all others.....	13	17	18	19	9	11	10	10	10

¹ Preliminary data.

² Revised data. See text footnote 3.

³ Data not available.

⁴ Man-hours for mining available separately for highways (10), land operations (13), and dredging (6) only.

NOTE: Because of rounding and omissions, sums of components may not add to totals.

TABLE 2. PERCENT DISTRIBUTION OF CONTRACT COST FOR MAJOR TYPES OF CONSTRUCTION, 1952-62

Type of construction	Year of construction	Total	Materials	Equipment	On-site wages	Other
Schools ¹	1959	100.0	54.1	1.4	26.7	17.8
Federal office buildings ¹	1959	100.0	51.4	1.9	29.0	17.7
Hospitals ¹	1959	100.0	53.3	1.1	28.8	16.8
Public housing.....	1959	100.0	45.0	2.5	35.5	17.0
Private one-family housing.....	1962	100.0	47.2	1.0	22.1	29.7
College housing ²	1961	100.0	52.6	1.6	29.3	16.5
Highways ¹	1961	100.0	52.6	11.7	24.7	11.0
Civil works:						
Land operations.....	1960	100.0	35.0	19.3	26.0	19.7
Dredging.....	1960	100.0	17.3	24.9	32.3	25.5

¹ Revised data. See text footnote 3.² Preliminary data.

which certain material requirements, such as for stone and concrete, are met by production at the site; the degree of mechanization of operations; and the wage distribution and skill composition of the work force.

The combined effect of several of these factors is illustrated by the high on-site labor requirements for dredging. These requirements reflect the paucity of materials embodied in the work and the need for many semiskilled and unskilled laborers

to handle pipelines, maintain dikes, and perform other routine work associated with dredging.

Requirements by Occupation. Workers in the skilled trades accounted for over 65 percent of the total on-site man-hours for private one-family housing and hospitals, about 60 percent for other types of building construction, and about 40 percent for heavy construction. On the other hand, semiskilled and unskilled workers accounted for about 25 percent of the on-site man-hours for private housing, about 35 percent for other building construction, and 50 percent for heavy construction, as shown in the following tabulation:

	Percent of total on-site labor		
	Skilled	Semiskilled and unskilled	Administrative and supervisory
Private housing.....	71	26	3
Schools.....	61	35	4
Federal office buildings.....	57	37	6
Hospitals.....	66	30	4
Public housing.....	58	38	4
College housing.....	61	35	4
Highways.....	39	51	10
Land operations.....	40	50	10
Dredging.....	43	52	5

TABLE 3. VALUE OF MATERIALS AND EQUIPMENT USED PER \$1,000 OF CONSTRUCTION CONTRACT COST¹ BY TYPE OF CONSTRUCTION AND INDUSTRY, 1959-62

Materials and equipment used	Year and type of construction								
	1962	1961		1960		1959			
	Private one-family housing	College housing ²	Highways ³	Civil works		Schools ³	Federal office buildings	Hospitals ³	Public housing
				Land operations	Dredging				
Total.....	\$482.40	\$541.50	\$643.30	\$542.90	\$422.30	\$554.60	\$532.70	\$543.80	\$475.00
Metal products.....	\$55.00	\$152.70	\$147.40	\$84.60	\$31.50	\$160.50	\$133.90	\$144.70	\$108.70
Reinforcing rods and mesh and lath.....	4.20	42.40	47.00	39.70	(⁴)	26.40	47.00	37.60	38.60
Structural steel.....	2.00	23.90	67.90	19.90	(⁴)	29.60	13.50	21.70	2.70
Metal windows, frames, accessories.....	11.70	20.80	(⁴)	(⁴)	(⁴)	16.10	11.00	12.30	15.10
Metal doors, frames accessories.....	3.60	8.80	(⁴)	(⁴)	(⁴)	8.40	9.20	7.90	7.90
Fabricated sheet metal.....	5.80	18.20	8.20	3.40	.70	20.70	15.10	14.80	7.20
Copper tube and sheet.....	7.80	9.80	(⁴)	(⁴)	(⁴)	10.70	9.20	8.40	10.50
Builders' hardware.....	7.20	12.50	(⁴)	(⁴)	(⁴)	12.00	6.70	10.70	10.60
Ornamental metal.....	1.30	8.00	(⁴)	(⁴)	(⁴)	11.40	7.20	4.00	8.60
Wire and wire products.....	4.80	.40	(⁴)	13.10	18.20	1.10	.70	.60	2.40
Galvanized sheet metal.....	2.90	1.60	(⁴)	(⁴)	(⁴)	5.60	8.10	5.00	1.90
Metal lockers, partitions, etc.....	(⁴)	1.90	(⁴)	(⁴)	(⁴)	7.80	1.80	3.80	.30
Aluminum sheet metal.....	1.40	2.80	(⁴)	(⁴)	(⁴)	.50	3.80	1.80	.80
Miscellaneous metal products ⁴	1.70	.90	24.30	8.40	12.60	10.20	.40	2.60	.40
Stone, clay, and glass products.....	116.60	143.90	175.60	138.40	.10	135.20	118.00	106.10	132.90
Cement, concrete and gypsum products.....	76.70	71.60	106.30	42.90	(⁴)	76.40	60.90	52.60	84.90
Ready-mix concrete.....	38.20	39.50	47.70	9.40	(⁴)	38.80	43.00	27.90	47.50
Gypsum products.....	19.60	6.40	(⁴)	(⁴)	(⁴)	6.80	6.30	8.90	14.90
Cement.....	5.30	4.60	46.50	31.70	(⁴)	6.10	3.00	3.90	5.10
Concrete block and brick.....	9.00	12.70	(⁴)	(⁴)	(⁴)	13.20	7.60	6.30	11.40
Precast concrete products.....	3.30	6.80	(⁴)	1.80	(⁴)	7.50	.50	4.20	1.90
Concrete pipe.....	.40	.20	12.20	(⁴)	(⁴)	3.20	.10	.70	2.40
Stone, glass and other products.....	20.20	38.50	68.20	95.30	.10	35.50	38.60	31.60	19.60
Crushed rock and aggregates.....	1.20	1.60	68.20	71.30	(⁴)	1.30	1.90	1.30	2.60
Sand and gravel.....	3.80	4.50	(⁴)	23.50	(⁴)	3.80	2.20	2.40	3.70
Fiberglass and mineral fiber products.....	3.60	7.80	(⁴)	(⁴)	(⁴)	12.90	17.30	10.80	3.80
Window glass.....	1.40	3.80	(⁴)	(⁴)	(⁴)	6.30	3.00	3.30	2.90
Marble and other cut stone.....	1.40	11.60	(⁴)	(⁴)	(⁴)	3.30	9.60	6.40	.70
Asphalt tile.....	3.50	3.20	(⁴)	(⁴)	(⁴)	5.20	2.70	1.50	5.30
Vinyl asbestos and vinyl tile.....	2.30	5.10	(⁴)	(⁴)	(⁴)	1.40	1.50	5.60	.30

See footnotes at end of table.

TABLE 3. VALUE OF MATERIALS AND EQUIPMENT USED PER \$1,000 OF CONSTRUCTION CONTRACT COST¹ BY TYPE OF CONSTRUCTION AND INDUSTRY, 1959-62—Continued

Materials and equipment used	Year and type of construction									
	1962	1961		1960		1959				
		Private one-family housing	College housing ²	Highways ³	Civil works		Schools ³	Federal office buildings	Hospitals ³	Public housing
					Land operations	Dredging				
Stone, clay, and glass products—Continued										
Clay products.....	\$19.70	\$33.80	\$1.10	\$0.20	(⁴)	\$23.30	\$18.50	\$21.90	\$28.30	
Brick.....	12.20	19.10		.10	(⁴)	13.90	12.20	8.30	18.00	
Ceramic tile.....	5.60	7.70	(⁴)	(⁴)	(⁴)	6.60	1.50	8.10	1.70	
Structural tile.....	(⁴)	4.90		(⁴)	(⁴)	1.60	2.70	3.90	4.60	
Clay sewer pipe.....	.90	1.00	1.10	.10	(⁴)		1.30	1.10	2.20	
Other clay products.....	1.00	1.20		(⁴)	(⁴)	1.20	.90	.50	1.70	
Lumber products.....	193.20	57.90	10.20	21.80	\$0.10	47.90	17.60	23.10	67.20	
Dimension lumber.....	77.40	13.60	8.20	10.60	(⁴)	19.50	6.70	5.50	26.60	
Millwork.....	684.00	42.70	(⁴)	(⁴)	(⁴)	23.00	8.20	16.30	26.10	
Fabricated structural laminates.....	8.10	.60	(⁴)	(⁴)	(⁴)	1.10	(⁴)	(⁴)	8.60	
Plywood.....	11.40	.60	(⁴)	(⁴)	(⁴)	1.40	1.70	1.00	5.10	
Flooring.....	9.10	.30	(⁴)	(⁴)	(⁴)	3.00	.30	(⁴)	.80	
Poles and piles.....		(⁴)	2.10	11.20	.10					
Electrical.....	17.60	45.00		1.20	1.50	60.30	96.90	65.60	22.80	
Lighting fixtures.....	4.70	12.50		.20	(⁴)	21.30	30.80	16.30	4.00	
Conduit.....	.30	7.80		(⁴)	(⁴)	10.50	18.00	9.70	5.90	
Sound and signal systems.....	.20	2.70		(⁴)	(⁴)	8.30	8.50	8.70	.50	
Wire and cable.....	4.60	5.80		(⁴)	.80	6.10	7.90	5.50	3.40	
Switch and panel boards.....	3.60	9.80		(⁴)	(⁴)	6.50	17.30	10.80	3.60	
Current-carrying wiring devices.....	1.60	2.20		.10	(⁴)	2.60	4.20	2.90	1.60	
Noncurrent-carrying wiring devices.....	1.30	2.60		(⁴)	(⁴)	4.40	4.00	2.20	2.10	
Generators.....	.20	.30		.40	.60		2.30	5.90	1.30	
Transformers.....	(⁴)	.90		(⁴)	(⁴)	.50	2.80	3.20	.50	
Petroleum products.....	11.10	5.70	84.90	68.60	118.50	11.20	4.70	4.90	8.00	
Fuel and lubricants.....	.70	.70	33.40	64.80	118.50	1.10	1.30	1.20	.70	
Asphalt paving.....	1.10	1.00	51.50	3.70	(⁴)	3.00	.70	1.50	2.40	
Asphalt felts.....	1.30	1.70	(⁴)	.20	(⁴)	3.00	1.00	1.00	1.10	
Asphalt and tar pitches.....	.60	2.10	(⁴)	(⁴)	(⁴)	4.00	1.30	1.30	1.20	
Asphalt shingles.....	7.40	.20	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	2.60	
Plumbing.....	26.80	41.50	(⁴)	1.40	(⁴)	32.20	27.10	50.50	47.70	
Plumbing fixtures.....	14.60	14.70	(⁴)	.10	(⁴)	10.40	7.90	15.70	17.40	
Steel and galvanized pipe.....	2.20	10.70	(⁴)	(⁴)	(⁴)	10.90	10.60	14.70	11.70	
Fittings, valves, specialties.....	4.30	7.90	(⁴)	.60	(⁴)	1.90	2.80	10.10	8.00	
Cast iron pipe.....	5.30	7.00	(⁴)	.70	(⁴)	8.30	4.80	5.90	9.90	
Heating, ventilating and air conditioning... ..	18.50	31.70	(⁴)	.80	(⁴)	53.20	65.50	54.10	17.30	
Bollers, radiators, hotwater heaters.....	6.80	13.10	(⁴)	.10	(⁴)	14.40	8.10	15.10	7.60	
Air conditioning equipment.....	.80	4.50	(⁴)	.10	(⁴)	2.00	34.70	15.40	.10	
Temperature controls.....	.50	4.80	(⁴)	.10	(⁴)	12.80	7.90	10.40	.80	
Unit heaters and ventilators.....	.50	3.00	(⁴)	(⁴)	(⁴)	12.10	1.70	2.40	2.90	
Blowers and fans.....	.90	3.30	(⁴)	(⁴)	(⁴)	4.60	4.50	4.90	.50	
Pumps.....	.50	1.50	(⁴)	.40	(⁴)	2.20	2.50	3.00	1.10	
Storage tanks.....	.30	1.20	(⁴)	(⁴)	(⁴)	2.00	1.90	1.80	1.80	
Warm air furnaces.....	6.60	(⁴)	(⁴)	(⁴)	(⁴)	3.20	.10	.10	1.70	
Oilburners.....	1.60	.20	(⁴)	.10	(⁴)		3.50	.80	.80	
Fixed equipment.....	13.70	37.10	(⁴)	1.10	(⁴)	16.00	42.80	75.30	28.80	
Elevators, dumbwaiters, escalators.....	(⁴)	10.40	(⁴)	.10	(⁴)	.20	26.40	22.80	9.90	
Refrigerators.....	1.40	4.00	(⁴)	(⁴)	(⁴)	1.50	1.60	6.80	10.20	
Ranges and ovens.....	9.10	2.80	(⁴)	(⁴)	.70	1.50		3.50	5.80	
Kitchen equipment.....	2.90	8.50	(⁴)	(⁴)	(⁴)	1.80	2.20	7.60	.10	
Laboratory equipment.....	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	1.60	5.10	2.90	(⁴)	
Paints and chemicals.....	10.30	6.20	6.00	20.90	16.60	7.80	4.60	4.30	8.60	
Paint.....	8.50	4.30		.10	(⁴)	4.30	2.40	2.50	6.00	
Explosives.....	(⁴)	.10	6.00	19.50	16.60	(⁴)	(⁴)	(⁴)	(⁴)	
Putty and caulking compound.....	.30	.60	(⁴)	(⁴)	(⁴)	1.10	.60	.60	.90	
Membrane waterproofing.....	(⁴)	.30	(⁴)	(⁴)	(⁴)	1.20	.50	.30	.50	
Adhesives.....	.90	.60	(⁴)	(⁴)	(⁴)	.50	.40	.70	.30	
Selected materials and supplies.....										
Nursery products.....	3.50	.40		.60	(⁴)	1.10	.60	.60	5.10	
Insulating board.....	.30	1.90	(⁴)	(⁴)	(⁴)	4.20	.50	.50	.70	
Laminated plastic panels.....	2.60	.20	(⁴)	(⁴)	(⁴)	1.20	.20	.60	.10	
Construction equipment.....	9.80	15.70	117.00	192.50	249.00	13.90	19.10	11.20	25.20	

¹ Each column is the average for all projects including those in which not all types of materials and equipment were used.

² Preliminary data.

³ Revised data. See text footnote 3.

⁴ Includes porcelain enamel, fencing, lead, bolts, etc.

⁵ Less than 5 cents.

⁶ Includes \$32.70 for package and prefabricated homes.

⁷ Includes \$4.90 for laundry equipment, \$12.30 for sterilizers, and \$12.90 for X-ray equipment.

NOTE: Group totals include products not shown separately. Because of this and rounding, sums of components may not add to totals. Dashes indicate data not available.

The distribution of on-site man-hours by occupation or craft reflects the proposed function of the project and its design. In building construction, especially the construction of private one-family houses, large amounts of lumber are used; consequently, a large share of the on-site man-hours is worked by carpenters. Likewise, hospitals require the installation of numerous plumbing fixtures, resulting in the employment of many plumbers.

Requirements by Region. Although regional data on on-site man-hour requirements are available only for the various types of building construction, these data show large variations between regions in on-site requirements. The following tabulation indicates that, in general, on-site man-hour requirements are highest in the South and lowest in the West:

	North			
	Northeast	Central	South	West
Schools.....	76.0	82.6	99.0	80.6
Hospitals.....	91.4	85.0	95.3	81.1
Federal office buildings.....	110.4	100.2	96.0	89.2
Public housing.....	95.9	106.0	142.1	98.4
College housing.....	85.0	86.9	111.5	84.3
Private one-family housing.....	73.5	61.4	91.4	56.8

These regional variations largely reflect regional differences in design, wage levels, size of projects, and extent to which prefabrication was used. For example, the lower wage levels in the South result in the more frequent use of laborers and helpers for most types of building construction, thus increasing on-site hours. The construction of large buildings or projects permits maximum use of labor-saving equipment and procedures; the factor of size is especially significant in regional differences in on-site man-hour requirements for Federal office buildings which tend to be larger in more populated regions. The effect of prefabrication is a partial shift of man-hour requirements from on-site to off-site activities, as illustrated by the relatively low on-site man-hour requirements for

private housing in the North Central region, where prefabricated housing is more common.

Off-Site Labor Requirements

For each man-hour of employment performed on the construction site, an additional 0.7 to 1.8 man-hours were required to produce and distribute the necessary materials, supplies, and equipment used in construction, as shown below:

	Man-hours per \$1,000 of contract cost		Ratio of off-site to on-site man-hours
	On-site	Off-site	
Private one-family housing.....	72	132	1.8
Schools.....	84	137	1.6
Land operations.....	85	123	1.5
Hospitals.....	89	134	1.5
Highways.....	91	133	1.5
College housing.....	94	133	1.4
Federal office buildings.....	97	130	1.3
Public housing.....	114	122	1.1
Dredging.....	134	90	.7

Differences in off-site man-hour requirements resulted primarily from differences in the use of materials and equipment.

Usually, the greater the degree of fabrication of materials used or equipment put in place at the construction site, the greater the number of off-site man-hours required. For example, more hours in manufacturing are required when ready-mix concrete is used than when contractors mix their own concrete at the site of construction. Similarly, the inclusion of built-in equipment, such as moving stairways and sterilizers, increases contract price and manufacturing man-hours substantially, but on-site man-hours only slightly.

The effect on employment in individual industries varies for each type of construction because of differences in the construction process, including the usage of materials and equipment. For example, private housing, which uses more lumber and lumber products than other types of construction, has a significant impact on employment in establishments producing lumber and wood products. Table 3, showing data on material and equipment used, gives an indication of the industrial impact of each type of construction.

Trends in Salaries of Firemen and Policemen

ARTHUR SACKLEY*

THE BUREAU OF LABOR STATISTICS yearly indexes¹ of firemen's and policemen's salaries span four decades—a significant portion of the history of those public servants' paid employment. The indexes have increased 237 percent over the 40-year period (table 1).

Historical Background

The first fire department in the United States with paid personnel was established in Cincinnati, Ohio, in 1853. The chief and the operators of steam fire engines received compensation; unpaid volunteers provided the other necessary skills. During the latter part of the 19th century, other major cities recognized the necessity for trained firefighters and replaced volunteers with full-time paid employees. During this period, societies were organized among the firemen for social and benefit purposes. On the foundations prepared by these societies, local unions were later chartered by the American Federation of Labor.²

As associations of governmental employees whose work is essential to public safety, firemen's unions do not have the collective bargaining and other rights normally enjoyed by labor unions in the private sector. Salaries and working conditions of these employees are set by State and local legislation. Even where strikes are not illegal or discouraged, as a matter of policy, firemen's unions do not engage in this activity to further their objectives. They concentrate their efforts on improving their members' economic position through negotiation with local authorities, the outcome of which is embodied in resolutions or ordinances.

Urbanization proceeded rapidly in the latter part of the 19th century and early years of the

20th, bringing with it a movement for better organization and expansion of local law enforcement agencies. The village constable and town marshal gave way to municipal police departments. Despite a longer history of paid public service, policemen have experienced more difficulty than firemen in organizing themselves into unions.

The level of compensation as well as working conditions of policemen was largely the result of the ability of the police administrator to convince the local authorities to enact appropriate legislation. Since this avenue for improvement was not always satisfactory, members of some departments formed fraternal organizations, which soon became spokesmen for police personnel in matters of employment conditions. However, unionization of policemen did not develop to the extent it has among firemen. Legal restrictions and public antipathy to police unionization have been major deterrents. Consequently, although police employee organizations fulfill certain of the functions of a union, they generally are not affiliated with organized labor.³

*Of the Division of Wage Economics, Bureau of Labor Statistics.

¹ Methods used in constructing the indexes of salary scales are described in the appendix to *Salary Trends: Firemen and Policemen, 1924-61* (BLS Report 233, 1962).

This article extends the series to 1964, with particular emphasis on changes during the last 3 years. The portion dealing with salary scales is preceded by a discussion of the evolution of institutional arrangements for determining salaries of these protective employees. The series is based on salary tabulations prepared by the International Association of Firefighters, AFL-CIO (*Fire Department Salaries and Working Conditions in the United States and Canada*), the International City Managers Association (*Municipal Yearbook*), and the Fraternal Order of Police (*Survey of Salaries and Working Conditions of the Police Departments in the United States*). In addition, the Bureau obtains supplementary data for some cities by direct inquiry.

For the most part, this article does not present separate analyses for firemen and policemen because, in most communities, pay scales for the two are identical.

² At present, most firemen are represented by the International Association of Firefighters (AFL-CIO), which was founded in 1918 by 60 locals comprising 4,000 members and whose membership in the United States and Canada since has grown to 115,000.

³ The local police organizations that have national affiliations are associated with the Fraternal Order of Police (which comprises 55,000 members in 560 local lodges and 17 State associations) and the National Conference of Police Associations (which acts as a coordinating agency in matters of concern to the 275,000 policemen it represents). In the States of New York and New Jersey, there are statewide Police Benevolent Associations with local chapters. In October 1964, the American Federation of State, County and Municipal Employees (AFL-CIO) reported 48 police locals with 4,500 members, chiefly in Connecticut and Illinois. Collective bargaining contracts between municipalities and these locals are still rare; only 7 are recorded in the files of the parent union.

TABLE 1. INDEXES OF ANNUAL MAXIMUM SALARY SCALES OF FIREFIGHTERS AND POLICE PATROLMEN,¹ 1924-64

[1957-59=100]

Year	Fire-fighters and police patrolmen	Fire-fighters	Police patrolmen	Year	Fire-fighters and police patrolmen	Fire-fighters	Police patrolmen
1924.....	38	39	37	1950.....	68	68	68
1929.....	42	43	42	1951.....	72	72	72
1932.....	43	44	42	1952.....	77	77	77
1934.....	42	41	42	1953.....	82	82	82
1938.....	45	44	45	1954.....	85	85	85
1939.....	45	44	45	1955.....	87	87	87
1940.....	45	44	45	1956.....	91	91	91
1941.....	45	44	45	1957.....	96	96	96
1942.....	46	46	46	1958.....	101	101	101
1943.....	47	47	46	1959.....	104	104	104
1944.....	49	49	49	1960.....	108	108	108
1945.....	52	52	52	1961.....	113	113	113
1946.....	53	52	55	1962.....	118	117	118
1947.....	57	58	57	1963.....	124	123	124
1948.....	61	62	61	1964.....	128	127	128
1949.....	66	66	66				

¹ Based on data for all U.S. cities having a population of 100,000 or more (1960 Census) with the exception of Santa Ana, Calif.; Utica, N.Y.; and Honolulu, Hawaii. Data for 1939 to 1964 are based on maximum salaries (excluding longevity rates) for firefighters and police patrolmen in effect on January 1 of each year; data for earlier years are based on average salaries.

Employment and Salary Trends, 1954-64

Over the past decade, employment of police patrolmen and firefighters in cities with a population of 100,000 or more has increased by nearly one-fifth—to 193,000—with the rate of increase accelerating in the most recent 3-year period. From 1954 to 1964, the ranks of these protective employees grew at a rate almost twice that of all the working population but only one-third as fast as the number of all State and local employees. This increase generally paralleled the growth of the population in urban areas except in the largest cities, where their number increased much more rapidly than the general population. However, these increases in employment of urban policemen and firemen have been relatively less than those of other groups of municipal employees. The more rapid growth of other State and local employees reflects, in part, the growth in school age population and the consequent increase in the number of teachers, the increased number of employees in State and local hospitals, and expanding public welfare programs.

⁴ Text references to tabular classes, including city-size groups, are phrased as, for example, "60 to 70 percent" or "100,000 to 200,000" rather than "60 to less than 70 percent" or "100,000 to under 200,000" as used in tables.

⁵ All pay references in this article pertain to maximum salary scales (excluding longevity rates) for policemen engaged in general police duties (patrolmen) and firefighters (excluding drivers and engineers).

⁶ For definition of regions used in this article, see footnote 1, table 2.

Between 1954 and 1964, the communities where salaries of the protective workers increased 60 to 70 percent⁴ during that period employed one-third of the employees; those where the advances were 40 to 60 percent employed two-fifths of the workers.⁵ The pay scales of slightly more than 25 percent of workers were raised during the decade by \$1,400 to \$1,800; about an equal number of workers received pay scales in 1964 that were between \$3,000 and \$3,200 higher than 10 years earlier (table 2).

At opposite ends of the pay scales, 0.1 percent received raises of less than \$800, and 5 percent were paid under salary scales that rose \$3,200 or more in the past 10 years.

Variations by Size of City

Both percentage and dollar increases were greater in large than small cities. About 38 percent of the salary scales in effect in 1964 in cities of 1,000,000 inhabitants or more accrued over the past decade. The fact that, during the period, over three-fifths of the workers in cities of this size received increases of 60 to 70 percent or \$3,000 to \$3,200 reflects employment of half of the policemen and firemen in these categories in New York City.

As might be expected, there was less concentration of increases in population groupings containing a larger number of cities—that is, in small communities. In the second largest population group—500,000 to 1 million—the pay scales of approximately 63 percent of the workers advanced during the 10-year period between 30 and 50 percent; a similar percent of those in the 250,000 to 500,000 group obtained salary raises of 40 to 60 percent. Percentage and dollar increases were more varied in cities of 100,000 to 250,000, but one-third of the policemen and firemen in these communities were employed where maximum scales were raised 30 to 40 percent during the period.

Variations by Region

Over this decade, as in recent years, average increases varied more among regions⁶ than city size groups. Salaries in the West recorded the largest percentage increase, followed by the Northeast, South, and North Central regions. The average rise in salary scales in dollar terms was greatest in the West (\$2,878) and smallest in North Central cities (\$1,886).

TABLE 2. PERCENT DISTRIBUTION OF FIREFIGHTERS AND POLICE PATROLMEN,¹ BY THE INCREASE IN MAXIMUM ANNUAL SALARY SCALES, BY CITY-SIZE GROUP AND REGION, 1954-64

Increase in maximum annual salary scale	All cities 100,000 and over	City-size group				Region ²			
		1,000,000 and over	500,000 and under 1,000,000	250,000 and under 500,000	100,000 and under 250,000	Northeast	South	North Central	West
PERCENT									
Under 20.....	0.4				2.0	1.1	0.6	1.0	
20 and under 30.....	6.0	8.2	13.9	7.0	7.9	29.0	4.4	19.0	
30 and under 40.....	17.5	11.1	39.5	18.0	34.5	10.6	16.3	9.4	0.9
40 and under 50.....	26.2	19.1	23.1	32.6	18.9	3.8	29.6	60.3	4.4
50 and under 60.....	13.5		14.1	30.7	14.5	55.0	32.7	6.9	22.0
60 and under 70.....	32.9	61.6	9.4	11.9	15.7		6.7	3.4	65.4
70 and under 80.....	3.0				3.7		10.0		5.3
80 and over.....	.6				2.8				2.0
Total.....	100.0				100.0	100.0	100.0	100.0	100.0
Average increase.....	50.4	53.4	50.6	47.3	46.5	52.1	49.8	42.0	61.4
DOLLARS									
Under \$800.....	.1				.7		.6		
\$800 and under \$1,000.....	1.1			1.2	4.8	1.1	2.2	1.0	
\$1,000 and under \$1,200.....	1.9			2.8	7.1		4.7	3.3	
\$1,200 and under \$1,400.....	5.8		8.3	5.5	14.7	6.4	10.4	3.8	
\$1,400 and under \$1,600.....	13.4	19.3	4.4	9.3	15.9	13.3	12.8	21.3	
\$1,600 and under \$1,800.....	12.4		20.2	23.8	18.3	18.9	14.8	5.4	2.7
\$1,800 and under \$2,000.....	6.7		4.9	20.3	10.3	2.0	17.1	5.7	4.6
\$2,000 and under \$2,200.....	19.2	19.1	34.4	12.0	7.1	2.4	21.6	51.1	6.4
\$2,200 and under \$2,400.....	2.6			7.7	6.7	1.7	1.4	3.8	5.2
\$2,400 and under \$2,600.....	1.8		4.1	2.6	2.2	1.1		1.8	7.1
\$2,600 and under \$2,800.....	3.0		4.0	8.0	3.3	1.7	4.2	2.8	5.0
\$2,800 and under \$3,000.....	.5			2.9					3.6
\$3,000 and under \$3,200.....	26.4	61.6	2.6	3.9		61.5			45.3
\$3,200 and over.....	5.0		16.9		5.2		10.0		20.2
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average increase.....	\$2,216	\$2,559	\$2,179	\$1,950	\$1,793	\$2,363	\$1,915	\$1,886	\$2,878

¹ Based on data for all cities having a population of 100,000 or more in the 1960 census (with the exception of 3 cities of 100,000 but under 250,000 inhabitants). Data refer to maximum salaries (excluding longevity rate) on January 1 of each year.

² The regions used in this study are *Northeast*—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; *South*—Alabama, Arkansas, Delaware, District of

Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; *North Central*—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; and *West*—Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: Because of rounding, sums of individual items may not equal totals

Over half of the protective workers in the Northeast and nearly nine-tenths of policemen and firemen in western cities were employed during the decade where salaries for such workers increased 50 to 70 percent in that time; fewer than 1 percent of the latter protective employees were employed where pay rose less than 30 percent. On

the other hand, only 1 in 10 firemen and patrolmen in the North Central region were in cities where there was more than a 50-percent increase over the decade.

In western cities, about two-thirds of the workers received pay raises of \$3,000 or more, and over half the firemen and patrolmen in the Northeast

TABLE 3. PERCENT DISTRIBUTION OF CITIES, FIREFIGHTERS, AND PATROLMEN,¹ BY THE INCREASE IN MAXIMUM ANNUAL SALARY SCALES, 1961-64

Increase in maximum annual salary scale	Fire-fighters and police patrolmen	Firefighters		Police patrolmen		Increase in maximum annual salary scale	Fire-fighters and police patrolmen	Firefighters		Police patrolmen	
		Workers	Cities	Workers	Cities			Workers	Cities	Workers	Cities
PERCENT											
No change.....	2.8	2.3	2.4	3.2	3.1	No change.....	2.8	2.3	2.4	3.2	3.1
Under 2.5.....	.2	.3	.8	.2	.8	Under \$100.....					
2.5 and under 5.0.....	2.6	3.0	6.3	2.4	7.9	\$100 and under \$200.....	1.3	2.0	4.7	.7	3.1
5.0 and under 7.5.....	14.1	15.3	16.5	13.2	13.4	\$200 and under \$300.....	4.5	5.3	8.7	4.0	8.7
7.5 and under 10.0.....	20.8	20.6	17.3	20.9	15.7	\$300 and under \$400.....	5.9	8.3	10.2	4.2	10.2
10.0 and under 12.5.....	10.1	11.1	13.4	9.3	17.3	\$400 and under \$500.....	25.2	22.2	15.0	27.4	15.7
12.5 and under 15.0.....	6.7	7.7	18.1	5.9	15.0	\$500 and under \$600.....	5.1	7.0	11.8	3.7	11.0
15.0 and under 17.5.....	7.2	8.0	8.7	6.7	8.7	\$600 and under \$700.....	5.8	6.0	10.2	5.6	7.9
17.5 and under 20.0.....	28.6	25.4	9.4	31.0	10.2	\$700 and under \$800.....	5.5	6.4	10.2	4.9	11.0
20.0 and under 22.5.....	2.9	3.8	4.7	2.2	3.9	\$800 and under \$900.....	3.9	6.5	10.2	3.7	7.1
22.5 and under 25.0.....	3.7	2.3	1.6	4.7	2.4	\$900 and under \$1,000.....	6.3	4.3	6.3	6.2	9.4
25.0 and over.....	.2	.2	.8	.2	1.6	\$1,000 and under \$1,100.....	2.0	3.0	5.5	1.3	3.9
						\$1,100 and under \$1,200.....	2.4	2.9	2.4	2.1	2.4
						\$1,200 and over.....	29.2	23.9	4.7	33.1	6.3
Total.....	100.0	100.0	100.0	100.0	100.0	Total.....	100.0	100.0	100.0	100.0	100.0

¹ See footnote 1, table 2.

NOTE: Because of rounding, sum of individual items may not equal totals.

and North Central regions had their pay scales advanced from \$3,000 to \$3,200 and \$2,000 to \$2,200, respectively. On the other hand, 86 percent of the protective workers in the South were employed where increases were less than \$2,400. Salary increases in the South, where there are more small communities than in other regions, were less uniform than in other parts of the country.

Salary Trends, 1961-64

Maximum annual salary scales of firefighters and police patrolmen employed in cities with 100,000 inhabitants or more continued to move up from January 1961 to January 1964 at about the same rate as in the previous 3-year period.⁷ For firemen and policemen combined, the total dollar increase from 1961 to 1964 was \$757, compared with \$639 for the 1958-61 period—a difference that reflects a slightly larger average percentage increase in the later period applied to higher salary scales.

Primarily because of an increase of almost 10 percent in salaries for New York City firemen and policemen, average salaries rose significantly more—5 percent—in 1962 than either in 1961 or 1963, when the increases averaged 4.0 and 3.5 percent, respectively. In 1963, more workers—3 out of 4—were affected by scale changes than in 1961

⁷ See "Salaries of Firemen and Policemen, 1958-61," *Monthly Labor Review*, March 1962, pp. 282-286.

⁸ Computations not shown in this article.

or 1962, when about 2 out of 3 were employed where salary scales were raised.⁸

Maximum salary scales of firefighters in three cities with 2.3 percent of all firefighters, and of patrolmen in four cities accounting for 3.2 percent of all policemen remained unchanged from 1961 to 1964. At the other end of the pay spectrum, two cities raised maximum salary scales of policemen 25 percent or more and one raised salaries of firemen over 25 percent (table 3). The majority of cities, 3 out of 5 for policemen and 2 out of 3 for firemen, raised salaries of patrolmen and firefighters 5 to 15 percent, with a median increase of just over 11 percent for both groups. Three-fifths of the cities increased salaries at least twice during the 3-year period.

About 3 out of 10 workers were employed where salary scales were raised 17.5 to 20 percent and 2 out of 10 worked where the advances were 7.5 to 10 percent. In dollar terms, the most common increases were \$1,200 or more and \$400 to \$500; these affected about 30 and 25 percent, respectively, of the policemen and firemen grouped together. New York City workers were among those whose scales rose over \$1,200.

Salary scale increases for patrolmen slightly exceeded those for firefighters in 1958-61 and 1961-64. In the latter period, police salaries increased 13.0, while those of firemen rose 12.7 percent. The comparable dollar increments were \$780 and \$726, respectively.

TABLE 4. INCREASES IN MAXIMUM ANNUAL SALARY SCALES OF FIREFIGHTERS AND POLICE PATROLMEN,¹ BY CITY-SIZE GROUP AND REGION, 1961-64

City-size group or region ²	Percent ³						Dollars					
	1961-64			Firefighters and police patrolmen			1961-64			Firefighters and police patrolmen		
	Fire fighters and police patrolmen	Fire-fighters	Police patrolmen	1961-62	1962-63	1963-64	Fire-fighters and police patrolmen	Fire-fighters	Police patrolmen	1961-62	1962-63	1963-64
All cities.....	13.0	12.7	13.0	4.0	5.0	3.5	757	726	780	233	301	223
CITY-SIZE GROUP												
1,000,000 and over.....	14.3	14.6	14.2	5.0	5.8	2.9	915	939	903	319	388	208
500,000 and under 1,000,000.....	12.2	11.1	13.2	2.8	4.7	4.3	704	652	838	159	277	268
250,000 and under 500,000.....	12.2	12.2	12.2	3.9	4.2	3.6	661	654	666	214	236	211
100,000 and under 250,000.....	11.5	11.9	11.2	3.3	3.9	3.9	584	597	571	167	205	212
REGION												
Northeast.....	14.5	14.0	14.7	4.4	5.9	3.5	864	827	887	261	371	232
South.....	14.7	13.2	16.0	3.4	7.0	3.7	735	639	815	170	361	204
North Central.....	8.6	9.3	8.4	2.0	2.1	4.3	511	546	499	118	128.	265
West.....	14.6	14.5	14.8	7.2	4.7	2.1	963	961	975	471	334	158

¹ See footnote 1, table 2.

² For definition of regions, see footnote 1, table 2.

³ Because of weighting methods, the percent change for firefighters and police patrolmen combined may be slightly above or below the change for either group considered separately.

Changes by City-Size. In the 3-year period, salary scales for firefighters and patrolmen rose most rapidly in cities with a population of 1,000,000 or more (table 4)—a reversal of the trend for the decade ending in 1961 but consistent with the prior 3-year period—1958–61. The average increase from 1961 to 1964 ranged from 11.5 percent in the smallest city-size group to 14.3 percent in the 1,000,000 or more group—\$584 and \$915, respectively. Differences between increases for policemen and firemen were significant only in the 500,000 to 1,000,000 group and were attributable to substantial raises in police pay scales that were not accorded firemen in a few southern cities.

Regional Differences. Increases in salary scales varied more among regions than among city size groups, as in the previous 3-year period. In both periods, the western cities led in terms of dollar increases in pay scales. These large increases are related to the relatively high salary levels in major California metropolitan areas and in smaller communities surrounding them. The percentage increase in salaries was practically identical in the West, South, and Northeast regions, and was markedly smaller in the North Central region.

The rapid pay scale increase in southern cities during the past 3 years was concentrated in 1962–63, when the scales in these cities advanced 7 percent, exceeding those in other areas. Firemen in some of these cities failed to share in the gains; southern police salaries rose 16 percent, those of firemen in the region increased 13.2 percent.

During 1961–64, the North Central region replaced the South as the area with the slowest rate of increase in maximum salary scales for patrolmen and firefighters. Salary scales in the North Central region rose only 8.6 percent or \$511, although the rate of increase in the last of the 3 years was about double that of the first or second year.

1964 Salaries. In cities with a population of 100,000 or more, maximum annual salary scales for firefighters and patrolmen in January 1964 ranged from \$8,316 for policemen in San Francisco and Berkeley, Calif., to \$4,080 for firefighters in Wichita Falls, Tex.; the average salary scale for both groups combined was \$6,587.

Salary scales were higher in heavily populated centers than in smaller communities. They were highest in the West and lowest in the South, where

7 out of the 10 cities with the lowest maximum firemen salary scales and 8 of the 10 lowest pay scales for policemen were located. Of the 10 cities with the highest pay scales for both firemen and policemen, 9 were in California.

Comparison With Other Workers

Over the quarter century from 1939 to 1964, the 184 percent rise in maximum salary scales of patrolmen and firefighters outpaced the increase in the BLS Consumer Price Index and exceeded the rise in salary rates for Federal white-collar employees. However, it fell short of the rise in average annual salaries of urban public school teachers and the hours and weekly earning of factory production workers. The comparisons are made in the following tabulations:

	Percent increase ¹ from—		
	1939 to 1964	1954 to 1964	1961 to 1964
Firemen and policemen:			
Maximum salary scales.....	184	51	13
Urban public school teachers:			
Average annual salaries ²	³ 192	⁴ 49	(⁵)
Federal Classification Act employees:			
Basic salary scales ⁶	143	46	14
Average salary rates ⁶	158	48	15
Average salaries ⁶	253	76	22
Factory production workers:			
Average hourly earnings.....	301	41	10
Average weekly earnings.....	336	42	12
Consumer Price Index.....	121	15	4

¹ Increases for urban teachers were computed for school years ending in June; those for all other workers are based on January of each year, except percentage increases for Federal employees which are derived from the August 1939, July 1954, July 1961, and July 1964 preliminary data.

² Includes both changes in salary scales (including cost-of-living adjustments) and changes in pay for individual teachers because of length of service, merit, or improved educational qualifications.

³ 1939 to 1963.

⁴ 1953 to 1963.

⁵ 1964 data not available.

⁶ Basic salary scales reflect statutory changes in salaries; average salary rates show, in addition, the effect of merit or in-grade increases; average salaries also include the effect of change in the proportion of workers employed in the various pay grades.

Much of the improvement in the relative position of firemen and policemen has taken place in the past decade when their salaries rose proportionately more than earnings of factory production workers and salaries of urban teachers and more than three times as fast as the CPI. Over the 3 years ending in January 1964, the 13-percent rise in policemen and firemen salary scales fell short of the 14-percent advance in Federal classified pay scales, but was higher than the rise in hourly or weekly earnings of factory production workers.

Factory Workers Under Bargaining Agreements

ARNOLD STRASSER*

IN 1962, more than three-fifths of the production and related workers¹ in the manufacturing industries were employed by plants in which a majority were covered by labor-management agreements (chart). The proportions ranged by industry from 83 percent in transportation equipment to 27 percent in the textile mill products group,² and by region from 71 percent in the North Central to 41 percent in the South.³ However, as a percent of total factory employment, there was a decline between 1958 and 1962 in the proportion of workers covered by such agreements.

The data were obtained from establishments included in the Bureau of Labor Statistics study of 1962 employer expenditures for selected supplementary compensation practices for production and related workers in manufacturing.⁴ The survey sample was designed to permit presentation of data for all manufacturing in the United States, in four broad economic regions, and for major industry groups. The estimates in this article are based on employer responses to the question "Did collective bargaining agreements cover the majority of the production and related workers in the establishment?" The respondents were not asked to provide information about the unions with whom agreements were in force; hence estimates about the coverage of different unions were not possible.

Not all workers in plants where a majority were covered by contracts belonged to a union, and not all union members are employed by plants in which a majority are covered.⁵ Conversely, the absence

of majority coverage indicates that either none of the workers or only a minority were covered by labor-management agreements. The term union workers is specifically defined in this article as production and related workers in manufacturing establishments where a majority were covered by collectively bargained agreements.

Industry and Regional Coverage

More than three-fifths of the union workers (62 percent) were employed in the food, apparel, primary metal, fabricated metal, machinery, electrical equipment, and transportation equipment industries. In the aggregate, these industries had a greater proportion of the workers covered by collectively bargained agreements than their proportionate share of total factory employment (58 percent). Two of these groups—transportation equipment and primary metal—had the highest ratios of union to total factory employment among the industries for which data were available, and each contributed a greater number to the union worker count than any other industry group. Among the other five industry groups noted above, at least half the workers were employed by plants in which a majority were covered under collectively bargained agreements; and among these industries,

*Of the Division of National Wage and Salary Income, Bureau of Labor Statistics.

¹The definition of production and related workers conforms with that used in the Bureau's production employment series. The terms "production and related workers" and "factory workers" are used interchangeably in this article.

²Excluded from this and subsequent industry comparisons are the ordnance and accessories, chemicals and allied products, and petroleum refining and related industries. Data for these groups did not meet publication criteria.

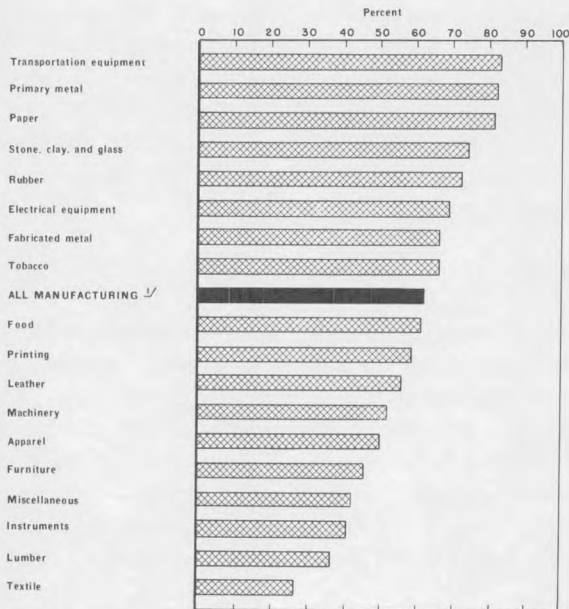
³For definition of regions, see footnote 1 of table.

⁴For detailed information about expenditures for the selected practices studied and the scope and method of the study, see "Supplementary Pay Practices in Manufacturing, 1962 and 1959," *Monthly Labor Review*, November 1964, pp. 1273-1277, and *Employer Expenditures for Selected Supplementary Compensation Practices for Production and Related Workers and Composition of Payroll Hours, Manufacturing Industries, 1962*, a forthcoming bulletin.

⁵There is, however, a close correspondence between the aggregate of workers in plants where a majority were covered by union contracts and the estimated United States membership of national and international unions in manufacturing. Assuming that the proportion of members in the United States was the same for manufacturing as for the total membership of national and international unions, about 7.5 million workers were estimated to have belonged to United States manufacturing unions during 1962—about 2 percent less than the number of workers in plants where a majority were covered. For details about membership, see *Directory of National and International Labor Unions in the United States, 1963* (BLS Bulletin 1395, 1964).

Contract Coverage in Manufacturing, 1962

Percent of Production Workers in Establishments With a Majority of Workers Covered

¹ Includes industries not presented separately.

three (food, apparel, and machinery) had a smaller proportion of all union workers than of total factory employment. Among the other 11 industry groups for which data were available, 4 (tobacco; paper; rubber; and stone, clay, and glass) had a greater proportion of total union workers than their share of factory employment.

⁶ For detailed information about the 1958 study, see "Collective Bargaining Coverage in Factory Employment, 1958," *Monthly Labor Review*, April 1960, pp. 345-349.

⁷ The establishments within the scope of the 1958 study were classified in accordance with the 1945 edition of the *Standard Industrial Classification Manual*; those within the scope of the 1962 study were classified in accordance with the 1957 edition of the *Manual*. Between these two manuals, there were shifts of industries within manufacturing as well as between manufacturing and nonmanufacturing. Therefore, the information for the manufacturing industries as a whole, and for major industry groups, are based on different classification criteria and a direct comparison is not possible. For detailed information about the change in classification, see *Handbook on Industrial Classification* (U.S. Bureau of Employment Security, 1958 Publication R91).

⁸ A decline in number is verified by an estimated decrease in United States manufacturing union membership of about 4 percent between 1958 and 1962. For details, see BLS Bulletin 1395 referred to in footnote 5 and the 1959 *Directory* (BLS Bulletin 1267, 1959).

By industry, the ratio of union to total factory employment ranged from 27 percent in the textile group to 83 percent in the transportation equipment group. In only five industries (furniture, miscellaneous manufacturing, instruments, lumber, and textiles) were less than half the workers employed by plants where a majority were covered by collectively bargained agreements; and in only three industries (transportation equipment, primary metal, and paper) were more than four-fifths of the workers employed by plants with contracts covering a majority of the production force.

The sample used in conducting the study was not designed to provide data for industries by region. Nevertheless, the data indicated that the proportion of covered to total factory employment varied considerably by region. The regional differences tended to be greater among those industry groups in which fewer than half the workers were covered by labor-management agreements than among groups in which more than half the workers were covered; and in industries where the ratio of union to total factory employment was low in one or more regions the national average for the industry tended to be low. For example, in the textile and furniture industries about one-eighth and in the lumber industry about one-fifth of the workers in the South were covered by collectively bargained agreements. However, about two-thirds of the textile and furniture workers in the North Central, and about three-fifths of the lumber workers in the West were employed by plants that had labor-management agreements covering a majority of the production and related workers. On the other hand, in the transportation equipment group, the widest variation in coverage was between the South (74 percent) and the North Central region (86 percent).

Declining Coverage

The proportion of union workers appears to have declined from about 67 percent of total factory employment in 1958 to 62 percent in 1962,⁶ Due to changes in the industrial classification system,⁷ the data for the two survey periods are not, however, strictly comparable, and the actual decline may have differed somewhat.⁸

Other data suggest that the decline at the all-manufacturing level resulted in part from differential contributions to the total by different indus-

tries and establishment size groups. When data for both years are examined, using the same industrial classification base,⁹ it becomes apparent that production employment in the groups that had a high degree of unionization in 1962 (70 percent or more) and in industries in which fewer than half the workers were covered was, on the average, a smaller proportion of total employment in 1962 than in 1958—the difference being accounted for

⁹ See *Employment and Earnings Statistics for the United States, 1909-1962* (BLS Bulletin 1312-1, 1962) for industry employment data based on the 1957 edition of the *Standard Industrial Classification Manual*.

¹⁰ *County Business Patterns*, First Quarter 1962, Pt. 1, U.S. Summary (U.S. Bureau of the Census, 1963) and *U.S. Census of Manufacturers: 1958*, Vol. 1, Summary Statistics (U.S. Bureau of the Census, 1961).

¹¹ Since many unions have membership in more than one industrial classification, and more than one union may draw members from an industry, it is not possible to relate membership directly by union to employment by industry.

¹² The 17 unions meeting these criteria are the Auto Workers; Machinists; Steel Workers; electrical worker unions (IBEW, IUE, and UE); Textile Workers Union; Ladies' Garment Workers; Clothing Workers; Meat Cutters; Oil, Chemical and Atomic Workers; Rubber Workers; Pulp and Sulphite Workers; Papermakers and Paperworkers; Boilermakers; Printing Pressmen; and Typographers.

by a growth in production employment in the industry groups in which 50 to 69 percent of the workers were in covered establishments. In addition, during the period between the studies, there was a decline in employment in the largest size establishments (500 workers or more) and a corresponding increase in employment in the smaller units.¹⁰ The data suggest that some of the workers displaced from the largest size units had been covered by agreements under majority situations and those added in the smaller size units were not covered in the same proportion.

Union Membership

Some additional perspective may be gained by examining the aggregate change in membership of major national and international unions whose membership is primarily drawn from the manufacturing industries.¹¹ Among the 17 manufacturing unions that had at least 100,000 members (including nonproduction workers) during 1958 and 1962,¹² 7 had greater and 10 had less member-

NUMBER AND PERCENT OF PRODUCTION AND RELATED WORKERS IN MANUFACTURING ESTABLISHMENTS, BY UNION CONTRACT COVERAGE, REGION, AND INDUSTRY GROUP, 1962

[Number in thousands]

Region ¹ and industry group	Production and related workers					
	In all establishments		In establishments with majority of workers covered under agreement		In establishments with none or minority of workers under agreement	
	Number	Percent	Number	Percent of all workers	Number	Percent of all workers
United States ²	12,494	100	7,687	62	4,807	38
Northeast.....	4,285	100	2,799	65	1,486	35
South.....	2,822	100	1,157	41	1,665	59
North Central.....	4,071	100	2,880	71	1,191	29
West.....	1,317	100	851	65	466	35
Food and kindred products.....	1,175	100	719	61	456	39
Tobacco manufactures.....	79	100	52	66	27	34
Textile mill products.....	812	100	223	27	589	73
Apparel and other finished textile mill products.....	1,125	100	562	50	563	50
Lumber and wood products.....	526	100	197	37	329	63
Furniture and fixtures.....	320	100	146	46	174	54
Paper and allied products.....	486	100	396	81	90	19
Printing, publishing, and allied industries.....	594	100	350	59	244	41
Rubber and miscellaneous plastics products.....	314	100	225	72	89	28
Leather and leather products.....	319	100	178	56	141	44
Stone, clay, and glass.....	479	100	353	74	126	26
Primary metal.....	936	100	766	82	170	18
Fabricated metal.....	864	100	566	66	298	34
Machinery.....	1,036	100	536	52	500	48
Electrical equipment.....	1,060	100	734	69	326	31
Transportation equipment.....	1,061	100	876	83	185	17
Instruments.....	230	100	95	41	135	59
Miscellaneous manufacturing.....	315	100	132	42	183	58

¹ The regions used in this study are: *Northeast*—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *South*—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; *North Central*—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and

Wisconsin; and *West*—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

² Includes the ordnance and accessories, chemicals and allied products, and petroleum refining and related industries not presented separately.

NOTE: Because of rounding, sums of individual items may not equal totals.

ship in 1962 than in 1958. In the aggregate, the 1962 U.S. membership of these unions was below the 1958 level by more than 141,000 or about 3 percent.

Among the three largest unions in manufacturing (Auto Workers, Machinists, and Steel Workers), only the Auto Workers had an increase in membership. The 5 percent increase (44,547 members) however, was more than offset by a loss of almost 200,000 in the other two unions.

Among the other major manufacturing unions, one—the Pulp and Sulphite Workers—increased membership by about 19 percent; however, this increase consisted of some 22,000 additional members as compared with the total membership of some 5.9

million in the 17 unions under discussion. The other increases ranged from about 3 percent by the Meat Cutters to about 5 percent by each of the electrical worker unions (IBEW,¹³ IUE, and UE) and the Printing Pressmen. Membership declines ranged from about one-half percent by the Clothing Workers to 12 percent by the Machinists. With the exception of the Steel Workers and the Oil, Chemical and Atomic Workers whose numbers dropped by 10 and 9 percent, respectively, the other major unions had membership losses of about 2 to 5 percent.

¹³ In 1962, the membership of the Electrical Workers (IBEW) was not recorded by industry in the 1963 BLS *Directory*. It operates in the contract construction and utility industries as well as in manufacturing.

The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas. Not, indeed, immediately, but after a certain interval; for in the field of economic and political philosophy there are not many who are influenced by new theories after they are 25 or 30 years of age, so that the ideas which civil servants and politicians and even agitators apply to current events are not likely to be the newest. But, soon or late, it is ideas, not vested interests, which are dangerous for good or evil.

—J. M. Keynes, *The General Theory of Employment, Interest, and Money* (New York, Harcourt, Brace and World, Inc., 1936), pp. 383–384.

Summaries of Studies and Reports

Consumer Expenditures for Health Purposes

PRIVATE CONSUMER expenditures for medical care amounted to an estimated \$23.7 billion in 1963 or 7.3 percent more than in 1962.¹ Thus, total consumer expenditures for health purposes are continuing to expand at about the same pace as in recent years. In 1962, the increase from the preceding year was 7.6 percent; in 1961, it was 5.4 percent; and in 1960, 6.7 percent. Private consumer expenditures for hospital care rose 12 percent in 1963, to \$7.0 billion. Consumer expenditures for the services of physicians in private practice amounted to an estimated \$6.4 billion, an increase of 6 percent. Expenditures for drugs and drug sundries amounted to \$4.2 billion—4 percent more than in the preceding year. Per capita expenditures for medical care amounted to \$126.93, an increase of 5.7 percent for the year.

Of total consumer expenditures, \$15.7 billion was in the form of direct payments by patients and about \$8 billion in the form of payments for health insurance; \$7 billion of the \$8 billion represented payments for health services or benefits, and a little more than \$1 billion represented payments for insurance service—that is, the amount retained by health insurance organizations for expenses, additions to reserves, and profits.

Methodology

Private consumer expenditures for medical care as shown here include all payments by private consumers for medical care and health insurance.²

The general procedure in making these estimates is first to estimate total national expenditures for

each type of service (for example, hospital care, services of physicians in private practice, and services of dentists in private practice). From the total for each of the items are subtracted (a) net government expenditures in directly providing health services and supplies, less revenues received from paying patients; (b) payments to hospitals, private practitioners, suppliers of drugs and appliances, etc., for purchase of care for beneficiaries under various government programs; and (c) philanthropic contributions or payments for health care. The balance represents private consumer expenditures.

[Data from a variety of sources are used.] The estimates of consumer expenditures for drugs and drug sundries are based on the annual estimates made by the National Income Division of the Department of Commerce of personal consumption expenditures for these items. From the totals are subtracted the estimated payments for these items made under the various government programs, including workmen's compensation.

On the basis of this information, it appears that approximately 85 percent of the consumer expenditures for drugs and drug sundries is for drugs. (Indications are that most of the expenditures for drugs are for prescribed drugs.) About 7 percent is for feminine need products, and the remaining 8 percent for miscellaneous drug sundries—bandages, dressings, first aid kits, rubber health supplies, supports, heating pads, clinical thermometers, syringes, etc. The figures are approximate and are intended merely to give some idea of the general magnitude of consumer expenditures for the different groups of products.

Trends in Expenditures, 1948–63

Since 1948, consumer expenditures for medical care have more than trebled. The annual rate of increase was more rapid in the years 1950–59 than before or since. During the past 4 years, the annual increase has been from 5 percent to 8 percent. Part of the increase results from population

¹ EDITOR'S NOTE.—This article is excerpted from Louis S. Reed, "Private Consumer Expenditures for Medical Care and Voluntary Health Insurance, 1948–63," *Social Security Bulletin*, December 1964, pp. 12–22.

² For the relationship of consumer expenditures to total national health expenditures, see Louis S. Reed and Dorothy P. Rice, "National Health Expenditures: Object of Expenditures and Source of Funds, 1962," *Social Security Bulletin*, August 1964.

PER CAPITA PRIVATE CONSUMER EXPENDITURES FOR MEDICAL CARE, SELECTED YEARS, 1948-63¹

Type of expenditure	1948	1950	1955	1956	1957	1958	1959	1960	1961	1962	1963
Total.....	\$52.79	\$57.71	\$79.51	\$86.34	\$92.15	\$97.10	\$104.53	\$109.28	\$113.21	\$120.12	\$126.93
Hospital care.....	\$11.63	\$14.15	\$21.64	\$23.14	\$24.57	\$25.84	\$27.19	\$29.64	\$31.66	\$33.84	\$37.36
Physicians' services.....	17.15	17.29	21.15	22.90	24.35	26.55	29.23	29.76	30.21	32.86	34.21
Dentists' services.....	6.20	6.40	9.29	9.83	10.31	10.79	10.85	11.01	11.30	12.05	12.57
Drugs and drug sundries.....	10.10	11.44	15.24	17.35	18.18	19.30	20.58	21.50	21.70	22.10	22.65
Eyeglasses and appliances.....	2.97	3.24	4.22	4.92	5.88	5.78	6.79	6.71	6.77	7.23	7.54
Other professional services.....	2.28	2.47	3.27	3.50	3.81	4.06	4.39	4.46	4.46	4.48	4.50
Nursing-home care.....	.69	.73	.92	1.03	1.07	1.17	1.26	1.45	1.71	1.76	2.36
Health insurance, net cost.....	1.76	1.99	3.78	3.68	3.98	3.62	4.24	4.74	5.40	5.81	5.74

¹ Excludes Alaska and Hawaii before 1960.

growth, and part can be ascribed to the advance in medical care prices.³ Other factors are the increase in the per capita utilization of health services and changes in the content of the services—the development of new medical techniques, new drugs, etc.—that have increased the cost of medical care.

During the period 1948-63, estimated per capita consumer expenditures for medical care have more than doubled. (See table.) In the past 5 years, per capita expenditures have increased about 5 percent a year—4.5 percent in 1960, 3.6 percent in 1961, 6.1 percent in 1962, and 5.7 percent in 1963.

The rates of increase in total consumer expenditures for the different types of service have varied widely. In the past 5 years, total expenditures for hospital care have gone up 9.5 percent a year, on the average; the 1963 rise, however, was 12 percent. Expenditures for physicians' services have increased about 7 percent each year; expenditures for dentists' services about 5 percent; and those for drugs about 5 percent. Although all estimates of expenditures for nursing-home care are highly provisional at this stage, it appears that consumer expenditures for this service in each of the past 5 years have increased approximately 18 percent.

Since 1948, there have been important shifts in the distribution of consumer expenditures for the various types of service. The amount spent for hospital care as a proportion of the total has increased from 22.0 percent in 1948 to 27.1 percent in 1960 and 29.4 percent in 1963. In contrast, consumer expenditures for physicians' services

have declined from 32.5 percent of the total in 1948 to 27.2 percent in 1960 and 27.0 percent in 1963. The share of the expenditures for dentists' services has slowly but steadily declined, from 11.7 percent in 1948 to 9.9 percent in 1963. There was practically no change in the proportion spent for "other professional services" until 1960, when it started a decline. The proportion of total expenditures going for nursing-home care has steadily increased, from 1.3 percent in 1948 to 1.9 percent in 1963.

Expenditures Met by Insurance

In 1963, voluntary health insurance met 30.8 percent of total consumer expenditures for all medical care, 66.7 percent of total consumer payments for hospital care, and 36.3 percent of consumer expenditures for physicians' services. The net cost of obtaining health insurance was not counted as part of consumer expenditures in making these estimates. If that cost is included, the proportion of expenditures covered by insurance is slightly lower.

During the 16 years covered by these statistics, the proportion of consumer expenditures met by health insurance has steadily risen, as would be expected. In the past 10 years, the increase has averaged a little more than 1 percentage point a year. From 1959 to 1963, the proportion rose from 25.1 percent to 30.8 percent. At this rate of increase, it would take almost 20 years before more than half the population's consumer expenditures would be covered by insurance.

The following estimates have been made for 1963 of the amount and proportion of consumer expenditures for hospital care, physicians' services, and other types of care that are met by insurance:

³ Since 1948 the medical care component of the Consumer Price Index of the Department of Labor has risen from 69.8 to 116.7 (1957-49=100). EDITOR'S NOTE.—For a description of one aspect of the medical care component, see "Health Insurance in the Revised CPI," *Monthly Labor Review*, November 1964, pp. 1299-1300.

	Estimates (in millions)		
	Hospital care	Physicians' services	All other types of care
Total consumer expenditures.....	\$6,973	\$6,385	\$9,260
Amount met by insurance.....	4,633	2,137	195
Blue Cross-Blue Shield.....	2,303	855	21
Insurance companies.....	2,118	1,063	137
Other plans.....	212	219	37
Percent met by insurance.....	66.4	33.5	2.1

The finding that about two-thirds of all consumer expenditures for hospital care, about one-third of expenditures for physicians' services, and 2 percent of the amount spent for other types of care are met by insurance is subject to misinterpretation unless the relationship of consumer expenditures to total national expenditures for these purposes is borne in mind.⁴ Preliminary estimates show that in 1963 private consumer expenditures for hospital care represented only 60 percent of total expenditures for hospital care (\$11.6 billion). Thirty-eight percent came from tax funds, and 2 percent from philanthropy. Thus, although insurance met approximately two-thirds of consumer expenditures for hospital care, it met only 40 percent of all expenditures for hospital care. It is clear that direct consumer payments to hospitals for care is becoming less and less important and that the cost of hospital care is now met predominantly through insurance or tax funds.

Of all expenditures in 1963 for physicians' services, consumer payments amounted to 93 percent. The remainder came from public and philanthropic sources, chiefly vendor payments under public assistance programs. Insurance payments therefore met not 34 percent of the total, as shown above, but 31 percent.

Preliminary estimates for 1963 place total expenditures for personal health services, excluding the net cost of obtaining health insurance, at approximately \$29.6 billion. Of this amount \$22.6 billion represented consumer expenditures for medical care. Thus insurance benefits covered about 24 percent of the cost of personal health services, direct payments amounted to 53 percent of the total, and the remaining 24 percent (\$7 billion) of expenditures for personal health services came from public and philanthropic sources.

⁴For a discussion of this point, see *Social Security Bulletin*, August 1964, op. cit.

Worker Reaction to Job Displacement

A REPORT ON READJUSTMENT of unemployed workers¹ usually tells us that displaced skilled workers, for example, will have—as of a certain length of time after a plant shutdown—a higher percentage reemployed than will displaced semiskilled workers; that displaced semiskilled workers, in turn, will have a higher percentage reemployed than will the displaced unskilled.

By way of illustration, in the Packard study,² 52 percent of the skilled, 45 percent of the semiskilled, and only 19 percent of the unskilled workers were working at the time they were interviewed (about 2 years after the shutdown, and during the 1957–58 recession).

There is nothing new about such contrasts between skilled and other workers. There are, however, other—untapped—facets in such data. One of these is the phenomenon of “reunemployment” of displaced workers who find a job after a shutdown and lose it again—the “two-times losers,” as Louis Ferman calls them. Are there differences in the proportions of each skill-level experiencing this type of reemployment “success”?

Are there differences in this type of experience not only in regard to skill but also in regard to age, race, or sex, as well as other possibly significant factors? And what is the impact, if any, of such an experience upon the men and women who undergo it? Does this on-again-off-again situation make these workers any different from the others in their psychological outlook, in their behavior, and especially in their subsequent jobseeking behavior? Until we go beyond the conventional form of data collection, analysis, and reporting, we will be offering very little in the way of im-

¹EDITOR'S NOTE.—This article is based on an address by Dr. Harold L. Sheppard of the W. E. Upjohn Institute for Employment Research to the December 1964 Conference on Manpower Implications of Automation. (See pp. III and IV of this issue.)

²A case study of the 1956 shutdown of the Packard Motor Co.'s plant in Detroit resulting from the Packard-Studebaker merger. The study, conducted in 1957 and 1958, was sponsored by the Institute of Labor and Industrial Relations of the University of Michigan and Wayne State University. The report was prepared by Harold L. Sheppard (study director), Louis A. Ferman, and Seymour Faber, and was published in 1959 by the U.S. Senate Special Committee on Unemployment Problems as *Too Old to Work—Too Young to Retire: A Case Study of a Permanent Plant Shutdown*.

provements in the solution of the public and personal problems of job displacement.

The Packard Study

In the Packard project, it was possible to go beyond the usual to some extent. Organization of the data according to whether the respondent had never been reemployed, had become re-unemployed, or was employed at the time of the interview produced interesting results. First, a survey of the white persons only (to avoid possible influences of discrimination against Negroes) disclosed that one-third of the total sample found new jobs and then lost them, remaining unemployed at the time of the interview. Even one-third of the skilled workers had had the same experience, and nearly one-half of the unskilled had become re-unemployed in the same period.

Second, in interviews with an earlier sample, conducted about 1 year after the shutdown, 30 percent of the Negroes who did find jobs during that year were found once again unemployed, as compared with only 19 percent of the whites.

Third, while only one-third of the "younger" whites (under 50) who had found jobs were unemployed again at the time of interview, more than two-fifths of those age 50-59 and nearly one-half of those 60 and over had become re-unemployed. Indeed, age as a single variable showed the greatest relationship to this type of experience.³

Apart from such obvious effects of plant shutdowns, there were some equally significant impacts of different kinds. It appears, for instance, that a greater proportion of reemployed Negro ex-Packard workers than of whites sought and accepted lower paying, service-type jobs outside of the manufacturing industries. Forty percent of the reemployed Negroes were working at such jobs as janitors, handy men, and carwashers, as compared with 23 percent of white reemployed workers. (In this connection, I should also point out that, on the average, Negroes went to many more potential employers to seek work than did white jobseekers.) This suggests that there are different levels of jobs below which some types of workers will not readily accept employment even if available.

³ More than 80 percent of those 60 and over, 50 percent of those 50-59, 43 percent of the 40-49 group, and only 17 percent of those under 40 were not employed when interviewed.

Self-esteem and morale are involved in this type of problem, and a deeper kind of analysis than that ordinarily applied in the field of employment and unemployment research is required to cope with the question, What is the effect of "downward mobility" among the displaced workers?

Effect on Morale

The Packard study provided some clues to this problem, although it had not been designed explicitly to deal with it. Among those Packard workers who had been employed at jobs classified as semiskilled and who later became reemployed at unskilled jobs, a higher percentage indicated low morale than among the former Packard semiskilled workers reemployed at the same level of skills. In this study, morale was measured by replies to the following questions:

On the whole, how satisfied are you with your way of life today?

How often do you get the feeling that your life is not useful?

How often do you get upset by the things that happen in your day-to-day living?

How often do you wish you had the chance to live your life over?

How much do you plan ahead the things that you will be doing next week or the week after?

At the risk of being misinterpreted, I should also mention that the morale of such "skidders" at the time of the interview was no higher than that of those semiskilled workers still unemployed when interviewed, and significantly lower than the morale of those who obtained new jobs similar to their old ones at Packard.

This finding should not be interpreted as meaning that a worker might just as well stay unemployed as to accept a lower status, lower paying job relative to his previous occupation and income. It only means that reemployment in such positions may restore some of the financial deprivation, but it does not necessarily restore the individual to his previous level of self-esteem, morale, and general psychological state.

Anomie

Another finding in the Packard study suggests that the re-unemployment experience also produces other psychological effects, such as anomie, which might be described as a condition of norm-

lessness, in which the individual no longer feels himself a part of or restrained by the prevailing norm, which in turn can result in apathy and depression.

While 40 percent of those Packard workers who had never become reemployed in the 2 years following the shutdown had a high degree of anomie, 59 percent of those who became first reemployed and then unemployed again registered a similar degree of that feeling. In other words, the impact of becoming unemployed and then getting a job only to lose it again is a profound one, and it might be expected to influence the person suffering such an experience in his subsequent behavior in the job market. Re-unemployment, perhaps more seriously than "skidding" to a lower skill-level, is a major human cost of job displacement, not only in terms of its obvious economic effects but also in terms of the damage it inflicts upon the individual and his relationships with others and with the community at large.

If this proposition has any basis, we should also expect anomie, and perhaps other related social-psychological factors, to be even greater in the case of those workers who become reemployed at job levels higher than their previous regular level and then become again unemployed. This implies that those who temporarily enjoy an increase in skill level in a postdisplacement job only to become unemployed again can be expected to undergo a greater social-psychological maladjustment than most, if not all, other types of workers. And this is exactly what was discovered among the small number of ex-Packard workers who did get higher status jobs after the shutdown and then lost them: their average anomie score was the highest of all.

Thus, apathy and alienation tend to increase as unemployment becomes prolonged, as the Packard report revealed. They can also increase as a result of drastic shifts in the unemployment—reemployment—re-unemployment cycle, and even more acutely in the case of those workers who lose a new job which was considerably above the skill or pay level of the old, regular job.

Jobseeking Behavior

Along with psychological factors, jobseeking and mobility are integral elements in the process

of readjustment of individual workers following job displacement. Jobseeking behavior of displaced workers does not consist of one clear-cut pattern. It varies from one type of worker to another, depending on such factors as skill level, education, knowledge and evaluation of the job market, the nature of that market, and such factors as achievement motivation, job-interview anxiety, self-concept, etc. Length of unemployment, too, can affect the nature and intensity of the displaced worker's search for a job, through the "intervening variable" of declining morale and motivation.

Interestingly, it is by now a virtual "iron law" that jobseekers in the United States find new jobs through informal rather than formal methods. Even in situations involving highly professionalized and skilled craft occupations, such as in the newspaper industry, more than 50 percent of the jobfinders reported learning about the new job from friends and relatives. The typical percentage in other situations is at least 70 to 75 percent.

Geographic mobility as a successful adjustment technique has severe limitations, and can be overrated by policymakers as a remedy. It cannot be repeated too often that we know very little about the human factors involved in the mobility behavior of unemployed or displaced workers. It is interesting to note that most, if not all, discussions about mobility imply a high degree of individualism on the analytical and prescriptive levels. The degree of actual mobility has so far proven insufficient to solve individual problems. From an area point of view, on the other hand, individual outmigration is not necessarily a solution for an area or a community. It must not be confused with outmigration as a solution for the community's "depressed area" condition. Even after one to two decades of heavy outmigration from areas of chronically high unemployment, average unemployment in our urban depressed areas was still about 8 percent in 1960. Until we explore alternative solutions to the problems of job displacement (including economic growth, and manpower and area redevelopment) and learn much more about the conditions that hinder or facilitate worker mobility, we should not rely on migration as a major solution to such problems.

Joint Consultation Devices in Collective Bargaining

ENDORING "continuing discussion of difficult and persistent problems . . . in the intervals between contract negotiations," the National Labor-Management Panel¹ pointed out, in its December 30 report to the Director of the Federal Mediation and Conciliation Service, that management and labor today are confronted with bargaining problems whose depth and complexity defy quick and easy solution and resist the pressures imposed by impending deadlines. For such problems, the Panel noted, time and study are essential, and the normal period of contract bargaining does not provide enough of either.

As an aid in establishing such continuing dialogues, the Panel called for expansion of the preventive mediation program, under which the FMCS closed almost 500 cases in fiscal 1964. The report outlined some of the many forms which joint consultation has taken:

Continuing Joint Labor-Management Committees. Such committees are usually multipurpose and continuing, formally organized and structured. They hold regularly scheduled meetings and work from a prepared agenda. Subcommittees may be established but must report back to the full committee.

Joint Study Committees—Contract Issues. These are usually single-purpose committees assigned to gather facts and statistics and to explore alternative approaches on a given single subject or problem. Their assignment may be to prepare a particularly perplexing problem for settlement in negotiations or, following the completion of negotiations, to deal with a matter left open by the settlement.

Continuing Liaison or Consultation. This is, in effect, long-range consultation to their bargaining relationship. It continues beyond the normal period of contract negotiations. It is used to accumulate information helpful to the parties in subsequent bargaining sessions and to help them resolve joint problems.

Approved Training Programs—Stewards and Supervisory Force. This activity flows from the parties' recognition of the need for further training of their respective representatives in order to improve the overall bargaining relationship and the day-to-day operations within the establishment.

Other cases which elude easy categorization include periodic and informal attempts to deal with joint problems and to improve the relationship of the parties.

In a typical case, involving a small industrial union in a fiber plant in a mid-Atlantic State, contract negotiations had resulted in a committee-recommended settlement. This settlement was rejected by the union membership. The major problem involved "bumping" procedures and the return of foremen to the bargaining unit due to the automation of facilities. By agreement of the parties, this problem was turned over to a study committee, with a 10-month settlement limitation.

After a series of meetings, five of which included a FMCS representative, the bargaining procedures and the foremen problem have been resolved and a sound relationship exists between the parties. The committee, renamed the "steward-management committee" and publicized as such in the company newspaper, has progressed to study and discussion of nonbargaining issues.

The Panel further recommended that the FMCS establish outside the Service a roster of specialists in preventive mediation, similar to its roster of arbitrators, to which parties can be referred for expert help in the highly specialized and complicated areas of collective bargaining.

¹A 12-man body to advise the Director of the Federal Mediation and Conciliation Service, and appointed by the President, with equal representation from management and labor: Wayne T. Brooks, Director of Industrial Relations, Wheeling Steel Corp.; H. S. Brown, President, Texas AFL-CIO; J. V. Cairns, Director, Industrial Relations, Firestone Tire & Rubber Co.; Jack T. Conway, formerly Executive Director, Industrial Union Department, AFL-CIO (now Director of Community Action Program, Office of Economic Opportunity); J. Curtis Counts, Director, Employee Relations, Douglas Aircraft Co.; Jesse Freiden, of Poletti, Freiden, Prashker, Feldman & Gartner; Cornelius J. Haggerty, President, Building and Construction Trades Department, AFL-CIO; Thomas E. Harris, Associate General Counsel, AFL-CIO; John H. Lyons, General President, International Association of Bridge, Structural and Ornamental Iron Workers, AFL-CIO; Marvin J. Miller, Assistant to the President, United Steelworkers of America, AFL-CIO; Gerry E. Morse, Vice President, Honeywell, Inc.; and J. Paul St. Sure, President, Pacific Maritime Association.

Earnings in the Machinery Industries, March–May 1964

AVERAGE STRAIGHT-TIME hourly earnings of production and related workers in the nonelectrical machinery industries increased 2.7 percent between March–May 1963 and March–May 1964 in 21 metropolitan areas surveyed by the Bureau of Labor Statistics.¹

Detroit and San Francisco–Oakland led in pay levels among the areas, and tool and die makers were the highest paid occupational group studied in most areas, as in previous surveys. Although provisions for paid holidays, paid vacations, various types of health and insurance benefits, and retirement pensions have been common in the machinery industries for several years, some liberalization had occurred since the Bureau's study of these benefits in March–June 1962.²

Industry Characteristics

The 21 areas studied accounted for almost two-fifths of the 1.6 million workers in the Nation's nonelectrical machinery manufacturing industries.³ Area employment ranged from fewer than 10,000 workers in Baltimore, Dallas, Denver, Port-

land, and Worcester to almost 103,000 in Chicago. Other major areas of employment included Detroit (69,365), Los Angeles–Long Beach (55,154), and Milwaukee (48,287).

The major types of machinery manufactured differed among the areas. For example, metal-working machinery and equipment was the predominant type produced in Worcester, and production of construction, mining, and materials handling machinery predominated in Houston.

Approximately two-fifths of the workers within the scope of the survey were in establishments with fewer than 250 workers, a slightly larger proportion were in establishments with 250 to 2,499 workers, and approximately one-sixth were in establishments employing 2,500 or more. Although establishments employing 2,500 or more were found in 13 areas, Hartford and Milwaukee were the only areas in which as many as two-fifths of the workers were in establishments of this size.

Establishments with labor-management contracts covering a majority of their workers employed seven-tenths of the production workers in the 21 areas combined. Such contract coverage included more than nine-tenths of the workers in Pittsburgh, Portland, St. Louis, and San Francisco–Oakland; more than three-fourths in Milwaukee, Hartford, Buffalo, Detroit, Cleveland, and Newark and Jersey City; and two-fifths or more in the other areas.

Incentive wage systems were reported in some establishments in all areas except Dallas, Portland, and San Francisco–Oakland. One-fourth or more of the workers were paid on this basis in Milwaukee, Hartford, Pittsburgh, and Worcester; at least one-eighth in Baltimore, Newark and Jersey City, Buffalo, Cleveland, St. Louis, Chicago, Philadelphia, Boston, and New York; and smaller proportions in the other areas. Baltimore, Hartford, Los Angeles–Long Beach, St. Louis, and San Francisco–Oakland were the only areas in which women accounted for as much as a tenth of the production workers.

Average Hourly Earnings

Trends. The 2.7-percent increase in production workers' average straight-time hourly earnings between March–May 1963 and March–May 1964 was the same as the rate of increase between 1962 and

¹The survey included establishments classified in industry group 35, as defined in the 1957 edition of the *Standard Industrial Classification Manual* prepared by the U.S. Bureau of the Budget. Omitted from the survey were (1) establishments employing fewer than 8 workers and primarily engaged in manufacturing special dies and tools, die sets, jigs, fixtures, machine tool accessories and measuring devices and (2) other nonelectrical machinery establishments employing fewer than 20 workers.

The areas studied were Standard Metropolitan Statistical Areas (SMSA) as defined by the U.S. Bureau of the Budget in 1961, except Hartford (Hartford and New Britain SMSA's and Bristol); Newark and Jersey City (a combination of the 2 SMSA's); and Worcester (Worcester SMSA, except Northbridge). In preparing the wage indexes (table 1), the data for Chicago, New York, and Philadelphia were limited to the parts of these areas covered in the 1963 study (i.e., Cook County; the 5 boroughs; and Philadelphia and Delaware Counties, Pa., and Camden County, N.J., respectively).

A more comprehensive account of the survey will be presented in a forthcoming bulletin. Individual area releases providing more detailed occupational earnings and supplementary benefits data are available on request.

²Wages in the nonelectrical machinery manufacturing industries are studied each year as part of the Bureau's program of occupational wage surveys, but data on the prevalence of supplementary wage benefits are collected on a 2-year cycle. For a report on 1963 wages, see "Earnings in the Machinery Industries, March–May 1963," *Monthly Labor Review*, December 1963, pp. 1439–1442.

³Nationwide employment as reported in the Bureau's employment series.

1963 (table 1). The Newark and Jersey City area had the greatest increase (4.7 percent) between 1963 and 1964, with increases amounting to 3 percent or more in eight other areas. Boston, Houston, Los Angeles-Long Beach, and Pittsburgh were the only areas in which the rate of increase averaged less than 2 percent. General wage changes usually account for much of the year-to-year movement in wages, although other factors such as labor turnover, incentive earnings, and changes in employment in establishments with different pay levels also affect the trend in wages.

Average hourly earnings of tool and die makers (other than jobbing) and of material-handling laborers in all areas combined both increased by 3.3 percent between 1963 and 1964 (11 and 7 cents an hour, respectively). Since 1945, when the Bureau started this series of occupational wage relationship studies for the machinery industries, average earnings for these occupations have increased 146 and 194 percent, respectively. As indicated in the following tabulation, the difference between the rates of increase for these two jobs

was much greater in the earlier periods studied than more recently:

	Percent increase between—			
	1945-50	1950-55	1955-60	1960-64
All production workers.....	44.7	30.9	24.2	11.7
Laborers, material handling.....	53.6	33.9	26.3	13.2
Tool and die makers (other than jobbing).....	37.4	28.0	24.4	12.6

Occupational Earnings, March-May 1964. The occupations for which average hourly earnings data are presented in table 2 accounted for almost one-half of all men production workers in the machinery industries in the 21 areas at the time of the survey. In most areas, tool and die makers had the highest level of hourly earnings among the occupational groups studied. Men producing or maintaining tools and dies used in the establishments in which these workers were employed (i.e., other than jobbing) had average hourly earnings ranging from \$2.88 in Dallas and \$2.89 in Worcester to \$3.88 in San Francisco-Oakland. Among 13 areas for which data are also shown for tool and die makers producing tools and dies for

TABLE 1. INDEXES OF AVERAGE STRAIGHT-TIME HOURLY EARNINGS¹ OF PRODUCTION WORKERS IN MACHINERY MANUFACTURING IN SELECTED AREAS² AND OCCUPATIONS, MARCH-MAY 1964 AND MARCH-MAY 1963,³ AND PERCENT CHANGE IN SELECTED PERIODS⁴

Area and occupation	Indexes (1958-59=100)		Percent increase from—					
	Mar.-May 1964	Mar.-May 1963	Mar.-May 1963 to Mar.-May 1964	Mar.-June 1962 to Mar.-May 1963	Mar.-May 1961 to Mar.-June 1962	Jan. 1960 to Mar.-May 1961	Jan. 1959 to Jan. 1960	Jan. 1958 to Jan. 1959
AREAS								
All areas combined.....	118.2	115.1	2.7	2.7	2.8	3.1	4.1	3.3
Baltimore.....	121.5	118.0	3.0	4.9	1.9	4.3	2.8	6.1
Boston.....	120.4	118.7	1.4	2.8	3.0	4.3	5.1	4.6
Buffalo.....	118.6	114.9	3.2	3.5	1.9	4.0	3.4	2.7
Chicago.....	118.8	114.6	3.7	3.1	3.0	1.5	4.3	3.8
Cleveland.....	120.5	117.6	2.5	2.7	3.8	2.1	6.8	2.1
Dallas.....	118.4	113.8	4.0	2.6	2.6	3.1	3.0	3.5
Denver.....	115.1	112.2	2.6	2.5	1.1	3.2	3.6	2.3
Detroit.....	115.4	113.0	2.1	2.4	2.0	2.8	4.1	2.3
Hartford.....	122.3	117.7	3.9	3.2	2.4	4.7	4.7	3.1
Houston.....	113.5	112.0	1.4	1.9	2.1	5-2	7.4	.9
Los Angeles-Long Beach.....	116.5	115.2	1.1	3.1	3.2	3.0	4.0	2.5
Milwaukee.....	118.2	115.3	2.6	2.5	3.0	3.5	3.9	3.3
Minneapolis-St. Paul.....	121.2	116.4	4.1	2.5	2.0	5.9	3.9	2.7
Newark and Jersey City.....	119.4	114.1	4.7	2.7	3.0	4.0	1.4	4.4
New York City.....	118.6	115.1	3.1	3.0	3.7	4.1	2.9	1.3
Philadelphia.....	116.8	114.1	2.3	1.2	2.4	3.2	4.2	5.0
Pittsburgh.....	112.3	111.0	1.2	.6	1.6	2.9	2.8	5.5
Portland (Oreg.).....	124.1	120.4	3.1	2.9	3.5	2.1	9.1	3.2
St. Louis.....	122.2	119.7	2.1	3.4	5.1	4.4	3.7	3.5
San Francisco-Oakland.....	119.6	116.3	2.9	3.3	2.5	3.0	2.5	8.5
Worcester.....	118.3	115.9	2.1	3.7	2.7	5.2	1.8	3.4
OCCUPATIONS								
Laborers, material handling.....	119.6	115.8	3.3	2.9	2.3	4.0	3.4	4.7
Tool and die makers (other than jobbing).....	119.2	115.4	3.3	2.4	2.7	3.6	3.9	4.1

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² For definition of areas, see text footnote 1.

³ Indexes for the years 1945 to 1962 are reported in appendix B of BLS Bulletin 1352; appendix C of that bulletin and appendix B of the forthcoming bulletin include a description of the method used in constructing the indexes.

⁴ Data for periods shown as January cover various months of the winter.

⁵ This decrease was the result of changes in incentive earnings and in the proportions of workers in some job classifications in establishments with different pay levels.

TABLE 2. AVERAGE STRAIGHT-TIME HOURLY EARNINGS¹ OF MEN IN SELECTED PRODUCTION OCCUPATIONS IN MACHINERY MANUFACTURING IN 21 AREAS, MARCH-MAY 1964

Occupation	New England			Middle Atlantic					South		
	Boston	Hartford	Worcester	Buffalo	Newark and Jersey City	New York	Philadelphia	Pittsburgh	Baltimore	Dallas	Houston
Assemblers, class A	\$2.88	\$2.89	\$2.79	\$3.02	\$3.04	\$2.95	\$2.83	\$3.29	\$3.16	\$2.47	\$2.65
Assemblers, class B	2.54	2.46	2.53	2.71	2.70	2.42	2.47	3.00	2.60	1.99	2.44
Assemblers, class C	2.18	2.31	2.23	2.41	2.28	2.02	1.83			1.56	2.14
Electricians, maintenance	3.06	3.09	2.88	2.97	3.21	3.10	3.05	3.14	2.85	2.61	3.13
Inspectors, class A	2.84	2.77	2.71	3.07	2.93	3.06	2.89	3.24	2.95	2.67	2.98
Inspectors, class B	2.42	2.57	2.65	2.82	2.72	2.71	2.94	2.81	2.67	2.20	2.89
Inspectors, class C	2.10	2.44	2.15	2.28	2.48	1.98	2.28		2.05		2.38
Janitors, porters, and cleaners	1.91	2.18	1.96	2.15	1.96	1.99	1.98	2.25	1.88	1.57	1.91
Laborers, material handling	2.12	2.15	2.18	2.39	2.15	2.10	2.40	2.41		1.66	1.93
Machine tool operators, production, class A	2.83	3.02	2.76	2.88	2.99	2.99	2.87	3.11	2.96	2.59	2.89
Machine tool operators, production, class B	2.41	2.71	2.54	2.66	2.94	2.61	2.79	2.79	2.63	2.11	2.64
Machine tool operators, production, class C	1.97	2.71	2.19	2.49	2.32	2.06	2.34	2.62	2.13	1.76	2.32
Machine tool operators, toolroom	2.75	2.98	2.70	3.03	3.03	3.05	3.11	3.17	2.84	2.82	3.00
Machinists, production	2.85	3.09	2.81		2.95	3.18	2.91	3.17		2.59	3.05
Tool and die makers (jobbing)	3.13	3.02		3.09	3.19	3.27	3.30				
Tool and die makers (other than jobbing)	3.16	3.16	2.89	3.16	3.31	3.29	3.36	3.23	3.10	2.88	3.22
Welders, hand, class A	2.71	3.15	2.91	3.01	3.09	3.24	2.96	2.98	2.90	2.43	2.75
Welders, hand, class B	2.58	2.66	2.78	2.56	2.81	2.53	2.78		2.57	2.00	2.65

Occupation	Middle West					Far West				
	Chicago	Cleveland	Detroit	Milwaukee	Minneapolis-St. Paul	St. Louis	Denver	Los Angeles-Long Beach	Portland	San Francisco-Oakland
Assemblers, class A	\$3.05	\$3.17	\$3.37	\$3.16	\$2.71	\$3.02	\$2.92	\$2.92	\$3.20	\$3.40
Assemblers, class B	2.73	2.92	2.90	2.93	2.53	2.76	2.45	2.36		2.93
Assemblers, class C	2.34	2.56	2.51	2.85	2.54	2.33	2.33	2.04	2.61	
Electricians, maintenance	3.41	3.18	3.62	3.32	3.20	3.41		3.14	3.19	3.68
Inspectors, class A	3.06	3.03	3.37	3.16	2.85	3.22	3.02	3.10	3.22	3.30
Inspectors, class B	2.78	2.94	2.97	2.93	2.59		2.58	2.61		
Inspectors, class C	2.58	2.77	2.88	2.49			2.58	2.33		
Janitors, porters, and cleaners	2.18	2.28	2.47	2.41	2.12	2.22	2.01	2.11	2.42	2.43
Laborers, material handling	2.29	2.43	2.71	2.50	2.34	2.27		2.40	2.66	2.82
Machine tool operators, production, class A	3.16	3.09	3.38	3.23	2.81	3.50	3.06	3.08	3.20	3.39
Machine tool operators, production, class B	2.84	2.92	2.91	2.93	2.57	2.85	2.55	2.46	2.85	2.90
Machine tool operators, production, class C	2.18	2.46	2.67	2.52	2.21	2.49	2.36	2.06	2.78	2.47
Machine tool operators, toolroom	3.40	3.09	3.65	3.34	2.85	3.42		3.31	3.32	
Machinists, production	3.40					3.36		3.23		3.40
Tool and die makers (jobbing)	3.80	3.24	3.70	3.61	3.40	3.77		3.51		
Tool and die makers (other than jobbing)	3.53	3.44	3.61	3.59	3.19	3.65	3.10	3.39		3.88
Welders, hand, class A	3.07	2.97	3.25	3.15	2.86	3.12	2.94	3.07	3.20	3.38
Welders, hand, class B	3.08	2.71	2.79	2.98	2.70	2.44		2.54		

¹ See footnote 1, table 1.

NOTE: Dashes indicate no data reported or data that do not meet publication criteria.

sale (i.e., jobbing), average hourly earnings of the two groups of tool and die makers generally differed by less than 4 percent.

Average hourly earnings of men machine tool operators (class A), who set up their own machines and perform a variety of machining operations to close tolerances, ranged from \$2.59 in Dallas to \$3.50 in St. Louis.⁴ For the intermediate group of machine tool operators (class B), area earnings averaged from \$2.11 to \$2.94 an hour and for those who perform more routine, repetitive machining (class C), from \$1.76 to \$2.78.

In a majority of the areas, janitors, porters, and cleaners were the lowest paid of the men's

jobs studied; their average hourly earnings ranged from \$1.57 in Dallas to \$2.47 in Detroit. Area average earnings of material-handling laborers ranged from \$1.66 to \$2.82 an hour.

The tabulation on the following page in which area average earnings for production workers are

⁴ The forthcoming bulletin for machinery industries will include separate data for various types of machine tool operators, such as engine-lathe operators and grinding machine operators. Data will also be reported separately for the special dies and tools industry in Cleveland and the special dies and tools and machine tool accessories industries in Boston, Chicago, Detroit, Hartford, Los Angeles-Long Beach, Milwaukee, Newark and Jersey City, and New York. Separate information will also be included for time and incentive workers in a few jobs and for women in some of the more routine occupations in several areas.

expressed as a percent of the average for Chicago,⁵ shows that wage levels were highest in San Francisco-Oakland and Detroit and lowest in Dallas.

	<i>Relative area pay levels (Chicago=100)</i>
San Francisco-Oakland.....	108
Detroit.....	108
St. Louis.....	105
Portland (Oreg.).....	105
Milwaukee.....	105
Pittsburgh.....	102
Cleveland.....	102
Chicago.....	100
Newark and Jersey City.....	98
Hartford.....	97
Buffalo.....	96
Denver.....	95
Los Angeles-Long Beach.....	95
New York.....	95
Baltimore.....	94
Philadelphia.....	94
Minneapolis-St. Paul.....	92
Houston.....	91
Worcester.....	90
Boston.....	90
Dallas.....	79

In all areas except Dallas, pay levels were within 10 percent of the Chicago average, ranging from 2 to 8 percent above the Chicago level in 7 areas and from 2 to 10 percent below in 12 areas.

Establishment Practices

Work schedules of 40 hours a week were in effect in establishments with a majority of the production workers in all areas except Dallas and Cleveland, where the proportions were slightly less than half. Office workers also typically had a 40-hour weekly schedule except in New York, where 35 and 37½ hours were more common.

Slightly more than one-sixth of the production workers in the 21 areas combined were employed on late shifts during the payroll period studied. Extra pay above day-shift rates was almost universally provided for these workers, but provisions differed considerably.

Eight holidays or more were provided annually by establishments employing a majority of the production and office workers in Boston, Newark and Jersey City, New York, Philadelphia, and Worcester. Six days or more were usually provided in the other areas.

Paid vacations of at least 1 week after 1 year, and 2 weeks after 5 years of service were provided in establishments with nearly all production and office workers covered by the study. In most areas, three-fourths of the workers or more were in establishments providing at least 3 weeks after 15 years.

Life, hospitalization, and surgical insurance benefits (with the employer paying at least part of the cost) were available to nine-tenths or more of the production and office workers in nearly all areas. Sickness and accident and medical insurance also were usually provided in most areas.

Pension plans (providing regular payments upon retirement in addition to those under the Federal social security program) were reported by establishments employing a majority of the production and office workers in most areas.

—FRED W. MOHR
Division of Occupational Pay

⁵ Ten men's jobs common to all areas were used in computing the index. To minimize interarea differences in occupational composition, weights expressing constant employment relationships based on total employment in the respective jobs in all 21 areas were used. Aggregates were computed for each area by multiplying the straight-time hourly earnings for each job by these weights and totaling. The ratio of these aggregates formed the basis for the index.

Wage Chronology: United States Steel Corp.

Supplement No. 9—1960-64¹

IN CONTRAST to the difficulties experienced in reaching agreement after expiration of the 1956-59 contract, the United States Steel Corp., together with 10 other major steel companies and the United Steelworkers of America, initialed a memorandum of understanding on March 31, 1962—3 months before the 1960 agreement was scheduled to expire.² Unlike the 1959-60 negotiations, there was virtually no publicity until final agreement had been reached. Much of the success of this approach to collective bargaining was attributed by the parties to discussions of major issues by the joint Human Relations Research Committee, established by the 1960 agreement.

Discussion between the 11 companies and the union began in Pittsburgh in mid-February³ after President John F. Kennedy had asked that agreement on contract terms be reached by March 1. During the opening days, the Human Relations Research Committee reviewed the work of its subcommittees. Members of the committee declined to discuss details of the meetings, stating that they could arrive at "sound decisions as soon as possible" by avoiding public debate.

After more than 2 weeks, meetings were recessed on March 2. Specific proposals were not disclosed, but the companies' chief negotiator said that employment security had been the major subject of discussion and that the cost of the proposals the union considered to be minimum would be so great as to reduce employment security. The union felt continued talks at that time would serve no useful purpose and suggested that negotiations be recessed until sometime after May 1.

At the request of the President, talks were resumed on March 14. Again the parties declined to discuss details of the meetings. On March 28, however, the companies' chief negotiator said that the parties, working within the Human Relations Research Committee, had defined the area within which they hoped to reach agreement. Three days later, the parties initialed a memorandum of understanding.

The memorandum, ratified on March 31, 1962, by the union's 34-member executive board and its 170-member wage policy committee, to become effective July 1, did not provide for a wage increase during the first year of the 2-year agreement.

Contract improvements emphasized job and income security and included liberalized vacation benefits, a new savings and vacation plan designed to spread work and encourage early retirement, changes in pension benefits also designed to encourage retirement, and improved supplemental unemployment benefits (SUB).

The agreement suspended the cost-of-living escalator clause, with the accumulated cost-of-living allowance continued but not incorporated into the wage structure.

The settlement obligated the companies to pay an additional 4.5 cents per man-hour worked to the SUB plan, starting July 1, 1962, bringing the total liability to 9.5 cents⁴ until maximum financing was reached. Regular weekly benefits were liberalized and substantial changes were made in the table for the reduction of benefits according to the financial position of the SUB plan. The greatest change allowed payment of full benefits when the financial position was as low as 35 percent; previously, reduced benefits had been paid when the position fell below 75 percent. The SUB plan was also liberalized in other ways, including addition of short-week benefits and extension of benefits to laid-off workers who became disabled while on layoff and after their sickness and accident insurance coverage had been discontinued. A moving allowance was established for long-service employees who accepted job transfers under an inter-regional preferential hiring program.

¹ For basic chronology and previous supplements, see *Monthly Labor Review*, February 1949, pp. 194-200; October 1950, pp. 473-474; May 1951, p. 563; February 1953, pp. 151-152; October 1953, p. 1084; March 1956, pp. 317-319; November 1957, pp. 1361-1366; October 1960, pp. 1071-1077; or BLS Report 186.

² The 11 major steel companies that initialed the memorandum were parties to the settlement of 1960.

³ This was the earliest date, relative to the scheduled expiration of an existing contract, on which collective bargaining had started since the first agreement was reached between a United States Steel Corp. subsidiary and the union in March 1937.

⁴ Of this total, the company was to pay up to 4.5 cents directly into the fund, with the remaining 5 cents to be a contingent liability. When the total amount of the finances (fund and contingent liability combined) was at least equal to the previous maximum financing figure, all obligations were in the form of contingent liability.

Minor changes liberalized holiday pay and increased regular vacations for workers with 3 but less than 5, 10 but less than 15, and 25 years or more of service.

A savings and vacation plan was established to provide supplemental vacation-retirement benefits. The new plan was to be financed by company contributions of 3 cents a man-hour, effective July 1, 1962; additional amounts—up to 4.5 cents an hour—could be transferred to the plan from the SUB finances, to the extent that this money was not necessary to maintain maximum financing. The program, to be in effect until December 31, 1965, was to provide retirement benefits based on retirement units (one unit for each 5 years of continuous service prior to January 1, 1961) to workers with continuous service for pension purposes, including employees who retired without a pension after age 65 because of insufficient service for pension eligibility.

To encourage retirement, employees 65 years old and over and eligible for retirement would have their retirement benefits under the new program reduced by 10 percent for each quarter year they continued to work after June 30, 1963, or after they reached 65, whichever was later. Thus, these retirement benefits would be eliminated for such employees who continued to work for 2½ years beyond retirement age.

The plan also credited—to the extent of the funds remaining each quarter—one vacation unit to employees for each 2 years of service prior to age 65 after December 31, 1960. These benefits, made available according to seniority, could be used for vacation or deferred until the employee retired, was incapacitated by illness, or experienced other hardships.

Effective with retirements on or after June 30, 1962, the agreement liberalized eligibility for employees who had a break in service because of disability, permanent plant or departmental shut-downs, or retirement under mutually satisfactory conditions. Revisions in eligibility requirements for early retirement provided annuities to employees 55 years old or over with at least 15 years of service when their age and years of service totaled 75 years; for other eligible employees, age and years of service (also with a minimum of 15 years

of service) had to total 80 years. The application of the \$80 offset against social security for those retiring early under the basic 1-percent formula was deferred until they reached age 65 or became eligible for disability benefits under social security.

The Human Relations Research Committee was continued as the Human Relations Committee. It was to study problems in the general area of employment stabilization, such as subcontracting, overtime and vacation scheduling, and work assignments. Committee recommendations were due by the end of the first year, with any unresolved issues subject to bargaining on or after May 1, 1963.

The 1962 agreement was to remain in effect through June 30, 1964, and could be terminated any time after that date on 90 days' written notice. On or after May 1, 1963, either party could serve 90 days' notice of its desire to open negotiations on wage rates, insurance, or pensions. The savings-vacation and SUB plans were to remain in effect at least through December 31, 1965, unless either party gave 90 days' notice, on or after April 1, 1965, of its desire to terminate these plans.

In mid-March 1963, the parties began informal talks under the reopening provision. The union announced that the joint Human Relations Committee would extend the subject matter of its discussions in an effort to resolve problems "within the next few weeks." Both parties emphasized that the committee was not negotiating but merely discussing all matters on which the contract could be reopened on May 1.

Without formal contract reopening, the parties announced on June 20 that agreement had been reached on contract revisions to be effective August 1. For the second consecutive year, wage rates were not changed, but new provisions were adopted to improve income and job security.

A memorandum of agreement, signed by the parties on June 29, called for extended "sabbatical" vacations for workers with the highest seniority and for improved insurance benefits.

The new extended vacation plan, effective January 1, 1964, provided that the company would increase its contributions to the savings and vacation plan by 9.5 cents a man-hour, bringing the total contribution to 12.5 cents an hour for a 5-

year period. Limitations were placed on the amounts that could be diverted from the SUB finances.

Employees in the upper half of the seniority list (the senior group)⁵ were to receive a total of 13 weeks of vacation once in every 5-year period. (In other years, they would receive their usual vacation.)

Provision was also made for an additional week's vacation pay, to be credited in cycles, with the length of the cycles dependent on the level of the savings and vacation finances. Employees in the junior group participated in each cycle; those in the senior group, only in the first and cycles subsequent to the third cycle. The level of the savings and vacation finances would determine whether a fourth cycle was reached. With cancellation of the provision in the 1962 agreement

⁵ At the time the extended vacation provision was negotiated, the senior group at the United States Steel Corp. included workers with approximately 17 years of service.

for 1 week's vacation pay for each 2 years of service after January 1961, workers who had not received a week's pay under this provision were the first to benefit under the new arrangement.

Hospitalization, weekly sickness and accident benefits, and life insurance were liberalized.

The new agreement, covering about 105,000 United States Steel Corp. employees in steelmaking operations, was to be in effect at least through May 1, 1965, and could be terminated after that date on 120 days' written notice. Notice of intent to terminate after 120 days could be served on or after September 3, 1965, for the SUB and pension plan and on or after September 3, 1968, for the savings and vacation plan.

The following tables bring the wage changes at the United States Steel Corp. up to date through April 1965 and take into account the revisions in supplementary benefits and other changes provided in agreements negotiated in 1962 and—on reopening—in 1963.

A—General Wage Changes

Effective date	Provision	Applications, exceptions, and other related matters
Dec. 1, 1960 (agreement dated Jan. 4, 1960).	No change.....	Cost-of-living review. Change under the escalator clause would have increased cost-of-living allowance 3 cents. However, the parties estimated that insurance costs would rise sufficiently by the second quarter of 1961 to offset the entire increase permissible under the 1960 agreement. ¹
Oct. 1, 1961 (agreement dated Jan. 4, 1960).	1.5 cents an hour allowance added to straight-time hourly earnings.	Cost-of-living adjustment. Change under the escalator clause would have increased cost-of-living allowance 3 cents. However, the parties estimated that insurance costs would rise sufficiently by the fourth quarter of 1962 to offset half of the permissible amount (3 cents) remaining under the 1960 agreement. ¹
July 1, 1962 (agreement dated Apr. 6, 1962).	7 cents an hour increase plus increase in increments between standard job class rates, resulting in added increases up to 3 cents for top classification. Total increase estimated to average 7.7 cents an hour in base rates, or 8.9 cents when the effect on incentive pay was included.	Deferred increase. Increments between job classes increased from 6.9 to 7 cents an hour, providing additional increases ranging from 0.1 cent in job class 3 to 3 cents in job class 32. Proportionate increase in incentive earnings under pay plans in effect on Apr. 22, 1947, as well as under subsequent plans.
June 29, 1963 (agreement dated Apr. 6, 1962, as amended June 29, 1963).	-----	Escalator clause discontinued; 18.5-cent-an-hour cost-of-living allowance in effect continued during term of agreement. Continued: 18.5-cent-an-hour cost-of-living allowance in effect during term of agreement.

¹ The 1960 agreement established the maximum permissible increase in the cost-of-living allowance at 6 cents by Oct. 1, 1961, of which a maximum of 3 cents could be effective on Dec. 1, 1960. Part or all of the increase in the

allowance due on these dates was to be used to offset any increase in net insurance costs above a specified amount. See *Monthly Labor Review*, October 1960, p. 1075 or BLS Report 186, p. 27.

C—Related Wage Practices

Effective date	Provision	Applications, exceptions, and other related matters
<i>Holiday Pay</i>		
July 1, 1962 (agreement dated Apr. 6, 1962).	-----	<p>Added: Employee on layoff in payroll period with holiday to receive holiday pay if he worked or was on vacation in the prior and subsequent payroll periods.</p> <p>In effect and continued:</p> <p>To be eligible for holiday pay, employee must have (1) worked 30 turns since last hired, (2) worked or been on vacation in payroll period with holiday, and (3) worked on scheduled workdays before and after holiday unless unable to do so because of sickness, death in immediate family, or other good cause.</p> <p>Employee to be paid for holiday that fell in scheduled vacation period. Applicable to employee who (1) took previously scheduled vacation during layoff or (2) was recalled but on layoff during scheduled vacation.</p>
<i>Paid Vacations</i>		
July 1, 1962 (agreement dated Apr. 6, 1962).	-----	<p>Added: Calculation of service for vacation eligibility included only first 2 years of continuous period of absence because of layoff or noncompensable physical disability.</p>
Jan. 1, 1963 (agreement dated Apr. 6, 1962).	<p>Changed: 1 week for employee with 1 but less than 3 years of service, 2 weeks for 3 but less than 10 years, 3 weeks for 10 but less than 25 years, and 4 weeks for 25 years or more.</p>	<p>Pay based on average hours worked in first two of four pay periods immediately preceding vacation. Minimum time used in computing vacation pay was 40 hours a week or scheduled plant workweek, whichever was greater; maximum was 48 hours a week or scheduled plant workweek, whichever was greater.</p>
<i>Savings and Vacation Plan</i>		
July 1, 1962 (agreement dated Apr. 6, 1962).	<p>Established: Plan to provide retirement, savings, and supplemental vacation benefits.</p> <p><i>Contributions:</i> Company to pay into "financial availability account," per man-hour worked by covered employees, 3 cents plus the difference between 9.5 cents and the hourly contribution required to raise the SUB plan to maximum financing, up to maximum of 4.5 cents to extent required for payment of benefits.</p> <p><i>Retirement benefits</i></p> <p><i>Accrual of credit units</i>—one unit for each 5 years of continuous service prior to Jan. 1, 1961, credited to employee with continuous service for pension purposes on Mar. 1, 1962.</p> <p><i>Benefits</i> (for employee retiring after Mar. 1, 1962)—Lump-sum payment on retirement¹ of 1 week at 1960 vacation rate of pay² for each retirement unit credited to employee, reduced by 10 percent for each full 3 months after the latest of (a) June 30, 1963,³ (b) end of month in which employee reached age 65,</p>	<p>Monthly supplement to basic 3-cent contribution limited to amount necessary for benefits then due workers who (1) were retiring or (2) had at least 1 vacation credit unit.</p> <p>Proportionate vacation pay provided for fractional units. When finances were not available to pay all benefits due, payments to be made in order of retirement and, if necessary, years of continuous service. If all fund obligations were not paid by Jan. 31, 1963, the provision for 10-percent benefit reduction was not to be made effective for 3 months or until all benefits due were paid, whichever was later.</p>

See footnotes at end of table.

C—Related Wage Practices—Continued

Effective date	Provision	Applications, exceptions, and other related matters
<i>Savings and Vacation Plan—Continued</i>		
July 1, 1962 (agreement dated Apr. 6, 1962)—Continued.	<p>or (c) end of month in which employee became eligible to retire on pension, plus accumulated vacation benefits.</p> <p><i>Eligibility</i>—To employee who (1) retired at age 65 or after (with or without a pension), (2) retired on immediate (early or disability) pension, or (3) elected a deferred early pension.</p>	<p>Benefits not to be included in calculating average earnings for pension plan purposes. If savings and vacation plan was terminated, any earned income (except that earned on retirement benefits) not previously added to finances to be prorated to credit of participating employees.⁴</p>
Jan. 31, 1963 (agreement dated Apr. 6, 1962).	<p><i>Savings and vacation benefits:</i></p> <p><i>Accrual of credit units</i>—For period Dec. 31, 1960, to Jan. 1, 1963: (1) 1 unit for 2 years or more of continuous service or (2) $\frac{1}{4}$ unit for each 6 months of continuous service for employee with less than 2 years of service or employee retiring between Mar. 1, 1962, and Dec. 31, 1962.</p> <p>For period beginning Jan. 1, 1963: $\frac{1}{4}$ credit unit for each 15 weeks in which employee was credited with 1 SUB unit or more, up to maximum of 1 unit in a 2-calendar-year period.</p> <p><i>Benefits</i>—1 week at last regular vacation rate of pay for each vacation unit credited to employee.</p>	<p>No units credited to employee 65 years old or over and eligible for a pension.</p> <p>Benefits not payable until sufficient funds accumulated to reach employee in order of seniority.</p> <p><i>Options</i>—Employee could elect (1) current vacation in year 1 full unit was accumulated or in succeeding year, or (2) retirement benefits, to be increased by interest at rate earned by fund, but not more than 3 percent, from date of election of option to earliest of (a) termination of employment, or (b) withdrawal because of hardship.⁵</p>
Jan. 1, 1964 (agreement dated June 29, 1963).	<p>Discontinued: Accrual of vacation and retirement credits under previous savings and vacation plan.</p> <p>Increased: <i>Contributions</i>—To 12.5 cents (from 3 cents) per man-hour worked by covered employees.</p>	<p>Any benefits to which employee was entitled to be paid on application (1) in lump sum in case of break in service (payment to be made to beneficiary in case of employee's death), or (2) the entire amount or some part in installments in case of unemployment after exhaustion of SUB, serious illness, or other major hardship. Company could, in lieu of paying 3 percent interest, invest in and provide employee with U.S. Government Series E Bonds on retirement.</p> <p>Added: Employee who would have been entitled to vacation benefits as of Apr. 30, 1963, but died between Jan. 31, 1963, and Apr. 29, 1963, was considered to be entitled to such benefits.⁶</p> <p>Up to 1 unused vacation credit, earned under prior plan, cancelled for each single-week vacation allocated under new plan; any remaining credits used for retirement benefits under prior plan.</p> <p>Additional funds, up to the lesser of 4.5 cents or the excess of 9.5 cents over the amount per hour required to raise the SUB finances to maximum</p>

See footnotes at end of table.

C—Related Wage Practices—Continued

Effective date	Provision	Applications, exceptions, and other related matters
<i>Savings and Vacation Plan—Continued</i>		
Jan. 1, 1964 (agreement dated June 29, 1963)—Continued.	<p>Changed: Plan to provide specified vacation and retirement benefits in successive 5-year periods for senior and junior groups of employees. Senior group to include half of work force with longest continuous service, junior group to include all other employees.⁸</p>	<p>financing, available in any month when the amount required to raise SUB position to maximum financing was less than company's maximum monthly SUB obligation.⁷</p> <p>First period to run from Jan. 1, 1964, to Dec. 31, 1968.</p>
	<p>Added: I. <i>Extended vacation benefits for senior group:</i></p>	<p>If all employees with identical service could not be placed in senior group, placement to be based on age.</p>
	<p><i>Basis of selection</i>—Vacations credited to approximately equal numbers of employees every 3 months, based on descending years of continuous service, so that each employee received extended vacation during a 5-year period if sufficient funds were available.^{9 10}</p>	<p>Employee with service at least equal to that of lowest member of senior group to be put in that group when (1) he was permanently transferred to groups covered by plan, (2) break in his continuous service was removed, or (3) his continuous service was restored on return to work.</p>
	<p><i>Benefit</i>—13 weeks minus regular vacation to which employee was entitled, on basis of years of service, determined on basis of earlier of (1) end of year in which number of weeks was determined, or (2) date of termination.¹²</p>	<p>Employee entitled to vacation the day after calculation date if he was actively at work on calculation date¹¹ or the day he returned to work if he returned before break in service. Employee who returned to work after break in service not entitled to benefit.</p>
	<p>Weekly benefit to equal 40 times average hourly earnings, as computed for regular vacation, excluding premium pay for overtime and Sunday work but including any general wage changes put into effect after vacation computation and before payment of benefit.</p>	<p>Extended vacations to be scheduled, insofar as possible, for time requested by employee during year of entitlement or during following calendar year, subject to final decision by company to insure orderly operation of plants.</p>
		<p>Any benefit to which employee was entitled to be paid immediately on break in service or to beneficiary in case of the employee's death.</p>
		<p><i>Option</i>—employee 63 years old, but under 65, on or before calculation date of extended vacation could (1) take vacation immediately before retirement or (2) postpone benefit until retirement.^{13 14}</p>
		<p>For employee exercising option to defer extended vacation until retirement, benefits not increased by any general wage changes put into effect after vacation was allocated.</p>
		<p>Benefits deferred until retirement reduced 10 percent for each full 3 months by which employee delayed retirement after latest of (a) June 30, 1963, (b) end of month in which he reached 65, or (c) end of month in which he completed 15 years of continuous service.</p>
		<p>Employee laid off before scheduled extended vacation could request vacation start during layoff.</p>

See footnotes at end of table.

C—Related Wage Practices—Continued

Effective date	Provision	Applications, exceptions, and other related matters
<i>Savings and Vacation Plan—Continued</i>		
Jan. 1, 1964 (agreement dated June 29, 1963)—Continued.	<p><i>Eligibility</i>—Employee under age 65 or older employee with less than 15 years of continuous service.¹⁰</p> <p>II. <i>Single-week vacation benefits for both groups:</i> <i>Basis of selection</i>—Priority based on years of continuous service.</p> <p><i>Benefit</i>—Equivalent to week of regular vacation pay as last calculated before employee was allocated benefit, plus any subsequent general wage changes if last regular vacation was in previous calendar year; available to both groups in first, fourth, and subsequent cycles, limited to junior group during second and third cycles in 5-year period.</p> <p><i>Eligibility</i>—Employee with 2 years of continuous service (a) under age 65 or (b) older with less than 15 years of continuous service.</p> <p>III. <i>Retirement benefits:</i> A. Senior group to receive— 1. <i>Extended vacation retirement benefits</i>^{10 14}—Employee retiring after becoming entitled to extended vacation in the 5-year period in which he retired, to receive extended vacation benefit plus partial retirement benefit (an addi-</p>	<p>Employee who had received vacation benefits under prior plan put at end of priority list for first cycle.</p> <p>Benefit cycle began in quarter when funds were available after financing retirement and extended vacation benefits for 1/20 of senior work force and ended when all employees on priority list for that cycle had been allocated a benefit.¹⁵</p> <p>Employee entitled to vacation the day after calculation date if he was actively at work on calculation date, or the day he returned to work if he returned before break in service.¹¹</p> <p>Employee not to receive second benefit unless he returned to work before his name was reached second time on priority list. Employee who returned to work after break in service not credited with vacation.</p> <p><i>Options</i>—Senior employee to receive deferred retirement benefits^{13 14} for first benefit and pay in lieu of vacation for additional benefits in a 5-year period.</p> <p>Junior employee to choose vacation or deferral of benefits until retirement¹³ for first 3 benefits and to receive pay in lieu of vacation for additional benefits in a 5-year period.</p> <p>Any benefit employee would have become entitled to at retirement, other than (1) single-week vacation for employee in senior group who retired after Jan. 1, 1964, before becoming entitled to single-week vacation, or (2) the portion of a retirement benefit based on uncanceled vacation units accrued under prior plan was reduced by 10 percent for each full 3 months by which employee delayed retirement after latest of (a) June 30, 1963, (b) end of month in which he reached 65, or (c) end of month in which he completed 15 years of continuous service.</p> <p>Any benefits to which employee was entitled to be paid immediately on break in service or to beneficiary in case of employee's death; benefits could be paid in lump sum or installments in case of unemployment after exhaustion of SUB, serious illness, or other major hardship. Vacations limited to 2 weeks, which could be continuous with regular vacation, in any calendar year.</p> <p>Those retiring in the 5-year period starting Jan. 1, 1964, to receive "prior retirement benefits" (retirement benefit under prior plan, calculated at employee's 1960 vacation rate of pay, plus any vacation benefits under prior plan not canceled before retirement calculated at the rate used in determining single-week vacation</p>

See footnotes at end of table.

C—Related Wage Practices—Continued

Effective date	Provision	Applications, exceptions, and other related matters
<i>Savings and Vacation Plan—Continued</i>		
Jan. 1, 1964 (agreement dated June 29, 1963)—Continued.	<p>tional week's benefit) for each full 6 calendar months between the date of allocation of the extended vacation and the earlier of (a) his retirement date or (b) the end of the month in which he becomes 65 and has completed 15 years of continuous service, maximum 9 weeks.</p> <p>Employee retiring before becoming entitled to an extended vacation in the 5-year period in which he retired, to receive extended vacation benefit calculated by using the base period used in calculating the special payment under the non-contributory pension plan.¹⁶</p> <p>2. <i>Single week vacation retirement benefits</i>^{10 13 14}—Employee retired after Jan. 1, 1964, before being entitled to single week vacation benefit to receive benefit on retirement.</p> <p>B. Junior group-----</p> <p>IV. <i>Extra benefits for both groups:</i>¹⁴ Funds available after completion of third single-week vacation cycle in 5-year period, to be used as follows: (1) for senior group—to increase number of extended vacations (a) by number of senior employees who had not received extended vacation retirement benefit because of break in service, and (b) by number necessary to bring senior group up to 50 percent of expanded work force (if work force had increased since beginning of 5-year period); (2) for both groups—to provide additional single-week vacation cycles or partial cycles.</p>	<p>benefits at date of retirement) if prior retirement benefit exceeded the benefits calculated under the new plan.⁸</p> <p>Any benefit employee would have received at retirement, other than (1) single-week vacation for employee in senior group who retired after Jan. 1, 1964, before becoming entitled to single-week vacation or (2) portion of retirement benefit based on uncanceled vacation units accrued under prior plan, was reduced by 10 percent for each full 3 months by which employee delayed retirement after latest of (a) June 30, 1963, (b) end of month in which he reached 65, or (c) end of month in which he completed 15 years of continuous service.</p> <p>Employee who retired would be entitled to benefit under provisions of plan in effect prior to Jan. 1, 1964, that is, a week of vacation pay as calculated for employee's 1960 vacation² for each 5 years of service prior to Jan. 1, 1961, plus 1 week for 2 years of service between Jan. 1, 1961, and Dec. 31, 1963, if these units had not been canceled by entitlement to vacation benefits.</p> <p>When extra extended vacation benefits were allocated, employees transferred from junior to senior group on basis of continuous service to increase number of senior employees to half the enlarged work force; their extended vacation or extended vacation retirement benefits to be reduced by any single week vacation benefits to which they had become entitled during 5-year period when they were transferred and which were in excess of those they would have received if they had been in senior group at beginning of period.</p>
<i>Insurance Benefits Plan</i>		
Aug. 1, 1963 (agreement dated June 29, 1963).	<p><i>Life insurance:</i> Increased by \$500—minimum to \$4,500, maximum to \$7,000.¹⁷</p> <p><i>Accident and sickness benefits:</i> Increased \$10 a week—minimum to \$63, maximum to \$78.¹⁷</p> <p><i>Hospitalization:</i> Maximum increased to 365 days.</p>	

See footnotes at end of table.

C—Related Wage Practices—Continued

Effective date	Provision	Applications, exceptions, and other related matters
<i>Pension Plan</i>		
March 7, 1956 (letter of agreement dated March 7, 1956).	<p><i>Correction:</i> Added: <i>Survivors' options</i>—Employee could elect reduced pension during lifetime and, after death, monthly payments to beneficiary of (1) same amount or (2) half the amount employee had received.</p>	
July 1, 1962 (agreement dated Apr. 6, 1962).	<p>Changed: <i>Early retirement</i>¹⁸—Full pension based on continuous service to date of retirement for employee with 15 years or more of service, who was either age 55 and his combined age and years of service equaled at least 75, or any age and his combined age and years of service equaled at least 80, and (1) whose continuous service was broken by permanent shutdown, layoff, or disability, (2) whose continuous service was not broken but who was not at work because of (a) election of layoff status under contract terms relating to permanent shutdown or (b) physical disability or nonelective layoff and whose return to work was considered unlikely by employer, or (3) who retired under mutually satisfactory conditions.</p>	<p>Benefits payable not earlier than month after last month in which employee was eligible for company sickness and accident benefits or statutory nonoccupational disability benefits. Changed: Regular pension not to be reduced by eligibility for or receipt of actuarially reduced public pension. When employee reached age at which public pension was not actuarially reduced, company pension to be reduced by amount of public pension. Changed: <i>Deferred vested rights</i>—Continuous service after reemployment not to be included in calculation of pension for employee who was eligible for, but had not applied for, deferred vested pension. Changed: \$80 deduction from early retirement pension based on 1 percent formula eliminated until employee reached earlier of (1) age 65 or (2) eligibility for disability benefit under social security, for employee 55 years old with 20 or more years of service whose employment was terminated because of permanent shutdown, layoff, or sickness resulting in break in service.</p>

Supplemental Unemployment Benefit Plan

July 1, 1962 (agreement dated Apr. 6, 1962).	<p>Increased: <i>Contributions:</i> Company to contribute amount necessary to raise fund to maximum financing, up to maximum of 9.5 cents per man-hour actually worked.¹⁹</p>	<p>Increased: Maximum financing, to the lesser of (1) 12.5 cents for each man-hour worked in the first 12 of the 14 months that preceded the month for which the calculation was made or (2) 1½ times benefits paid in first 60 of preceding 62 months. Balance of contingent liability under prior plan to be continued.</p>														
	<p>Changed: <i>Size of benefits:</i> 24 times employee's average straight-time hourly earnings plus \$1.50 for each dependent up to four, reduced by State unemployment compensation (including dependency allowance) and other compensation in excess of amount disregarded in determining State unemployment benefits.^{20 21}</p>	<p>Straight-time hourly earnings defined as last hourly earnings calculated for vacation purposes excluding overtime and Sunday premiums, but including any general wage increases since employee's last vacation.</p>														
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="2" style="text-align: center;"><i>Maximum weekly benefits for—</i></th> </tr> <tr> <th style="text-align: center;"><i>Single employee</i></th> <th style="text-align: center;"><i>Employee with 4 dependents</i></th> </tr> </thead> <tbody> <tr> <td>Received unemployment insurance----</td> <td style="text-align: center;">\$37. 50</td> <td style="text-align: center;">\$43. 50</td> </tr> <tr> <td>Did not receive unemployment insurance-----</td> <td style="text-align: center;">60. 00</td> <td style="text-align: center;">66. 00</td> </tr> <tr> <td>Benefits to be reduced 40 or 70 percent depending on financial position</td> <td colspan="2"></td> </tr> </tbody> </table>		<i>Maximum weekly benefits for—</i>		<i>Single employee</i>	<i>Employee with 4 dependents</i>	Received unemployment insurance----	\$37. 50	\$43. 50	Did not receive unemployment insurance-----	60. 00	66. 00	Benefits to be reduced 40 or 70 percent depending on financial position			<p>Proportionate benefit paid employee with fractional credit units. One-half credit unit to be cancelled when employee received reduced benefit because of earnings from another employer or self-employment.</p>
	<i>Maximum weekly benefits for—</i>															
	<i>Single employee</i>	<i>Employee with 4 dependents</i>														
Received unemployment insurance----	\$37. 50	\$43. 50														
Did not receive unemployment insurance-----	60. 00	66. 00														
Benefits to be reduced 40 or 70 percent depending on financial position																
		<p>Employee ineligible for State benefit because of earnings or receipt in same benefit year of State benefit for weeks he was ineligible for weekly or short week benefit, to receive maximum plan benefit for employee receiving unemployment compensation.</p>														

See footnotes at end of table.

C—Related Wage Practices—Continued

Effective date	Provision	Applications, exceptions, and other related matters
<i>Supplemental Unemployment Benefit Plan—Continued</i>		
July 1, 1962 (agreement dated Apr. 6, 1962)—Continued	<p>of SUB plan in any month in which the position was less than 35 percent.²² No benefits payable if financial position was less than 15 percent.</p> <p>In effect: <i>Eligibility</i>—Employee with 2 or more years of continuous service laid off by reduction in force or permanent shutdown of plant, department, or subdivision of department who, after waiting a period of 1 week within the benefit year, (1) applied in person for weekly benefit, (2) received a State unemployment insurance benefit unless such benefit was denied because employee (a) had exhausted State benefit, (b) received other compensation that disqualified him for State benefit, or (c) had insufficient employment to be covered by State system, (3) was available for work and maintained an active registration with State employment system, and (4) applied for, accepted, and did not voluntarily leave suitable employment with another employer.²³</p> <p>Changed: Eligibility not available to employee who was otherwise eligible but who was denied State unemployment insurance benefit because he (1) was unable to work because of disability, or (2) was participating in a Federal training program.</p> <p>Established:</p> <p>Allowances of \$55 to \$215 for single employee and \$180 to \$580 for married employee, depending on distance between home plant and another plant in same geographic region²⁴ provided transferred employee with 2 years or more of continuous service, on layoff for 60 days or more who was not eligible for pension and social security benefits. Benefit provided employee who (1) was transferred to plant 50 miles or more from former place of work, (2) changed permanent residence, and (3) made application for allowance (interregional transfers permitted for employee under 60 with 10 years or more of service who could not qualify for immediate pension and who had no recall rights in plant where employed or was not likely to be recalled within 2 years).</p> <p><i>Accrual of credit units:</i> ½ unit for each week in which employee had any credited hours. Previous 52 credit unit maximum retained.</p>	<p>Plan benefits to be paid to employee ineligible for State benefit because of layoff during plant vacation shutdown, provided employee was not eligible for a vacation.</p> <p>Benefit not provided (1) employee who quit work, (a) was suspended or discharged, (b) became unemployed because of a labor dispute, (c) whose unemployment resulted from refusal of suitable work offered by company, (d) claimed and was eligible for public or private sickness and accident or total disability benefit (except as noted above) or a pension or retirement benefit financed by company, (e) was eligible for similar benefits from another employer with whom employee had longer service, or (2) for period that layoff coincided with scheduled paid vacation.</p> <p>Added: Benefit extended to employee ineligible for State benefit because of disability occurring during layoff and after his sickness and accident insurance was discontinued.</p> <p>Allowance to be reduced by any Government payment for same purpose.</p> <p>If employee quit (for other than proper cause) or was discharged for cause in first year on new job, company obligation for employee earnings, vacation benefits, SUB, pension, etc., to be reduced by amount of allowance.</p> <p>Credited hours to include all hours (1) worked, (2) not worked but paid for, and (3) not worked or paid for but lost because of (a) specified union activities or (b) work-connected compensable disability.</p>

See footnotes at end of table.

C—Related Wage Practices—Continued

Effective date	Provision	Applications, exceptions, and other related matters
<i>Supplemental Unemployment Benefit Plan—Continued</i>		
July 1, 1962 (agreement dated Apr. 6, 1962)—Continued.	<p>Added: <i>Short week benefit: Size of benefits</i>²¹—Employee's standard hourly wage rate times difference between 32 and sum of hours (1) worked, (2) not worked but paid for, or (3) not worked for reasons other than lack of work. <i>Eligibility</i>—Employee with 2 years or more of continuous service who had worked some time but less than 32 hours in any week. Employees to surrender ½ credit unit for each short workweek benefit.</p>	<p>Employee to be credited with units earned under prior plan but not used. Short week benefit to be reduced by one-seventh of State benefit for each day in workweek for which both types of payments were made. Standard hourly wage rate defined as average rate during week for which benefit was paid.</p>
Jan. 25, 1963 (letter of agreement of same date).	<p>Added: <i>Short week benefit:</i> To sum of hours not paid for, hours not worked because employee (1) quit, (2) was suspended or discharged, or (3) was engaged in or unable to work because of a labor dispute.</p>	<p>Part-time employee to be eligible when sum of hours worked and the specified hours not worked fell below 80 percent of regular weekly hours.</p>

¹ The plan initially provided employee with the option of withdrawing benefits the year following retirement rather than taking them in a lump sum on retirement. This provision was removed, by letter of agreement dated Nov. 21, 1962, to meet objections of the Internal Revenue Service.

² Pay for an employee who was not entitled to a 1960 vacation was based on latest year before 1960 in which he was entitled to a vacation, adjusted for any general wage changes between earlier year and 1960.

³ Originally Dec. 31, 1962; provision changed to meet objections of the Internal Revenue Service.

⁴ Added by letter of Nov. 21, 1962.

⁵ The plan initially provided employee with the option of delaying vacation at least 2 years after entitlement to the benefit. This provision was removed, by letter of agreement dated Jan. 30, 1963, to meet objections of the Internal Revenue Service.

⁶ Added by letter of Jan. 30, 1963.

⁷ Maximum available spillover from SUB and 12.5 cent contribution for extended vacation benefits to be 15.625 cents an hour, unless (1) the first cycle of the single-week vacation benefit in any 5-year period was not completed on the 10th calculation date (the date on which vacations were allocated) in that period or (2) the second cycle had not been completed on the 15th calculation date. In these cases, the spillover could be increased until the third cycle was completed. After completion of the third cycle, the spillover was to be reduced with the objective of limiting total accruals from direct contributions for extended vacation benefits and the spillover from SUB to the smaller of 15.625 cents for each hour worked or 125 percent of the amount for each hour worked required to provide an extended vacation benefit and three cycles of single-week vacations; the minimum company contribution for extended vacation and single-week vacation benefits was to be 12.5 cents an hour.

⁸ Employee covered by plan in effect prior to Jan. 1, 1964, who retired after June 1, 1963, and on or before Jan. 1, 1964, was entitled to retirement benefit equal to excess of extended vacation retirement benefit over retirement benefit received under prior plan if he had continuous service on date of retirement at least equal to continuous service of any employee placed in senior group on Jan. 1, 1964.

⁹ The quota of benefits allocated on a calculation date was 5 percent of employees in senior group on starting date. The quota was reduced by number of employees who had become entitled to retirement benefit by retiring before being entitled to benefit and was increased by (a) number of benefits not allocated on preceding calculation date because of insufficient funds, (b) number of benefits allocated on preceding calculation date to which entitlement did not occur on day after calculation date, and (c) number of employees put in senior group (since the later of beginning of a 5-year period or last calculation date) through transfer or reinstatement.

¹⁰ Senior group employee whose continuous service was broken before he was entitled to an extended vacation or to an extended vacation retirement benefit was paid single-week vacation benefits to make total benefits received in a 5-year period equal to number he would have received as member of junior group from date he was placed in senior group until break in service.

¹¹ Employee was "actively at work on calculation date" if he (1) worked during pay period including that date or, if on vacation on that date, during immediately preceding or following period or (2) was officially excused or absent because of legally compensable disability.

¹² Deduction of regular vacation did not affect computation of special pension plan payment that would have been made if this savings and vacation plan had not been in effect.

¹³ If employee elected to postpone benefits until retirement, company could (1) deposit benefit funds in trust fund to be increased at rate fund increased or (2) invest benefit funds in U.S. Government Series E bonds or their equivalent. At date of payment, bonds (or cash redemption value if employee chose) were turned over to employee with any uninvested cash in his account.

Any amount deposited in trust fund because employee elected to defer benefits until retirement could be paid in case of unemployment after SUB was exhausted, serious illness, or other major hardship.

¹⁴ Payment for benefits other than vacation time off was not included in computing earnings for (1) the pension plan, (2) regular vacations, or (3) any other purpose.

¹⁵ Employee who was allocated vacation benefit during first cycle beginning after Dec. 31, 1963, but was not actively at work on applicable calculation date was entitled to benefit if he had one uncanceled vacation unit accrued under plan in effect prior to Jan. 1, 1964.

¹⁶ The base period for this special payment was the year used in computing the last vacation to which the employee was or would have been entitled.

¹⁷ Schedule of benefits—in addition to the National Blue Cross 120-day Hospitalization Plan and National Blue Shield Surgical Plan—revised as follows:

Standard hourly wage rate*	Life insurance		Accident and sickness insurance weekly benefits
	Before retirement	After retirement	
Less than \$2.24	\$4,500	\$1,300	\$63
\$2.24 but less than \$2.66	5,000	1,350	66
\$2.66 but less than \$3.08	5,500	1,400	69
\$3.08 but less than \$3.57	6,000	1,450	72
\$3.57 but less than \$3.99	6,500	1,500	75
\$3.99 and over	7,000	1,550	78

*On basis of Aug. 1, 1963, wage scale, excluding incentive earnings.

¹⁸ Effective Nov. 1, 1957, amount of immediate pension payable to employee who voluntarily retired at age 60 with at least 15 years of continuous service was based on following percentages:

Age at retirement	Percent of pension
60	67.18
61	72.36
62	78.14
63	84.60
64	91.84
65	100.00

Footnotes continued on p. 189.

Continuation of footnotes from p. 188.

¹⁹ Agreement also provided for the usual Government rulings which were obtained.

²⁰ In Pennsylvania, earnings in excess of \$6 or $\frac{3}{4}$ of unemployment insurance weekly benefit amount.

²¹ Maximum benefits were:

	Number of dependents				
	None	1	2	3	4 or more
When receiving unemployment insurance.....	\$37.50	\$39.00	\$40.50	\$42.00	\$43.50
When not receiving unemployment insurance.....	60.00	61.50	63.00	64.50	66.00

²² Benefits to be reduced (1) 40 percent when trust fund position was 25 percent but less than 35 percent, (2) 70 percent when fund was 15 percent but less than 25 percent.

²³ Agreement provided that the company was to revise arrangements in States that did not permit supplementations to the extent necessary to con-

form to the revisions in April 1962 agreement and called for installation of alternate arrangements in any State that did not permit supplementation in the future and for installation of the SUB plan in any State that removed its ban against SUB.

²⁴ Relocation allowance was:

Miles between plants	Allowance	
	Single employees	Married employees
50 but less than 100 miles.....	\$55	\$180
100 but less than 300 miles.....	75	220
300 but less than 500 miles.....	105	290
500 but less than 1,000 miles.....	155	420
1,000 miles and over.....	215	580

Although no formal time limit was set, it was expected that application for an allowance would be made within a reasonable length of time after change in permanent residence.

—JEANNE GRIEST
Division of Wage Economics

Significant Decisions in Labor Cases*

Labor Relations

Duty To Bargain. The National Labor Relations Board ruled¹ that the General Electric Co. (GE) failed to bargain in good faith with the Electrical Workers (IUE) when it used a take-it-or-leave-it bargaining technique after presentation of what is considered a "fair and firm offer," and when it communicated directly with employees to gain their support and to discredit their union at the bargaining table. The Board emphasized that it considered the totality of GE's conduct, both before and during the contract negotiations, in making its decision.

The company's general approach to collective bargaining, revealed in its 1960 bargaining method, was called into question by the union. The technique, which had been employed by the company for some time and which ran counter to the traditional type of true bargaining, involved presenting the union with a set of counter-proposals, somewhat modified by what the management considered as valid union demands or other information, and adhering to them firmly throughout contract negotiations. The company's offer was based on extensive year-round research by it into all pertinent factors, including the study of economic and business conditions and gathering of information on the employees' needs and desires, in order to determine what was "right" for them. The company claimed that continued consideration was to be given to meritorious suggestions from the union during negotiations. The next step in the technique, as reported by the trial examiner, was for the company to "market" its position directly to its employees through an elaborate communication system.

Affirming the trial examiner's decision that GE had not bargained in good faith, the Board cited the major facets of the company's 1960 bargaining technique: The intensive communication cam-

paigned directed to employees to disparage the union, and its intransigent approach at the bargaining table. More specifically, the Board cited four factors as evidencing the company's lack of good faith: Failure timely to give certain information to the union at the bargaining table; attempts during negotiations with the international to deal separately with locals on matters subject to national negotiations, and calling on locals not to participate in the strike; offering an accident insurance plan to the union on a take-it-or-leave-it basis; and the nature of the company's attitude and conduct during bargaining.

Citing a court ruling, the Board stressed that good faith bargaining means more than "going through the motion of negotiating" as GE had done; it means evidencing a "serious intent to adjust differences." It also requires, the Board said, that the employer deal with the employees through the union and not, as the company had done through its elaborate communications, with the union through the employees. By its conduct, the company "placed itself in a position where it could not give unfettered consideration to the merits of any proposals the union might offer" because a concession would have made it look ridiculous.

Member Fanning joined in the majority opinion, but he, along with Member Jenkins, did not agree that by the company's presentation of its personal accident insurance proposal to the union on a take-it-or-leave-it basis violated its duty to bargain. Member Jenkins disavowed any support for a conclusion drawn from the majority's view, as he read it, that when a party enters negotiations with a fixed position from which it proposes not to retreat, it evidences lack of good faith.

Member Leedom dissented in part, stating that while he agreed with the specific violations found he could not justify the bad-faith finding with respect to GE's overall bargaining conduct. He felt that the Board's finding, especially its

*Prepared in the U.S. Department of Labor, Office of the Solicitor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or 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.

¹ *General Electric Co. and International Union of Electrical, Radio and Machine Workers*, 150 NLRB No. 36 (Dec. 16, 1964).

reliance on the employer's communications to the employees, did not support its conclusion. For free collective bargaining to succeed, he said, the parties must—with a minimum of exceptions—have a right to resort to their own bargaining tactics.

Duty to Bargain. A company violated its statutory duty to bargain, the U.S. Supreme Court determined,² when it decided—for economic reasons—to subcontract maintenance work of its plant without bargaining with the union representing its maintenance employees, the action merely replacing old employees with those of an independent contractor to work under similar conditions of employment. The Court also upheld the NLRB's order to the company to resume the maintenance operations and reinstate with backpay those whose work was terminated.

Four days before the collective bargaining agreement was to terminate, the company met with the union and informed it of its decision. It further stated that, in light of that decision, it would be pointless to negotiate a new contract. The company took the position that it had no obligation to bargain over the decision since it was motivated purely by economic considerations, not by an antiunion animus.

The NLRB twice considered the case and ultimately concluded that the contracting out of work, even though for economic reasons, was a mandatory subject of collective bargaining since it was within the meaning of the statutorily imposed obligation to bargain in good faith “with respect to wages, hours, and other terms and conditions of employment.” The Board ordered that the employees be reinstated with backpay and that their work be resumed; the court of appeals affirmed the order.

The Supreme Court, Chief Justice Warren writing the major opinion, affirmed the appellate rulings, but stressed that its opinion was limited to the specific facts in this case and did not apply to all the various forms of contracting out or subcontracting which may arise. In the Court's opinion, the subcontracting in this case was a mandatory subject for bargaining because it was within the literal meaning of “terms and conditions of employment,” and because the termination of employment—the consequence of the subcon-

tracting—was certainly within the meaning of that phrase.

The Court reasoned that including subcontracting within the statutory scope of collective bargaining was consistent with a purpose of the Labor Management Relations Act to promote peaceful settlement of industrial disputes through negotiation. In addition, the Court observed, industrial practices in this country bring subcontracting—often through specific contract provisions—within the collective bargaining process. The facts in this case, the Court continued, indicated that to require the employer to bargain about the maintenance work “would not significantly abridge his freedom to manage the business,” since the basic operations in the plant and the capital investment of the company were not changed by giving the work to an independent contractor.

Regarding the Board's remedy, the Court held that the Board had not exceeded its authority in ordering the reinstatement, since the workers were not discharged for cause but as a result of the company's unfair labor practices.

In his concurring opinion, Justice Stewart, supported by Justices Douglas and Harlan, voiced apprehension that the major opinion will be construed too broadly and as a consequence will impose compulsory collective bargaining of subjects which heretofore have been management prerogatives. While he agreed that the facts of the present case justified the majority decision, Justice Stewart stated that he did “not believe that an employer's subcontracting practices are, as a general matter, in themselves conditions of employment.” He noted further that it would be up to Congress to decide whether the country should depart from “the traditional principles of a free enterprise economy” in order to permit organized labor or government a “far heavier hand” when the issue of job security is raised by an entrepreneurial decision of management.

Reporting and Disclosure Act

Bill of Rights. The U.S. Supreme Court ruled³ that complaining members of a union had not been denied equal rights to nominate officers, as

² *Fibreboard Paper Products Corp. v. NLRB* (U.S. Sup. Ct., Dec. 14, 1964).

³ *Calhoon v. Harvey* (U.S. Sup. Ct., Dec. 7, 1964). For the appellate decision, see *Monthly Labor Review*, January 1964, p. 67.

guaranteed in the Bill of Rights (title I) of the Labor-Management Reporting and Disclosure Act of 1959, since the nominating requirements whose validity the members challenged were framed in terms of eligibility for office. The reasonableness of such requirements may be tested under title IV of the act in a postelection action by the Secretary of Labor, the Court said.

The election rules of a marine engineers' union permitted self-nomination only, and provided that prospective officers must have belonged to the national union for 5 years and served 180 days or more of sea duty in each of two of the preceding 3 years. The three complaining union members asserted that the combination of these rules stripped them of guarantees of title I of the act, providing "equal rights and privileges . . . to nominate candidates," since only those members of the union who satisfied the requirements were eligible. The complainants brought suit in a Federal district court to enjoin a proposed election until the rules would be altered.

The district court ruled that the question involved was over "reasonable opportunity . . . for the nomination of candidates" as provided in title IV of the LMRDA. Testing of rights under that title in Federal court can be accomplished only after an election has been held and then only when internal union remedies are exhausted and, following an investigation, the Secretary of Labor decides to bring suit.⁴ The district court therefore dismissed the complaint, concluding that it had no jurisdiction to vindicate title IV rights before the election.

The court of appeals overruled the lower court, holding that the rights guaranteed in titles I and IV "overlap" and that the combined effect of the eligibility requirements violated the title I command for equal rights to nominate. The overlapping rights did not, in the appellate court's opinion, preclude vindication of title I rights before the election.

The Supreme Court, Justice Black writing for the majority, supported the district court's view that title I rights were not at issue, and reversed the court of appeals' ruling. It observed that title I does not grant a right to nominate anyone without regard to valid union rules. The Court did not pass on whether the eligibility requirements were reasonable and valid under title IV because

that was a separate question from whether the equal right to nominate under title I was violated. The latter right was not denied the complainants by the mere fact that they could not meet the eligibility requirements, the Court said.

In a concurring opinion, Justice Stewart, along with Justice Harlan, took issue with the narrow rule which he felt the majority had adopted; namely, that Congress, wishing to avoid judicial resolution of internal union affairs, made the union election eligibility rules immune from pre-election attack. He took the position that, in an appropriate case, a union should not be permitted to immunize itself under the act from preelection attack in a Federal court "simply by framing its discriminatory rules in terms of eligibility," when "it makes deep incursions on the equal rights of its members to nominate, to vote, and to participate in the union's internal affairs."

Dues Increase. The Supreme Court held⁵ that the LMRDA did not prohibit a musicians' union from employing a weighted voting system at its international convention where, in passing a resolution to increase dues, delegates cast votes equal to the membership of the local they represented.

The controversy centered around the language of section 101(a)(3)(B) of the LMRDA, which provides that dues of an international union "shall not be increased . . . except . . . by majority vote of the delegates voting at a regular convention." The convention adopted the dues-raising resolution by a rollcall vote under which, as provided by the union's constitution, the delegates' votes were to be weighted in accordance to the number of members in their local. Fewer than one-half of the delegates actually voted for the proposal, but it passed nevertheless because of the weighted voting system. Several union members sued to have the resolution nullified contending that weighted voting was not permitted under the act.

⁴ It should be emphasized, lest an erroneous impression be derived from the discussion of post-union election challenges on page 7 of the *January Review* that, once held, a union election may be challenged in court only by a suit filed by the Secretary of Labor under title IV. Although a union member may bring suit under title I alleging, for example, illegal discipline or other acts infringing upon the rights protected by that title (see *Grand Lodge of International Association of Machinists v. King*, reported in the *Monthly Labor Review*, November 1964, p. 1303), his suit cannot challenge the outcome of an election.

⁵ *American Federation of Musicians v. Wittstein* (U.S. S. Ct. Dec. 7, 1964).

Both the district court and the court of appeals gave a narrow interpretation to the statutory provision, holding that each delegate could cast but one vote. The Supreme Court (Chief Justice Warren and Justice Goldberg not participating) unanimously rejected the view of the lower courts and held that Congress gave no indication, either in the plain words of the statute or in the legislative history, that weighted voting—a system in effect in many large unions when the LMRDA was enacted—was an abuse which it sought to remedy through section 101(a)(3)(B). In fact, the Court observed, the objective of titles I and IV of the act was to safeguard the “full and active

participation by the rank and file in the affairs of the union.” Therefore, permitting an elected delegate to reflect the size of his constituency in voting for a dues increase or—under title IV—for union officers is consistent with that purpose.

The Court viewed the statutory language regarding dues increases as an outgrowth of Senator McClellan’s earlier proposal in the Senate that weighted voting be required. It noted that the language finally adopted did not make weighted voting mandatory but was designed to allow other methods of insuring membership participation on proposals of an international union to increase dues.

Erratum

In the Technical Note appearing in the January 1965 *Review*, pp. 61–66, on the “Calculation of Average Retail Food Prices,” the fifth sentence in the paragraph on *Computing Techniques* (p. 65) should read:

Chain grocery quotations are weighted by the sales in each chain to represent the total sales of all stores of each chain organization in a Standard Metropolitan Statistical Area.

Chronology of Recent Labor Events*

December 7, 1964

THE U.S. SUPREME COURT handed down two decisions involving provisions of the Landrum-Griffin Act. In *Calhoon v. Harvey*, the Court held a suit against restrictive, but not discriminatory, eligibility requirements for an elected union office could not be brought in a Federal court under the "equal rights to nominate" title of the act. (See also pp. 191-192 of this issue.) The Court ruled in *American Federation of Musicians v. Wittstein* that provisions of the act requiring increases in union dues to be "by majority vote of the delegates voting at a regular convention" did not prohibit a delegate from casting a number of votes equal to the membership of the local from which he was elected. (See also pp. 192-193 of this issue.)

December 9

IN THE FIRST of three election results announced during the month, incumbent W. A. Boyles was reelected president of the Mine Workers over Steve Kochis by a 9-to-1 margin. On December 29, trustees of the Electrical Workers (IUE) declared incumbent President James B. Carey the winner over Paul Jennings by 2,193 votes. On the following day, Captain Lloyd W. Sheldon was elected president of the Masters, Mates and Pilots by a vote of 2,576 to 2,414. (See also p. 201 of this issue.)

A QUEBEC SUPERIOR COURT ordered the Steelworkers to pay Gaspé Copper Mines, Ltd., damages and interest totaling \$2.36 million resulting from a strike by 900 Canadian workers begun illegally on March 10, 1957, after the company obtained an injunction restraining the Quebec Labor Relations Board from acting on the union's petition for certification.

December 14

THE U.S. SUPREME COURT ruled that an employer committed an unfair labor practice when it refused to bargain with a union representing a unit of the company's maintenance employees over an economically motivated decision to subcontract maintenance work and dismissed the employees. The Court also upheld the National Labor Relations Board's authority to order resumption of the subcontracted operation and reinstatement of the discharged workers with back pay. The case was *Fibreboard Paper Products Corp. v. NLRB*. (See also p. 191 of this issue.)

UNDER a reopening provision, the Raytheon Co. and the Electrical Workers (IBEW) agreed to a 2-year contract providing 8,000 workers in Massachusetts a 3-percent wage

increase both years, higher sickness and disability payments, and 4 weeks' vacation after 25 years of service. (See also p. 198 of this issue.)

December 15

THE SECRETARY OF LABOR issued procedures for application, issuance, renewal, and revocation of Certificates of Registration required under the Farm Labor Contractor Registration Act of 1963 (P.L. 88-582). (See Chron. item for Sept. 7, MLR, Nov. 1964.)

December 16

IN THE CASE of *General Electric Co.*, the NLRB held the company failed to bargain in good faith by its overall conduct—including insistence on its "fair and firm" contract proposal and the use made of its employee communications program—during 1960 contract negotiations with the Electrical Workers (IUE). (See also pp. 190-191 of this issue.)

December 17

SOME 400,000 MEMBERS of the Ladies' Garment Workers were brought under one master retirement fund by merger of 41 separate funds. Employer will continue to contribute amounts ranging from 2 to 6 percent of payrolls to finance the \$50-a-month retirement benefit provided most workers. (See also p. 201 of this issue.)

December 20

THE AUTO WORKERS ended a 6-week strike when a 3-year contract with the Mack Truck Corp. was ratified for 6,000 employees. Patterned after the "Big Three" auto settlements (see MLR, Nov. 1964, pp. 1306-1308), the agreement provided 55 cents an hour in wages and benefits over the term of the contract. (See also p. 198 of this issue.)

December 31

THE MEXICAN FARM LABOR importation program (P.L. 78), provided for under the Agricultural Act of 1949, expired. (See Chron. item for Dec. 13, MLR, Feb. 1964.)

January 1, 1965

AGRICULTURAL EMPLOYERS became subject to revised regulations governing applications for temporary foreign agricultural workers under the Immigration and Nationality Act of 1952 (P.L. 414). In addition to making a "reasonable effort" to recruit domestic workers, a grower must offer American workers wages ranging by States from 90 cents to \$1.25 an hour, effective through March 31, 1965, before foreign labor may be used. Beginning April 1, 1965, nonadverse higher wages—varying from \$1.15 to \$1.40 an hour—become effective. The revised regulations were issued after expiration of the Mexican farm labor importation program (P.L. 78). (See Chron. item for Dec. 31, 1964, MLR, Feb. 1965.)

*Labor events for December and January are printed concurrently in this issue to permit advancement of the Chronology by 1 month.

January 4

TRUSTEES of the Mine Workers' welfare and retirement fund announced that effective February 1, 1965, pensions for some 64,000 retired soft-coal miners would be increased to \$85 a month, retirement age would be reduced from 60 to 55, and service requirements for retirement would be liberalized. (See also p. 197 of this issue.) Three days later, the President of New York City Teamsters Joint Local 16, with 16,000 members, announced trustees had authorized a \$25 increase in pensions, bringing benefits to \$175 a month for workers retiring at age 65 with 25 years of service.

January 5

A STATE SUPREME COURT justice upheld the right of New York City Lithographers Local 1, with nearly 9,000 members and \$40 million in pension funds, to refuse membership in the merged Lithographers and Photoengravers Union (see Chron. item for Sept. 7, MLR, Nov. 1964). On January 26, the local voted to authorize affiliation with the Typographers. The following day, the Metropolitan Lithographers Association announced it had reached agreement with the local on terms of a 3-year contract providing 8,000 workers wage increases of \$6 to \$8 a week, and additional employer contributions of \$2 a week per man to the union's welfare fund and 25 cents a week per worker to the apprentice school.

January 8

IN THREE PETITIONS for representation units in New York area department stores, the National Labor Relations Board ordered elections held at each store in separate units of selling and nonselling employees. The cases were *Allied Stores of New York, Inc., dba Stern's Paramus*; *Lord & Taylor, a division of Associated Dry Goods Corp.*; and *Arnold Constable Corp.*

January 9

AGREEMENT WAS REACHED between the Chemical Workers and Scripto, Inc., on a 3-year contract providing 900 hourly workers wage increases of 12 cents an hour over 3 years, 5 paid holidays, a 21-cent-an-hour afternoon shift premium, and a training program to improve advancement opportunities for the plant's 750 unskilled workers.

January 11

BECAUSE OF POOR HEALTH, President-Secretary John P. Burke of the Pulp and Sulphite Workers resigned after 48 years in office. Seventy-two-year-old First Vice President William H. Burnell, acting president-secretary for 18 months, succeeds him.

THE STEELWORKERS announced agreement on a contract covering 2,500 workers at Alan Wood Steel Co., Conshohocken, Pa. It guarantees a 38-hour workweek, earnings for workers with 2 years' service or more at least equal

to 95 percent of average straight-time earnings in the last quarter of the preceding year, unemployment and sickness and accident benefits equivalent to 85 percent of regular weekly pay for an unlimited period for workers with at least 10 years of service, a cost-savings plan, and pattern wage increases. Part of the benefits are to be financed from SUB reserves.

January 12

THE LOCOMOTIVE ENGINEERS (Ind.) announced an agreement in principle with the New York Central, Pennsylvania, and Erie-Lackawanna railroads whereby the union will end its opposition to repeal of State laws setting crew sizes, and the railroads will continue to use the union's firemen on runs previously requiring them, so long as firemen are available with a seniority date earlier than the effective date of a law's repeal. Engineers separated from the railroads were to be given preferential reemployment consideration when openings for engineers occur. On January 31, the same 3 railroads and 20 other eastern carriers reached a similar agreement for brakemen. It is effective January 25, 1966, or upon repeal of a full-crew law; expires December 31, 1969; and affects workers with seniority dates of January 25, 1964, or earlier. The laws have restricted some carriers in implementing the railroad arbitration award. (Chron. item for Nov. 26, 1963, MLR, Jan. 1964.)

January 14

THE FLORIDA EAST COAST RAILWAY, struck by 11 non-operating unions on January 23, 1963, was ordered by the Florida Public Utilities Commission to resume limited passenger service between Jacksonville and Miami within 30 days and to restore service at prestrike levels within 6 months. Several months after the strike began, the railroad resumed freight operations with supervisory and nonunion workers.

January 15

THE MACHINISTS withdrew from participation in the Railway Labor Executives Association. The decision followed an earlier withdrawal by the Locomotive Engineers (Ind.) (Chron. item for Nov. 1, 1964, MLR, Jan. 1965) and leaves the association with 22 members.

January 25

THE U.S. SUPREME COURT ruled that a miner covered by a grievance procedure terminating in arbitration could not sue in a State court for severance pay provided under the contract if the mine should close permanently. The case was *Republic Steel Corp. v. Maddox*.

January 28

INDIANA Governor Roger D. Branigin signed into law a bill repealing the State's 1957 law prohibiting union shop clauses.

Developments in Industrial Relations*

Wages and Collective Bargaining

Transportation. Atlantic and Gulf Coast ports were idled during the latter half of January by strikes of longshoremen over new collective bargaining agreements. New York longshoremen voted by a narrow margin on January 8 to reject a 4-year collective bargaining agreement and, as a result, most longshoremen on the Atlantic and Gulf Coasts quit work on the morning of January 11; those in the Carolinas, Georgia, and Florida stayed on the job until the end of the day. On January 21, the New York longshoremen, by a vote of 12,171 to 5,649, accepted the contract they had previously rejected but failure to agree on contracts in other ports held up a return to work by the 60,000 Atlantic and Gulf Coast longshoremen.

Agreement had been reached by the union and New York Shipping Association on December 16, 4 days before the scheduled expiration of the Taft-Hartley injunction against a strike—the sixth such injunction on the Atlantic and Gulf Coasts since the act became law. Some longshoremen went on strike on December 20 in protest against the settlement, but most returned to work by December 28.

Basic pay of the longshoremen under the December 16 agreement was to be increased 10 cents an hour retroactive to October 1, 1964. Further increases of 10 cents on October 1, 1965, and 8 cents in 1966 and again in 1967 would raise basic hourly pay to \$3.62. The companies agreed to increase their payments to the pension fund to 47 cents per man-hour (from 23 cents) on October 1, 1965, and for health and welfare and clinic benefits to 31½ cents a man-hour (from 23½ cents) in three steps. The longshoremen would gain 3 additional paid holidays, bringing the total to 12, and a fourth week of vacation for most workers with 12 years of service. In addition, longshoremen with seniority in the Port of New York were to be guar-

anteed 1,600 hours of work or pay a year—a yearly income of \$5,792 by the final year of the contract. In exchange for this gain, representatives of the longshoremen agreed to reduce the general cargo gang size from 20 to 18 men on April 1, 1966, and to 17 men on October 1, 1967.

Under the pension plan, benefits would increase to \$125 a month on April 1, 1965, for workers with 25 years of service at age 65. On January 1, 1966, benefits would increase to \$175 a month and will be paid at age 62. A benefit of \$87.50 a month was to be established for widows of men with 25 years' service who die before retirement.

Acceptance of the contract on January 21 followed a determined effort on the part of the ILA leadership to sell the contract to the rank-and-file membership. Admitting surprise and disappointment at the initial rejection, they started an educational program to explain the contract terms. After January 21, the focal point shifted to ports outside of New York. Historically, the longshoremen return to work only when settlements are reached in all ports. Agreements were reportedly reached in Boston, Norfolk, and Mobile, but the major trouble area was in New Orleans and in Texas ports. On January 27, New Orleans shippers agreed to a contract similar to the New York agreement but without the 1,600-hour guarantee; longshoremen were to vote there on January 29. An agreement in Baltimore was rejected on January 27 by a vote of 1,364 to 968 apparently because of a jurisdictional dispute among the locals in the area; the district council had assigned work done by one local to another.

The Signalmen and most of the Nation's railroads agreed on a 2-year wage settlement in late December affecting about 11,750 workers and providing a basic 6-cent-an-hour increase on January 1 of both 1965 and 1966. Skilled workers (about 80 percent of the members) received an additional 4 cents an hour on each date. In May 1964,¹ the union had negotiated a similar increase retroactive to January 1964.

Wage increases of 10 cents an hour on November 1, 1964, and 8 cents more on November 1, 1965, were provided hourly paid employees of the South-

*Prepared in the Division of Wage Economics, Bureau of Labor Statistics, on the basis of published material available in early January.

¹ See *Monthly Labor Review*, July 1964, p. 813.

ern Greyhound Lines represented by the Amalgamated Transit Union in a 2-year contract negotiated in early November and ratified in December. On the same dates, most of the hourly rated employees were to receive up to 5 cents an hour to reduce area differentials with Eastern Greyhound and drivers' rates were to be increased 4 mills and 3 mills, respectively, bringing their mileage rate to 12.9 cents a mile on November 1, 1965. The 3,000 workers affected were also to get a fifth week of vacation after 30 years, and a seventh paid holiday.

About 2,700 employees of Central Greyhound Lines rejected a similar contract in mid-January; negotiations for 5,000 Eastern Greyhound employees were recessed until January.

Mining. Monthly pensions of 64,000 retired soft-coal miners were to be increased to \$85 a month from \$75 on February 1, 1965, under an amendment to the Miners' Welfare and Retirement Fund announced on January 4 by the fund's trustees. The trustees also announced a reduction in the retirement age to 55, from 60. In addition, the trustees liberalized the service requirement for a pension for miners now employed. Previously, pensions were granted only to workers with 20 years of service in the 30 years prior to retirement; now a miner who started work at age 20 can leave the industry at age 40 with 20 years of service and receive a pension at age 55. In February 1961, the pension had been cut to \$75 from \$100 to increase reserves of the fund.

The improvements were made possible by lower welfare fund expenses and increased royalty income which rose to \$133 million in fiscal 1964 from \$123 million in the previous year, according to the fund's annual report. The main cause of the reduction of expenses was the transfer of 10 hospitals in the Appalachian region to a nonprofit group organized by the United Presbyterian Church in 1963.²

Some 75,000 bituminous miners throughout the country received a \$1-a-day wage increase on January 1 under terms of the agreement reached in March 1964.³

Metalworking. By the end of the year, some of the work stoppages that had taken place over negotiations for new contracts in some truck, farm equipment, and automobile parts plants were settled. A 3-year agreement generally patterned after the major automobile settlements was reached by Mack Trucks, Inc., and the Auto Workers after a strike of more than 6 weeks and was ratified on December 20, by workers at the company's facilities in Cortland, N.Y.; Plainfield and Bridgewater, N.J.; Allentown, Pa.; and Hagerstown, Md. The main difference between this agreement, covering 6,000 workers and the major automobile contracts⁴ reportedly was deferral of improvements in paid vacations until June 1, 1967. The local supplement at Hagerstown, where rate ranges in the recently constructed and organized plant were below auto industry levels, provided additional increases of 21 cents an hour over 3 years including 8 cents retroactive to October 20. There were no wage increases for incentive workers at Allentown whose earnings were above truck industry levels. Union spokesmen estimated the package value at 55 cents an hour over the 3 years of the contract.

Oliver Corp., a subsidiary of White Motor Co., and the Auto Workers, representing 1,900 production and office workers, agreed on a 3-year contract plus separate agreements on pensions and supplemental unemployment compensation that were ratified November 12 at the company's Charles City, Iowa, plant. The agreements provide deferred wage increases in both October 1965 and October 1966, and continued the cost-of-living escalation clause. Effective January 1, 1965, the company will pay all premiums on improved group insurance plans for workers, dependents, and retirees. Two additional paid holidays bring the total to nine. Pensions for present and future retirees were improved and SUB benefits were revised.

In mid-November, the Fruehauf Corp. reached agreement with the Allied Industrial Workers on a 30-month contract covering some 1,500 workers at the company's Avon Lake, Ohio, plant. Ratified on November 15 following a 7-week strike the pact provided a 12-cent across-the-board wage increase the first year and 13 cents the following year. Other provisions included continuation of cost-of-living escalation, a ninth paid holiday (the

² See *Monthly Labor Review*, August 1963, p. 965.

³ See *Monthly Labor Review*, May 1964, p. 567.

⁴ See *Monthly Labor Review*, November 1964, p. 1306.

day after Thanksgiving), \$60 (instead of \$50) weekly sickness and accident benefits, the establishment of a company-paid major-medical plan, and company assumption of the full cost of hospital-medical insurance for dependents. The agreement also gave the union the right to strike over safety and production standards; the previous pact contained a "no strike" clause.

The Dana Corp., major manufacturer of auto parts, reached agreement with the Auto Workers on a contract covering about 6,000 employees in 11 plants in Michigan, Ohio, Indiana, and Pennsylvania, patterned after the "Big Three" auto agreements.⁵ The 3-year agreement, effective January 3, raised wages 7 cents an hour, effective both November 14, 1965, and November 13, 1966, and established a 1-cent-an-hour wage inequity fund. Variations from the Big Three settlements included increasing second and third shift differentials to 15 and 20 cents, respectively, from 11 and 13 cents; and raising life insurance to \$6,750 a year from \$5,000; and accidental death and dismemberment benefits to \$3,375 from \$2,500. The increase in normal pension benefits to \$4.25 a month, effective March 3, represented an addition of \$1.60 at Dana, compared with \$1.45 in the Big Three contracts. It followed the Big Three pattern in providing voluntary early retirement at age 60 with 30 years' service or at age 55 if age and years of service to 85, with actuarial reductions for retirement before age 60 or with fewer than 30 years' service and supplemental early retirement to provide 70 percent of base pay up to a maximum of \$400 a month. It also followed the pattern in adding 2 paid holidays, an additional week's vacation, company assumption of the full cost of hospitalization for retirees, 3 days' paid funeral leave, and jury-duty pay (\$15 a day for a maximum of 60 days a year instead of \$10 for 14 days). The Big Three contracts had provided for the company to pay the difference between the employee's regular hourly rate and the pay he received for jury duty.

Two divisions of Revere Copper and Brass, Inc., in Rome, N.Y., and the Mechanics Educational Society of America, representing 1,950 employees, resumed work in early November after a 10-day strike over contract provisions. The settlement

provided general wage increases of 17 cents an hour with an additional 2 cents for skilled employees and 1 cent for clerical employees the first year; 5 cents the second; and 6 cents the third year. There had been no wage increases in 1962 and a 3-cent cost-of-living adjustment in September 1963. Other provisions included increased shift differentials, a ninth paid holiday, a fourth week of paid vacation after 20 years' service, and jury-duty pay. It also included an improved pension plan and double time and one-half for holiday work, increased sickness and accident benefits, major medical benefits, and 90 days of insurance coverage for the employee and his family in the event of layoff.

The Raytheon Co. and the Electrical Workers (IBEW) announced on December 14 the negotiation of a 2-year agreement under a reopener provision of their previous contract. The new agreement, for 8,000 production and maintenance workers in Massachusetts, provided a 3-percent wage increase retroactive to September 1, plus 3 percent the second year. Other provisions included increased sickness and accident benefits and establishment of 4 weeks' vacation after 25 years. The union stated that supplemental benefits accounted for 25 percent of the total cost of \$1,450,000 a year.

A 3-year pact between the Stromberg-Carlson Division of General Dynamics Corp. and the Electrical Workers (IUE) provided a 7-cent-an-hour wage increase the first year, with an additional 8 cents in both the second and third years. In addition, a 2-cent-an-hour inequity fund was established to be used after joint company and union evaluations. Covering 2,400 employees in Rochester, N.Y., the agreement was ratified on November 23, following a 30-day strike.

Other provisions included a ninth paid holiday, 4 weeks' vacation after 20 years' service (instead of 25), time and one-half for Saturday work as such, and a clause requiring the company to re-employ employees immediately on return from pregnancy leave. (The women, who constitute the majority of the Rochester plant employees, had previously been put on layoff status.) The contract also improved arbitration, seniority, and overtime provisions, grievance procedures, and other benefits. It was the first contract with the IUE, who had won bargaining rights in July

⁵ See *Monthly Labor Review*, December 1964, p. 1435 and November 1964, pp. 1306-1308.

1964; the employees had previously been represented by the Rochester Independent Workers.

Western Electric Co. announced that some 2,000 nonunion graded salary employees at its Merrimack Valley Works in Northeastern Massachusetts received salary increases of \$11 to \$26 a month on December 1. These increases paralleled provisions of settlements at other Western Electric Co. plants with the Communications Workers and the Electrical Workers (IBEW) as well as settlements under wage reopenings in the telephone industry.⁶

In early November, the York Division of the Borg-Warner Corp. reached agreement with three independent unions (Ice Machinery Independent Employes' Association, the Yorkco Salaried Employes' Association, and the York Engineering Employes' Association) on a 3-year contract covering some 2,250 employees in Pennsylvania. Wage terms were not disclosed. Pension benefit schedules were improved and a "widow's pension" was added. The day after Thanksgiving was added as the ninth paid holiday, and effective May 1, 1965, vacation provisions will be improved. The agreement also established 3 days' paid leave for deaths in the immediate family. Improvements were also announced in weekly sickness and accident benefits, daily hospital benefits, and hospital coverage for employees and retirees.

In mid-November, Local 1061 of the Machinists approved an out-of-court settlement with the Cutler-Hammer Co. of Milwaukee, ending a dispute over the company's plan to move some of its manufacturing operations from Milwaukee to Bowling Green, Ky. The cost of the settlement, which established severance pay and early retirement provisions, was estimated in a joint union-management statement to be \$1 million. The agreement increased the normal pension rate to \$2.50 a month per year of credited service and included a "special early retirement" provision allowing employees age 62 to 64 to retire without a reduction in the normal pension rate. Employees laid off as a result of the transfer will receive severance pay amounting to \$40 for each year of service after 1 to 5 years' employment, \$50 a year after 6 to 10 years, and \$60 a year after longer service. In addition, laid-off workers with

5 years of seniority will have their hospital and group insurance extended to 9 months (instead of 6). The company will operate a special placement office in Milwaukee to assist displaced workers.

In July, the union had filed suit in Federal Court to restrain the company from making the move until March 15, 1966—the expiration date of the current contract. The Bowling Green plant, expected to be ready in early 1965, will produce general purpose electric controls and accessories currently being manufactured in Milwaukee. The union had estimated that 800 jobs would be lost because of the transfer, while the company expects to save a minimum of \$1,500,000 a year from lower wage scales and tax rates. The Milwaukee plant employed some 2,700 workers.

Other Manufacturing. The West Virginia Pulp and Paper Co. and the Papermakers and Paperworkers reached agreement on a new 1-year contract increasing wages effective November 16 by 3 percent, with a minimum raise of 7 cents, resulting in a \$2.20 rate for the lowest pay classification and a \$4.17 rate for machine tenders, the highest classification. The pact, covering about 3,800 workers in three mills—Williamsport, Pa.; Luke, Md.; and Covington, Va.—was ratified in late November. A fifth week of vacation was provided for employees with 30 years' service, effective in 1965. With an increase in hospitalization rates going into effect on November 30, the company agreed to pay 64 percent of the premium for family coverage instead of the previous 60 percent; changes in proportionate contributions were also made for single employees. A plan to supplement workmen's compensation to the level of weekly sickness and accident benefits was agreed to and the funeral leave clause was liberalized.

The Associated Press and the Newspaper Guild agreed on January 3 to a 2-year contract for about 1,500 employees. It provided a \$2- to \$4.50-a-week general increase on January 1, 1965, and a \$1.50 to \$4 general increase the second year. The top of the minimum scales for reporters was increased \$7 in each year bringing it to \$188.75 a week for reporters in class I cities and to \$179 in class II cities on January 1, 1966. The Associated Press also agreed to a \$2 a month increase in contributions for hospitalization and a 20-cent-a-week increase

⁶ See *Monthly Labor Review*, December 1964, p. 1435, and November 1964, p. 1309.

in pension contributions. In addition, a \$50,000 casualty insurance plan was established.

Bobbie Brooks, Inc., and the Ladies' Garment Workers reached agreement in early January on a 3-year master agreement covering 3,500 employees in the company's twelve plants in Pennsylvania, Ohio, Missouri, and Arkansas. The contract, effective January 4, provided wage increases totaling 22 to 25 cents for hourly workers over the 3 years and 12 percent for pieceworkers. Minimum wages for pieceworkers (most of the company's employees) will be raised 13 cents, to \$1.73 an hour.

Trade and Service. Three-year contracts for two large groups of retail employees on the west coast were negotiated in late November and December. The San Francisco Retailers Council, representing 19 major department, specialty, and footwear stores, reached agreement with Retail Clerk Locals 400 and 1100, representing some 5,000 employees, on contracts replacing those that had expired on May 31. A 10-day work stoppage was ended by agreement reached December 16 on contracts between 5 locals of the Amalgamated Meat Cutters and Butcher Workmen representing some 10,000 employees in the Los Angeles area and the Food Employers Council, Inc.

Under the San Francisco agreement, a 6-cent-an-hour wage increase, retroactive to June 1, will be followed by an additional 5 cents on June 1, 1965, and 6 cents on June 1, 1966. On January 1, 1965, employee contributions for dependent health and welfare coverage will be reduced to \$3.95 a month. A company-paid dental plan for employees and dependents becomes effective in June 1965, and a year later, a prescription drug provision will be added. Night overtime and holiday provisions, which were also at issue, were left unchanged. Under the previous contracts, rates ranged from \$58 to \$96 a week for sales people, from \$58 to \$91.80 for nonselling employees, and from \$62 to \$79 for general utility employees.

In the Los Angeles settlement, wages were to be increased \$5 a week for head meat cutters, \$4 for journeymen and \$3 for wrappers in December of each of the 3 years. A fourth week of vacation after 20 years was established, as was funeral leave. Health and welfare benefits were improved at a cost not to exceed 2 cents an hour; previously the companies paid \$11.76 a month per employee. Company payment to supplement State-required

unemployment and disability benefits was increased to 3 cents an hour, from 2 cents, and a prescription plan costing 1½ cents an hour was established.

Pensions were increased to \$3.50 a month for each year of credited service, from \$2.75, and 60 instead of 65 was made the normal retirement age, with early retirement at age 50. The cost of these benefits will raise the companies' payment for pensions to 14 cents an hour by 1966, from 10 cents. The Sunday rate for journeymen was increased 25 cents an hour to \$6.25. The apprenticeship schedule was reduced from 3 years to 2, while the ratio of apprentices to journeymen was increased. A 30-day probationary period was established for new employees.

The Association of Motion Picture and Television Producers and the Directors Guild (Ind.) in early December agreed on a 4-year contract which provided a 5-percent wage increase for the first 2 years and an additional 5 percent for the final 2 years. Covering 2,500 of the Guild's members, the settlement was retroactive to May 1, 1964, for directors and assistant directors and was to be effective on September 1, 1965, for unit production managers who, for the first time, were covered by this, rather than a separate, contract. Minimum scales under the previous agreement were set at \$675 a week for directors, \$425 for first assistant directors, \$425 for unit production managers, and \$250 for second assistant directors.

Government. In New York City, about 7,500 welfare workers went on strike on January 4 in spite of a court order prohibiting a walkout pending a hearing on the city's request for an injunction. The walkout continued after State Supreme Court Justice Irving Saypol granted the temporary injunction and found four union officials "presumptively" guilty of violating his earlier order. Under the State's Condon-Wadlin Act, which prohibits strikes by public employees, the city then took 5,398 strikers off the payroll. On January 10, Mayor Wagner renewed a suggestion that the dispute be submitted to advisory arbitration or to a factfinding panel. The unions had earlier rejected this proposal because the city cannot be legally bound by such findings. The strike was called by the Social Service Employees Union (Ind.) and the State, County, and Municipal Employees which represent 11,500 of the 12,500 work-

ers in the Welfare Department. The unions were seeking salary increases, reductions in case loads, and improvements in working conditions, vacation, and sick leave provisions.

Other Developments

Following a favorable tax ruling, the Ladies' Garment Workers more than 400,000 members were brought under one master retirement fund by merger of 41 separate funds on December 17.⁷ The merged fund, estimated at nearly \$220 million, became effective January 1, 1965, and is governed by a board of 60 trustees (distributed equally between management and labor), a chairman, a national administrator, and an arbitrator. Applicants for retirement must have been employed 20 of the 25 years immediately preceding retirement, the last 10 continuously and the last 5 for contributing firms. Men become eligible to retire at age 65 and women at 62; the monthly benefit will be \$50 except that in the New York coat and suit market, where the pioneer fund was established, the benefit will be \$65.

Elections. Incumbent W. A. Boyle was elected to a 5-year term as president of the Mine Workers in an election held on December 8. The unofficial vote, announced on December 9, ran about 9 to 1 against challenger Steve Kochis, a miner from Bobtown, Pa. Backing for Kochis came from members dissatisfied with the results of the latest soft-coal settlement,⁸ with the lack of autonomy in most of the union's 26 districts, and with the

administration of the union's welfare and retirement fund. Boyle was appointed to the \$50,000 a year post in January 1963 after the death of Thomas Kennedy, who succeeded John L. Lewis when he retired in 1960. The December election was the first in which the presidency was contested since 1924, when Lewis took office.

Captain Lloyd W. Sheldon was elected president of the Masters, Mates and Pilots to succeed Captain Charles W. Crooks, who was elected a vice president, a nonsalaried part-time position. Crooks had withdrawn from the presidential race in April because of ill health. The vote was 2,576 for Sheldon and 2,414 for Patrick J. King; in the vice presidential contest, Crooks defeated Robert L. Jones 2,534 to 2,389. Both offices have 4-year terms.

In another election, on December 29, the Electrical Workers (IUE) announced the results of the first challenge to the leadership of James B. Carey since the union was founded in 1949. Carey received 67,897 votes, while Paul Jennings, executive secretary of IUE's District 3 (New York and New Jersey), received 65,704 votes. Counting of ballots had been completed on December 15 but announcement of the results was delayed by the Circuit Court of Appeals for the District of Columbia pending the court's review of earlier legal proceedings that began on December 1. At that time, a Federal judge had temporarily ordered suspension of counting at the request of Jennings, who asserted that the tabulating was rigged in Carey's favor. Although the Court of Appeals allowed the announcement of the vote, it granted a hearing on Jennings' request for a court-supervised recount of the ballots.

⁷ See *Monthly Labor Review*, September 1964, p. 1074.

⁸ See *Monthly Labor Review*, May 1964, p. 567.

Book Reviews and Notes

Progress Report

Regulating Union Government. Edited by Marten S. Estey, Philip Taft, Martin Wagner. New York, Harper & Row, Publishers, Inc., 1964. 230 pp. (Industrial Relations Research Association Publication 31.) \$4.

This IRRA volume undertakes to make "a first appraisal" of the effects of the Labor-Management Reporting and Disclosure Act of 1959—the Landrum-Griffin Act.

The evolution of public concern with union misconduct is examined by Joel Seidman, who modestly excludes his own important and pioneering work of the early 1940's. Sar A. Levitan and Joseph Loewenberg chronicle the legislative history and the political interplay which led to the enactment of Landrum-Griffin. The authors stress union bungling in the lobbying process resulting "in a worse defeat for labor unions than they need have suffered"—an interesting opinion but not documented or really developed.

The administration of the act is examined by John D. Stewart, and, considering the complexities of the law, his conclusion that "an examination of published comments on the bureau's operation during its first 4 years reveals an almost total absence of criticism" is a tribute to the quality of the performance. According to Benson Soffer the LMRDA "has had negligible effects on collective bargaining" nor have "the scandal-ridden" unions been materially affected by the law which may indeed have had a negative impact on the increased conservatism of union leadership. Soffer thinks that BLMR [now Office of Labor-Management and Welfare-Pension Reports] "is not testing the full extent of its legal power and moral influence in matters affecting union leaders and members." He doesn't say how this moral influence can be used.

Emanuel Stein reports on the results of LMRDA regulation of union finances and concludes that this section of the law has not generated "an untoward amount of litigation nor has it been used as an antiunion instrumentality." The interpretation which the BLMR has given to the election sections are developed by Howard Jenkins. He suspends judgment on the efficacy of the regulation in strengthening the democratic quality of the elections.

Martin Estey judges "the BLMR record of research and statistics . . . a dismal one." The promise of a body of "new, continuous and more accurate information on union structure has proved illusory."

This volume is a competent, workmanlike, and responsible report on Landrum-Griffin's first 4 years. According to the authors, neither a new day for democratic unionism nor, on the other extreme, Government-managed unionism seems to have materialized. On the basis of the reports in the book, the law does not seem to have made much practical difference—which seems strange when one recalls the great passions which the debate evoked.

—JACK BARBASH
Professor of Economics
University of Wisconsin

Frontiers of Housing

The Urban Complex: Human Values in Urban Life. By Robert C. Weaver. Garden City, N.Y., Doubleday & Co., Inc. 1964. 297 pp. \$4.95.

This book is developed from a collection of articles and lectures on a wide range of housing topics. It reflects the rich and long experience of the author with the complex problems of urban housing.

The author, Administrator of the Housing and Home Finance Agency, is at his best when he places *The Urban Frontier* (ch. I) in the setting of its history and great potential, and discusses the most compelling housing problem confronting major cities today—that which has arisen from the Urbanization of the Negro (ch. VI).

Mr. Weaver traces the development of the present urban complex—the patterns of migration, the striking demographic shifts that have resulted, and the growth of the metropolis and megalopolis, including “strip cities,” in the most populous regions. In discussing the problems that have emerged, he emphasizes the dangers in an artificially restricted housing market, with all Negro families of whatever economic and social situation competing for housing in limited sectors of the city; the inadequacy of housing provision for low-income families; and the competition and conflict among the multiplicity of metropolitan-area jurisdictions which prevent the solution of housing problems as well as the rationalization of community services.

In this period of acute concern about the poor, Mr. Weaver is among the sophisticated practitioners who point to the many facets and faces of the poor, and the need for social and economic diversity in housing as in other aspects of the urban milieu. He draws attention to the fallacy in thinking that only middle-class-oriented families can adapt themselves effectively to city life.

His chapter, *Urbanization of the Negro*, develops an often neglected point—that regardless of the problems accompanying it, the Negroes’ urbanization has resulted in a net gain along many avenues and will contribute to future advancement and increased Negro participation in the life of the larger community.

Other chapters, devoted chiefly to urban renewal, urban planning, and Federal housing policy, include a great deal of interest about recent housing and community facilities programs. Each chapter is clearly a series of fairly repetitive speeches or articles, with little transition and relationship. No unifying theme emerges. The chapters especially emphasize recent housing achievements, thus precluding a balanced review. This is doubtless the result of incomplete expansion of speeches which were in fact intended originally as progress reports. The product, however, is disappointing in view of the interesting history and development of the urban renewal and community facilities programs in relation to social and economic needs and resources.

—DOROTHY K. NEWMAN
Assistant Economic Consultant
Bureau of Labor Statistics

Course Charting

Public Policies and Manpower Resources. New York, Columbia University, National Manpower Council, 1964. 260 pp. \$6, Columbia University Press, New York.

The National Manpower Council in November 1959 conducted a conference at Columbia University, the purpose of which “was to deepen the understanding of the profound influences which public policies and governmental actions exert upon the development and utilization of the Nation’s manpower resources.” Addresses by several distinguished participants were subsequently discussed by a blue-ribbon panel of 70 conferees, drawn from 27 communities. This volume presents the proceedings of the conference.

Papers and discussions were centered chiefly around four areas of public manpower policy—science, health, education, and employment practices. Significant contributions are concentrated in the formal papers, especially those on “Science, Government, and Manpower,” by Alan T. Waterman, Director of the National Science Foundation; “National Manpower Policy and the Health Field,” by Odin W. Anderson, Research Director for the Health Information Foundation; “Public Policies and Equality of Opportunity in Employment,” by Alonzo G. Morón, Educational Consultant at St. Thomas, Virgin Islands; “Public Policies for Education,” by Alvin C. Eurich, Vice President of The Fund for the Advancement of Education; and “The Relationship of Economic Resources to Policy,” by Seymour E. Harris of Harvard University.

Some of the views expressed merit special attention. Dr. Waterman, for example, suggests that in educating manpower for an age of science “. . . we must see to it that the development of quality both in training and performance is one of our highest goals.” A second important consideration, he believes, “. . . is the cultivation of better discrimination in our goals as individuals and as a people.”

Dr. Eurich proposes appointment of a Presidential Commission on Public Policies in Education, whose first task would be to present “. . . a clear picture of public policies for education at all levels of the educational system and government.” Its second responsibility, he suggests, would be to chart a course for such public policies.

Among many trenchant observations throughout this book, especially in Dr. Harris' concluding paper, is the point that ". . . the diversion of billions to solving our manpower problems will do little good unless we can make certain that the flow of cash is offset by a corresponding flow of talent and other resources of equal proportions."

—WILLIAM PAPIER

Director of Research and Statistics
Ohio Bureau of Unemployment Compensation

Transformation of a Relationship

Fringe Benefits: Wages or Social Obligation? By Donna Allen. Ithaca, N.Y., Cornell University, New York State School of Industrial and Labor Relations, 1964. 273 pp. (Cornell Studies in Industrial and Labor Relations, XIII.) \$4.75, hardcover; \$2.50, paperback.

The author contends that the nature of fringe benefits has become an elusive issue mainly because of the lack of useful definitions and firm standards from which to judge these benefits. Moreover, the tendency has been to attempt to tie fringe benefits to various statutory definitions of "wages" as a criterion from which to distinguish wages from nonwages. This has been done because the parties involved have seen fringe benefits as wages when their interests were advanced by doing so, an attitude that has obscured the true nature of fringe benefits both in theory and in the application of social legislation.

Dr. Allen's book seeks to clarify the terms "wages" and "nonwages" on the basis of the purpose of the parties initiating the benefits. It concludes that "fringe benefits are by their nature and intent not wages to pay for service but nonwages to provide [a] social benefit . . ." The purpose of nonwage benefits depends on whether the union or employer initiates the benefits. ". . . fringes which are union-initiated are for the *primary* purpose of providing the particular social benefit as such, while in fringes initiated by the employer, the provision of social benefit is a secondary, though essential, consideration; his *primary* purpose in voluntarily incurring the cost is to increase work force productivity directly or indirectly."

Almost two-thirds of the book is devoted to checking the reliability of this distinction between wages and nonwages by a well-documented historical analysis of paid vacations. Those not particularly interested in such details will find helpful summaries of each chapter.

The author feels that the significance of the fringe benefit movement stems from the fact that never before in an industrial society has such a system of social benefits developed through private initiative. The impact of this system has so transformed the employer-employee relationship that today the employers' social responsibility is as much a part of his obligation to his employees as is compensation for services. Failure to recognize the social aspects of the fringe benefit movement will only hinder its continued dynamic development.

Thus, according to the author, identification of fringes with wages in many labor laws, both State and Federal, fails to contribute to their development as an important social mechanism.

—ARNE H. ANDERSON

Division of Industrial and Labor Relations
Bureau of Labor Statistics

Defining the Common Good

Justice for All: An Introduction to the Social Teaching of the Catholic Church. By Benjamin L. Masse, S.J. Milwaukee, Wis., Bruce Publishing Co., 1964. 196 pp. \$3.95.

Father Benjamin L. Masse has spent many fruitful years of his life on social problems of labor. His present book deals with the broader aspects of "justice for all"; it is meant to be an introduction to the social teaching of the Catholic Church.

The book's guiding light is the papal encyclicals; the reader will notice the special emphasis on *Mater et Magistra*. Father Masse draws the unbroken line from *Rerum Novarum* to *Mater et Magistra*; yet there is this difference between the former encyclicals and the latest one, that the social-philosophical approach of *Rerum Novarum* and Qu. A. is toned down in *Mater et Magistra*, the latter encyclical being more pragmatic in its outlook than the former. The desire of Pope John XXIII to "update" the Church put the emphasis

on current problems, hence the original draft of the encyclical was dropped.

The issue of the common good has always been central for Catholic thought; Father Masse defines it as "the well-being of society as a whole." Is it really true that the individual can achieve his goal "only through devotion to society?" Who is "society," this mysterious sociological concept which covers so much loose thinking?

There exists practical unanimity as to what today's concrete common good is: near full employment, a relatively stable price level, and balanced international payments. If Father Masse had chosen to start from this definition, he would better have come to grips with the complexity and economic implications of the pending social issues.

Father Masse realizes that ours is no longer the individualistic society of the 19th century (although his criticism of economic liberalism sometimes conveys the impression that he still is fighting the battle of the 1890's). He knows that the structure of Western societies is pluralistic. But is he aware that ours is the second phase of economic individualism, the phase of *laissez faire* pluralism? If so, must not his anathema cover both, the individualism of the 19th century and the *laissez faire* pluralism of today?

He is inclined to side with those who plead for a moral obligation of workers to join unions. I don't think he has made his point, from either a moral or social stand-point. His remark that those Catholics who object to the union or closed shop forget that the guilds of the Middle Ages were compulsory units acceptable to the church is not correct. The guilds became compulsory units only after they turned into monopolies and at a time when they were in full decay; at that stage, they found no support from moral theologians.

These observations are not meant to detract from the merits of Father Masse's book, least of all from a deep respect for both his learning and his truly priestly desire for justice and charity. On such vast, complex, and complicated issues there is always room for dissent.

—GOETZ A. BRIEFS
Department of Economics
Georgetown University

Dismal Ballad

Lament for the Molly Maguires. By Arthur H. Lewis. New York, Harcourt, Brace & World, Inc., 1964. 308 pp. \$5.75.

This is one of those books that diverts the reader for a while from discovering that the story has no purpose. After all is done, the story turns out to be only a flat chronicle of the squalid violence that ravaged across the pits, patches, and collieries of Schuylkill County for a quarter of a century until it spent itself in 1877 with the execution of 20 members of the Ancient Order of Hibernians—the secret Irish society that was believed to have been at the root of the trouble.

One of the things that delays discovery of the story's aimlessness is the meticulous detail the book furnishes on the casual deaths and callous maimings inflicted by and on the Mollies and their adversaries. Not much of this sorry roll is left to imagination.

But all the puzzles remain. Since the part played by the Pinkerton spy McParlan remains clouded, it seems uncritical of the author to accept with so little discount a second-hand version of McParlan's self-serving account of the events. On the other hand, why does the author discard so quickly the theory that the Molly Maguires were attempting to make some improvements in their job condition? Lewis bulls through these and other worries to get on with the main business at his hand—moving the procession along to the gallows.

And with this procession for a context, the story does become a dismal kind of ballad about the retribution of wrongs whose original sources were so dimly remote as to negate their power as springs for rational action. The author's lament suffers from this anarchy among the motives: it conveys no glimmer of insight.

Lewis could be right. The thing may defy motive and insight. There's evidence here that a kind of momentum of malice alone was enough to carry the brawl for years. And he may have been forced to rely on the file of partisan newspapers augmented by the coated memories of the witnesses who were there, who saw, who took part, who got spattered.

But a book which decides so many of the questions of fact for the reader leaves little in it on which to make judgments about its accuracy as history or its value in understanding a forlorn time.

—JACK F. STRICKLAND

Division of Publications
Bureau of Labor Statistics

Tunku's Proposal

The Formation of Malaysia: New Factor in World Politics. By Willard A. Hanna. New York, American Universities Field Staff, Inc., 1964. 247 pp.

Mr. Hanna has brought together a series of 24 reports which were published separately between February 1962 and September 1963. They reflect Mr. Hanna's insight into the interrelationship of the nations of the Southeast Asia area and present a guide to the historical, political, economic, and racial aspects of the formation of Malaysia. The book recounts the evolution of Malaysia from its inception in the electrifying proposal made in 1961 by Tunku Abdul Rahman, Prime Minister of the Federation of Malaya, for better understanding among the peoples of Singapore, North Borneo (Sabah), Brunei, and Sarawak through political and economic cooperation.

Students of the background, status, and future potential of the new Malaysia will find in this book a unique and timely presentation. Mr. Hanna shows "how a tentative proposal of federation was systematically transformed into a definite agenda and timetable." The book captures the imagination as it follows the aftermath of the Tunku's proposal, which united the forces of "a wildly heterogeneous collection of politicians who found formidable anti-Malaysia arguments on the basis of political, economic, racial, religious, linguistic, and purely private differences of a highly diversified Malaysian, Chinese, Indian, tribal, and European population."

As the proposal was transformed into plan, and plan into ultimate reality, objections from Indonesia and the Philippines became increasingly adamant, and these objections continue even now to pose the most serious threat to the survival of Malaysia.

—ROSA A. HOLLAND

Division of Foreign Labor Conditions
Bureau of Labor Statistics

Quotations From Recent Books

Labor Productivity. By John T. Dunlop and Vasilii P. Diatchenko. New York, McGraw-Hill Book Co., 1964. 409 pp. \$7.95.

The definition of "worker" is a source of difficulty. There is the question of auxiliaries and trainees, and also the further problem of the point at which a worker is categorized as a clerk or technician, which unavoidably differs in various countries. There is much to be said for comparing the total number employed, without dividing the labor force into "workers" and "non-workers," except for the purpose of analyzing how many are employed in particular tasks within the given industry. . . .

Economic Growth and Employment Opportunities for Minorities. By Dale L. Hiestand. New York, Columbia University Press, 1964. 127 pp., bibliography. \$6.

The interrelationships between growth rates of fields, majority and minority employment trends, and income trends suggest that Negroes face their major opportunities in fields in which employers confront major problems in recruiting, as white men are drawn off to the more rapidly growing fields where incomes are relatively high but increasing relatively slowly. The relatively rapid growth of incomes in low-paying fields represents one effort on the part of employers to retain or attract the workers they need. Their recruitment of Negroes represents another.

Progress or Poverty: The U.S. at the Crossroads. By Leon H. Keyserling. Washington, Conference on Economic Progress, 1964. 150 pp. \$1.

Among both families and unattached individuals, there is a very high correlation (regardless of causation) between the amount of education and the amount of poverty. In 1963, about 44 percent of the more than 7 million families whose heads had less than 8 years of elementary education lived in poverty, contrasted with less than 5 percent of the 5.3 million families whose heads had 4 or more years of college education. . . .

Classic Speeches: Words That Shook the World.

Edited by Richard Crosscup. New York, Philosophical Library, 1965. 496 pp. \$10. . . . I shall endeavor to do what has been done with sufficient precision, to discriminate between nonaction or nonintervention in slavery, and nonaction as it respects the government of the people, who, by the dispensations of Providence, and the course of events, have come to our hands to be taken care of. To refrain from extending to them the benefit of government, law, order, and protection, is widely different from silence or non-intervention in regard to African slavery.

—From "On the Compromise of 1850," by Henry Clay.

The Price System. By Robert Dorfman. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1964. 152 pp. \$4.50, cloth; \$1.95 paperback.

Price theory, as we now have it, is the result of 6 or 7 generations of refinement and perfection. As a result, it is the most highly elaborated theory to be found in the social sciences. In its higher reaches it is severely austere and mathematical, straining, indeed, the resources of advanced mathematics. . . . The student must expect then, to be operating at a certain level of abstraction.

Featherbedding and Job Security. By Robert D. Leiter. New York, Twayne Publishers, Inc., 1964. 238 pp. bibliography. \$5.

. . . Many makework practices are less meaningful and desirable to industrial unions than they are to craft unions, and governmental encouragement of craft union mergers and industrial bargaining units is in order. Still, the main impetus for the eradication of featherbedding must come from governmental and private programs which offer workers more job security and greater reassurance against technological displacement. It is certainly clear that private efforts alone are incapable of solving the problems involved.

The Law of Industrial Disputes in India. By R. F. Rustamji. New York, Asia Publishing House, 1964. 878 pp. 2d rev. ed. \$23.50, Taplinger Publishing Co., Inc., New York.

What is the result of all these principles of natural justice being applied to cases of misconduct by workmen in industry? Discipline, which

we as a nation are sadly lacking in, is on the further decrease. This must surely have led, and is even now leading, to a decline in efficiency and in production. On the part of the employer, there is the weariness about continuing old industries and grave scepticism about establishing new ones; there is an all-round belief among employers that labor is unduly and actively encouraged in indiscipline by the authorities of the State.

Other Recent Publications

Education and Training

Shaping Educational Policy. By James Bryant Conant. New York, McGraw-Hill Book Co., 1964. 139 pp. \$3.95.

Education and Employment in the Newly Developing Economies. By Frederick Harbison and Charles A. Myers. Princeton, N.J., Inter-University Study of Labor Problems in Economic Development, 1964. 10 pp. (Reprint 32; from Comparative Education Review, June 1964.)

Company Sponsored Scholarship and Student Loan Plans. By J. Roger O'Meara. New York, National Industrial Conference Board, Inc., 1964. 152 pp. (Studies in Personnel Policy 192.)

Minnesota Studies in Vocational Rehabilitation: XVII, Disability and Work. By Lloyd H. Lofquist and others. Minneapolis, University of Minnesota, Industrial Relations Center, 1964. 18 pp. (Bulletin 40.)

Problem Areas in Training for Automated Work. By Otis Lipstreu. (In Training Directors Journal, American Society for Training and Development, New York, November 1964, pp. 12-15. \$1.)

Physical Sciences, Earth Sciences, Mathematics as Fields of Work for Women. By Alice Griffiths. Ottawa, Canadian Department of Labor, Women's Bureau, 1964. 47 pp.

Metal Working Occupations. Ottawa, Canadian Department of Labor, Economics and Research Branch, 1964. 75 pp. (Canadian Occupations Monograph 8.) 25 cents, Queen's Printer, Ottawa.

Health and Safety

Annual Report of the Division of Health and Safety [of the Tennessee Valley Authority], Fiscal Year 1964. Chattanooga, Tennessee Valley Authority, 1964. 55 pp.

Private Consumer Expenditures for Medical Care and Voluntary Health Insurance, 1948-63. By Louis S. Reed. (In Social Security Bulletin, U.S. Department of Health, Education, and Welfare, Social Security Administration, Washington, December 1964, pp. 12-22. 25 cents, Superintendent of Documents, Washington.)

Industrial Relations

Analysis of Work Stoppages, 1963. By Edward D. Onanian. Washington, U.S. Department of Labor, Bureau of Labor Statistics, 1964. 50 pp. (Bulletin 1420.) 35 cents, Superintendent of Documents, Washington.

The Battle of Hillsdale—The Essex Wire Strike Emergency. By Robert G. Howlett. (In Labor Law Journal, Chicago, December 1964, pp. 770-786. \$1.25.)

Strikes and Lockouts in Canada, 1963. Ottawa, Canadian Department of Labor, Economics and Research Branch, 1964. 36 pp. 35 cents, Queen's Printer, Ottawa.

The NLRB and Jurisdictional Disputes: The Aftermath of CBS. By James B. Atleson. (In Georgetown Law Journal, Washington, Fall 1964, pp. 93-152. \$1.75.)

Technological Change and Industrial Relations. (In Labor Gazette, Canadian Department of Labor, Ottawa, October 1964, pp. 851-854. 50 cents, Queen's Printer, Ottawa.)

Advanced Arbitration Seminar: NLRB Rulings, Negotiations, Court Decisions. Seminar sponsored by University of Chicago, June 5-6, 1964. (In Labor Law Journal, Chicago, September 1964, pp. 577-622. \$1.25.)

The Discipline Issue in Arbitration: Individual Differences and Shop Practices, by Lloyd H. Bailer; *Employer Rules,* by Louis Yagoda. (In Labor Law Journal, Chicago, September 1964, pp. 567-576. \$1.25.)

An Evaluation of the Remedies Available to the NLRB—Is There Need for Legislative or Administrative Change? By Frank W. McCulloch. (In Labor Law Journal, Chicago, December 1964, pp. 755-769. \$1.25.)

Labor Force

Current Manpower Problems: An Introductory Survey. By Adolf Sturmthal. Urbana, University of Illinois, Institute of Labor and Industrial Relations, 1964. 103 pp.

Manpower Gap. By Thomas Dernburg and Kenneth Strand. (In Challenge, New York University, New York, December 1964, pp. 41-43. 70 cents.)

Manpower and Automation Research, July 1, 1963-June 30, 1964. Sponsored by the Office of Manpower, Automation and Training. Washington, U.S. Department of Labor, Manpower Administration, 1964. 126 pp.

Labor Force Developments for White and Nonwhite Workers, 1954-64. (In Monthly Report on the Labor Force, U.S. Department of Labor, Bureau of Labor Statistics, Washington, November 1964, pp. 11-18.)

Aerospace Employment. By Ernest F. Schroeder. (In Employment Service Review, U.S. Department of Labor, Bureau of Employment Security, Washington, October 1964, pp. 23-27. 30 cents, Superintendent of Documents, Washington.)

Employment of Older Workers, No. 1: Job Re-Design. By Stephen Griew. Paris, Organization for Economic Cooperation and Development, Manpower and Social Affairs Directorate, 1964. 86 pp., bibliography. \$2.50, McGraw-Hill Book Co., OECD Unit, New York.

Twenty Years of State Fair Employment Practice Commissions: A Critical Analysis With Recommendations. By Herbert Hill. [New York, National Association for the Advancement of Colored People, 1964.] 69 pp. Reprinted from Buffalo Law Review, Buffalo, N.Y., Fall 1964.

Anti-Discrimination Legislation in Canada, 1964. (In Labor Gazette, Canadian Department of Labor, Ottawa, November 1964, pp. 939-943. 50 cents, Queen's Printer, Ottawa.)

The Social Aspects of Labor Turnover in the U.S.S.R. By Mary Harris. (In British Journal of Industrial Relations, London School of Economics and Political Science, London, November 1964, pp. 398-417. \$2.50.)

Better Skills Will Improve Job Outlook. (In Nation's Business, Washington, December 1964, pp. 66-68, et seq.)

An Approach to Job Vacancy Information. By Vladimir D. Chavrid. (In Employment Service Review, U.S. Department of Labor, Bureau of Employment Security, Washington, October 1964, pp. 7-8, 40. 30 cents, Superintendent of Documents, Washington.)

Labor Organizations

A Study of the History of the International Typographical Union, 1852-1963. Colorado Springs, Colo., International Typographical Union, Executive Council, 1964. 411 pp. \$4.50.

Trade Unionism in Yugoslavia. London, Trades Union Congress, 1964. 47 pp. 1s. 6d.

Trade Unions in Turkey. By Orhan Tuna. (In International Labor Review, Geneva, November 1964, pp. 413-431. 75 cents. Distributed in United States by Washington Branch of ILO.)

Productivity and Technological Change

Automation: Industrialization Comes of Age. By William Francois. New York, Collier Books, Crowell-Collier Publishing Co., 1964. 192 pp. 95 cents, paperback.

Cybernation and Social Change: Seminar on Manpower Policy and Program. By Donald N. Michael. Washington, U.S. Department of Labor, Office of Manpower, Automation and Training, 1964. 34 pp., bibliography.

America's Reactions to Technological Change and Automation: A Comparative View. By Albert A. Blum. (In Management of Personnel Quarterly, University of Michigan, Bureau of Industrial Relations, Ann Arbor, Mich., Fall 1964, pp. 12-16.)

Paperwork Management in Transition: The Impact of Automatic Data Processing. By Joseph L. Kish and James Morris. New York, American Management Association, 1964. 15 pp. (Management Bulletin 56.) \$1.50; \$1 to AMA members.

Automation in Developing Countries. By Gabriel Ardant. (In International Labor Review, Geneva, November 1964, pp. 432-471. 75 cents. Distributed in United States by Washington Branch of ILO.)

Social Security

Ninth Actuarial Valuation of the Assets and Liabilities Under the Railroad Retirement Acts as of December 31, 1962, With Technical Supplement. Chicago, U.S. Railroad Retirement Board, 1964. 92 pp.

The Financing of Benefits in Unemployment Insurance. By Ernest J. Eberling. (In Vanderbilt Law Review, Nashville, Tenn., June 1964, pp. 759-784. \$2.)

Unemployment Insurance Decisions. (In Unemployment Insurance Review, U.S. Department of Labor, Bureau of Employment Security, Unemployment Insurance Service, Washington, August-September 1964, pp. 16-17. 30 cents, Superintendent of Documents, Washington.)

Issues Reflected in Recent Appeals Decisions: Arrest and Unemployment Insurance Disqualification. (In Unemployment Insurance Review, U.S. Department of

Labor, Bureau of Employment Security, Unemployment Insurance Service, Washington, August-September 1964, pp. 12-16. 30 cents, Superintendent of Documents, Washington.)

Extension of Unemployment Insurance Coverage to State and Local Government Employees. Des Moines, Iowa Employment Security Commission, Research and Statistics Division, 1964. 17 pp.

Crónica del IV Congreso Iberoamericano de Seguridad Social, Bogota, April 16-22, 1964. (In Revista Iberoamericana de Seguridad Social, Ministerio de Trabajo, Madrid, May-June 1964, pp. 431-438.)

Wages and Hours

Equal Opportunity and Equal Pay. By Herbert R. Northrup. (In Management of Personnel Quarterly, University of Michigan, Bureau of Industrial Relations, Ann Arbor, Mich., Fall 1964, pp. 17-26.)

Is There a Future for Wage Incentive Schemes? By Denis Pym. (In British Journal of Industrial Relations, London School of Economics and Political Science, London, November 1964, pp. 379-397. \$2.50.)

Occupational Wage Survey: Little Rock-North Little Rock, Ark., August 1964. Washington, U.S. Department of Labor, Bureau of Labor Statistics, 1964. 31 pp. (Bulletin 1430-7.) 25 cents, Superintendent of Documents, Washington. Other bulletins in this series include:

	Bulletin No.	Pages	Price (cents)
<i>San Bernardino-Riverside-Ontario, Calif., September 1964</i>	1430-8	19	20
<i>Seattle, Wash., September 1964</i>	1430-9	21	25
<i>Chattanooga, Tenn.-Ga., September 1964</i>	1430-10	31	25
<i>Wichita, Kans., September 1964</i>	1430-11	31	25
<i>San Diego, Calif., September 1964</i>	1430-12	31	25
<i>Cleveland, Ohio, September 1964</i>	1430-13	35	30
<i>Washington, D.C.-Md.-Va., October 1964</i>	1430-14	35	30
<i>Sioux Falls, S. Dak., October 1964</i>	1430-15	17	20
<i>Boston, Mass., October 1964</i>	1430-16	37	30
<i>Omaha, Nebr.-Iowa, October 1964</i>	1430-17	21	25

- Wage Chronology: American Viscose, 1945-63.* Washington, U.S. Department of Labor, Bureau of Labor Statistics, 1964. 16 pp. (BLS Report 277.) 20 cents, Superintendent of Documents, Washington.
- Wage Chronology: Lockheed Aircraft Corp. (California Company), 1937-64.* Washington, U.S. Department of Labor, Bureau of Labor Statistics, 1964. 29 pp. (BLS Report 231, rev.) 25 cents, Superintendent of Documents, Washington.
- Top Executive Compensation.* New York, National Industrial Conference Board, Inc., 1964. 77 pp. (Studies in Personnel Policy 193.)
- Potential Income From Assets: Findings of the 1963 Survey of the Aged.* By Janet Murray. (In Social Security Bulletin, U.S. Department of Health, Education, and Welfare, Social Security Administration, Washington, December 1964, pp. 3-11. 25 cents, Superintendent of Documents, Washington.
- Miscellaneous**
- The American Economic System.* By Edwin Vennard and Robb M. Winsborough. Chicago, Middle West Service Co., Business and Engineering Consultants, 1964. 96 pp.
- South Carolina and the National Economy.* By James A. Morris. Columbia, University of South Carolina, Bureau of Business and Economic Research, 1964. 100 pp. (Essays in Economics, 11.)
- Money and Credit: Impact and Control.* By James S. Dusenberry. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1964. 117 p. \$3.95, cloth; \$1.90, paperback.
- The Professionalization of Everyone?* By Harold L. Wilensky. (In American Journal of Sociology, University of Chicago Press, Chicago, September 1964, pp. 137-158. \$1.75.)
- Development and Underdevelopment.* By Celso Furtado; translated by Ricardo W. De Aguiar and Eric Charles Drysdale. Berkeley, University of California Press, 1964. 181 pp. \$5.
- Patterns of Public Sector in Underdeveloped Economies.* By Ignacy Sachs. New York, Asia Publishing House, 1964. 196 pp.
- Poverty in New York City—Selected Facts for Planning Community Action.* New York, Community Council of Greater New York, Bureau of Community Statistical Services, 1964. 34 pp.
- Segregation, Subsidies, and Megalopolis.* By Bernard Weissbourd. New York, Center for the Study of Democratic Institutions, 1964. 19 pp. (Occasional Paper 1 on The City.) Single copies free.
- Labor Law and Practice in Nicaragua.* By Karol C. Kleiner. Washington, U.S. Department of Labor, Bureau of Labor Statistics, 1964. 99 pp., bibliography. (BLS Report 265.) 50 cents, Superintendent of Documents, Washington.
- Labor Law and Practice in Saudi Arabia.* By Oscar F. Morrison. Washington, U.S. Department of Labor, Bureau of Labor Statistics, 1964. 44 pp., bibliography. (BLS Report 269.) 35 cents, Superintendent of Documents, Washington.
- Report of the United States Government Delegates to a Meeting of the International Labor Organization, Forty-Eighth Session of the International Labor Conference, Geneva, June 17-July 9, 1964.* Washington, U.S. Department of Labor, 1964. 84 pp.
- Assets of the Aged in 1962: Findings of the 1963 Survey of the Aged.* (In Social Security Bulletin, U.S. Department of Health, Education, and Welfare, Social Security Administration, November 1964, pp. 3-13. 25 cents, Superintendent of Documents, Washington.)

Current Labor Statistics

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¹ This table is included in the January, April, July, and October issues of the *Review*.

NOTE: With the exceptions noted, the statistical series here from the Bureau of Labor Statistics are described in *Techniques of Preparing Major BLS Statistical Series* (BLS Bulletin 1168, 1954), and cover the United States without Alaska and Hawaii.

A.—Employment

TABLE A-1. Estimated total labor force classified by employment status and sex

[In thousands]

Employment status	Estimated number of persons 14 years of age and over ¹														Annual average	
	1964												1963			
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	1961	1960
	Total, both sexes															
Total labor force.....	75,567	76,897	77,112	76,865	78,509	78,958	79,389	77,490	76,544	75,553	75,259	74,514	75,201	76,000	74,175	73,126
Civilian labor force.....	73,841	74,166	84,375	74,122	75,758	76,218	76,645	74,742	73,799	72,810	72,527	71,793	72,461	73,261	71,603	70,612
Unemployment.....	3,466	3,373	3,252	3,317	3,654	3,813	4,692	3,640	3,921	4,293	4,524	4,565	3,846	3,936	4,806	3,931
Unemployment rate seasonally adjusted ²	5.0	4.9	5.2	5.1	5.1	5.0	5.3	5.2	5.4	5.4	5.4	5.4	5.5	5.8	6.7	5.6
Unemployed 4 weeks or less.....	1,630	1,658	1,623	1,701	1,691	1,670	2,781	1,671	1,660	1,620	1,669	2,069	1,734	1,955	1,897	1,799
Unemployed 5-10 weeks.....	740	707	610	537	862	1,070	674	632	705	807	1,236	988	859	767	964	823
Unemployed 11-14 weeks.....	294	248	238	315	312	216	231	252	321	544	455	402	324	349	411	353
Unemployed 15-26 weeks.....	416	372	390	353	296	322	485	556	693	742	654	605	492	401	728	502
Unemployed over 26 weeks.....	387	387	390	410	410	410	522	529	543	581	510	501	436	463	804	454
Employment.....	70,375	70,793	71,123	70,805	72,104	72,405	71,953	71,101	69,877	68,517	68,002	67,228	68,615	69,325	66,796	66,681
Nonagricultural.....	66,590	66,248	65,997	65,575	66,704	66,586	66,100	66,094	65,448	64,500	64,071	63,234	64,576	64,548	61,333	60,958
Worked 35 hours or more.....	52,317	47,115	49,349	33,986	49,212	48,645	50,777	51,505	51,452	50,556	48,953	47,179	50,817	46,129	47,257	46,388
Worked 15-34 hours.....	4,186	4,084	4,034	3,887	3,169	3,264	3,718	4,466	4,206	4,191	4,321	4,164	4,092	3,935	3,610	3,279
Worked 1-14 hours.....	1,975	2,221	2,791	3,432	7,205	7,464	4,004	2,304	2,115	2,038	2,103	2,255	1,985	2,029	2,946	3,042
With a job but not at work ³	3,785	4,545	5,126	5,250	5,400	5,819	5,853	5,007	4,429	4,017	3,931	3,993	4,039	4,777	5,463	5,723
Agricultural.....	2,220	3,011	3,366	3,577	3,716	3,980	1,218	1,195	1,089	1,029	1,029	1,077	1,042	1,100	1,196	1,240
Worked 35 hours or more.....	993	1,044	1,221	1,181	1,085	1,218	1,195	1,089	1,029	1,029	1,077	1,042	1,100	1,196	1,240	1,240
Worked 15-34 hours.....	357	361	399	346	440	428	387	378	374	386	524	549	476	411	477	444
Worked 1-14 hours.....	218	129	133	128	160	193	119	92	124	211	223	294	284	176	200	190
With a job but not at work ³																
	Males															
Total labor force.....	50,480	50,709	50,918	51,083	52,584	53,057	52,813	51,204	50,665	50,123	49,956	49,731	49,924	50,285	49,918	49,507
Civilian labor force.....	47,784	48,008	48,211	48,370	49,864	50,347	50,100	48,577	47,951	47,411	47,255	47,041	47,215	47,577	47,378	47,025
Unemployment.....	2,139	1,856	1,762	1,813	2,074	2,183	2,630	2,067	2,345	2,826	2,881	2,477	2,253	3,060	2,541	2,541
Employment.....	45,645	46,152	46,448	46,557	47,791	48,164	47,470	46,510	45,607	44,730	44,429	44,160	44,739	45,324	44,318	44,485
Nonagricultural.....	42,998	42,487	42,423	42,476	43,443	43,571	42,860	42,496	41,891	41,299	41,029	40,686	41,299	41,488	39,811	39,807
Worked 35 hours or more.....	35,783	32,895	34,338	25,120	34,831	34,699	35,845	35,748	35,537	34,797	33,782	32,879	34,799	32,166	32,984	32,511
Worked 15-34 hours.....	3,684	6,554	4,658	13,529	3,429	3,345	3,403	3,403	3,332	3,461	4,187	4,580	3,466	6,442	3,587	4,100
Worked 1-14 hours.....	1,727	1,680	1,680	1,599	1,491	1,450	1,538	1,969	1,759	1,743	1,795	1,777	1,718	1,586	1,511	1,360
With a job but not at work ³	1,204	1,357	1,747	2,028	3,790	4,078	2,077	1,376	1,265	1,297	1,265	1,452	1,311	1,292	1,729	1,836
Agricultural.....	3,247	3,666	4,026	4,081	4,348	4,593	4,610	4,014	3,716	3,432	3,400	3,474	3,445	3,836	4,508	4,678
Worked 35 hours or more.....	2,005	2,597	2,912	3,035	3,243	3,439	3,552	3,019	2,622	2,190	1,918	1,908	1,951	2,622	3,132	3,365
Worked 15-34 hours.....	738	673	727	708	657	704	667	627	678	741	803	795	820	754	827	792
Worked 1-14 hours.....	305	273	274	232	314	292	290	295	306	325	475	497	409	307	370	348
With a job but not at work ³	200	122	113	106	135	158	99	73	107	176	203	274	263	154	179	172
	Females															
Total labor force.....	26,086	26,188	26,194	25,782	25,925	25,901	26,576	26,196	25,878	25,430	25,302	24,783	25,277	25,715	24,257	23,619
Civilian labor force.....	26,056	26,158	26,164	25,752	25,894	25,871	26,545	26,165	25,847	25,399	25,271	24,752	25,246	25,684	24,225	23,587
Unemployment.....	1,327	1,517	1,489	1,503	1,581	1,630	2,062	1,574	1,577	1,613	1,698	1,684	1,369	1,682	1,747	1,390
Employment.....	24,730	24,641	24,674	24,248	24,313	24,241	24,483	24,591	24,271	23,786	23,573	23,068	23,877	24,001	22,478	22,196
Nonagricultural.....	24,192	23,762	23,574	23,099	23,261	23,015	23,240	23,598	23,557	23,201	23,042	22,548	23,282	23,061	21,523	21,151
Worked 35 hours or more.....	16,535	14,221	15,011	8,867	14,382	13,947	14,932	15,758	15,912	15,758	15,170	14,301	16,020	13,962	14,273	13,877
Worked 15-34 hours.....	4,446	6,272	5,166	10,539	3,723	3,867	4,199	4,414	4,343	4,256	4,507	5,057	4,213	6,014	3,934	4,149
Worked 1-14 hours.....	2,439	2,407	2,353	2,290	1,740	1,816	2,180	2,497	2,450	2,448	2,526	2,387	2,377	2,349	2,098	1,919
With a job but not at work ³	771	863	1,044	1,404	3,415	3,386	1,928	928	849	740	838	803	674	736	1,217	1,206
Agricultural.....	538	879	1,100	1,149	1,052	1,226	1,243	993	713	585	531	520	594	940	955	1,045
Worked 35 hours or more.....	213	414	454	541	471	542	599	429	279	201	190	199	224	372	408	445
Worked 15-34 hours.....	255	371	502	473	428	514	528	461	350	288	273	247	280	443	419	486
Worked 1-14 hours.....	50	88	123	112	126	137	96	83	66	61	49	53	69	104	107	96
With a job but not at work ³	18	7	20	22	25	35	20	19	16	35	20	20	21	22	22	17

¹ Estimates are based on information obtained from a sample of households and are subject to sampling variability. Data relate to the calendar week ending nearest the 15th day of the month. The employed total includes all wage and salary workers, self-employed persons, and unpaid workers in family-operated enterprises. Persons in institutions are not included.

² Because of rounding, sums of individual items do not necessarily equal totals.

³ Unemployment as a percent of labor force.

⁴ Includes persons who had a job or business but who did not work during the survey week because of illness, bad weather, vacation, or labor dispute. Prior to January 1957, also included were persons on layoff with definite instructions to return to work within 30 days of layoff and persons who had

new jobs to which they were scheduled to report within 30 days. Most of the persons in these groups have, since that time, been classified as unemployed.

NOTE: For a description of these series, see Explanatory Notes (in *Employment and Earnings*, U.S. Department of Labor, Bureau of Labor Statistics, current issues).

Figures for periods prior to April 1962 are not strictly comparable with current data because of the introduction of 1960 Census data into the estimation procedure. The change primarily affected the labor force and employment totals, which were reduced by about 200,000. The unemployment totals were virtually unchanged.

TABLE A-2. Employees in nonagricultural establishments, by industry¹
 [In thousands] Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Total employees.....	59,827	59,437	59,164	59,258	58,680	58,418	58,596	57,874	57,329	56,783	56,445	56,328	58,012	56,643	55,515
Mining.....	642	644	644	645	647	646	651	634	627	615	614	618	634	635	650
Metal mining.....	85.3	83.9	79.8	77.7	77.6	85.2	84.0	82.8	80.9	80.6	79.8	80.4	80.5	82.3	82.3
Iron ores.....	27.6	28.0	28.2	27.7	28.0	27.9	27.5	26.6	25.1	24.9	24.5	25.0	24.7	25.2	25.2
Copper ores.....	29.4	27.9	23.5	21.5	21.6	29.6	28.9	28.6	28.5	28.3	28.0	27.9	27.7	28.5	28.5
Coal mining.....	144.9	144.7	144.0	142.8	142.9	143.3	141.7	143.5	143.6	147.3	148.5	150.6	148.1	151.9	151.9
Bituminous.....	133.7	133.6	132.8	131.5	131.6	132.1	130.7	132.7	132.8	135.9	137.3	139.3	136.9	140.0	140.0
Crude petroleum and natural gas.....	289.7	288.0	291.8	297.3	297.3	297.3	284.9	283.2	282.4	281.5	285.1	289.9	289.1	298.0	298.0
Crude petroleum and natural gas fields.....	159.2	159.6	162.4	165.0	165.1	164.6	160.4	160.5	160.6	161.5	161.4	162.3	164.3	167.6	167.6
Oil and gas field services.....	130.5	128.4	129.4	132.3	132.2	130.6	124.5	122.7	121.8	120.0	123.7	127.1	124.8	130.4	130.4
Quarrying and nonmetallic mining.....	124.0	127.1	129.1	129.1	128.3	126.8	123.4	117.6	107.9	104.8	104.7	113.9	117.7	118.1	118.1
Contract construction.....	3,035	3,278	3,376	3,391	3,482	3,424	3,308	3,130	2,921	2,707	2,631	2,579	2,872	2,983	2,902
General building contractors.....	1,044.7	1,056.9	1,058.3	1,095.3	1,073.4	1,034.8	975.2	910.4	843.5	820.3	806.4	891.4	821.9	882.1	882.1
Heavy construction.....	641.9	701.0	712.8	736.8	725.5	699.2	643.3	553.6	469.3	450.2	434.1	528.6	600.1	593.1	593.1
Highway and street construction.....	333.9	381.8	394.0	411.0	405.2	385.9	346.6	278.5	217.5	201.3	190.7	256.7	315.0	299.5	299.5
Other heavy construction.....	308.0	319.2	318.8	325.8	320.3	313.3	296.7	275.1	251.8	248.9	243.4	271.9	281.5	283.6	283.6
Special trade contractors.....	1,591.3	1,617.8	1,619.4	1,649.5	1,624.9	1,574.3	1,511.8	1,456.8	1,394.3	1,360.0	1,338.0	1,451.9	1,461.3	1,426.6	1,426.6
Manufacturing.....	17,573	17,649	17,428	17,792	17,498	17,299	17,350	17,135	17,058	17,005	16,937	16,893	17,096	17,005	16,853
Durable goods.....	10,080	10,082	9,806	10,105	9,836	9,855	9,798	9,756	9,692	9,634	9,626	9,723	9,723	9,625	9,481
Nondurable goods.....	7,493	7,567	7,622	7,687	7,662	7,444	7,447	7,337	7,302	7,313	7,303	7,267	7,373	7,380	7,372
Durable goods.....															
Ordnance and accessories.....	247.8	246.1	246.6	248.2	249.2	254.2	257.9	262.4	266.5	269.0	270.8	275.8	277.6	274.1	268.8
Ammunition, except for small arms.....	188.0	186.3	186.8	187.8	189.2	193.7	196.6	200.1	202.4	203.6	205.0	207.9	208.9	202.3	186.7
Sighting and fire control equipment.....	48.1	47.7	47.6	48.0	47.5	48.0	48.6	49.3	50.7	50.9	50.9	52.3	52.6	52.5	53.0
Other ordnance and accessories.....															
Lumber and wood products, except furniture.....	587.6	597.1	605.9	618.0	625.0	623.3	620.1	597.3	582.7	570.8	568.1	565.5	585.1	586.6	589.3
Logging camps and logging contractors.....	84.1	88.7	92.0	94.9	97.4	96.5	94.0	86.3	78.5	73.5	77.0	77.7	83.8	83.2	83.6
Sawmills and planing mills.....	251.7	254.7	257.3	262.1	265.6	266.9	266.1	256.3	251.5	248.1	245.7	242.2	251.1	254.3	255.9
Millwork, plywood, and related products.....	150.2	151.8	153.9	157.5	158.5	157.0	156.5	153.2	152.1	150.1	148.5	149.2	151.3	149.9	151.5
Wooden containers.....	36.4	36.5	36.4	36.9	36.8	37.5	38.3	37.1	36.2	35.4	34.6	34.6	35.7	36.1	36.6
Miscellaneous wood products.....	65.2	65.4	66.3	66.6	66.7	65.4	65.2	64.4	64.4	63.7	63.3	61.8	63.2	63.0	61.8
Furniture and fixtures.....	412.3	414.6	415.6	413.1	408.5	400.8	401.4	391.9	394.1	392.4	389.6	388.5	393.6	388.9	385.1
Household furniture.....	303.4	304.3	303.5	300.9	298.0	292.2	292.4	287.1	288.1	287.6	285.4	283.0	286.2	279.8	275.2
Office furniture.....	84.1	88.7	92.0	94.9	97.4	96.5	94.0	86.3	78.5	73.5	77.0	77.7	83.8	83.2	83.6
Partitions; office and store fixtures.....	37.7	39.0	37.8	37.1	37.2	36.5	36.6	35.3	34.6	33.9	33.5	33.9	32.9	32.0	28.0
Other furniture and fixtures.....	44.6	45.0	45.4	45.3	44.2	44.3	44.9	42.9	43.1	42.4	42.1	42.9	43.6	42.4	41.3
Stone, clay, and glass products.....	605.3	625.2	630.1	640.0	640.3	635.7	634.2	618.6	606.6	591.7	582.7	577.6	597.0	601.6	592.3
Flat glass.....	34.3	34.4	33.8	32.5	32.1	32.0	31.4	30.9	31.3	32.0	32.2	32.2	32.6	31.0	30.4
Glass and glassware, pressed or blown.....	112.5	114.8	115.5	117.4	117.3	115.2	116.7	114.9	113.1	111.5	109.8	106.1	109.2	110.7	108.9
Cement, hydraulic.....	37.5	38.9	39.6	40.5	40.6	40.6	40.3	39.1	37.9	36.8	35.8	36.0	37.3	38.9	39.8
Structural clay products.....	66.9	68.7	68.7	69.8	70.6	70.2	70.3	68.5	67.6	66.0	64.0	64.5	67.8	68.7	68.5
Potttery and related products.....	42.1	41.8	43.8	43.6	42.7	43.1	43.2	43.5	43.5	42.8	43.2	43.7	43.1	43.1	43.5
Concrete, gypsum, and plaster products.....	164.0	176.0	179.7	183.4	185.7	185.3	182.3	174.8	167.9	158.3	155.4	154.1	163.7	168.4	163.4
Other stone and mineral products.....	128.0	129.2	129.1	130.0	128.8	128.7	128.8	126.2	125.5	124.1	123.1	122.2	123.2	121.6	119.4
Primary metal industries.....	1,267.6	1,257.5	1,244.1	1,258.8	1,241.2	1,234.6	1,234.0	1,220.7	1,209.1	1,196.4	1,188.0	1,173.8	1,170.1	1,171.7	1,165.6
Blast furnace and basic steel products.....	653.8	645.2	642.3	649.0	641.3	636.8	630.6	620.3	610.7	599.6	592.5	582.0	579.7	589.4	592.8
Iron and steel foundries.....	219.5	218.4	209.4	216.7	213.1	211.9	214.3	211.3	209.3	207.8	206.9	204.3	202.8	198.1	193.6
Nonferrous smelting and refining.....	70.6	71.3	71.1	68.9	69.6	69.6	71.1	70.7	70.0	70.1	70.0	70.0	69.7	68.8	68.1
Nonferrous, rolling, drawing, and extruding.....	187.2	187.1	186.2	188.2	184.5	184.4	183.8	185.7	186.2	186.4	186.3	186.0	186.4	184.8	182.0
Nonferrous foundries.....	75.3	74.8	74.9	75.7	74.0	73.2	74.7	73.6	73.5	73.4	73.2	72.7	72.4	71.8	70.0
Miscellaneous primary metal industries.....	61.2	60.7	60.2	60.3	58.7	58.7	59.5	59.1	59.4	59.1	59.1	58.8	59.1	58.9	59.2
Fabricated metal products.....	1,226.3	1,223.4	1,197.1	1,239.2	1,209.2	1,187.2	1,202.6	1,186.3	1,180.9	1,171.4	1,164.5	1,162.6	1,175.3	1,152.6	1,127.7
Metal cans.....	59.0	59.7	60.3	64.5	65.2	63.7	63.1	62.1	61.4	60.4	59.6	58.2	58.6	60.4	60.8
Cutlery, handtools, and general hardware.....	154.4	153.4	136.7	150.7	144.6	138.5	143.2	144.0	143.6	143.8	143.7	144.5	144.9	138.8	135.6
Heating equipment and plumbing fixtures.....	77.6	79.1	81.1	80.6	79.5	80.6	80.5	78.7	79.5	78.2	78.2	78.2	78.7	76.7	74.8
Fabricated structural metal products.....	361.5	364.5	366.3	368.5	365.9	362.5	358.1	346.9	342.2	336.9	334.4	333.6	340.0	339.3	332.0
Screw machine products, bolts, etc.....	93.7	93.0	92.2	91.9	90.9	89.8	91.3	90.3	90.7	90.8	90.3	90.0	90.4	89.3	88.1
Metal stampings.....	210.9	205.6	192.9	212.6	199.9	191.6	202.5	201.9	202.9	202.0	201.7	202.8	204.4	195.5	190.4
Coating, engraving, and allied services.....	76.3	75.6	77.5	77.7	75.7	75.7	74.5	74.6	73.5	73.2	71.4	71.9	73.3	70.8	67.2
Miscellaneous fabricated wire products.....	60.7	60.7	60.0	59.8	58.7	56.7	58.7	57.8	57.9	57.0	56.6	56.5	56.8	55.2	55.9
Miscellaneous fabricated metal products.....	132.2	131.8	130.1	132.9	128.8	129.9	130.7	130.0	129.2	129.1	128.6	126.9	128.2	126.5	122.9

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry ¹—Continued

[In thousands]

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Manufacturing—Continued															
<i>Durable goods—Continued</i>															
Machinery-----	1,648.9	1,625.4	1,627.8	1,636.4	1,617.3	1,618.0	1,622.5	1,607.9	1,603.8	1,593.0	1,566.5	1,567.7	1,561.5	1,531.3	1,493.2
Engines and turbines-----	87.3	86.2	86.1	87.3	86.6	86.1	86.2	85.9	85.4	85.1	84.9	84.8	85.5	84.9	83.9
Farm machinery and equipment-----	-----	118.8	122.2	123.2	122.2	122.5	125.1	125.9	127.2	127.1	125.8	122.5	119.5	118.9	112.3
Construction and related machinery-----	238.0	232.1	235.4	237.3	235.0	234.9	234.3	231.2	229.4	227.4	209.8	224.2	222.0	216.9	211.4
Metalworking machinery and equipment-----	292.8	289.0	289.1	291.0	286.0	287.9	290.7	288.9	287.4	285.6	281.8	278.3	277.6	268.6	259.3
Special industry machinery-----	177.9	176.9	175.9	176.2	174.7	175.6	176.8	174.4	174.4	173.1	172.3	171.2	170.9	169.8	171.0
General industrial machinery-----	257.2	253.8	253.3	253.7	252.0	250.9	251.3	248.3	247.2	245.7	244.4	241.3	240.4	235.7	229.0
Office, computing, and accounting machines-----	171.7	171.5	169.8	168.2	167.3	166.7	164.8	162.9	163.4	163.2	164.1	164.0	164.5	161.3	158.6
Service industry machines-----	106.6	105.7	105.1	105.6	103.6	105.5	106.1	105.4	104.1	103.3	102.6	101.9	101.5	101.7	101.2
Miscellaneous machinery-----	192.4	191.4	190.9	193.9	189.9	187.9	187.2	185.0	184.5	182.5	180.8	179.5	179.6	173.5	166.6
Electrical equipment and supplies-----	1,599.6	1,595.1	1,582.4	1,576.8	1,544.7	1,531.0	1,529.2	1,516.3	1,518.8	1,523.1	1,528.4	1,541.6	1,554.2	1,556.6	1,568.3
Electric distribution equipment-----	177.6	176.1	176.1	174.3	173.7	172.9	172.0	170.3	168.9	169.1	169.4	169.3	169.2	168.1	167.7
Electrical industrial apparatus-----	190.1	189.4	187.2	188.4	185.9	185.0	185.3	182.3	180.8	181.0	179.8	179.4	179.1	178.5	182.6
Household appliances-----	162.5	162.2	160.3	159.6	155.9	154.4	157.5	156.1	157.4	157.1	157.8	157.5	160.2	154.8	150.3
Electric lighting and wiring equipment-----	160.4	160.3	159.5	157.9	154.7	153.2	153.0	151.7	151.8	152.2	152.0	151.1	151.8	148.7	143.2
Radio and TV receiving sets-----	121.3	125.5	127.7	125.4	120.8	116.1	109.3	103.0	104.6	104.4	106.3	109.9	114.7	111.4	110.5
Communication equipment-----	411.8	409.1	406.1	403.5	400.7	400.5	400.2	400.7	404.3	407.6	409.6	416.2	419.0	433.5	444.9
Electronic components and accessories-----	277.5	277.1	273.4	269.5	263.8	257.1	259.2	258.6	257.8	258.3	257.7	259.7	260.1	262.4	266.1
Miscellaneous electrical equipment and supplies-----	98.4	95.4	92.1	98.2	89.2	91.8	92.7	93.6	93.2	93.4	95.8	98.5	100.1	99.1	103.2
Transportation equipment-----	1,704.0	1,693.7	1,453.2	1,677.0	1,517.9	1,609.2	1,629.9	1,639.7	1,642.8	1,637.6	1,634.5	1,640.5	1,656.7	1,609.3	1,542.6
Motor vehicles and equipment-----	835.7	607.8	607.8	823.1	677.0	769.5	781.6	788.6	788.6	784.3	776.8	783.9	790.6	745.2	691.7
Aircraft and parts-----	600.6	599.1	596.6	599.7	592.5	595.9	600.5	603.7	611.0	616.8	622.6	629.2	637.8	635.1	634.1
Ship and boat building and repairing-----	150.0	151.8	148.7	147.3	143.3	139.6	142.8	144.3	142.4	137.7	138.5	135.9	136.1	141.9	140.7
Railroad equipment-----	-----	55.8	48.3	54.8	53.8	54.4	54.0	52.9	52.4	52.4	51.4	49.1	48.8	45.0	40.8
Other transportation equipment-----	-----	51.3	51.8	52.1	51.3	49.8	51.0	50.2	48.4	46.4	45.2	42.4	43.4	42.1	35.4
Instruments and related products-----	373.5	373.9	370.4	372.2	370.8	368.2	368.9	364.9	365.7	366.3	365.3	366.4	368.5	364.7	358.7
Engineering and scientific instruments-----	-----	67.1	66.8	67.0	67.1	67.5	67.6	67.9	68.6	69.4	70.0	71.4	71.6	72.9	73.8
Mechanical, measuring, and control devices-----	97.0	97.6	95.4	97.1	96.7	96.1	96.2	95.0	95.4	95.5	95.3	95.3	95.4	94.4	94.2
Optical and ophthalmic goods-----	46.5	46.1	45.5	45.2	44.9	44.7	45.5	44.9	44.8	44.4	44.3	43.2	43.3	42.1	40.8
Surgical, medical, and dental equipment-----	55.7	55.5	54.8	55.3	55.3	54.6	54.9	54.4	54.2	53.9	53.3	53.2	53.3	52.7	50.0
Photographic equipment and supplies-----	-----	78.2	78.0	78.2	78.9	77.1	76.2	74.6	74.6	74.9	74.1	74.6	75.2	73.3	71.6
Watches and clocks-----	-----	29.4	29.9	29.4	27.9	28.2	28.5	28.1	28.2	28.3	28.3	28.3	27.9	29.3	28.2
Miscellaneous manufacturing industries-----	406.9	429.8	432.6	424.8	411.9	393.1	402.3	392.0	386.1	379.9	375.8	366.0	383.8	387.4	389.6
Jewelry, silverware, and plated ware-----	47.0	47.1	46.9	46.6	45.3	43.2	44.6	44.5	44.3	43.7	42.9	42.8	43.2	41.8	42.2
Toys, amusement and sporting goods-----	-----	126.7	129.6	125.2	116.3	109.0	111.3	104.5	99.8	93.8	80.8	85.7	97.0	102.7	102.1
Pens, pencils, office and art materials-----	-----	33.7	33.6	32.9	32.1	31.5	31.2	30.8	30.8	30.8	31.1	31.2	32.7	31.5	30.9
Costume jewelry, buttons, and notions-----	-----	55.8	55.4	55.1	55.3	52.0	55.3	53.8	53.2	54.0	53.9	51.4	53.3	54.5	57.0
Other manufacturing industries-----	164.5	166.5	167.1	165.0	162.9	157.4	159.9	158.4	158.0	157.6	157.1	154.9	157.6	157.0	157.4
<i>Nondurable goods</i>															
Food and kindred products-----	1,704.1	1,749.6	1,810.6	1,861.9	1,858.7	1,765.6	1,717.8	1,668.5	1,652.0	1,642.5	1,649.6	1,666.3	1,716.3	1,743.7	1,762.1
Meat products-----	319.0	323.7	316.4	318.1	318.5	315.3	313.2	307.6	302.3	302.1	303.1	308.6	317.7	313.8	315.0
Dairy products-----	279.5	280.4	283.5	290.1	297.2	298.3	296.6	289.1	285.5	283.4	281.7	281.9	285.6	293.9	302.5
Canned and preserved foods, except meats-----	-----	235.3	295.9	356.6	347.4	264.3	223.2	202.9	200.6	187.8	188.1	193.2	208.8	247.3	255.8
Grain mill products-----	123.5	123.6	128.0	129.9	130.0	128.1	129.6	127.8	124.8	125.5	125.8	127.4	127.9	130.0	130.5
Bakery products-----	289.6	291.2	290.3	289.8	291.3	292.2	291.5	286.7	284.5	285.3	284.7	284.1	288.3	288.9	292.5
Sugar-----	-----	50.0	50.7	34.4	32.2	32.0	31.4	31.6	32.5	34.7	41.8	45.5	48.8	37.0	35.7
Confectionery and related products-----	79.1	81.3	80.2	78.1	74.1	69.0	71.3	70.5	70.7	73.1	75.3	75.1	82.0	76.3	75.3
Beverages-----	217.1	219.0	220.8	222.3	226.5	226.6	221.0	213.6	212.1	209.9	208.1	209.1	213.7	213.6	212.0
Miscellaneous food and kindred products-----	143.3	145.1	144.8	142.6	140.5	139.8	140.0	138.7	139.0	140.7	141.0	141.4	143.5	143.0	142.8
Tobacco manufactures-----	94.4	96.3	107.6	102.6	93.6	76.2	76.7	76.3	76.7	80.3	84.3	86.9	93.6	87.9	90.5
Cigarettes-----	-----	37.9	37.8	38.3	38.3	37.7	37.2	37.0	37.1	37.2	37.2	37.8	38.3	38.0	37.5
Cigars-----	-----	25.4	25.7	25.4	25.0	24.6	25.3	24.8	24.6	24.3	23.8	22.2	22.8	22.7	23.8
Textile mill products-----	903.5	910.0	906.6	906.9	903.6	888.5	902.0	894.3	892.2	890.2	886.9	879.7	887.3	888.8	902.3
Cotton broad woven fabrics-----	232.5	232.0	231.2	230.0	229.4	228.6	229.2	227.6	228.0	228.9	229.1	228.7	229.7	229.1	238.9
Silk and synthetic broad woven fabrics-----	88.4	87.8	87.4	87.0	87.1	86.4	87.3	86.8	86.8	86.8	86.9	86.7	87.0	84.8	82.2
Weaving and finishing broad woolsens-----	44.3	45.3	45.4	46.8	46.3	46.7	48.9	48.8	48.1	47.9	48.3	47.8	47.3	50.4	52.2
Narrow fabrics and smallwares-----	30.0	29.8	29.4	29.2	29.0	28.4	28.9	28.4	28.5	28.4	28.2	28.1	28.3	27.8	27.8
Knitting-----	217.1	223.6	224.2	224.3	224.1	218.4	220.7	218.1	215.2	213.3	209.7	205.1	209.5	216.0	219.8
Finishing textiles, except wool and knit-----	77.2	77.2	76.9	77.1	77.3	76.2	76.9	76.5	76.5	76.4	76.0	75.9	76.4	75.2	74.9
Floor covering, except wool and knit-----	-----	38.8	38.3	37.9	37.0	35.6	36.5	36.7	37.1	37.5	37.3	37.0	37.7	37.4	37.3
Yarn and thread-----	107.8	107.6	107.0	107.0	107.3	102.5	106.8	104.9	104.9	104.6	104.5	103.7	104.0	101.4	102.4
Miscellaneous textile goods-----	68.6	67.9	66.8	67.6	66.1	65.7	66.8	66.5	67.1	66.4	66.9	66.7	67.4	66.8	66.6

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry¹—Continued

[In thousands]

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Manufacturing—Continued															
<i>Nondurable goods—Continued</i>															
Apparel and related products.....	1,327.3	1,343.0	1,337.3	1,342.2	1,341.4	1,277.9	1,308.3	1,285.8	1,280.6	1,305.8	1,303.6	1,264.2	1,280.8	1,284.5	1,263.7
Men's and boys' suits and coats.....	116.0	114.5	114.0	114.1	114.3	105.6	114.3	112.7	109.8	112.8	113.0	112.6	113.4	114.5	116.6
Men's and boys' furnishings.....	343.6	343.5	341.9	342.9	343.8	333.9	340.0	333.3	330.2	328.8	325.6	320.0	323.9	326.4	318.0
Women's, misses', and juniors' outer wear.....	396.3	403.0	402.5	405.2	408.9	386.6	392.0	387.1	391.4	407.8	408.3	388.4	389.4	392.3	382.5
Women's and children's undergarments.....	123.2	125.1	125.2	124.0	122.2	115.3	117.7	116.6	116.5	117.4	116.9	115.4	119.2	116.7	115.9
Hats, caps, and millinery.....	31.2	32.3	32.3	32.6	34.2	31.2	29.7	28.7	29.2	35.2	36.0	32.9	31.7	33.0	32.9
Girls' and children's outerwear.....	75.3	76.7	77.5	77.3	79.1	79.5	81.6	78.5	75.3	75.8	79.3	76.4	74.7	76.7	77.6
Fur goods and miscellaneous apparel.....	79.0	79.7	79.7	78.6	76.7	72.0	75.9	73.4	72.8	73.2	72.0	67.8	72.0	73.3	74.0
Miscellaneous fabricated textile products.....	165.5	170.0	164.2	167.5	162.2	153.8	157.1	155.5	155.4	154.8	152.5	150.7	156.5	151.6	146.1
Paper and allied products.....	634.9	638.4	638.0	639.7	638.2	631.1	635.6	625.8	624.4	620.6	618.7	619.6	625.2	620.3	614.4
Paper and pulp.....	214.9	217.6	217.7	218.1	221.6	220.6	221.1	217.0	217.0	215.8	215.4	216.1	218.2	217.9	218.1
Paperboard.....	65.8	65.8	66.9	67.4	66.4	65.7	66.6	65.8	65.7	65.8	65.7	65.8	65.7	65.3	65.1
Converted paper and paperboard products.....	154.6	155.2	154.8	156.5	155.1	153.0	153.5	151.7	150.7	149.2	148.4	148.5	149.7	147.3	144.3
Paperboard containers and boxes.....	199.6	199.8	198.6	197.7	195.1	191.8	194.4	191.3	191.0	189.8	189.2	189.2	191.6	189.7	186.9
Printing, publishing, and allied industries.....	967.4	964.1	961.9	958.6	952.7	950.0	952.2	947.8	945.0	943.5	940.4	938.8	948.9	931.1	926.4
Newspaper publishing and printing.....	344.5	340.4	339.5	337.1	338.2	338.6	339.7	337.9	336.6	336.2	334.8	334.5	338.4	329.6	327.6
Periodical publishing and printing.....	68.9	68.9	68.9	68.3	67.2	66.4	66.4	66.7	67.3	67.4	68.7	68.3	68.5	68.0	69.7
Books.....	74.4	74.2	74.2	74.7	74.2	74.5	74.7	75.1	75.1	75.1	74.8	73.9	73.5	72.1	71.8
Commercial printing.....	311.7	310.6	310.4	309.6	304.6	303.7	304.9	303.3	302.6	302.4	300.0	301.5	303.4	297.7	295.7
Bookbinding and related industries.....	50.7	51.3	51.5	51.5	52.0	51.7	51.4	50.8	50.4	49.7	49.3	48.0	50.3	50.6	49.2
Other publishing and printing industries.....	117.3	118.5	117.4	117.4	116.5	115.1	115.1	114.0	113.0	112.7	112.8	112.6	114.8	113.0	112.4
Chemicals and allied products.....	878.5	878.2	875.9	884.3	886.4	883.8	882.1	879.3	878.7	872.5	864.2	862.3	864.1	865.2	848.5
Industrial chemicals.....	284.4	284.1	282.6	287.0	288.7	288.6	287.5	284.3	284.1	283.4	283.0	283.1	283.0	283.6	282.9
Plastics and synthetics, except glass.....	189.8	190.1	189.0	190.2	189.3	187.9	185.8	183.0	182.2	180.9	180.1	180.1	180.0	176.2	165.4
Drugs.....	112.3	111.8	110.6	111.6	113.0	113.1	112.6	111.6	111.6	112.0	111.3	112.6	112.8	112.4	110.4
Soap, cleaners, and toilet goods.....	98.4	99.1	99.9	99.8	99.9	97.9	98.4	95.8	95.6	95.4	95.0	93.9	96.2	97.0	96.4
Paints, varnishes, and allied products.....	64.7	64.4	64.8	65.9	66.9	67.0	66.3	65.0	64.5	63.7	63.2	62.7	63.0	63.2	62.6
Agricultural chemicals.....	49.0	48.2	48.8	48.8	47.8	48.0	50.9	60.1	61.8	57.6	52.7	50.7	49.0	51.0	48.6
Other chemical products.....	79.9	80.5	80.2	81.0	80.8	81.3	80.6	79.5	78.9	79.5	78.9	79.2	80.1	81.7	82.2
Petroleum refining and related industries.....	181.0	183.7	186.9	188.4	189.6	189.7	189.8	187.2	186.1	185.5	185.7	185.8	186.6	189.8	195.3
Petroleum refining.....	149.0	148.9	151.3	151.8	152.9	153.1	153.4	152.2	152.8	152.7	153.0	153.9	153.5	154.7	160.5
Other petroleum and coal products.....	32.0	34.8	35.6	36.6	36.7	36.6	36.4	35.0	33.3	32.8	32.7	31.9	33.1	35.1	34.7
Rubber and miscellaneous plastic products.....	442.1	443.3	440.8	443.9	435.3	425.1	426.9	425.7	421.8	422.1	420.1	418.2	420.0	417.7	408.4
Tires and inner tubes.....	99.5	99.6	96.8	100.4	99.3	98.9	98.4	97.8	97.3	97.8	97.9	97.9	97.1	97.3	99.4
Other rubber products.....	168.7	168.7	168.9	169.3	164.2	162.1	163.9	163.3	162.9	163.6	163.8	163.4	164.5	163.5	161.3
Miscellaneous plastic products.....	173.9	175.0	175.1	174.2	171.8	164.1	164.6	164.6	161.6	160.7	158.4	157.5	158.4	157.0	147.7
Leather and leather products.....	359.8	360.0	356.5	358.0	362.6	356.1	355.6	346.1	344.4	349.5	349.9	345.5	350.2	350.8	360.7
Leather tanning and finishing.....	31.7	31.9	32.0	32.3	32.3	31.9	32.4	31.8	31.4	31.3	31.4	30.2	31.7	31.3	31.9
Footwear, except rubber.....	240.6	236.6	233.9	236.2	241.0	238.5	238.0	233.0	230.3	234.3	235.8	234.6	233.8	235.2	240.6
Other leather products.....	87.5	91.5	90.6	89.5	89.3	85.7	85.2	81.3	82.7	83.9	82.7	80.7	84.7	86.3	88.1
Transportation and public utilities.....	4,007	4,013	4,028	4,045	4,043	4,031	4,005	3,952	3,924	3,885	3,880	3,877	3,935	3,914	3,906
Railroad transportation.....	747.2	754.8	761.4	770.2	771.0	767.0	760.8	758.3	751.2	749.2	751.4	751.2	751.4	771.9	796.4
Class I railroads.....	653.5	661.1	667.5	677.1	678.6	675.7	670.3	667.6	660.3	659.0	662.2	672.1	679.3	700.2	
Local and interurban passenger transit.....	280.0	279.9	276.6	260.2	261.5	269.0	273.1	277.2	272.4	281.5	282.7	280.3	282.7	270.7	
Local and suburban transportation.....	86.2	86.7	86.6	85.9	86.0	87.2	87.5	86.8	81.1	88.4	88.5	88.8	88.9	90.9	
Taxicabs.....	109.9	108.5	105.9	106.0	106.7	107.4	109.1	111.2	112.9	115.2	115.2	114.8	112.0	112.5	
Intercity and rural buslines.....	41.6	42.4	44.9	45.4	45.4	43.5	42.5	41.0	40.3	40.5	41.9	41.3	41.4	41.3	
Motor freight transportation and storage.....	979.6	983.9	991.3	977.2	971.0	963.4	928.4	914.0	903.0	902.3	899.5	927.9	912.1	884.6	
Air transportation.....	218.2	217.0	216.7	215.7	214.7	211.8	209.2	207.4	206.0	204.9	205.4	204.5	201.4	196.9	
Air transportation, common carriers.....	197.6	196.5	196.5	195.6	194.8	192.0	189.8	187.7	186.4	185.6	185.3	184.3	180.7	175.9	
Pipeline transportation.....	19.7	19.9	20.4	20.8	20.7	20.6	20.1	20.1	20.1	20.2	20.1	20.2	20.3	21.6	
Other transportation.....	306.5	311.1	306.9	313.6	308.2	309.9	307.4	303.1	299.2	291.7	291.1	302.1	302.9	301.6	
Communication.....	853.9	851.5	854.8	860.3	858.1	847.2	838.5	835.9	826.8	824.4	821.0	821.0	823.4	824.1	
Telephone communication.....	709.6	707.5	711.8	716.5	714.7	705.1	697.4	695.2	687.1	684.8	681.5	681.8	685.1	687.5	
Telegraph communication.....	31.2	31.3	31.5	31.9	32.4	32.5	32.7	32.5	32.3	32.5	32.4	32.7	33.7	36.8	
Radio and television broadcasting.....	108.2	107.8	106.6	107.0	106.1	104.7	103.5	103.3	102.5	102.2	102.2	101.6	99.7	95.3	
Electric, gas, and sanitary services.....	608.3	609.9	616.9	624.9	625.3	616.2	609.5	607.6	606.3	605.3	606.1	607.2	609.9	610.4	
Electric companies and systems.....	247.7	248.2	250.5	253.5	253.6	251.3	246.7	245.8	245.2	245.0	245.4	245.5	246.1	246.5	
Gas companies and systems.....	151.1	150.9	152.6	154.9	155.1	151.2	152.1	151.9	152.0	151.9	151.7	152.5	153.3	154.6	
Combined utility systems.....	172.3	173.2	176.0	177.6	177.6	175.2	172.8	172.7	172.5	172.2	172.2	172.6	173.1	173.1	
Water, steam, and sanitary systems.....	37.2	37.6	37.8	38.9	39.0	38.5	37.9	37.2	36.6	36.2	36.4	36.1	36.3	36.1	

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry¹—Continued

Industry	[In thousands]												Revised series; see box, p. 220.		
	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Wholesale and retail trade	13,119	12,514	12,341	12,243	12,201	12,173	12,180	12,031	11,919	11,862	11,772	11,855	12,725	11,803	11,566
Wholesale trade	3,289	3,272	3,269	3,258	3,266	3,245	3,211	3,170	3,161	3,156	3,156	3,172	3,210	3,119	3,056
Motor vehicles and automotive equipment	245.7	244.8	245.8	246.2	244.9	243.8	240.7	239.2	238.0	237.5	237.9	238.9	235.5	228.3	
Drugs, chemicals, and allied products	193.6	192.8	192.6	191.1	191.5	193.1	190.0	190.2	189.7	189.3	190.4	190.7	188.5	186.3	
Dry goods and apparel	138.2	137.1	137.2	138.1	137.3	137.3	136.0	134.6	133.8	134.0	132.0	133.8	132.2	131.0	
Groceries and related products	515.5	520.0	522.0	520.4	524.7	512.9	499.7	497.7	498.3	498.0	501.9	507.9	493.6	487.0	
Electrical goods	239.6	238.7	239.2	241.7	240.7	239.0			235.8	235.1	235.1	234.7	234.7	219.7	
Hardware, plumbing, and heating goods	148.0	147.3	147.6	149.4	149.1	147.1	145.1	144.8	144.8	144.8	144.5	144.3	145.1	144.2	142.2
Machinery, equipment, and supplies	566.2	565.1	566.1	566.6	565.1	560.5	555.3	554.1	550.5	550.2	550.2	546.5	546.5	508.8	
Retail trade	9,830	9,242	9,072	8,985	8,935	8,928	8,969	8,861	8,758	8,706	8,616	8,683	9,515	8,685	8,511
General merchandise stores	1,928.9	1,804.0	1,741.2	1,697.9	1,693.7	1,699.0	1,681.4	1,656.8	1,656.7	1,614.8	1,670.2	2,217.8	1,684.9	1,632.1	
Department stores	1,195.4	1,107.2	1,060.9	1,035.2	1,035.0	1,040.8	1,027.0	1,014.1	1,010.5	981.5	1,026.8	1,387.1	1,021.5	971.4	
Limited price variety stores	321.4	307.0	301.5	291.5	291.0	295.6	299.1	294.7	299.0	289.3	291.4	394.0	310.6	320.6	
Food stores	1,450.4	1,434.9	1,414.3	1,407.8	1,412.1	1,413.5	1,408.0	1,410.6	1,408.4	1,409.0	1,409.3	1,434.0	1,383.4	1,363.6	
Grocery, meat, and vegetable stores	1,278.6	1,265.8	1,249.6	1,245.0	1,248.6	1,245.6	1,239.5	1,242.0	1,238.3	1,236.4	1,242.5	1,253.3	1,211.6	1,195.4	
Apparel and accessories stores	657.0	639.8	630.1	605.3	603.9	625.2	603.9	623.6	603.9	623.6	607.7	740.3	617.4	616.7	
Men's and boys' apparel stores	107.8	103.2	100.5	99.6	99.5	102.3	99.8	98.4	98.2	98.9	105.9	129.9	99.8	99.7	
Women's ready-to-wear stores	246.5	241.6	235.8	228.5	224.8	232.9	234.1	230.5	232.6	220.7	226.0	272.4	229.9	228.9	
Family clothing stores	104.3	100.5	98.4	93.7	95.8	96.8	95.5	93.9	96.3	93.1	99.7	125.4	95.7	96.8	
Shoe stores	120.2	117.2	123.1	115.5	114.7	118.7	121.1	115.6	120.3	107.6	108.2	131.4	120.8	119.9	
Furniture and appliance stores	408.6	402.5	395.8	396.3	394.7	396.2	393.8	393.6	393.9	393.7	394.8	407.1	390.3	388.5	
Eating and drinking places	1,818.4	1,830.5	1,842.9	1,857.1	1,853.0	1,862.9	1,819.5	1,788.8	1,754.4	1,742.4	1,726.6	1,743.4	1,747.9	1,720.5	
Other retail trade	2,978.3	2,960.4	2,960.3	2,970.3	2,970.7	2,972.0	2,935.1	2,899.3	2,868.7	2,867.7	2,874.8	2,971.9	2,861.0	2,789.0	
Motor vehicle dealers	702.2	704.1	703.1	704.1	704.5	700.2	693.2	691.1	689.5	688.8	687.8	687.6	683.6	672.3	
Other vehicle and accessory dealers	171.8	169.9	168.8	172.1	171.7	171.3	166.0	162.8	158.8	157.5	158.1	170.8	159.4	151.1	
Drug stores	394.8	392.0	392.2	390.4	389.0	390.5	385.1	381.5	379.4	379.7	380.9	396.2	375.1	373.8	
Finance, insurance, and real estate	2,961	2,958	2,961	2,972	2,998	2,998	2,964	2,931	2,919	2,901	2,891	2,882	2,887	2,873	2,800
Banking	764.8	763.6	765.2	767.5	773.8	765.1	755.7	754.4	752.8	750.9	748.6	748.3	740.4	714.7	
Credit agencies other than banks	324.4	323.0	321.2	321.9	321.9	317.6	314.8	313.3	311.3	310.6	310.2	308.4	300.6	281.9	
Savings and loan associations	95.9	95.5	95.3	96.2	96.7	95.0	93.9	93.6	93.2	94.0	92.0	88.8	81.4		
Personal credit institutions	172.0	171.3	169.8	169.2	168.7	166.6	164.8	163.9	162.7	162.2	161.4	161.5	158.7	151.9	
Security dealers and exchanges	127.0	127.6	127.1	129.1	129.1	127.1	126.5	126.5	125.1	124.6	123.6	121.4	123.9	131.8	
Insurance carriers	887.1	886.8	889.8	895.8	893.2	895.3	881.3	880.8	880.1	877.4	874.1	875.9	870.2	852.4	
Life insurance	470.6	470.2	471.9	474.8	472.2	468.8	467.9	468.7	467.6	467.2	466.2	467.4	463.4	454.2	
Accident and health insurance	55.3	55.3	55.6	55.8	55.8	55.3	54.8	54.8	54.9	54.5	54.2	53.7	53.3	51.5	
Fire, marine, and casualty insurance	315.8	316.0	316.9	319.1	318.8	315.5	313.8	312.8	313.1	311.2	309.5	310.6	309.9	305.6	
Insurance agents, brokers, and services	226.9	226.3	227.2	229.0	228.6	225.6	222.9	222.9	222.3	221.5	221.1	220.2	218.6	211.9	
Real estate	549.5	555.7	562.3	568.0	571.7	565.0	543.1	531.4	528.5	526.6	531.5	540.7	530.1		
Operative builders	42.3	44.4	44.6	45.3	46.2	45.1	43.1	42.4	42.6	41.7	41.9	43.4	46.3	46.1	
Other finance, insurance, and real estate	78.4	79.1	79.1	79.3	79.4	78.7	77.9	77.9	77.9	77.4	77.3	78.2	78.4	77.6	
Services and miscellaneous	8,575	8,604	8,676	8,661	8,676	8,698	8,654	8,548	8,453	8,326	8,277	8,233	8,299	8,230	7,947
Hotels and lodging places	592.3	625.2	647.0	735.4	732.3	662.6	626.3	602.9	579.6	575.0	561.6	563.2	605.4	594.6	
Hotels, tourist courts, and motels	544.3	574.2	584.2	618.9	618.6	597.5	570.8	552.3	533.4	529.5	516.2	516.0	543.1	535.8	
Personal services															
Laundries, cleaning and dyeing plants	537.4	542.6	540.6	542.1	546.8	545.2	539.4	531.2	526.1	525.3	525.2	524.3	524.0	519.7	
Miscellaneous business services															
Advertising	110.6	110.4	110.0	110.6	110.2	110.2	109.4	109.3	110.0	109.6	109.1	109.9	109.2	108.3	
Motion pictures	170.9	178.0	181.1	188.5	186.1	180.3	173.9	170.9	163.8	161.6	162.3	168.9	175.4	178.3	
Motion picture filming and distributing	45.1	46.1	44.3	46.1	44.1	42.1	40.0	38.9	40.3	40.2	41.1	42.8	41.1	41.5	
Motion picture theaters and services	125.8	131.9	136.8	142.4	142.0	138.2	133.9	132.0	123.5	121.4	121.2	126.1	134.3	136.9	
Medical services															
Hospitals	1,373.9	1,372.0	1,367.1	1,367.0	1,370.7	1,359.4	1,346.2	1,346.2	1,342.5	1,338.0	1,332.3	1,327.8	1,309.6	1,247.7	
Government	9,915	9,777	9,710	9,509	9,135	9,149	9,484	9,513	9,508	9,480	9,443	9,391	9,564	9,199	8,890
Federal Government ³	2,490	2,352	2,329	2,320	2,356	2,355	2,344	2,332	2,334	2,323	2,321	2,323	2,482	2,358	2,340
Executive	2,321.7	2,298.8	2,289.9	2,325.5	2,324.7	2,313.5	2,302.3	2,304.2	2,293.1	2,290.9	2,293.0	2,293.0	2,451.8	2,328.1	2,310.6
Department of Defense	926.5	927.5	929.6	938.5	938.4	936.9	935.0	937.1	936.8	937.2	938.1	939.7	949.2	963.3	
Post Office Department	596.0	591.8	582.9	591.6	586.5	583.7	585.1	586.8	585.9	585.6	588.2	738.0	598.4	597.2	
Other agencies	799.2	779.5	777.4	795.4	799.8	792.9	782.2	780.3	770.4	768.1	766.7	774.1	780.5	750.2	
Legislative	24.8	24.6	24.7	25.0	24.9	25.0	24.1	24.3	24.3	24.1	24.1	24.2	24.1	23.7	
Judicial	5.8	5.8	5.8	5.7	5.8	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.5	
State and local government ⁴	7,425	7,425	7,381	7,189	6,779	6,794	7,140	7,181	7,174	7,157	7,122	7,068	7,082	6,841	6,550
State government	1,901.5	1,892.0	1,830.1	1,790.1	1,792.9	1,835.2	1,844.0	1,836.4	1,827.8	1,814.7	1,799.8	1,797.6	1,743.4	1,668.4	
State education	656.7	648.1	562.9	507.2	521.5	584.7	622.1	617.4	618.1	614.2	603.9	601.9	555.0	510.5	
Other State government	1,244.8	1,243.9	1,267.2	1,282.9	1,271.4	1,250.5	1,221.9	1,219.0	1,209.7	1,200.5	1,195.9	1,195.7	1,188.5	1,157.8	
Local government	5,523.6	5,489.2	5,358.6	4,988.4	5,001.3	5,305.2	5,336.5	5,337.1	5,328.9	5,307.5	5,268.2	5,284.7	5,097.3	4,881.2	
Local education	3,095.8	3,061.2	2,894.5	2,466.8	2,476.5	2,832.8	2,934.9	2,944.2	2,953.3	2,937.3	2,902.9	2,918.7	2,731.5		

TABLE A-3. Production or nonsupervisory workers in nonagricultural establishments, by industry¹

[In thousands]

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Mining		507	507	507	508	508	512	497	490	478	477	481	497	499	512
Metal mining		71.2	69.7	65.7	64.2	64.1	71.2	70.2	69.0	67.1	66.7	66.3	66.7	66.6	67.5
Iron ores		23.5	23.8	24.0	23.6	24.0	24.0	23.7	22.8	21.2	21.0	20.7	21.1	21.0	21.0
Copper ores		24.2	22.7	18.4	16.9	17.0	24.3	23.8	23.5	23.4	23.3	23.0	22.9	22.7	23.4
Coal mining		127.8	127.4	126.5	125.6	126.0	126.2	124.5	126.2	126.2	129.7	130.8	132.9	130.5	133.6
Bituminous		117.9	117.6	116.7	115.6	115.9	116.2	114.9	116.8	116.2	119.6	120.9	122.8	120.6	123.1
Crude petroleum and natural gas		204.6	202.9	206.2	210.4	210.6	208.4	199.6	198.0	197.3	196.7	200.0	204.0	204.4	212.8
Crude petroleum and natural gas fields		90.9	91.1	93.1	94.5	94.8	94.5	91.3	91.2	91.6	92.4	92.7	93.1	96.2	99.8
Oil and gas field services		113.7	111.8	113.1	115.9	115.8	113.9	108.3	106.8	105.7	104.3	107.3	110.9	108.1	113.1
Quarrying and nonmetallic mining		103.7	106.6	108.2	108.0	107.2	105.9	102.6	97.1	87.5	84.3	84.1	93.2	97.1	98.1
Contract construction		2,814	2,912	2,927	3,015	2,960	2,853	2,670	2,467	2,260	2,186	2,134	2,426	2,539	2,462
General building contractors		904.4	917.2	919.1	956.9	937.1	900.8	839.4	776.4	710.8	687.7	673.5	758.6	791.6	755.8
Heavy construction		561.6	619.3	630.1	653.0	642.9	617.2	560.1	472.8	389.6	372.1	355.9	450.7	523.1	514.8
Highway and street construction		299.7	347.2	358.4	375.7	370.7	351.5	311.6	244.3	183.8	168.2	157.7	223.1	282.3	269.0
Other heavy construction		261.9	272.1	271.7	277.3	272.2	265.7	248.5	228.5	205.8	203.9	198.2	227.6	240.7	245.7
Special trade contractors		1,347.5	1,375.0	1,377.3	1,405.2	1,380.3	1,334.6	1,270.6	1,217.9	1,159.3	1,126.3	1,104.5	1,216.3	1,224.5	1,191.8
Manufacturing	13,059	13,142	12,915	13,280	12,966	12,768	12,847	12,666	12,592	12,543	12,482	12,435	12,631	12,558	12,488
Durable goods	7,460	7,470	7,190	7,490	7,211	7,227	7,292	7,201	7,160	7,095	7,041	7,029	7,121	7,030	6,936
Nondurable goods	5,599	5,672	5,725	5,790	5,755	5,541	5,555	5,465	5,432	5,448	5,441	5,406	5,510	5,528	5,552
Durable goods															
Ordinance and accessories	104.2	103.4	102.7	104.3	102.6	103.7	105.5	107.5	109.8	110.7	111.8	115.9	116.7	115.8	118.2
Ammunition, except for small arms	67.2	66.4	65.7	66.8	65.7	66.5	67.7	69.1	69.8	70.4	71.1	73.9	74.2	71.9	69.4
Sighting and fire control equipment	5.1	5.1	5.2	5.2	5.2	5.2	5.3	5.3	5.6	6.0	6.3	6.6	6.7	8.0	12.3
Other ordinance and accessories	32.2	31.9	31.9	32.3	31.7	32.0	32.5	33.1	34.4	34.3	34.4	35.4	35.8	35.9	36.5
Lumber and wood products, except furniture	524.7	534.5	543.4	555.4	560.8	560.1	555.8	533.8	518.7	507.0	506.0	503.5	522.4	524.6	526.7
Logging camps and logging contractors	79.4	83.8	87.0	90.3	92.6	91.3	89.0	80.8	72.3	67.1	71.4	72.6	78.2	78.0	78.7
Sawmills and planing mills	229.6	232.9	235.5	240.0	243.5	244.6	242.6	233.9	228.9	225.9	224.0	220.2	229.2	232.3	233.1
Millwork, plywood, and related products	126.8	128.4	130.4	133.8	134.5	133.4	133.0	129.9	128.8	126.9	125.5	126.0	128.1	127.1	128.2
Wooden containers	32.6	32.8	32.8	33.3	33.2	34.1	34.7	33.5	32.7	31.9	31.2	31.2	32.2	32.7	33.2
Miscellaneous wood products	56.3	56.6	57.7	58.0	57.0	56.7	56.5	55.7	56.0	55.2	53.9	53.5	54.7	54.6	53.5
Furniture and fixtures	343.9	345.0	346.6	344.5	340.8	333.3	334.2	325.3	327.7	325.9	323.4	322.2	327.6	323.3	319.6
Household furniture	260.7	261.1	260.7	258.4	256.4	250.6	250.9	246.0	247.0	246.2	244.1	241.7	245.2	239.3	235.0
Office furniture	21.6	21.8	22.0	21.3	20.5	20.6	20.6	20.3	20.5	20.7	20.5	21.1	21.6	21.8	22.4
Partitions; office and store fixtures	27.6	28.9	29.3	29.2	28.0	27.8	26.9	26.9	26.2	26.4	26.3	27.0	29.4	29.4	30.5
Other furniture and fixtures	34.3	34.7	35.2	34.8	33.9	34.2	34.9	33.1	33.3	32.8	32.4	33.1	33.8	32.7	31.8
Stone, clay, and glass products	486.4	506.7	510.8	519.4	519.0	513.5	513.3	499.4	487.4	473.9	465.1	460.9	480.3	484.5	477.7
Flat glass	28.0	27.9	27.5	26.0	25.7	25.8	25.2	24.7	25.1	25.8	26.1	26.5	25.1	25.3	25.3
Glass and glassware, pressed or blown	98.0	100.4	100.9	102.8	102.7	100.5	102.2	100.4	98.3	96.9	95.1	91.8	95.3	95.4	92.6
Cement, hydraulic	29.4	30.5	31.0	31.9	32.1	32.1	31.8	30.7	29.7	28.7	27.7	27.9	29.2	30.9	31.9
Structural clay products	56.5	58.2	58.3	59.3	60.2	59.7	59.9	58.2	57.3	55.7	53.7	54.1	57.4	58.4	58.5
Pottery and related products		35.5	35.2	37.1	36.8	35.9	36.3	36.7	36.8	37.0	36.3	36.7	37.2	36.6	37.0
Concrete, gypsum, and plaster products	127.0	139.3	142.8	145.6	147.2	146.8	143.9	137.3	130.3	121.4	118.5	117.5	126.8	131.9	128.1
Other stone and mineral products	95.9	97.5	97.4	97.8	96.8	95.7	96.5	94.2	93.8	92.6	91.9	91.0	91.9	90.4	89.2
Primary metal industries	1,036.6	1,027.9	1,013.1	1,027.4	1,009.1	1,003.0	1,005.4	994.1	983.5	971.6	963.7	949.8	945.7	946.9	937.3
Blast furnace and basic steel products	538.8	531.3	526.8	533.7	526.3	522.5	518.3	508.6	499.8	489.1	482.8	472.3	469.1	478.7	476.3
Iron and steel foundries	188.5	187.7	178.9	186.2	182.1	181.0	184.0	181.3	179.4	178.0	177.1	174.8	173.4	168.2	163.7
Nonferrous smelting and refining	54.9	55.2	54.9	52.9	53.3	53.0	54.6	54.6	53.8	54.4	54.1	53.9	53.8	53.2	52.6
Nonferrous rolling, drawing, and extruding	142.6	142.6	141.8	143.4	139.4	139.2	139.0	141.5	142.2	142.3	142.0	141.9	142.4	140.8	139.6
Nonferrous foundries	62.7	62.4	62.4	63.0	61.6	60.7	62.0	61.1	61.0	60.9	60.7	60.3	60.1	59.6	58.2
Miscellaneous primary metal industries	49.1	48.7	48.3	48.2	46.4	46.6	47.5	47.0	47.3	46.9	47.0	46.6	46.9	46.5	46.9
Fabricated metal products	945.8	944.7	918.2	960.6	930.9	909.2	927.0	910.8	906.8	898.5	892.4	891.2	903.9	883.7	863.7
Metal cans	49.4	50.0	50.6	54.8	55.4	53.9	53.4	52.4	51.6	50.7	49.9	48.5	48.9	50.5	50.8
Cutlery, handtools, and general hardware	121.7	121.3	105.2	119.2	113.2	107.4	112.1	113.0	112.9	113.5	113.4	114.4	114.7	109.1	106.8
Heating equipment and plumbing fixtures	58.4	59.6	61.3	60.9	59.5	60.4	60.9	59.3	60.4	59.1	59.1	58.9	59.4	57.7	55.6
Fabricated structural metal products	257.9	261.4	263.6	265.8	263.0	260.2	257.3	245.9	242.0	237.1	234.7	234.2	240.7	240.8	235.0
Screw machine products, bolts, etc.	73.8	73.2	72.5	72.2	71.3	70.1	71.5	70.6	70.9	71.2	70.8	70.4	70.8	70.3	69.5
Metal stampings	172.6	168.1	154.0	174.0	161.6	153.3	164.3	164.1	165.1	164.1	163.9	164.9	167.1	158.4	153.6
Coating, engraving, and allied services	64.2	63.5	65.5	65.8	63.8	62.1	62.8	62.7	61.8	61.4	59.9	60.2	61.5	58.9	56.2
Miscellaneous fabricated wire products	48.9	49.0	48.4	48.2	47.1	45.3	47.1	46.2	46.5	45.9	45.5	45.3	45.5	44.0	44.4
Miscellaneous fabricated metal products	98.9	98.6	97.1	99.7	96.0	96.5	97.6	96.6	95.6	95.5	95.2	94.4	95.3	94.1	91.8

See footnotes at end of table.

TABLE A-3. Production or nonsupervisory workers in nonagricultural establishments, by industry ¹—Continued

[In thousands]

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Manufacturing—Continued															
<i>Durable goods—Continued</i>															
Machinery.....	1,148.3	1,128.9	1,131.8	1,141.8	1,117.8	1,120.0	1,130.0	1,121.3	1,118.0	1,110.4	1,086.8	1,089.1	1,082.8	1,058.7	1,037.8
Engines and turbines.....	58.8	57.9	57.7	59.5	58.0	57.4	57.5	57.5	57.1	56.8	56.5	56.2	56.9	56.1	55.6
Farm machinery and equipment.....	.....	85.3	87.9	88.9	87.2	88.2	90.9	92.5	94.0	94.3	92.8	90.1	86.6	86.1	80.4
Construction and related machinery....	162.6	157.8	160.8	162.9	160.5	160.4	160.4	158.1	156.2	154.4	137.3	151.4	149.4	144.8	139.9
Metalworking machinery and equipment.....	219.3	216.4	216.8	218.8	213.0	215.0	218.5	217.3	216.7	215.3	212.2	209.4	209.1	200.6	193.8
Special industry machinery.....	122.4	121.9	120.9	121.4	119.3	119.8	121.5	119.8	119.7	118.8	118.1	117.5	117.1	116.2	118.0
General industrial machinery.....	173.1	170.1	169.8	170.5	167.7	166.4	167.9	165.8	164.8	163.8	163.9	160.2	159.4	156.8	154.8
Office, computing and accounting machines.....	99.1	98.7	97.9	96.8	95.1	94.9	95.3	94.4	94.9	94.8	95.4	95.4	95.3	95.1	98.7
Service industry machines.....	73.8	72.8	72.2	72.6	70.4	72.7	73.3	72.8	71.7	71.0	70.3	69.7	69.1	69.2	69.3
Miscellaneous machinery.....	148.9	148.0	147.8	150.4	146.6	145.2	144.7	143.1	142.9	141.2	140.3	139.2	139.9	133.9	127.3
Electrical equipment and supplies.....	1,089.0	1,086.7	1,074.7	1,068.3	1,037.2	1,021.8	1,021.7	1,010.5	1,012.0	1,013.1	1,017.1	1,027.6	1,039.7	1,036.6	1,051.5
Electric distribution equipment.....	119.7	118.8	118.8	118.8	116.2	114.8	114.7	113.6	112.3	112.0	112.0	111.9	111.8	111.1	111.2
Electrical industrial apparatus.....	131.2	130.5	129.1	130.5	128.1	127.1	127.9	125.6	124.0	124.2	122.0	122.8	122.7	122.1	124.8
Household appliances.....	127.4	127.0	124.6	124.1	120.2	118.4	121.5	120.1	121.3	121.1	121.1	119.9	123.7	118.7	114.8
Electric lighting and wiring equipment.....	125.8	126.0	124.9	123.7	120.3	119.0	119.3	118.1	118.2	118.7	118.3	117.7	118.7	115.9	111.5
Radio and TV receiving sets.....	95.1	99.3	101.2	99.1	94.8	90.2	83.7	78.0	78.5	78.1	79.9	83.9	88.3	84.0	82.5
Communication equipment.....	209.2	207.0	204.6	201.6	198.6	197.8	196.5	196.3	199.4	201.0	202.7	207.1	207.7	217.7	229.5
Electronic components and accessories.....	205.7	205.4	202.3	197.4	192.9	185.7	188.7	188.5	188.2	187.8	187.5	190.0	190.7	192.1	198.2
Miscellaneous electrical equipment and supplies.....	74.9	72.7	69.2	75.0	66.1	68.8	69.4	70.3	70.1	70.2	72.6	74.3	76.1	75.0	78.9
Transportation equipment.....	1,217.1	1,205.9	963.6	1,186.5	1,026.6	1,116.8	1,142.9	1,155.0	1,157.2	1,150.3	1,145.1	1,149.0	1,161.0	1,112.8	1,061.1
Motor vehicles and equipment.....	657.0	426.6	641.8	495.1	589.4	606.3	613.4	613.5	609.6	603.3	611.0	618.4	576.7	534.0	
Aircraft and parts.....	340.1	336.3	333.8	336.0	327.5	328.3	333.7	337.8	343.1	346.3	349.5	352.7	356.6	348.4	350.2
Ship and boat building and repairing.....	127.4	126.6	124.2	122.8	119.8	115.9	118.5	121.1	119.7	115.4	115.5	113.3	113.3	119.3	118.2
Railroad equipment.....	43.7	36.1	42.6	41.5	42.2	42.0	41.0	40.8	40.8	39.9	37.7	37.5	34.0	30.1	
Other transportation equipment.....	42.3	42.9	43.3	42.7	41.0	42.4	41.7	40.1	38.2	36.9	34.3	35.2	34.4	28.6	
Instruments and related products.....	237.1	238.2	234.4	236.8	234.9	231.7	232.9	230.3	231.1	232.0	231.2	231.4	234.2	232.2	229.1
Engineering and scientific instruments.....	.....	34.9	34.3	34.7	34.3	34.6	34.8	35.0	35.5	36.1	36.3	37.2	37.5	38.5	39.2
Mechanical measuring and control devices.....	63.5	64.2	61.9	63.8	63.5	62.8	63.0	61.9	62.2	62.3	62.1	61.9	62.1	61.4	61.6
Optical and ophthalmic goods.....	32.7	32.8	32.4	32.1	32.0	31.8	32.4	32.2	32.1	31.9	31.8	30.6	30.9	30.2	29.7
Surgical, medical, and dental equipment.....	38.4	38.3	37.6	38.1	38.3	37.6	37.8	37.5	37.3	37.3	36.9	36.8	37.0	36.8	34.7
Photographic equipment and supplies.....	.....	44.5	44.2	44.4	44.7	42.7	42.5	41.6	41.7	41.9	41.4	41.9	42.6	41.5	41.1
Watches and clocks.....	.....	23.5	24.0	23.7	22.1	22.2	22.4	22.1	22.3	22.5	22.7	23.0	24.1	23.8	22.7
Miscellaneous manufacturing industries.....	326.5	347.7	351.1	344.6	331.3	313.6	323.1	313.4	307.8	301.8	298.7	288.8	306.7	311.0	313.2
Jewelry, silverware, and plated ware.....	37.2	37.1	37.2	37.0	35.7	33.9	34.9	34.7	34.5	34.0	33.4	33.1	33.6	32.2	32.8
Toys, amusement, and sporting goods.....	107.5	110.7	106.9	97.6	90.5	93.2	86.5	81.7	76.0	73.3	67.5	79.2	85.6	85.2	
Pens, pencils, office and art materials.....	.....	25.1	25.1	24.5	23.8	23.2	23.1	22.8	22.8	22.7	22.9	23.2	24.5	23.7	23.1
Costume jewelry, buttons, and notions.....	.....	46.7	46.2	46.0	46.0	42.8	45.6	44.5	44.2	44.7	44.5	42.2	44.1	45.1	47.3
Other manufacturing industries.....	129.5	131.3	131.9	130.2	128.2	123.2	126.3	124.9	124.6	124.4	124.6	122.8	125.3	124.3	124.9
<i>Nondurable goods</i>															
Food and kindred products.....	1,125.2	1,164.7	1,223.6	1,271.5	1,262.4	1,171.1	1,125.9	1,084.9	1,069.7	1,061.8	1,069.4	1,087.5	1,135.0	1,160.8	1,177.8
Meat products.....	257.6	261.0	253.4	255.6	255.6	252.6	250.7	245.6	240.1	240.2	241.2	247.5	256.4	252.4	253.2
Dairy products.....	131.7	132.3	134.0	139.0	144.4	145.9	145.7	140.3	137.3	135.4	134.6	135.0	137.8	144.5	151.6
Canned and preserved food, except meats.....	.....	196.6	257.0	315.9	306.2	224.6	184.2	165.2	162.9	150.2	150.2	155.4	170.5	207.8	216.5
Grain mill products.....	85.7	85.9	90.1	92.0	91.7	89.9	91.1	89.0	85.9	87.0	86.9	88.5	88.3	91.0	91.3
Bakery products.....	167.8	169.4	168.6	168.2	168.4	168.9	168.0	164.1	162.0	162.7	162.2	161.8	166.6	166.9	167.8
Sugar.....	.....	42.7	43.1	27.2	26.1	24.9	24.1	24.3	25.2	27.4	34.4	38.2	42.0	30.4	29.8
Confectionery and related products.....	64.8	66.4	65.5	63.5	59.8	54.7	56.8	56.1	56.3	58.7	60.6	60.4	65.5	60.9	60.0
Beverages.....	112.3	113.8	115.6	116.1	118.6	118.9	114.4	109.8	108.9	107.5	105.9	106.9	112.2	112.0	111.6
Miscellaneous food and kindred products.....	95.0	96.6	96.3	94.0	91.6	90.7	90.9	90.5	91.1	92.7	93.4	93.8	95.7	95.0	96.0
Tobacco manufactures.....	81.9	84.6	95.4	90.9	82.1	64.9	65.4	65.2	65.7	69.0	72.8	75.1	81.6	76.0	78.7
Cigarettes.....	.....	31.6	31.4	32.0	31.9	31.3	30.9	30.8	31.0	31.1	31.2	31.7	32.0	31.6	31.4
Cigars.....	.....	23.9	24.1	23.9	23.6	23.2	23.8	23.3	23.1	22.8	22.1	20.5	21.2	21.1	22.0
Textile mill products.....	806.9	813.1	811.1	811.4	808.1	792.8	807.2	800.3	798.0	797.1	794.2	787.3	794.2	796.4	812.1
Cotton broad woven fabrics.....	214.3	213.6	212.8	211.7	211.1	210.2	211.1	209.7	210.2	211.2	211.5	211.5	212.5	212.1	222.1
Silk and synthetic broad woven fabrics.....	79.6	79.1	78.8	78.5	78.4	77.6	78.7	78.3	78.5	78.5	78.7	78.5	78.8	76.5	74.4
Weaving and finishing broad woolsens.....	38.6	39.5	39.7	41.0	40.6	41.0	43.0	42.8	42.2	41.9	41.9	41.5	40.5	44.4	46.3
Narrow fabrics and smallwares.....	26.6	26.3	26.1	25.8	25.6	25.0	25.5	25.1	25.2	25.2	25.0	24.8	24.9	24.4	24.4
Knitting.....	194.0	200.2	201.4	201.5	201.4	195.7	198.1	195.9	192.9	191.4	187.8	183.2	187.3	194.4	198.6
Finishing textiles, except wool and knit.....	65.9	66.2	66.0	66.1	66.4	65.4	66.1	65.7	65.6	65.7	65.3	65.3	65.6	64.2	64.3
Floor covering.....	.....	32.2	31.8	31.4	30.4	29.2	30.2	30.3	30.7	31.2	30.9	30.6	31.3	31.0	31.2
Yarn and thread.....	99.7	99.7	99.0	99.0	99.4	94.3	98.9	97.0	96.8	96.6	96.5	95.7	96.9	93.3	94.7
Miscellaneous textile goods.....	57.1	56.3	55.5	56.4	54.8	54.4	55.6	55.5	55.9	55.4	56.1	55.8	56.4	56.1	56.2

See footnotes at end of table.

TABLE A-3. Production of nonsupervisory workers in nonagricultural establishments, by industry¹—Continued

(In thousands)

Revised series; see box, p. 220.

Industry	1964											1963	Annual average		
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Manufacturing—Continued															
<i>Nondurable goods—Continued</i>															
Apparel and related products.....	1,180.3	1,196.3	1,189.2	1,195.6	1,193.8	1,132.9	1,161.1	1,141.2	1,137.4	1,159.7	1,158.5	1,120.6	1,135.0	1,139.4	1,122.9
Men's and boys' suits and coats.....	103.8	102.3	102.0	102.1	102.2	94.1	102.3	101.0	98.0	100.8	101.2	100.9	101.4	102.3	104.3
Men's and boys' furnishings.....	311.0	311.6	309.8	311.6	312.2	301.9	308.6	302.9	300.0	298.3	295.4	289.7	293.3	296.5	288.8
Women's, misses', and juniors' outerwear.....	355.9	361.7	360.8	363.7	366.7	345.5	349.4	344.9	349.7	365.0	365.4	346.1	346.1	349.7	342.8
Women's and children's undergarments.....	108.9	110.8	111.1	109.9	108.2	101.8	104.3	103.3	103.4	104.0	103.6	101.9	105.8	103.4	102.5
Hats, caps, and millinery.....	66.7	27.7	28.6	28.9	30.4	27.7	26.1	25.0	25.8	31.4	32.0	29.5	27.9	29.0	29.3
Girls' and children's outerwear.....	66.7	68.4	69.3	69.0	70.8	71.2	73.1	70.2	67.1	67.7	71.4	68.4	66.7	68.5	69.5
Fur goods and miscellaneous apparel.....	69.0	69.0	69.8	68.8	67.0	62.5	66.2	63.9	63.7	63.7	62.3	58.3	62.3	63.4	64.0
Miscellaneous fabricated textile products.....	139.4	144.8	137.8	141.6	136.3	128.2	131.1	130.0	129.7	128.8	127.2	125.8	131.5	126.6	121.6
Paper and allied products.....	494.4	499.3	499.4	501.4	498.8	492.0	498.0	489.6	487.7	485.1	482.8	484.2	490.5	487.7	486.0
Paper and pulp.....	168.8	173.1	173.2	174.0	176.7	176.0	176.8	173.5	172.9	172.4	171.8	172.8	175.0	175.2	175.9
Paperboard.....	52.2	52.4	53.5	54.2	53.0	52.1	53.2	52.4	52.4	52.2	51.9	51.9	52.2	52.1	52.3
Converted paper and paperboard products.....	114.5	114.8	114.2	115.6	114.2	112.3	113.5	112.0	111.1	109.9	109.1	109.4	111.0	109.7	108.3
Paperboard containers and boxes.....	158.9	159.0	158.5	157.6	154.9	151.6	154.5	151.7	151.3	150.6	150.0	150.1	152.3	150.7	149.5
Printing, publishing, and allied industries.....	614.2	612.8	610.5	609.5	602.5	599.2	602.9	600.7	598.7	597.9	594.6	592.6	602.7	590.7	594.5
Newspaper publishing and printing.....	175.5	172.9	172.2	170.9	170.3	170.0	171.2	171.2	170.6	170.0	169.0	168.3	172.2	165.7	168.1
Periodical publishing and printing.....	25.8	26.2	26.0	26.0	25.1	24.6	24.8	25.4	26.2	26.3	26.5	26.3	26.5	27.0	28.2
Books.....	45.6	45.3	45.8	45.8	45.1	45.4	46.1	46.6	46.4	46.6	46.1	45.0	44.6	43.7	43.8
Commercial printing.....	244.4	243.5	243.2	242.6	237.8	236.9	238.0	236.7	236.1	236.4	234.4	235.8	238.2	233.5	233.6
Bookbinding and related industries.....	40.9	41.6	41.5	41.7	42.2	41.7	41.6	40.9	40.4	39.6	39.5	38.2	40.4	40.7	39.6
Other publishing and printing industries.....	82.3	83.4	82.1	82.5	82.0	80.6	81.2	79.9	79.0	79.0	79.1	79.0	80.8	80.2	81.1
Chemicals and allied products.....	525.4	526.7	524.8	532.3	532.0	530.1	533.0	533.6	533.2	529.0	521.3	519.5	522.2	525.4	519.3
Industrial chemicals.....	162.3	162.1	160.4	164.7	164.9	165.2	165.6	163.4	163.1	162.4	162.3	162.5	162.6	164.1	164.9
Plastics and synthetics, except glass.....	127.8	128.2	127.1	128.3	126.8	125.7	124.8	123.1	122.2	121.4	120.6	120.8	120.9	118.2	112.8
Drugs.....	59.0	59.1	57.9	58.7	59.6	59.8	60.2	59.5	59.5	60.2	59.4	60.5	60.8	60.6	59.5
Soap, cleaners, and toilet goods.....	59.7	60.5	61.8	61.7	61.5	59.7	60.1	58.1	58.2	58.1	57.9	56.5	58.8	59.2	58.3
Paints, varnishes, and allied products.....	35.9	35.8	36.4	37.3	38.3	38.3	38.1	37.0	36.5	36.1	35.6	35.4	35.6	36.0	35.9
Agricultural chemicals.....	31.4	30.9	31.4	31.4	30.4	30.2	33.3	42.6	44.3	40.4	35.9	34.0	32.4	34.4	33.1
Other chemical products.....	49.3	50.1	49.8	50.2	50.5	51.2	50.9	49.9	49.4	50.4	49.6	49.8	51.1	52.9	54.8
Petroleum refining and related industries.....	110.4	113.0	115.8	117.5	118.5	118.5	119.0	116.8	115.4	115.5	115.6	115.2	117.0	120.5	125.5
Petroleum refining.....	88.7	88.7	90.7	91.4	92.3	92.5	93.1	92.3	92.5	93.3	93.6	93.7	94.3	95.8	101.0
Other petroleum and coal products.....	21.7	24.3	25.1	26.1	26.2	26.0	25.9	24.5	22.9	22.2	22.0	21.5	22.7	24.8	24.5
Rubber and miscellaneous plastic products.....	343.8	344.5	342.2	344.9	336.7	326.2	329.1	328.1	324.3	325.0	323.3	320.6	323.2	322.1	316.5
Tires and inner tubes.....	71.8	71.7	69.1	72.5	71.0	70.6	70.2	69.8	69.6	70.1	70.2	69.2	69.3	69.8	72.2
Other rubber products.....	133.2	133.2	133.2	133.2	128.4	126.2	128.3	127.5	127.0	127.7	128.0	127.7	129.2	128.3	127.3
Miscellaneous plastic products.....	138.8	139.6	139.9	139.2	137.3	129.4	130.6	130.8	127.7	127.2	125.1	123.7	124.7	124.1	117.0
Leather and leather products.....	316.6	317.2	313.4	314.9	319.8	313.4	313.2	304.3	302.3	307.4	308.2	303.8	308.3	309.2	318.9
Leather tanning and finishing.....	27.5	27.8	28.0	28.2	28.2	27.9	28.3	27.8	27.5	27.4	27.5	26.3	27.8	27.4	28.1
Footwear, except rubber.....	214.1	210.3	207.4	209.7	214.5	211.9	211.7	207.1	204.2	208.1	209.6	208.6	208.1	207.7	215.1
Other leather products.....	75.0	79.1	78.0	77.0	77.1	73.6	73.2	69.4	70.6	71.9	71.1	68.9	72.4	74.1	75.7
Transportation and public utilities:															
<i>Local and interurban passenger transit:</i>															
Local and suburban transportation.....	82.0	82.2	82.3	81.6	81.7	82.8	83.2	82.6	82.6	76.8	84.1	84.3	84.5	84.7	86.6
Intercity and rural buslines.....	38.3	39.2	41.7	42.1	42.3	40.4	39.2	37.9	37.2	37.4	38.7	38.1	38.1	38.4	38.4
Motor freight transportation and storage.....	891.2	896.0	902.6	888.3	881.8	873.8	839.7	825.9	815.7	814.7	813.1	842.0	828.2	808.1	808.1
Pipeline transportation.....	16.6	16.8	17.2	17.5	17.5	17.4	16.9	17.0	17.1	17.1	17.1	17.1	17.2	17.8	18.5
<i>Communication:</i>															
Telephone communication.....	568.4	566.3	569.9	575.9	574.9	565.4	559.4	557.8	550.4	548.0	545.2	546.4	552.9	559.3	559.3
Telegraph communication.....	22.1	22.0	22.4	22.5	22.8	22.7	22.7	22.6	22.4	22.6	22.7	22.9	24.0	26.8	26.8
Radio and television broadcasting.....	88.0	87.7	87.2	87.1	86.5	85.6	84.6	84.6	83.9	83.4	84.3	83.8	81.9	79.5	79.5
Electric, gas, and sanitary services.....	530.3	532.0	539.7	547.7	546.1	537.0	530.6	528.4	527.5	526.3	527.0	528.7	532.7	536.6	536.6
Electric companies and systems.....	210.3	210.7	213.1	216.0	216.3	214.2	209.7	208.8	208.4	208.2	208.7	209.0	210.1	211.4	211.4
Gas companies and systems.....	133.9	134.0	136.0	138.4	136.6	132.3	133.8	133.4	133.6	133.5	133.5	134.2	135.3	137.1	137.1
Combined utility systems.....	153.9	154.8	157.7	159.4	159.4	156.7	154.1	153.7	153.6	153.0	153.2	154.1	154.5	156.6	156.6
Water, steam, and sanitary systems.....	32.2	32.5	32.9	33.9	33.8	33.8	33.0	32.5	31.9	31.6	31.6	31.4	31.8	31.5	31.5

See footnotes at end of table.

TABLE A-3. Production or nonsupervisory workers in nonagricultural establishments, by industry¹—Continued

[In thousands]

Revised series; see box below.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Wholesale and retail trade⁴		9,505	9,323	9,218	9,172	9,153	9,151	9,053	8,974	8,958	8,887	8,986	9,844	8,953	8,794
Wholesale trade	2,790	2,788	2,779	2,788	2,769	2,737	2,700	2,691	2,689	2,693	2,709	2,750	2,670	2,625	
Motor vehicles and automotive equipment		207.0	205.6	206.6	207.2	206.3	205.0	202.6	201.5	200.4	200.4	200.5	201.7	199.6	193.0
Drugs, chemicals, and allied products		160.9	160.2	159.8	158.6	158.3	160.0	156.8	157.1	157.2	156.8	157.5	159.1	156.5	155.8
Dry goods and apparel		113.5	112.8	112.9	114.1	113.4	112.6	111.1	110.0	110.5	110.3	108.9	110.5	109.3	109.1
Groceries and related products		455.7	458.9	460.9	459.4	464.4	453.6	440.7	438.6	439.6	439.5	443.7	449.5	435.7	431.0
Electrical goods		199.1	198.5	199.4	201.9	201.5	201.0	199.4	197.8	198.0	199.0	198.9	199.9	200.9	192.3
Hardware, plumbing, and heating goods		126.4	125.8	126.2	127.9	127.8	126.0	124.3	124.3	124.4	124.3	124.3	125.2	124.8	123.2
Machinery, equipment, and supplies		479.7	479.0	480.7	481.7	480.3	475.8	470.8	470.4	466.4	466.8	464.8	464.5	451.0	433.8
Retail trade⁴	6,715	6,535	6,439	6,384	6,384	6,414	6,353	6,283	6,269	6,194	6,277	7,094	6,283	6,168	
General merchandise stores	1,774.7	1,649.9	1,589.8	1,548.0	1,546.0	1,549.5	1,532.6	1,508.4	1,507.9	1,466.9	1,523.9	2,070.0	1,545.3	1,501.5	
Department stores	1,103.9	1,016.0	970.7	945.6	946.7	951.7	938.9	926.3	922.4	894.2	938.3	1,296.8	936.9	892.3	
Limited price variety stores	298.0	283.2	278.6	288.5	288.3	272.5	275.7	270.9	274.7	265.0	269.2	371.8	288.3	299.7	
Food stores	1,348.5	1,334.7	1,314.3	1,310.0	1,314.8	1,316.4	1,311.2	1,313.0	1,311.5	1,311.6	1,310.9	1,336.8	1,289.6	1,273.0	
Grocery, meat, and vegetable stores	1,187.0	1,175.3	1,159.2	1,155.4	1,159.5	1,157.3	1,151.2	1,153.0	1,149.9	1,147.8	1,152.6	1,164.0	1,126.3	1,113.5	
Apparel and accessories stores	594.2	577.7	568.7	544.6	543.3	564.3	563.4	548.6	563.3	529.6	547.6	680.0	559.3	560.0	
Men's and boys' apparel stores	97.7	93.2	91.0	89.9	89.6	92.3	89.9	88.1	88.1	89.4	95.9	120.1	90.5	90.7	
Women's ready-to-wear stores	224.5	219.9	214.3	206.8	203.6	211.7	213.3	209.6	211.4	200.0	204.9	251.1	209.3	208.7	
Family clothing stores	97.2	93.5	91.2	87.3	88.8	89.7	88.5	86.9	89.3	86.7	92.8	117.9	88.7	89.6	
Shoe stores	105.1	102.1	108.0	100.5	99.7	103.8	106.4	100.9	105.8	93.2	93.7	117.0	106.9	106.7	
Furniture and appliance stores	362.7	356.4	350.5	351.5	349.4	350.0	349.0	348.5	349.0	349.4	350.7	362.7	346.9	346.3	
Other retail trade	2,635.1	2,616.5	2,615.6	2,629.6	2,630.8	2,633.3	2,596.4	2,564.1	2,537.6	2,536.5	2,543.4	2,644.2	2,541.5	2,487.3	
Motor vehicle dealers	606.8	608.8	608.4	609.9	609.6	606.5	600.6	599.1	597.3	597.1	595.9	594.0	585.0	559.1	
Other vehicle and accessory dealers	149.2	146.9	145.6	149.3	148.6	148.3	143.0	140.1	136.0	134.6	135.2	147.6	136.1	128.2	
Drug stores	362.2	359.5	357.6	358.2	357.5	358.8	353.7	351.0	349.4	349.8	350.9	368.2	350.3	347.5	
Finance, insurance, and real estate:															
Banking		643.1	642.8	645.3	654.3	653.7	645.3	636.3	635.7	633.9	632.9	631.4	632.5	627.0	607.3
Security dealers and exchanges ⁵		112.1	111.7	112.7	114.6	114.8	113.0	112.3	112.1	110.9	110.6	109.8	113.7	113.8	122.3
Insurance carriers ⁵		631.9	632.7	636.8	642.7	641.7	635.9	632.7	632.7	632.6	630.8	628.6	783.1	779.7	768.9
Life insurance ⁵		276.3	276.8	279.0	281.9	280.8	278.9	278.4	279.5	279.6	279.1	279.1	421.2	418.5	413.0
Accident and health insurance ⁵		47.0	47.1	47.3	47.6	47.6	47.1	46.5	46.6	46.3	46.0	48.0	47.6	46.2	
Fire, marine, and casualty insurance ⁵		270.2	270.5	271.8	274.0	273.8	271.0	269.7	268.9	268.8	267.0	265.8	276.0	276.3	273.8
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels		509.3	538.0	547.3	581.5	579.5	558.8	534.1	516.0	499.1	495.5	482.1	484.4	511.3	505.4
Personal services:															
Laundries, cleaning and dyeing plants ⁶		479.9	484.0	482.8	483.3	488.0	486.6	480.6	472.2	467.0	465.7	462.8	383.8	384.2	380.3
Motion pictures:															
Motion picture filming and distribution		27.6	28.5	27.8	29.5	28.1	27.7	25.4	25.0	26.1	25.1	25.7	27.7	25.7	25.7

¹ For comparability of data with those published in issues prior to January 1965, and coverage of these series, see footnote 1, table A 2.

For mining and manufacturing data, refer to production and related workers; for contract construction, to construction workers; and for all other industries, to nonsupervisory workers.

Production and related workers include working foremen and all nonsupervisory workers (including leadman and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, and watchmen services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the above production operations.

Construction workers include working foremen, journeymen, mechanics, apprentices, laborers, etc., engaged in new work, alterations, demolition,

repair, and maintenance, etc., at the site of construction or working in shop or yards at jobs (such as precutting and preassembling) ordinarily performed by members of the construction trades.

Nonsupervisory workers include employees (not above the working supervisory level) such as office and clerical workers, repairmen, salespersons, operators, drivers, attendants, service employees, linemen, laborers, janitors, watchmen, and similar occupational levels, and other employees whose services are closely associated with those of the employees listed.

² Preliminary.

³ Data relate to nonsupervisory employees except messengers.

⁴ Excludes eating and drinking places.

⁵ Beginning January 1964, nonoffice salesmen excluded from nonsupervisory count.

⁶ Beginning January 1964, data relate to nonsupervisory workers and are not comparable with the production worker levels of prior years.

Caution

The revised series on employment, hours, and earnings, and labor turnover in non-agricultural establishments should not be compared with those published in issues prior to January 1965. (See footnote 1, table A-2, and "BLS Establishment Employment Estimates Revised to March 1963 Benchmark Levels" appearing in the December 1964 issue of *Employment and Earnings*. Moreover, when the figures are again adjusted to new benchmarks, the data presented in this issue should not be compared with those in later issues which reflect the adjustments.

Comparable data for earlier periods are published in *Employment and Earnings Statistics for the United States, 1909-64* (BLS Bulletin 1312-2), which is available at depository libraries or which may be purchased from the Superintendent of Documents for \$3.50 a copy. For an individual industry, earlier data may be obtained upon request to the Bureau.

TABLE A-4. Employees in nonagricultural establishments, by industry division and selected groups, seasonally adjusted ¹
 [In thousands] Revised series; see box, p. 220.

Industry division and group	1964											1963	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.
Total	59,097	58,871	58,382	58,458	58,301	58,256	58,104	57,931	57,827	57,754	57,684	57,334	57,291
Mining	644	640	638	634	634	639	639	631	633	633	633	632	636
Contract construction	3,225	3,167	3,106	3,080	3,103	3,107	3,106	3,093	3,081	3,122	3,132	2,941	3,052
Manufacturing	17,593	17,512	17,171	17,449	17,339	17,344	17,285	17,225	17,224	17,208	17,171	17,131	17,115
Durable goods	10,076	10,002	9,702	9,986	9,886	9,890	9,826	9,780	9,798	9,784	9,740	9,725	9,717
Ordinance and accessories	246	245	247	248	250	255	260	265	267	269	271	274	275
Lumber and wood products, except furniture	602	595	591	593	595	599	593	596	600	603	602	597	600
Furniture and fixtures	411	409	407	405	403	405	402	398	398	397	394	392	392
Stone, clay, and glass products	618	619	616	620	617	618	616	613	613	616	613	609	610
Primary metal industries	1,277	1,271	1,253	1,258	1,242	1,246	1,222	1,199	1,196	1,190	1,189	1,183	1,178
Fabricated metal products	1,224	1,210	1,179	1,223	1,208	1,196	1,192	1,185	1,190	1,187	1,183	1,174	1,173
Machinery	1,656	1,640	1,644	1,643	1,625	1,620	1,608	1,597	1,589	1,584	1,565	1,572	1,568
Electrical equipment and supplies	1,586	1,573	1,560	1,548	1,546	1,550	1,537	1,533	1,536	1,535	1,535	1,540	1,540
Transportation equipment	1,669	1,658	1,429	1,667	1,632	1,632	1,628	1,633	1,646	1,641	1,626	1,626	1,623
Instruments and related products	373	371	368	369	369	371	369	367	368	368	368	367	367
Miscellaneous manufacturing industries	414	411	408	402	399	398	399	394	395	394	394	391	391
Nondurable goods	7,517	7,510	7,469	7,463	7,453	7,454	7,459	7,445	7,426	7,424	7,431	7,406	7,398
Food and kindred products	1,730	1,734	1,717	1,716	1,726	1,719	1,720	1,731	1,730	1,738	1,746	1,743	1,742
Tobacco manufactures	90	91	90	82	83	89	89	89	88	88	88	87	90
Textile mill products	907	905	899	899	895	894	895	895	895	897	896	891	890
Apparel and related products	1,332	1,327	1,319	1,317	1,311	1,309	1,323	1,305	1,298	1,290	1,296	1,291	1,286
Paper and allied products	634	635	634	632	631	632	631	630	629	627	627	625	624
Printing, publishing, and allied industries	960	957	955	956	954	955	953	952	948	946	944	943	942
Chemicals and allied products	884	882	878	881	879	879	880	874	871	874	872	871	869
Petroleum refining and related industries	184	185	187	185	185	187	187	187	187	188	189	189	190
Rubber and miscellaneous plastic products	439	437	433	439	435	433	427	429	427	426	424	419	417
Leather and leather products	357	357	357	356	354	357	354	353	353	350	349	347	348
Transportation and public utilities	4,003	3,997	3,996	4,005	3,999	3,983	3,965	3,968	3,964	3,940	3,943	3,936	3,931
Wholesale and retail trade	12,318	12,307	12,278	12,229	12,231	12,223	12,187	12,135	12,096	12,077	12,083	12,021	11,950
Wholesale trade	3,250	3,246	3,233	3,226	3,224	3,232	3,227	3,212	3,206	3,198	3,191	3,188	3,172
Retail trade	9,068	9,061	9,045	9,003	9,007	8,991	8,960	8,923	8,890	8,879	8,892	8,833	8,778
Finance, insurance, and real estate	2,979	2,970	2,964	2,960	2,951	2,948	2,943	2,934	2,931	2,924	2,917	2,911	2,904
Service and miscellaneous	8,644	8,630	8,633	8,592	8,573	8,561	8,509	8,489	8,461	8,455	8,437	8,401	8,366
Government	9,691	9,648	9,596	9,509	9,471	9,451	9,470	9,456	9,437	9,395	9,368	9,361	9,337
Federal	2,361	2,354	2,331	2,320	2,322	2,322	2,339	2,341	2,337	2,337	2,337	2,342	2,346
State and local	7,330	7,294	7,265	7,189	7,143	7,129	7,147	7,117	7,096	7,058	7,031	7,019	6,991

¹ For coverage of the series, see footnote 1, table A-2.
² Preliminary.

NOTE: The seasonal adjustment method used is described in "New Seasonal Adjustment Factors for Labor Force Components," *Monthly Labor Review*, August 1960, pp. 822-827.

TABLE A-5. Production workers in manufacturing industries, by major industry group, seasonally adjusted ¹
 [In thousands] Revised series; see box, p. 220.

Major industry group	1964											1963	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.
Manufacturing	13,075	13,009	12,661	12,956	12,847	12,839	12,794	12,736	12,732	12,731	12,692	12,659	12,647
Durable goods	7,455	7,391	7,089	7,377	7,279	7,271	7,219	7,174	7,188	7,181	7,139	7,124	7,115
Ordinance and accessories	102	102	102	103	104	105	107	109	110	111	112	115	115
Lumber and wood products, except furniture	540	533	528	530	531	536	528	532	536	539	539	535	537
Furniture and fixtures	343	339	339	338	335	338	336	331	331	330	329	326	327
Stone, clay, and glass products	498	501	498	500	498	497	496	493	493	498	493	490	492
Primary metal industries	1,046	1,040	1,022	1,026	1,012	1,017	995	972	967	966	965	958	954
Fabricated metal products	943	932	901	945	932	918	916	910	916	914	911	903	901
Machinery	1,154	1,143	1,146	1,149	1,129	1,125	1,118	1,109	1,103	1,099	1,082	1,091	1,088
Electrical equipment and supplies	1,075	1,066	1,053	1,049	1,040	1,041	1,029	1,024	1,027	1,025	1,023	1,026	1,026
Transportation equipment	1,183	1,170	942	1,080	1,145	1,141	1,141	1,146	1,156	1,150	1,136	1,134	1,128
Instruments and related products	236	235	232	234	234	236	233	232	233	233	233	232	233
Miscellaneous manufacturing industries	335	330	326	323	319	317	320	316	316	316	316	314	314
Nondurable goods	5,620	5,618	5,572	5,579	5,568	5,575	5,562	5,544	5,544	5,550	5,553	5,535	5,532
Food and kindred products	1,148	1,148	1,132	1,133	1,142	1,134	1,134	1,144	1,143	1,150	1,157	1,157	1,158
Tobacco manufactures	78	80	78	71	72	78	77	76	76	77	76	75	78
Textile mill products	810	808	803	803	799	798	800	800	800	803	803	799	797
Apparel and related products	1,185	1,182	1,173	1,173	1,165	1,164	1,176	1,160	1,152	1,145	1,145	1,146	1,140
Paper and allied products	493	496	494	494	493	494	493	493	492	491	491	489	489
Printing, publishing, and allied industries	609	606	604	606	604	604	604	604	601	600	598	597	598
Chemicals and allied products	529	530	526	530	530	531	531	527	525	529	527	526	526
Petroleum refining and related industries	112	114	116	116	115	117	116	116	116	118	118	118	119
Rubber and miscellaneous plastic products	341	339	334	340	337	334	329	330	329	329	326	322	321
Leather and leather products	315	315	312	313	311	314	312	311	310	308	307	306	306

¹ For definition of production workers, see footnote 1, table A-3.
² Preliminary.

NOTE: The seasonal adjustment method used is described in "New Seasonal Adjustment Factors for Labor Force Components," *Monthly Labor Review*, August 1960, pp. 822-827.

TABLE A-6. Unemployment insurance and employment service program operations ¹

[All items except average benefit amounts are in thousands]

Item	1964											1963	
	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.
Employment service: ²													
New applications for work	853	846	854	816	896	1,160	857	873	874	916	1,037	793	827
Nonfarm placements	508	579	639	554	549	572	572	541	478	414	443	432	493
State unemployment insurance programs:													
Initial claims ^{3,4}	1,185	966	858	937	1,238	976	908	1,086	1,136	1,181	1,848	1,865	1,200
Insured unemployment ⁵ (average weekly volume) ⁶	1,293	1,138	1,125	1,261	1,343	1,297	1,447	1,755	2,050	2,243	2,395	1,972	1,542
Rate of insured unemployment ⁷	3.0	2.6	2.5	2.9	3.1	3.1	3.4	4.2	4.9	5.3	5.7	4.7	3.6
Weeks of unemployment compensated	4,069	3,996	4,149	4,556	5,098	5,023	5,658	7,381	8,303	8,060	9,186	6,705	4,733
Average weekly benefit amount for total unemployment	\$36.38	\$35.92	\$35.40	\$35.60	\$35.35	\$35.27	\$35.50	\$36.02	\$36.26	\$36.24	\$36.07	\$35.78	\$35.37
Total benefits paid	\$146,974	\$143,165	\$148,423	\$164,510	\$180,519	\$183,132	\$201,498	\$258,046	\$292,618	\$283,809	\$319,302	\$232,954	\$164,977
Unemployment compensation for ex-servicemen: ^{8,9}													
Initial claims ^{3,6}	27	25	25	26	32	25	20	27	28	29	39	39	29
Insured unemployment ⁵ (average weekly volume)	40	35	36	43	44	42	46	57	67	72	73	60	48
Weeks of unemployment compensated	144	136	159	173	173	184	200	281	261	284	307	231	164
Total benefits paid	\$5,380	\$5,043	\$5,888	\$6,285	\$6,172	\$6,626	\$7,029	\$9,654	\$8,893	\$9,586	\$10,241	\$7,622	\$5,396
Unemployment compensation for Federal civilian employees: ^{9,10}													
Initial claims ³	12	12	10	10	15	12	9	11	11	13	20	15	13
Insured unemployment ⁵ (average weekly volume)	27	25	24	25	26	25	27	32	38	40	39	34	32
Weeks of unemployment compensated	104	100	103	104	102	110	115	157	154	157	165	143	111
Total benefits paid	\$4,119	\$3,986	\$4,178	\$4,212	\$3,993	\$4,661	\$4,558	\$5,829	\$5,596	\$5,768	\$6,109	\$5,369	\$4,297
Railroad unemployment insurance:													
Applications ¹¹	11	11	12	12	38	16	5	13	5	7	13	12	11
Insured unemployment (average weekly volume)	37	33	32	29	31	27	32	42	45	51	53	47	45
Number of payments ¹²	72	74	69	67	66	67	76	101	109	111	125	110	86
Average amount of benefit payment ¹³	\$79.47	\$77.27	\$79.31	\$79.65	\$76.53	\$74.41	\$70.46	\$73.17	\$80.06	\$80.33	\$80.49	\$79.04	\$78.60
Total benefits paid ¹⁴	\$5,557	\$5,602	\$5,259	\$5,169	\$4,928	\$4,851	\$5,208	\$7,411	\$8,466	\$8,784	\$9,930	\$8,590	\$6,672
All programs: ¹⁵													
Insured unemployment ⁵	1,417	1,264	1,256	1,396	1,491	1,448	1,605	1,918	2,201	2,410	2,563	2,122	1,686

¹ Includes data for Puerto Rico beginning January 1961 when the Commonwealth's program became part of the Federal-State UI system.

² Includes Guam and the Virgin Islands.

³ Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transitional claims.

⁴ Includes interstate claims for the Virgin Islands.

⁵ Number of workers reporting the completion of at least 1 week of unemployment.

⁶ Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.

⁷ The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.

⁸ Excludes data on claims and payments made jointly with other programs.

⁹ Includes the Virgin Islands.

¹⁰ Excludes data on claims and payments made jointly with State programs.

¹¹ An application for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year.

¹² Payments are for unemployment in 14-day registration periods.

¹³ The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.

¹⁴ Adjusted for recovery of overpayments and settlement of underpayments.

¹⁵ Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs and the Railroad Unemployment Insurance Act.

SOURCE: U.S. Department of Labor, Bureau of Employment Security for all items except railroad unemployment insurance, which is prepared by the U.S. Railroad Retirement Board.

B.—Labor Turnover

TABLE B-1. Labor turnover rates, by major industry group ¹

[Per 100 employees]

Revised series; see box, p. 220.

Major industry group	1964											1963		Annual average	
	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	1963	1962
Accessions: Total															
Manufacturing:															
Actual	3.0	4.0	4.8	5.1	4.4	5.1	3.9	3.8	3.7	3.4	3.6	2.5	2.9	3.9	4.1
Seasonally adjusted	3.9	4.0	3.8	4.0	4.0	4.1	3.8	3.9	4.0	4.0	3.8	4.0	3.7	3.9	4.1
Durable goods	2.9	3.5	4.3	4.8	3.8	4.6	3.6	3.7	3.7	3.3	3.5	2.4	2.7	3.6	3.8
Ordnance and accessories	1.5	1.8	2.3	2.0	2.1	2.2	1.6	2.1	2.2	2.0	1.8	1.7	2.0	2.4	2.9
Lumber and wood products, except furniture	3.5	4.5	5.8	5.5	5.7	7.7	7.1	6.6	5.6	4.8	4.4	2.8	3.5	5.6	5.5
Furniture and fixtures	3.7	4.9	6.2	6.6	5.8	5.3	4.7	4.6	4.8	4.2	4.2	2.7	3.3	4.4	4.5
Stone, clay, and glass products	2.3	3.0	3.6	3.6	4.0	5.2	4.5	4.8	4.7	3.6	3.6	2.0	2.5	3.8	3.8
Primary metal industries	2.1	2.4	3.3	3.0	2.9	3.8	3.1	3.1	3.1	3.2	3.5	2.6	2.5	3.0	2.8
Fabricated metal products	3.5	4.0	5.0	5.4	4.8	5.4	4.1	4.1	4.0	3.6	3.9	2.6	3.0	4.0	4.1
Machinery	2.5	2.8	3.3	3.1	3.0	4.1	2.7	3.1	3.0	2.9	3.0	2.4	2.6	2.9	3.0
Electrical equipment and supplies	3.1	3.6	4.0	4.0	3.1	4.0	3.1	3.0	3.1	2.6	2.9	2.2	2.5	3.1	3.6
Transportation equipment	3.0	4.0	5.0	8.0	3.8	4.3	3.3	3.4	3.7	3.4	3.4	2.5	2.9	4.0	4.7
Instruments and related products	2.4	2.8	3.3	3.6	2.9	3.9	2.4	2.5	2.7	2.3	2.6	1.8	2.0	2.7	2.7
Miscellaneous manufacturing industries	3.8	6.1	7.6	7.5	6.8	6.0	5.6	5.7	5.5	5.3	5.7	2.4	3.7	5.4	5.6
Nondurable goods	3.2	4.5	5.4	5.4	5.2	5.7	4.3	3.9	3.7	3.5	3.8	2.5	3.1	4.2	4.3
Food and kindred products	4.1	7.2	8.7	8.7	8.0	8.9	6.0	4.9	4.4	4.0	4.0	3.0	3.9	5.9	6.4
Tobacco manufactures	1.9	6.1	14.8	18.1	7.9	4.5	2.6	2.9	3.3	3.9	5.0	6.8	4.3	6.6	6.4
Textile mill products	3.2	3.8	4.5	4.5	4.4	4.2	4.0	3.9	3.6	3.6	3.4	2.2	3.0	3.6	3.6
Apparel and related products	4.4	5.5	5.9	6.2	7.3	6.2	6.0	5.2	4.9	5.2	6.0	3.3	4.5	5.3	5.5
Paper and allied products	2.0	2.6	3.2	3.0	2.9	4.6	2.8	2.7	2.7	2.1	2.4	1.8	2.0	2.6	2.6
Printing, publishing, and allied industries	2.6	3.1	3.8	3.4	3.1	4.2	2.7	2.8	2.9	2.8	3.0	2.1	2.5	2.9	3.0
Chemicals and allied products	1.6	1.9	2.4	2.0	2.1	3.5	2.1	2.2	2.5	1.9	1.8	1.3	1.3	2.1	2.1
Petroleum refining and related industries	.8	1.3	1.7	1.5	1.7	3.4	1.9	1.7	1.3	1.3	1.4	.7	.9	1.5	1.4
Rubber and miscellaneous plastic products	3.1	3.8	4.8	4.9	4.9	4.8	3.7	3.7	3.5	3.1	3.5	2.3	2.6	3.6	3.8
Leather and leather products	4.5	4.9	4.9	5.5	6.1	6.1	5.7	4.7	4.3	4.6	5.7	3.5	4.1	5.0	5.0
Nonmanufacturing:															
Metal mining	2.5	2.8	2.9	3.2	2.7	4.7	3.0	5.2	3.0	2.7	3.0	1.8	2.5	3.1	2.9
Coal mining	1.5	1.9	2.0	2.2	1.3	1.5	1.6	1.8	1.5	1.4	2.6	1.3	1.6	2.0	1.7
Accessions: New hires															
Manufacturing:															
Actual	2.1	2.8	3.5	3.4	2.9	3.6	2.6	2.4	2.2	2.0	2.0	1.4	1.8	2.4	2.5
Seasonally adjusted	2.7	2.6	2.7	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.6	2.4	2.6	2.3	2.5
Durable goods	2.0	2.5	3.3	3.1	2.5	3.3	2.4	2.3	2.2	1.9	1.9	1.3	1.7	2.1	2.3
Ordnance and accessories	.7	1.0	1.1	1.1	1.1	1.3	.9	1.1	1.2	1.2	1.0	1.0	1.3	1.6	2.0
Lumber and wood products, except furniture	2.8	3.8	5.1	4.7	4.7	6.2	5.3	4.6	4.0	3.3	3.0	2.0	2.9	4.3	3.9
Furniture and fixtures	3.2	4.2	5.4	5.7	4.9	4.3	3.8	3.6	3.5	3.1	3.1	1.8	2.7	3.5	3.5
Stone, clay, and glass products	1.6	2.1	2.7	2.6	2.9	3.9	2.9	2.8	2.4	1.7	1.6	1.1	1.5	2.3	2.2
Primary metal industries	1.3	1.6	2.5	2.1	1.7	2.7	2.0	1.8	1.6	1.5	1.3	.8	.8	1.2	1.1
Fabricated metal products	2.5	3.1	3.9	4.0	3.0	3.8	2.8	2.6	2.3	2.1	2.2	1.5	2.0	2.5	2.4
Machinery	1.9	2.1	2.5	2.3	2.1	3.2	2.0	2.2	2.3	2.2	2.2	1.6	1.7	1.9	2.0
Electrical equipment and supplies	2.1	2.5	2.8	2.6	1.9	2.6	1.8	1.8	1.7	1.5	1.6	1.3	1.6	1.9	2.4
Transportation equipment	1.7	2.3	3.4	3.1	1.9	2.6	1.8	1.9	1.9	1.6	1.7	1.3	1.6	1.9	2.1
Instruments and related products	1.6	2.0	2.3	2.1	2.2	2.9	1.7	1.7	1.8	1.5	1.6	1.2	1.4	1.9	2.0
Miscellaneous manufacturing industries	3.0	5.0	6.1	5.7	4.4	4.0	3.4	3.4	3.1	2.9	2.9	1.5	2.7	3.4	3.8
Nondurable goods	2.2	3.1	3.8	3.8	3.4	4.0	2.8	2.5	2.3	2.1	2.1	1.4	1.9	2.7	2.8
Food and kindred products	2.6	4.6	5.8	5.7	5.5	6.0	3.7	2.8	2.3	2.1	2.1	1.6	2.3	3.6	3.8
Tobacco manufactures	1.4	3.7	9.2	12.4	2.3	2.2	1.6	1.9	2.0	2.0	1.7	4.0	2.3	3.8	3.1
Textile mill products	2.3	2.8	3.4	3.4	3.0	3.2	2.9	2.7	2.4	2.2	2.1	1.4	2.1	2.5	2.5
Apparel and related products	2.7	3.6	3.9	4.1	3.9	3.8	3.3	3.2	3.1	3.2	3.1	1.6	2.4	3.3	3.5
Paper and allied products	1.4	2.2	2.7	2.4	2.2	3.6	2.1	1.9	1.7	1.4	1.4	1.1	1.3	1.8	1.8
Printing, publishing, and allied industries	2.0	2.5	3.0	2.7	2.4	3.3	2.1	2.2	2.1	2.1	2.1	1.5	1.8	2.2	2.3
Chemicals and allied products	1.2	1.4	1.7	1.5	1.5	2.8	1.6	1.6	1.7	1.3	1.2	.8	.9	1.4	1.5
Petroleum refining and related industries	.5	1.0	1.3	1.2	1.3	2.7	1.3	1.1	.8	.7	.6	.5	.7	1.1	1.0
Rubber and miscellaneous plastic products	2.0	2.8	3.8	3.6	2.8	3.3	2.4	2.3	2.2	1.9	1.9	1.3	1.7	2.3	2.4
Leather and leather products	3.0	3.5	3.6	4.2	4.2	4.4	3.5	2.9	2.5	2.7	3.2	2.3	2.6	3.2	3.1
Nonmanufacturing:															
Metal mining	1.7	2.1	2.2	2.0	2.0	3.6	1.9	2.0	2.0	1.7	1.7	1.0	1.3	1.7	1.5
Coal mining	.8	.9	1.1	.9	.8	.8	.8	.9	.8	.7	1.1	.6	.7	.8	.5

See footnotes at end of table.

TABLE B-1. Labor turnover rates, by major industry group¹—Continued

[Per 100 employees]

Revised series; see box, p. 220.

Major industry group	1964											1963		Annual average	
	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	1963	1962
	Separations: Total														
Manufacturing:															
Actual	3.5	4.2	5.1	4.3	4.4	3.5	3.6	3.5	3.5	3.3	4.0	3.7	3.9	3.9	4.1
Seasonally adjusted	3.5	3.9	4.1	3.8	4.2	3.9	3.9	3.8	3.9	3.9	3.9	3.8	3.9	3.9	3.9
Durable goods	3.0	3.6	4.4	4.0	4.3	3.3	3.4	3.2	3.2	3.1	3.8	3.4	3.5	3.6	3.8
Ordinance and accessories	2.4	3.0	3.0	3.2	3.6	4.6	3.9	3.1	3.4	3.1	3.8	2.0	2.3	2.7	2.7
Lumber and wood products, except furniture	4.7	5.6	7.4	6.2	5.2	4.9	5.0	5.1	5.4	4.7	6.1	4.9	5.8	5.5	5.6
Furniture and fixtures	3.9	4.9	5.9	5.4	4.9	4.4	4.7	4.2	4.2	4.0	4.7	3.8	4.0	4.4	4.6
Stone, clay, and glass products	3.7	3.8	4.8	3.9	3.5	3.0	3.1	3.2	3.0	3.3	4.7	4.9	4.0	3.8	4.1
Primary metal industries	1.9	2.5	3.5	2.7	2.4	3.0	2.1	2.2	2.1	2.0	2.5	2.2	2.7	2.8	3.3
Fabricated metal products	3.8	4.7	5.3	4.3	4.7	3.9	3.8	3.4	3.4	3.5	4.2	3.7	4.0	4.0	4.2
Machinery	1.9	2.7	3.5	3.0	3.2	2.6	2.5	2.6	2.5	2.2	2.6	1.9	2.3	2.7	2.8
Electrical equipment and supplies	2.9	2.8	3.8	3.1	3.2	2.8	3.2	3.1	3.3	3.5	3.7	3.0	3.5	3.4	3.3
Transportation equipment	2.7	4.0	4.1	5.3	7.6	3.8	4.1	3.4	3.5	3.4	4.2	3.6	3.1	4.1	4.6
Instruments and related products	2.3	3.1	3.6	3.0	2.7	2.3	2.6	2.6	2.7	2.6	3.3	2.3	2.4	2.7	2.6
Miscellaneous manufacturing industries	6.1	5.5	5.9	4.9	5.8	4.4	4.6	4.4	4.5	3.9	5.9	10.4	7.1	5.5	6.0
Nondurable goods															
Food and kindred products	4.1	4.8	5.9	4.6	4.4	3.7	3.9	3.9	3.8	3.5	4.1	4.1	4.3	4.2	4.4
Tobacco manufactures	12.1	5.6	4.6	7.2	3.6	3.0	2.5	6.7	6.6	8.9	7.1	10.9	11.8	6.2	6.6
Textile mill products	3.4	4.0	4.7	4.3	4.4	3.3	3.7	3.7	3.5	3.2	3.8	3.3	3.6	3.8	3.7
Apparel and related products	5.1	5.8	6.2	5.5	7.4	5.2	5.7	6.0	5.5	4.3	5.3	5.7	5.3	5.5	5.8
Paper and allied products	2.4	2.9	4.5	3.3	2.6	2.4	2.4	2.4	2.3	2.4	2.8	2.6	2.7	2.7	2.8
Printing, publishing, and allied industries	2.5	3.0	4.2	3.4	2.7	3.0	2.8	2.6	2.6	2.6	3.2	2.5	2.7	2.9	2.9
Chemicals and allied products	1.7	2.1	3.3	2.3	1.9	2.2	2.5	1.9	1.6	1.6	1.9	1.7	1.8	2.0	2.1
Petroleum refining and related industries	1.5	2.0	3.0	2.2	1.6	1.7	1.5	1.3	1.3	1.4	1.5	2.3	1.8	2.0	1.8
Rubber and miscellaneous plastic products	3.9	4.5	4.8	4.0	4.3	3.1	3.6	3.6	3.6	3.1	3.9	3.9	3.7	3.7	3.6
Leather and leather products	4.4	5.1	6.0	5.4	4.9	3.9	5.0	5.2	5.1	4.2	5.3	5.4	4.2	5.0	5.2
Nonmanufacturing:															
Metal mining	3.8	3.2	4.3	3.3	3.4	2.4	2.5	2.5	2.3	2.2	2.4	3.1	3.3	3.1	3.5
Coal mining	1.3	1.6	2.0	1.3	1.7	1.5	2.0	2.2	1.8	1.8	2.7	2.1	1.5	2.1	2.8
Separations: Quits															
Manufacturing:															
Actual	1.2	1.7	2.7	2.1	1.5	1.4	1.5	1.3	1.2	1.1	1.2	0.8	1.1	1.4	1.4
Seasonally adjusted	1.5	1.6	1.5	1.5	1.5	1.4	1.5	1.4	1.4	1.5	1.5	1.3	1.4	1.4	1.4
Durable goods	1.1	1.4	2.5	1.9	1.3	1.3	1.3	1.2	1.1	.9	1.0	.7	1.0	1.2	1.2
Ordinance and accessories	.7	.9	1.4	1.2	1.0	1.1	.9	.8	.9	.8	1.0	.6	.8	1.0	1.2
Lumber and wood products, except furniture	2.2	3.0	5.1	3.8	3.1	3.0	3.0	2.8	2.4	1.9	2.0	1.5	2.1	2.7	2.4
Furniture and fixtures	1.9	2.6	3.9	3.5	2.7	2.3	2.6	2.4	2.1	1.7	1.9	1.2	1.7	2.1	2.1
Stone, clay, and glass products	1.0	1.4	2.6	2.0	1.4	1.3	1.3	1.2	1.0	.8	.9	.6	.9	1.2	1.2
Primary metal industries	.6	.8	2.2	1.3	.8	.7	.7	.6	.5	.6	.4	.5	.6	.6	.6
Fabricated metal products	1.4	1.7	2.6	2.2	1.5	1.4	1.4	1.3	1.1	1.0	1.1	.8	1.0	1.3	1.3
Machinery	.9	1.1	2.0	1.5	1.0	1.0	1.1	1.1	1.0	.9	.9	.6	.8	1.0	1.0
Electrical equipment and supplies	1.1	1.3	2.1	1.6	1.2	1.2	1.1	1.1	1.0	1.0	1.1	.9	1.1	1.3	1.4
Transportation equipment	.9	1.1	1.8	1.4	.9	.9	1.0	1.0	.9	.7	.8	.6	.7	.9	1.0
Instruments and related products	.8	1.7	2.0	1.5	1.1	1.0	1.1	1.0	.9	.8	1.1	.7	.9	1.2	1.2
Miscellaneous manufacturing industries	1.9	2.5	3.6	2.7	2.1	1.8	2.0	1.9	1.6	1.3	1.5	1.1	1.6	1.8	2.0
Nondurable goods															
Food and kindred products	1.4	1.9	3.1	2.4	1.8	1.6	1.7	1.5	1.4	1.3	1.4	1.0	1.3	1.6	1.7
Tobacco manufactures	1.7	2.4	4.2	2.9	2.0	1.8	1.8	1.5	1.4	1.3	1.4	1.0	1.5	1.8	1.9
Textile mill products	.9	1.8	2.3	1.8	1.1	1.2	1.1	1.2	1.1	.9	1.0	.7	.8	.9	.9
Apparel and related products	1.7	2.1	3.1	2.8	2.3	2.0	2.2	2.1	1.8	1.6	1.6	1.1	1.6	1.9	1.9
Paper and allied products	1.9	2.5	3.1	2.9	2.6	2.1	2.3	2.1	2.0	1.8	1.9	1.3	1.8	2.2	2.3
Printing, publishing, and allied industries	.9	1.3	2.9	2.0	1.2	1.1	1.1	1.0	.9	.8	.9	.7	.9	1.1	1.1
Chemicals and allied products	1.2	1.5	2.5	2.0	1.4	1.5	1.4	1.3	1.2	1.2	1.4	1.0	1.1	1.4	1.5
Petroleum refining and related industries	.6	.8	2.0	1.2	.7	.7	.8	.7	.6	.6	.6	.4	.5	.8	.8
Rubber and miscellaneous plastic products	.3	.7	1.5	1.0	.6	.6	.6	.4	.4	.4	.4	.3	.4	.7	.7
Leather and leather products	1.3	1.7	2.8	2.2	1.4	1.4	1.5	1.4	1.2	1.1	1.1	.9	1.1	1.4	1.5
Nonmanufacturing:															
Metal mining	1.0	1.4	3.2	2.1	1.5	1.4	1.6	1.4	1.3	1.0	1.1	.7	.8	1.3	1.3
Coal mining	.4	.6	.7	.6	.5	.3	.4	.3	.4	.4	.4	.3	.4	.4	.4

See footnotes at end of table.

TABLE B-1. Labor turnover rates, by major industry group¹—Continued

[Per 100 employees]

Revised series; see box, p. 220.

Major industry group	1964											1963		Annual average	
	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	1963	1962
	Separations: Layoffs														
Manufacturing:															
Actual.....	1.7	1.8	1.5	1.4	2.1	1.3	1.4	1.4	1.6	1.6	2.0	2.3	2.1	1.8	2.0
Seasonally adjusted.....	1.5	1.7	1.5	1.4	2.0	1.6	1.7	1.7	1.8	1.8	1.7	1.7	1.8	1.2	1.9
Durable goods.....	1.3	1.4	1.1	1.3	2.2	1.3	1.4	1.2	1.4	1.5	2.0	2.1	1.8	1.7	1.9
Ordnance and accessories.....	1.3	1.5	1.1	1.5	2.1	2.9	2.4	1.8	1.9	1.9	2.3	1.0	1.1	1.2	.9
Lumber and wood products, except furniture.....	1.8	1.8	1.4	1.4	1.2	1.0	1.0	1.3	2.1	2.1	3.3	2.8	3.0	2.0	2.4
Furniture and fixtures.....	1.2	1.3	1.0	.9	1.4	1.4	1.3	1.0	1.2	1.5	2.1	2.0	1.6	1.6	1.8
Stone, clay, and glass products.....	2.1	1.7	1.4	1.2	1.3	.9	1.1	1.2	1.4	1.9	3.1	3.7	2.4	1.9	2.2
Primary metal industries.....	.7	.9	.6	.6	.9	.8	.7	.8	.7	.7	1.1	1.3	1.6	1.5	2.1
Fabricated metal products.....	1.8	2.1	1.6	1.2	2.3	1.7	1.6	1.3	1.6	1.8	2.3	2.3	2.3	2.0	2.2
Machinery.....	.5	.9	.7	.9	1.4	.8	.8	.7	.8	.7	.8	.7	.9	1.1	1.2
Electrical equipment and supplies.....	1.1	.8	.9	.8	1.4	.9	1.4	1.4	1.6	1.7	1.8	1.5	1.6	1.4	1.1
Transportation equipment.....	1.4	2.1	1.5	3.0	5.8	2.0	2.3	1.6	1.9	1.8	2.4	2.3	1.7	2.4	2.8
Instruments and related products.....	.9	.8	.7	.9	1.0	.6	.9	.9	1.1	1.0	1.5	1.1	.9	.9	.7
Miscellaneous manufacturing industries.....	3.4	2.1	1.3	1.4	2.9	1.7	1.8	1.8	2.1	1.9	3.6	8.6	4.7	2.9	3.1
Nondurable goods.....	2.2	2.2	2.1	1.5	2.0	1.4	1.6	1.8	1.8	1.6	2.1	2.6	2.5	2.0	2.1
Food and kindred products.....	4.2	4.6	4.6	2.8	2.8	2.1	2.2	2.5	3.0	3.1	3.4	3.9	4.6	3.5	3.7
Tobacco manufactures.....	10.5	3.3	1.8	4.7	1.8	1.2	.7	5.0	5.0	7.3	5.3	9.8	10.5	4.9	5.3
Textile mill products.....	1.1	1.1	.9	.8	1.4	.7	.9	1.0	1.1	1.1	1.5	1.7	1.5	1.2	1.2
Apparel and related products.....	2.5	2.5	2.3	1.8	3.9	2.2	2.5	3.1	2.8	1.7	2.6	3.8	2.9	2.6	2.7
Paper and allied products.....	.9	.9	.8	.7	.8	.7	.6	.7	.8	1.0	1.3	1.4	1.2	1.0	1.0
Printing, publishing, and allied industries.....	.8	1.0	1.1	.9	.8	.9	1.0	.8	.9	.9	1.2	1.2	1.1	1.0	1.0
Chemicals and allied products.....	.7	.8	.7	.6	.7	1.0	1.2	.7	.6	.6	.7	.9	.9	.8	.8
Petroleum refining and related industries.....	.8	.9	.9	.6	.5	.5	.4	.4	.4	.6	.6	1.5	1.0	.7	.6
Rubber and miscellaneous plastic products.....	1.9	1.9	1.1	1.0	2.1	1.0	1.4	1.4	1.6	1.2	2.1	2.4	2.0	1.6	1.5
Leather and leather products.....	1.7	1.6	1.6	1.2	1.5	.9	1.9	2.3	2.3	1.6	2.5	3.3	1.5	2.0	2.1
Nonmanufacturing:															
Metal mining.....	2.3	1.1	.4	.5	1.2	.3	.3	.5	.3	.4	.6	1.9	1.9	1.1	1.5
Coal mining.....	.5	.6	.9	.4	.8	.8	1.1	1.3	.9	1.0	1.4	1.4	.7	1.2	1.9

¹ For comparability of data with those published in issues prior to January 1965, see footnote 1, table A-2.

Month-to-month changes in total employment in manufacturing and nonmanufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons: (1) the labor turnover series measures changes

during the calendar month, while the employment series measures changes from midmonth to midmonth and (2) the turnover series excludes personnel changes caused by strikes, but the employment series reflects the influence of such stoppages.

² Preliminary.

C.—Earnings and Hours

TABLE C-1. Gross hours and earnings of production workers,¹ by industry

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
	Average weekly earnings														
Mining.....	\$121.25	\$122.11	\$118.53	\$119.56	\$117.18	\$118.58	\$117.74	\$115.64	\$113.70	\$115.36	\$115.49	\$116.62	\$114.54	\$110.43	
Metal mining.....	124.61	124.38	125.40	121.95	121.06	122.72	122.60	121.01	121.64	121.35	121.93	120.93	118.66	117.45	
Iron ores.....	125.06	124.49	130.92	129.37	129.34	125.29	125.11	119.74	124.09	123.16	125.02	123.91	120.04	122.19	
Copper ores.....	134.35	133.92	132.01	124.44	124.03	131.02	129.68	129.13	129.33	128.74	127.28	126.69	124.56	120.70	
Coal mining.....	134.67	133.72	124.50	131.01	121.32	131.86	126.49	121.82	115.97	121.09	125.29	126.56	119.98	113.06	
Bituminous.....	136.55	136.35	126.67	133.27	122.84	134.53	129.03	123.33	117.76	123.52	127.12	128.40	121.43	114.46	
Crude petroleum and natural gas.....	115.50	116.05	113.57	112.32	113.63	110.62	112.14	111.57	112.78	113.36	112.71	113.94	112.41	109.20	
Crude petroleum and natural gas fields.....	123.71	121.66	123.37	120.66	121.60	117.97	119.14	119.14	120.54	121.25	122.43	121.54	120.42	115.46	
Oil and gas field services.....	109.14	111.46	105.50	105.25	106.46	104.73	106.46	105.41	106.14	106.09	104.66	107.32	105.35	103.63	
Quarrying and nonmetallic mining.....	115.01	118.42	116.36	119.25	117.81	116.79	114.86	111.00	106.46	105.53	102.34	105.33	109.03	105.43	
Contract construction.....	131.36	138.62	131.03	136.64	134.49	133.32	132.65	130.24	128.12	126.37	121.74	124.61	127.19	122.47	
General building contractors.....	122.11	127.67	121.79	125.46	122.67	122.61	122.64	122.04	120.27	117.60	110.85	115.25	112.36	112.50	
Heavy construction.....	130.24	142.52	130.87	140.83	137.92	134.83	133.46	127.66	121.60	122.54	118.22	117.81	128.03	122.31	
Highway and street construction.....	125.05	141.38	128.15	139.80	136.16	132.44	130.97	122.31	113.59	114.55	110.52	108.72	125.16	118.37	
Other heavy construction.....	135.41	143.79	133.96	142.04	139.78	138.44	136.78	133.32	128.18	129.42	124.32	126.54	131.14	126.48	
Special trade contractors.....	139.03	144.38	137.14	142.13	140.61	139.50	138.75	137.23	135.00	133.08	129.24	133.48	133.59	128.50	
Manufacturing.....	\$106.55	104.70	102.97	104.60	103.07	102.97	103.48	102.97	102.47	101.40	101.15	100.30	102.66	99.63	96.56
Durable goods.....	116.47	113.57	111.51	114.13	112.47	111.92	113.01	112.47	111.51	110.29	109.21	111.90	108.50	104.70	
Nondurable goods.....	92.80	91.94	92.00	91.87	91.83	91.14	91.37	90.91	89.83	89.67	89.44	88.24	90.57	87.91	85.93
Average weekly hours															
Mining.....	42.1	42.4	41.3	42.1	41.7	42.2	41.9	41.3	40.9	41.2	41.1	41.5	41.5	40.9	
Metal mining.....	41.4	41.6	41.8	41.2	40.9	41.6	41.7	41.3	41.8	41.7	41.9	41.7	41.2	41.5	
Iron ores.....	39.7	39.9	41.3	41.2	40.8	39.9	40.1	38.5	39.9	39.6	40.2	40.1	39.1	39.8	
Copper ores.....	43.2	43.2	43.0	40.8	40.8	43.1	42.8	42.9	43.4	43.2	43.0	42.8	43.1	42.8	
Coal mining.....	40.2	40.4	37.5	39.7	39.7	40.2	38.8	37.6	36.7	38.2	39.4	39.8	38.8	36.9	
Bituminous.....	40.4	40.7	37.7	39.9	39.9	40.4	39.1	37.6	36.8	38.6	39.6	40.0	38.9	37.0	
Crude petroleum and natural gas.....	42.0	42.2	41.6	41.6	42.4	41.9	42.0	42.1	42.4	42.3	41.9	42.2	42.1	42.0	
Crude petroleum and natural gas fields.....	41.1	41.1	41.4	40.9	41.5	40.4	40.8	40.8	41.0	41.1	41.5	41.2	41.1	40.8	
Oil and gas field services.....	42.8	43.2	41.7	42.1	43.1	43.1	43.1	43.2	43.5	43.3	42.2	43.1	43.0	43.0	
Quarrying and nonmetallic mining.....	45.1	45.9	45.1	46.4	46.2	45.8	45.4	44.4	43.1	42.9	41.1	42.3	44.5	44.3	
Contract construction.....	36.9	38.4	36.6	38.6	38.1	38.2	37.9	37.0	36.5	35.8	34.1	35.3	37.3	37.0	
General building contractors.....	35.6	36.9	35.3	36.9	36.4	36.6	36.5	36.0	35.9	35.0	32.7	34.3	36.0	35.6	
Heavy construction.....	40.7	42.8	39.9	43.2	42.7	42.4	42.1	40.4	39.1	38.9	36.6	36.7	41.3	40.5	
Highway and street construction.....	41.0	43.5	40.3	44.1	43.5	43.0	42.8	40.5	38.9	38.7	36.0	35.3	42.0	41.1	
Other heavy construction.....	40.3	41.8	39.4	41.9	41.6	41.7	41.2	40.4	39.2	39.1	37.0	38.0	40.6	39.9	
Special trade contractors.....	36.3	37.5	35.9	37.6	37.1	37.3	37.1	36.4	36.0	35.3	34.1	35.5	36.5	36.3	
Manufacturing.....	41.3	40.9	40.7	40.7	40.9	40.7	40.9	40.7	40.5	40.4	40.3	39.8	40.9	40.4	
Durable goods.....	42.2	41.6	41.3	41.5	41.5	41.3	41.7	41.5	41.3	41.0	41.0	40.6	41.6	40.9	
Nondurable goods.....	40.0	39.8	40.0	39.6	40.1	39.8	39.9	39.7	39.4	39.5	39.4	38.7	39.9	39.6	
Average hourly earnings															
Mining.....	\$2.88	\$2.88	\$2.87	\$2.84	\$2.81	\$2.81	\$2.81	\$2.80	\$2.78	\$2.80	\$2.81	\$2.81	\$2.76	\$2.70	
Metal mining.....	3.01	2.99	3.00	2.96	2.96	2.95	2.94	2.93	2.91	2.91	2.91	2.90	2.88	2.83	
Iron ores.....	3.15	3.12	3.17	3.14	3.17	3.14	3.12	3.11	3.11	3.11	3.11	3.09	3.07	3.07	
Copper ores.....	3.11	3.10	3.07	3.05	3.04	3.04	3.03	3.01	2.98	2.98	2.96	2.96	2.89	2.82	
Coal mining.....	3.35	3.31	3.32	3.30	3.28	3.26	3.24	3.24	3.16	3.17	3.18	3.18	3.12	3.09	
Bituminous.....	3.38	3.35	3.36	3.34	3.33	3.33	3.30	3.28	3.20	3.20	3.21	3.21	3.15	3.12	
Crude petroleum and natural gas.....	2.75	2.75	2.73	2.70	2.68	2.64	2.67	2.65	2.66	2.68	2.69	2.70	2.67	2.6	
Crude petroleum and natural gas fields.....	3.01	2.96	2.98	2.95	2.93	2.92	2.92	2.92	2.94	2.95	2.95	2.95	2.93	2.83	
Oil and gas field services.....	2.55	2.58	2.53	2.50	2.47	2.43	2.47	2.44	2.44	2.45	2.48	2.49	2.45	2.41	
Quarrying and nonmetallic mining.....	2.55	2.58	2.58	2.57	2.55	2.55	2.53	2.50	2.47	2.46	2.49	2.49	2.45	2.38	
Contract construction.....	3.56	3.61	3.58	3.54	3.53	3.49	3.50	3.52	3.51	3.53	3.57	3.53	3.41	3.31	
General building contractor.....	3.43	3.46	3.45	3.40	3.37	3.35	3.36	3.39	3.35	3.36	3.39	3.36	3.26	3.16	
Heavy construction.....	3.20	3.33	3.28	3.26	3.23	3.18	3.17	3.16	3.11	3.15	3.23	3.21	3.10	3.02	
Highway and street construction.....	3.05	3.25	3.18	3.17	3.13	3.08	3.06	3.02	2.92	2.96	3.07	3.08	2.98	2.88	
Other heavy construction.....	3.36	3.44	3.40	3.39	3.36	3.32	3.32	3.30	3.27	3.31	3.36	3.33	3.23	3.17	
Special trade contractors.....	3.83	3.85	3.82	3.78	3.79	3.74	3.74	3.77	3.75	3.77	3.79	3.76	3.66	3.54	
Manufacturing.....	\$2.58	2.56	2.53	2.57	2.52	2.53	2.53	2.53	2.51	2.51	2.52	2.51	2.46	2.39	
Durable goods.....	2.76	2.73	2.70	2.75	2.71	2.71	2.71	2.70	2.69	2.69	2.69	2.69	2.64	2.56	
Nondurable goods.....	2.32	2.31	2.30	2.32	2.29	2.29	2.29	2.28	2.27	2.27	2.28	2.27	2.22	2.17	

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
	Average weekly earnings														
Manufacturing—Continued															
Durable goods															
Ordnance and accessories.....	\$127.10	\$123.83	\$123.83	\$121.60	\$121.10	\$119.70	\$121.91	\$119.90	\$120.09	\$119.39	\$119.29	\$121.47	\$123.26	\$119.31	\$116.31
Ammunition, except for small arms.	129.47	126.77	127.17	122.93	123.38	122.28	122.71	120.69	121.71	119.70	120.60	124.12	125.63	120.25	116.69
Sighting and fire control equipment.....	-----	126.67	129.27	128.74	130.51	128.93	131.65	129.43	129.51	132.84	131.05	128.15	129.78	125.36	126.18
Other ordnance and accessories.....	121.67	117.79	116.40	116.85	115.14	113.08	117.96	116.97	115.14	116.52	115.02	114.62	117.29	115.77	111.92
Lumber and wood products, except furniture.....	86.22	84.14	87.85	88.00	89.98	87.89	87.72	86.67	84.19	81.97	82.37	80.29	83.20	81.80	79.20
Sawmills and planing mills.....	78.00	78.40	80.40	80.40	81.80	80.59	80.56	79.37	77.79	77.20	76.24	74.10	76.43	75.20	72.10
Millwork, plywood, and related products.....	93.71	93.30	93.94	93.02	94.66	93.34	94.47	93.83	92.55	92.32	91.88	89.02	91.72	89.40	87.53
Wooden containers.....	70.12	69.77	70.53	67.79	70.30	71.17	70.76	69.89	68.85	67.94	66.18	64.84	68.17	67.87	66.40
Miscellaneous wood products.....	77.36	76.95	77.74	78.17	79.49	76.17	77.49	77.49	76.52	75.92	75.92	74.24	76.14	74.30	72.54
Furniture and fixtures.....	88.40	86.73	86.94	85.49	85.48	83.23	83.43	81.81	83.03	82.42	82.62	79.59	85.06	81.80	79.37
Household furniture.....	84.97	83.13	83.13	80.95	81.51	78.55	79.32	77.95	79.15	78.74	78.94	75.25	81.87	77.30	75.07
Office furniture.....	-----	98.71	98.47	101.10	100.91	98.53	96.12	96.70	96.46	95.41	97.23	94.80	99.36	95.76	92.57
Partitions, office and store fixtures.....	-----	108.12	109.45	108.92	108.21	108.39	105.18	101.91	105.85	103.62	100.36	100.62	102.26	103.42	103.57
Other furniture and fixtures.....	92.01	88.80	89.02	88.81	89.03	86.93	86.93	86.67	86.24	86.46	85.41	83.92	87.56	84.04	81.41
Average weekly hours															
Ordnance and accessories.....	41.4	40.6	40.6	40.0	40.1	39.9	40.5	40.1	40.3	40.2	40.3	40.9	41.5	41.0	41.1
Ammunition, except for small arms.	41.1	40.5	40.5	39.4	39.8	39.7	40.1	39.7	40.3	39.9	40.2	41.1	41.6	40.9	40.8
Sighting and fire control equipment.....	-----	40.6	41.3	41.0	41.3	40.8	41.4	40.7	40.6	41.0	40.7	40.3	41.2	41.1	42.2
Other ordnance and accessories.....	42.1	40.9	40.7	41.0	40.4	40.1	41.1	40.9	40.4	40.6	40.5	40.5	41.3	41.2	41.3
Lumber and wood products, except furniture.....	40.1	39.5	40.3	40.0	40.9	40.5	40.8	40.5	39.9	39.6	39.6	38.6	40.0	40.1	39.8
Sawmills and planing mills.....	40.0	40.0	40.4	40.0	40.9	40.7	41.1	40.7	40.1	40.0	39.3	38.0	39.6	40.0	39.4
Millwork, plywood, and related products.....	41.1	41.1	41.2	40.8	41.7	41.3	41.8	41.7	41.5	41.4	41.2	40.1	41.5	41.2	40.9
Wooden containers.....	40.3	40.1	40.3	38.3	40.4	40.9	40.9	40.4	39.8	39.5	38.7	37.7	40.1	40.4	40.0
Miscellaneous wood products.....	40.5	40.5	40.7	40.5	41.4	40.3	41.0	41.0	40.7	40.6	40.6	39.7	40.5	40.6	40.3
Furniture and fixtures.....	42.5	41.9	42.0	41.3	41.9	40.8	41.1	40.5	40.7	40.6	40.7	39.4	41.9	40.9	40.7
Household furniture.....	42.7	42.2	42.2	41.3	41.8	40.7	41.1	40.6	40.8	40.8	40.9	39.4	42.2	40.9	40.8
Office furniture.....	-----	41.3	41.2	42.3	42.4	41.4	40.9	41.5	40.7	40.6	41.2	40.0	42.1	41.1	40.6
Partitions, office and store fixtures.....	-----	40.8	41.3	41.1	41.3	40.9	40.3	39.5	40.4	39.7	38.9	39.0	40.1	40.4	41.1
Other furniture and fixtures.....	42.4	41.3	41.6	41.5	42.6	41.2	41.2	40.5	40.3	40.4	40.1	39.4	41.3	40.6	40.3
Average hourly earnings															
Ordnance and accessories.....	\$3.07	\$3.05	\$3.05	\$3.04	\$3.02	\$3.00	\$3.01	\$2.99	\$2.98	\$2.97	\$2.96	\$2.97	\$2.97	\$2.91	\$2.83
Ammunition, except for small arms.	3.15	3.13	3.14	3.12	3.10	3.08	3.06	3.04	3.02	3.00	3.00	3.02	3.02	2.94	2.86
Sighting and fire control equipment.....	-----	3.12	3.13	3.14	3.16	3.16	3.18	3.18	3.19	3.24	3.22	3.18	3.15	3.05	2.99
Other ordnance and accessories.....	2.89	2.88	2.86	2.85	2.85	2.82	2.87	2.86	2.85	2.87	2.84	2.83	2.84	2.81	2.71
Lumber and wood products, except furniture.....	2.15	2.13	2.18	2.20	2.20	2.17	2.15	2.14	2.11	2.07	2.08	2.08	2.08	2.04	1.99
Sawmills and planing mills.....	1.95	1.96	1.99	2.01	2.00	1.98	1.96	1.95	1.94	1.93	1.94	1.95	1.93	1.88	1.83
Millwork, plywood, and related products.....	2.28	2.27	2.28	2.28	2.27	2.26	2.26	2.25	2.23	2.23	2.23	2.22	2.21	2.17	2.14
Wooden containers.....	1.74	1.74	1.75	1.77	1.74	1.74	1.73	1.73	1.73	1.72	1.71	1.72	1.70	1.68	1.66
Miscellaneous wood products.....	1.91	1.90	1.91	1.93	1.92	1.89	1.89	1.89	1.88	1.87	1.87	1.87	1.88	1.83	1.80
Furniture and fixtures.....	2.08	2.07	2.07	2.07	2.04	2.04	2.03	2.02	2.04	2.03	2.03	2.02	2.03	2.00	1.95
Household furniture.....	1.99	1.97	1.97	1.96	1.95	1.93	1.93	1.92	1.94	1.93	1.93	1.91	1.94	1.89	1.84
Office furniture.....	-----	2.39	2.39	2.39	2.38	2.38	2.35	2.33	2.37	2.35	2.36	2.37	2.36	2.33	2.28
Partitions, office and store fixtures.....	-----	2.65	2.65	2.65	2.62	2.65	2.61	2.58	2.62	2.61	2.58	2.58	2.55	2.56	2.52
Other furniture and fixtures.....	2.17	2.15	2.14	2.14	2.09	2.11	2.11	2.14	2.14	2.14	2.13	2.13	2.12	2.07	2.02

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Average weekly earnings															
Manufacturing—Continued															
Durable goods—Continued															
Stone, clay, and glass products.....	\$106.55	\$107.33	\$108.62	\$107.33	\$107.78	\$107.36	\$107.36	\$106.93	\$104.83	\$102.25	\$101.75	\$99.50	\$101.50	\$102.42	\$98.57
Flat glass.....	151.98	146.78	151.98	144.06	141.86	146.86	145.25	136.68	139.47	140.56	137.90	135.74	135.20	126.01	
Glass and glassware, pressed or blown.....	104.45	103.94	102.36	101.49	102.36	103.22	102.47	103.07	103.22	101.15	100.65	100.00	98.39	99.75	98.33
Cement, hydraulic.....	116.80	123.85	122.13	127.26	123.14	124.91	122.30	122.06	118.12	117.26	116.00	116.81	117.26	116.60	112.75
Structural clay products.....	92.48	92.70	93.41	92.74	92.35	91.74	92.40	91.05	91.32	88.51	87.70	84.67	88.29	88.99	86.28
Pottery and related products.....	95.47	92.69	90.25	91.18	92.83	93.93	94.07	93.67	92.04	92.40	90.02	91.71	89.54	86.85	
Concrete, gypsum, and plaster products.....	105.41	108.63	114.04	110.08	114.62	112.78	111.57	110.88	106.75	100.94	99.96	96.19	100.86	105.90	100.96
Other stone and mineral products..	109.72	108.00	108.36	108.62	108.20	106.34	108.03	108.29	107.36	105.92	104.49	102.82	104.33	102.18	98.33
Primary metal industries.....	132.51	130.52	129.48	136.21	130.00	128.96	130.20	129.58	128.54	127.10	126.18	125.77	126.38	124.64	119.80
Blast furnace and basic steel products.....	142.54	139.59	139.67	148.86	138.77	137.61	138.02	138.10	136.94	135.20	133.46	133.06	131.41	133.06	127.40
Iron and steel foundries.....	122.24	119.43	115.37	120.13	119.26	118.15	121.24	119.26	119.26	119.26	118.71	117.87	120.81	113.01	106.52
Nonferrous smelting and refining.....	121.93	120.47	121.47	127.54	120.18	119.48	119.52	119.23	117.67	118.12	118.98	120.25	119.97	118.14	114.95
Nonferrous rolling, drawing, and extruding.....	122.83	123.54	120.54	124.84	121.82	121.69	124.56	122.84	120.13	119.43	120.98	123.12	118.72	116.05	
Nonferrous foundries.....	110.92	109.45	109.71	111.10	110.12	109.59	110.81	110.27	109.86	109.86	108.24	108.50	110.35	107.12	104.55
Miscellaneous primary metal industries.....	138.78	138.78	138.02	135.88	133.56	130.00	133.46	133.46	134.83	133.25	131.57	130.41	134.62	128.96	124.50
Average weekly hours															
Stone, clay, and glass products.....	41.3	41.6	42.1	41.6	42.1	42.1	42.1	41.6	40.9	40.7	39.8	40.6	41.3	40.9	
Flat glass.....	43.3	42.3	43.3	42.0	41.6	42.2	42.1	40.2	40.9	41.1	40.8	40.4	40.0	38.3	
Glass and glassware, pressed or blown.....	40.8	40.6	40.3	39.8	40.3	40.8	40.5	40.9	40.8	40.3	40.1	40.0	39.2	39.9	40.3
Cement, hydraulic.....	40.0	41.7	41.4	42.0	41.6	42.2	41.6	41.8	41.3	41.0	40.7	40.7	41.0	41.2	41.0
Structural clay products.....	41.1	41.2	41.7	41.4	41.6	41.7	42.0	41.2	41.7	40.6	40.6	39.2	40.5	41.2	40.7
Pottery and related products.....	40.8	40.3	38.9	39.3	39.5	39.8	40.2	40.2	39.5	40.0	38.8	39.7	39.1	39.3	
Concrete, gypsum, and plaster products.....	41.5	42.6	44.2	43.0	44.6	44.4	44.1	44.0	42.7	41.2	40.8	39.1	41.0	43.4	42.6
Other stone and mineral products..	42.2	41.7	42.0	42.1	42.1	41.7	42.2	42.3	42.1	41.7	41.3	40.8	41.4	41.2	40.8
Primary metal industries.....	42.2	41.7	41.5	42.7	41.8	41.6	42.0	41.8	41.6	41.4	41.1	41.1	41.3	41.0	40.2
Blast furnace and basic steel products.....	41.8	41.3	41.2	42.9	41.3	41.2	41.2	41.1	41.0	40.6	40.2	40.2	39.7	40.2	39.2
Iron and steel foundries.....	43.5	42.5	41.8	42.6	42.9	42.5	43.3	42.9	42.9	42.9	42.7	42.4	43.3	41.7	40.5
Nonferrous smelting and refining.....	41.9	41.4	41.6	42.8	41.3	41.2	41.5	41.4	41.0	41.3	41.6	41.9	41.8	41.6	41.2
Nonferrous rolling, drawing, and extruding.....	42.5	42.6	42.0	42.9	42.3	42.4	43.4	42.8	42.4	42.3	42.2	42.6	43.2	42.4	42.2
Nonferrous foundries.....	41.7	41.3	41.4	41.3	41.4	41.2	41.5	41.3	41.3	41.3	41.0	41.1	41.8	41.2	41.0
Miscellaneous primary metal industries.....	42.7	42.7	42.6	42.2	42.0	41.4	42.1	42.1	42.4	42.3	41.9	41.4	42.6	41.6	41.5
Average hourly earnings															
Stone, clay, and glass products.....	\$2.58	\$2.58	\$2.58	\$2.58	\$2.56	\$2.55	\$2.55	\$2.54	\$2.52	\$2.50	\$2.50	\$2.50	\$2.48	\$2.41	
Flat glass.....	3.51	3.47	3.51	3.43	3.41	3.48	3.45	3.40	3.41	3.42	3.38	3.36	3.38	3.29	
Glass and glassware, pressed or blown.....	2.56	2.56	2.54	2.55	2.54	2.53	2.53	2.52	2.53	2.51	2.51	2.50	2.51	2.50	2.44
Cement, hydraulic.....	2.92	2.97	2.95	3.03	2.96	2.96	2.94	2.92	2.86	2.86	2.85	2.87	2.86	2.83	2.75
Structural clay products.....	2.25	2.25	2.24	2.24	2.22	2.20	2.20	2.21	2.19	2.18	2.16	2.16	2.18	2.16	2.12
Pottery and related products.....	2.34	2.30	2.32	2.32	2.35	2.36	2.34	2.33	2.33	2.31	2.32	2.31	2.29	2.21	
Concrete, gypsum, and plaster products.....	2.54	2.55	2.58	2.56	2.57	2.54	2.53	2.52	2.50	2.45	2.45	2.46	2.46	2.44	2.37
Other stone and mineral products..	2.60	2.59	2.58	2.58	2.57	2.55	2.56	2.56	2.55	2.54	2.53	2.52	2.52	2.48	2.41
Primary metal industries.....	3.14	3.13	3.12	3.19	3.11	3.10	3.10	3.10	3.09	3.07	3.07	3.06	3.06	3.04	2.98
Blast furnace and basic steel products.....	3.41	3.38	3.39	3.47	3.36	3.34	3.35	3.36	3.34	3.33	3.32	3.31	3.31	3.31	3.25
Iron and steel foundries.....	2.81	2.81	2.76	2.82	2.78	2.78	2.80	2.78	2.78	2.78	2.78	2.78	2.79	2.71	2.63
Nonferrous smelting and refining.....	2.91	2.91	2.92	2.98	2.91	2.90	2.88	2.88	2.87	2.86	2.86	2.87	2.87	2.84	2.79
Nonferrous rolling, drawing, and extruding.....	2.89	2.90	2.87	2.91	2.88	2.87	2.87	2.87	2.85	2.84	2.83	2.84	2.85	2.80	2.75
Nonferrous foundries.....	2.66	2.65	2.65	2.69	2.66	2.66	2.67	2.67	2.66	2.66	2.64	2.64	2.64	2.60	2.55
Miscellaneous primary metal industries.....	3.25	3.25	3.24	3.22	3.18	3.14	3.17	3.17	3.18	3.15	3.14	3.15	3.16	3.10	3.00

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964											1963 Dec.	Annual average		
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.		Jan.	1963	1962
Average weekly earnings															
Manufacturing—Continued															
<i>Durable goods—Continued</i>															
Fabricated metal products	\$114.21	\$112.98	\$110.24	\$112.86	\$112.98	\$111.07	\$112.29	\$112.02	\$111.22	\$109.18	\$109.18	\$108.39	\$111.04	\$108.05	\$104.81
Metal cans	127.91	128.83	128.52	132.18	139.46	136.53	133.80	132.44	131.21	128.59	128.83	131.63	129.44	128.17	126.30
Cutlery, handtools, and general hardware	108.58	106.71	101.18	109.52	109.36	105.37	106.97	107.90	108.58	104.96	105.73	105.11	109.04	103.32	99.14
Heating equipment and plumbing fixtures	103.68	104.45	105.37	102.03	104.60	103.68	104.34	103.83	101.63	101.75	103.20	99.94	102.87	101.56	98.55
Fabricated structural metal products	112.98	111.49	110.95	110.00	111.61	110.51	110.92	110.12	109.33	108.65	107.45	105.86	109.03	107.27	104.60
Screw machine products, bolts, etc.	115.61	115.88	116.04	112.25	112.36	111.67	113.52	112.04	112.30	112.56	112.56	110.56	110.24	108.03	106.00
Metal stampings	128.47	126.73	115.21	127.90	123.70	121.98	123.69	124.56	123.55	119.56	119.71	121.13	123.26	116.47	111.76
Coating, engraving, and allied services	101.10	99.90	99.60	99.39	99.95	97.44	99.95	97.75	97.75	95.51	96.70	95.27	97.34	94.94	93.11
Miscellaneous fabricated wire products	101.75	102.58	100.60	99.87	99.46	97.03	99.77	99.53	98.16	97.51	97.68	96.96	99.01	97.17	96.64
Miscellaneous fabricated metal products	112.17	110.39	110.68	109.88	109.59	108.39	109.45	108.39	107.04	105.44	105.44	104.00	106.75	105.67	103.53
Machinery	124.70	122.83	120.38	120.67	121.11	121.82	123.26	122.69	121.98	121.26	120.56	118.43	120.42	116.20	113.01
Engines and turbines	130.73	129.78	126.45	122.85	129.47	130.41	129.48	128.86	126.07	124.53	124.84	123.51	129.79	123.73	119.88
Farm machinery and equipment	121.96	117.96	119.36	118.78	119.52	118.66	119.52	115.46	118.28	118.43	119.56	117.29	116.31	111.93	107.59
Construction and related machinery	121.96	120.80	108.39	121.09	120.54	120.83	123.69	123.26	122.98	121.69	117.31	118.14	119.56	115.79	112.34
Metalworking machinery and equipment	139.33	135.83	134.33	131.89	132.68	136.89	139.36	141.34	140.12	139.19	138.60	133.90	135.28	129.33	125.57
Special industry machinery	119.46	117.50	116.53	115.60	114.33	113.63	114.70	114.44	113.05	113.58	112.63	110.62	114.48	109.72	106.77
General industrial machinery	124.41	123.11	122.11	120.38	120.96	120.54	121.82	120.83	119.70	118.71	118.56	116.60	120.13	114.12	110.83
Office, computing and accounting machines	124.68	123.37	122.36	122.13	120.42	120.36	120.36	117.49	116.51	116.11	116.87	113.87	115.42	116.81	113.15
Service industry machines	110.27	107.86	107.45	107.71	107.94	108.21	107.90	106.19	106.75	106.08	106.23	104.12	106.45	103.12	100.12
Miscellaneous machinery	118.86	115.83	116.10	114.09	115.29	115.02	117.18	116.80	115.29	114.70	113.74	113.21	114.28	111.51	109.13
Average weekly hours															
Fabricated metal products	42.3	42.0	41.6	41.8	42.0	41.6	41.9	41.8	41.5	41.2	41.2	40.9	41.9	41.4	41.1
Metal cans	41.8	42.1	42.0	42.5	44.7	43.9	43.3	43.0	42.6	42.3	42.1	42.6	42.3	42.3	42.1
Cutlery, handtools, and general hardware	41.6	41.2	40.8	41.8	41.9	41.0	41.3	41.5	41.6	41.0	41.3	40.9	42.1	41.0	40.8
Heating equipment and plumbing fixtures	40.5	40.8	41.0	39.7	40.7	40.5	40.6	40.4	39.7	39.9	40.0	39.5	40.5	40.3	39.9
Fabricated structural metal products	42.0	41.6	41.4	41.2	41.8	41.7	41.7	41.4	41.1	41.0	40.7	40.1	41.3	41.1	40.7
Screw machine products, bolts, etc.	43.3	43.4	43.3	42.2	42.4	42.3	43.0	42.6	42.7	42.8	42.8	42.2	42.4	42.2	42.4
Metal stampings	44.3	43.7	42.2	43.8	43.1	42.5	42.8	43.1	42.9	42.1	42.3	42.5	43.4	42.2	41.7
Coating, engraving, and allied services	42.3	41.8	41.5	40.9	41.3	40.6	41.3	40.9	40.9	40.3	40.8	40.2	41.6	41.1	41.2
Miscellaneous fabricated wire products	41.7	41.7	41.4	41.1	41.1	40.6	41.4	41.3	40.9	40.8	40.7	40.4	41.6	41.0	41.3
Miscellaneous fabricated metal products	41.7	41.5	41.3	41.0	41.2	40.9	41.3	40.9	40.7	40.4	40.4	40.0	40.9	40.8	40.6
Machinery	43.0	42.5	41.8	41.9	42.2	42.3	42.8	42.6	42.5	42.4	42.3	41.7	42.4	41.8	41.7
Engines and turbines	41.5	41.2	40.4	39.5	41.1	41.4	41.5	41.3	40.8	40.3	40.4	40.1	41.6	40.7	40.5
Farm machinery and equipment	42.2	41.1	41.3	41.1	41.5	41.2	41.5	40.8	41.5	41.7	42.1	41.3	41.1	40.7	40.6
Construction and related machinery	42.2	41.8	37.9	41.9	42.0	42.1	42.8	42.8	42.7	42.4	41.6	41.6	42.1	41.5	41.3
Metalworking machinery and equipment	44.8	44.1	43.9	43.1	43.5	44.3	45.1	45.3	45.2	44.9	45.0	43.9	44.5	43.4	43.3
Special industry machinery	43.6	43.2	43.0	42.5	42.5	42.4	42.8	42.7	42.5	42.7	42.5	41.9	43.2	42.2	42.2
General industrial machinery	42.9	42.6	42.4	41.8	42.0	42.0	42.3	42.1	42.0	41.8	41.6	41.2	42.3	41.2	41.2
Office, computing and accounting machines	41.7	41.4	41.2	41.4	41.1	40.8	40.8	40.1	39.9	39.9	40.3	39.4	39.8	40.7	40.7
Service industry machines	41.3	40.7	40.7	40.8	41.2	41.3	41.5	41.0	40.9	40.8	40.7	40.2	41.1	40.6	40.7
Miscellaneous machinery	43.7	42.9	43.0	42.1	42.7	42.6	43.4	43.1	42.7	42.8	42.6	42.4	42.2	42.4	42.3
Average hourly earnings															
Fabricated metal products	\$2.70	\$2.69	\$2.65	\$2.70	\$2.69	\$2.67	\$2.68	\$2.68	\$2.65	\$2.65	\$2.65	\$2.65	\$2.61	\$2.55	
Metal cans	3.06	3.06	3.06	3.11	3.12	3.11	3.09	3.08	3.08	3.04	3.06	3.09	3.06	3.03	3.00
Cutlery, handtools, and general hardware	2.61	2.59	2.48	2.62	2.61	2.57	2.59	2.60	2.61	2.56	2.56	2.57	2.59	2.52	2.43
Heating equipment and plumbing fixtures	2.56	2.56	2.57	2.57	2.57	2.56	2.57	2.57	2.56	2.55	2.58	2.53	2.54	2.52	2.47
Fabricated structural metal products	2.69	2.68	2.68	2.67	2.67	2.65	2.66	2.66	2.66	2.65	2.64	2.64	2.64	2.61	2.57
Screw machine products, bolts, etc.	2.67	2.67	2.68	2.66	2.65	2.64	2.64	2.63	2.63	2.63	2.62	2.62	2.60	2.56	2.50
Metal stampings	2.90	2.90	2.73	2.92	2.87	2.87	2.89	2.89	2.88	2.84	2.83	2.85	2.84	2.76	2.68
Coating, engraving, and allied services	2.39	2.39	2.40	2.43	2.42	2.40	2.42	2.39	2.39	2.37	2.37	2.37	2.34	2.31	2.26
Miscellaneous fabricated wire products	2.44	2.46	2.43	2.43	2.42	2.39	2.41	2.41	2.40	2.39	2.40	2.40	2.38	2.37	2.34
Miscellaneous fabricated metal products	2.69	2.66	2.68	2.68	2.66	2.65	2.65	2.65	2.63	2.61	2.61	2.60	2.61	2.59	2.55
Machinery	2.90	2.89	2.88	2.88	2.87	2.88	2.88	2.88	2.87	2.86	2.85	2.84	2.84	2.78	2.71
Engines and turbines	3.15	3.15	3.13	3.11	3.15	3.15	3.12	3.12	3.09	3.09	3.09	3.08	3.12	3.04	2.96
Farm machinery and equipment	2.89	2.87	2.89	2.89	2.88	2.88	2.88	2.83	2.85	2.84	2.84	2.84	2.83	2.75	2.65
Construction and related machinery	2.89	2.89	2.86	2.89	2.87	2.87	2.89	2.88	2.88	2.87	2.82	2.84	2.84	2.79	2.72
Metalworking machinery and equipment	3.11	3.08	3.06	3.06	3.05	3.09	3.09	3.12	3.10	3.10	3.08	3.05	3.04	2.98	2.90
Special industry machinery	2.74	2.72	2.71	2.72	2.69	2.68	2.68	2.68	2.66	2.66	2.65	2.64	2.64	2.60	2.53
General industrial machinery	2.90	2.89	2.88	2.88	2.88	2.87	2.88	2.87	2.85	2.84	2.85	2.83	2.84	2.77	2.69
Office, computing and accounting machines	2.99	2.98	2.97	2.95	2.93	2.95	2.95	2.93	2.92	2.91	2.90	2.89	2.90	2.87	2.78
Service industry machines	2.67	2.65	2.64	2.64	2.62	2.62	2.60	2.59	2.61	2.60	2.61	2.59	2.59	2.54	2.46
Miscellaneous machinery	2.72	2.70	2.70	2.71	2.70	2.70	2.70	2.71	2.70	2.68	2.67	2.67	2.67	2.63	2.58

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Average weekly earnings															
Manufacturing—Continued															
Durable goods—Continued															
Electrical equipment and supplies.....	\$104.65	\$103.73	\$103.48	\$102.72	\$102.31	\$101.96	\$102.06	\$101.56	\$101.15	\$100.90	\$100.90	\$100.00	\$102.41	\$99.14	\$97.44
Electric distribution equipment.....	114.09	112.86	113.55	112.19	113.55	112.47	112.32	110.16	109.48	109.08	110.02	107.33	113.97	107.04	102.87
Electrical industrial apparatus.....	112.41	111.99	110.92	109.67	109.82	110.92	109.30	109.30	109.03	108.62	106.75	106.49	107.79	104.70	102.00
Household appliances.....	112.61	112.34	110.83	109.21	108.14	108.41	108.00	107.33	107.60	107.07	106.40	104.80	109.88	107.71	104.23
Electric lighting and wiring equipment.....	97.85	96.56	95.68	96.24	97.92	95.20	96.15	96.32	95.04	94.16	94.40	93.14	96.70	93.26	90.85
Radio and TV receiving sets.....	89.42	88.13	89.02	87.64	87.96	88.36	84.64	85.09	86.30	86.08	86.46	87.86	87.25	85.85	85.75
Communication equipment.....	115.93	115.23	115.51	113.71	112.20	109.60	112.48	111.38	110.70	110.30	109.76	109.35	110.56	107.33	106.97
Electronic components and accessories.....	87.26	87.89	86.83	86.40	85.57	84.93	85.39	85.39	84.99	84.77	84.96	83.67	84.38	82.76	82.00
Miscellaneous electrical equipment and supplies.....	108.26	103.89	107.71	110.43	103.49	107.87	109.21	108.68	108.27	106.27	108.40	111.90	113.25	107.01	106.24
Transportation equipment.....	142.52	133.56	125.15	133.67	129.38	128.54	132.06	129.67	129.36	126.68	126.99	127.82	133.61	126.72	122.22
Motor vehicles and equipment.....	---	140.29	128.23	143.99	137.70	135.26	140.92	137.17	135.99	131.25	132.93	134.20	144.26	132.68	127.67
Aircraft and parts.....	130.20	128.24	127.00	125.56	125.15	125.05	124.84	123.93	123.82	123.11	123.41	123.30	124.92	122.43	119.97
Ship and boat building and repairing.....	124.23	124.53	121.71	119.08	121.60	120.80	121.99	122.07	120.69	122.96	120.39	118.40	120.39	121.06	115.26
Railroad equipment.....	---	133.54	119.74	122.98	125.02	126.79	127.70	126.77	128.33	125.55	126.38	123.82	124.34	121.71	118.10
Other transportation equipment.....	---	92.92	97.44	93.79	95.04	91.76	96.41	95.37	93.34	92.03	91.13	87.64	92.62	91.84	86.22
Average weekly hours															
Electrical equipment and supplies.....	41.2	41.0	40.9	40.6	40.6	40.3	40.5	40.3	40.3	40.2	40.2	40.0	40.8	40.3	40.6
Electric distribution equipment.....	42.1	41.8	41.9	41.4	41.9	41.5	41.6	40.8	40.7	40.7	40.9	40.2	41.9	40.7	40.5
Electrical industrial apparatus.....	42.1	42.1	41.7	41.7	41.6	41.7	41.4	41.4	41.3	41.3	40.9	40.8	41.3	40.9	40.8
Household appliances.....	41.4	41.3	41.2	40.6	40.5	40.3	40.3	39.9	40.3	40.1	40.0	39.4	41.0	40.8	40.4
Electric lighting and wiring equipment.....	40.6	40.4	40.2	40.1	40.8	40.0	40.4	40.3	40.1	39.9	40.0	39.4	40.8	40.2	40.2
Radio and TV receiving sets.....	40.1	39.7	40.1	39.3	39.8	39.8	38.3	38.5	38.7	38.6	38.6	39.4	39.3	39.2	39.7
Communication equipment.....	41.7	41.6	41.4	41.2	40.8	40.0	40.9	40.8	40.7	40.7	40.5	40.5	41.1	40.5	41.3
Electronic components and accessories.....	40.4	40.5	40.2	40.0	39.8	39.5	39.9	39.9	39.9	39.8	39.7	39.1	39.8	39.6	40.0
Miscellaneous electrical equipment and supplies.....	40.7	39.5	40.8	40.9	39.5	40.1	40.6	40.4	40.4	39.8	40.6	41.6	42.1	41.0	41.5
Transportation equipment.....	44.4	42.4	40.9	42.3	41.6	41.6	42.6	42.1	42.0	41.4	41.5	41.5	43.1	42.1	42.0
Motor vehicles and equipment.....	---	43.3	41.1	43.9	42.5	42.4	43.9	43.0	42.9	41.8	42.2	42.2	44.8	42.8	42.7
Aircraft and parts.....	42.0	41.5	41.1	40.9	40.9	41.0	41.2	40.9	41.0	40.9	41.0	41.1	41.5	41.5	41.8
Ship and boat building and repairing.....	41.0	41.1	40.3	39.3	40.4	40.4	40.8	41.1	40.5	41.4	40.4	40.0	40.4	40.9	40.3
Railroad equipment.....	---	41.6	38.5	39.8	40.2	40.9	40.8	40.5	41.0	40.5	40.9	40.2	40.5	40.3	39.9
Other transportation equipment.....	---	40.4	42.0	40.6	41.5	40.6	42.1	42.2	41.3	40.9	40.5	39.3	40.8	41.0	40.1
Average hourly earnings															
Electrical equipment and supplies.....	\$2.54	\$2.53	\$2.53	\$2.53	\$2.52	\$2.53	\$2.52	\$2.52	\$2.51	\$2.51	\$2.50	\$2.51	\$2.46	\$2.40	
Electric distribution equipment.....	2.71	2.70	2.71	2.71	2.71	2.71	2.70	2.70	2.69	2.68	2.69	2.67	2.72	2.63	
Electrical industrial apparatus.....	2.67	2.66	2.66	2.63	2.64	2.66	2.64	2.64	2.64	2.63	2.61	2.61	2.61	2.56	
Household appliances.....	2.72	2.72	2.69	2.69	2.67	2.69	2.68	2.69	2.67	2.67	2.66	2.66	2.68	2.64	
Electric lighting and wiring equipment.....	2.41	2.39	2.38	2.40	2.40	2.38	2.38	2.39	2.37	2.36	2.36	2.37	2.37	2.32	
Radio and TV receiving sets.....	2.23	2.22	2.22	2.23	2.21	2.22	2.21	2.21	2.23	2.23	2.24	2.23	2.22	2.19	
Communication equipment.....	2.78	2.77	2.79	2.76	2.75	2.74	2.75	2.73	2.72	2.71	2.71	2.70	2.69	2.65	
Electronic components and accessories.....	2.16	2.17	2.16	2.16	2.15	2.15	2.14	2.14	2.13	2.13	2.14	2.14	2.12	2.09	
Miscellaneous electrical equipment and supplies.....	2.66	2.63	2.64	2.70	2.62	2.69	2.69	2.69	2.68	2.67	2.67	2.69	2.69	2.61	
Transportation equipment.....	3.21	3.15	3.06	3.16	3.11	3.09	3.10	3.08	3.08	3.06	3.06	3.08	3.10	3.01	
Motor vehicles and equipment.....	---	3.24	3.12	3.28	3.24	3.19	3.21	3.19	3.17	3.14	3.15	3.18	3.22	3.10	
Aircraft and parts.....	3.10	3.09	3.09	3.07	3.06	3.05	3.03	3.03	3.02	3.01	3.01	3.00	3.01	2.95	
Ship and boat building and repairing.....	3.03	3.03	3.02	3.03	3.01	2.99	2.99	2.97	2.98	2.97	2.98	2.96	2.98	2.96	
Railroad equipment.....	---	3.21	3.11	3.09	3.11	3.10	3.13	3.13	3.13	3.10	3.09	3.08	3.07	3.02	
Other transportation equipment.....	---	2.30	2.32	2.31	2.29	2.26	2.29	2.26	2.26	2.25	2.25	2.23	2.27	2.24	

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Average weekly earnings															
Manufacturing—Continued															
Durable goods—Continued															
Instruments and related products.....	\$108.26	\$106.66	\$105.22	\$104.81	\$103.98	\$103.63	\$103.98	\$102.56	\$102.06	\$101.81	\$101.66	\$100.15	\$103.57	\$101.59	\$99.80
Engineering and scientific instruments.....		122.30	121.18	121.60	120.93	119.07	120.77	117.91	118.03	117.22	117.22	115.31	120.06	118.24	115.64
Mechanical measuring and control devices.....	108.94	106.97	103.94	104.45	103.79	104.19	105.37	103.53	103.53	103.53	102.87	100.30	103.89	102.16	98.98
Optical and ophthalmic goods.....	97.53	96.93	96.23	95.87	94.53	92.43	94.66	93.98	92.51	92.51	92.96	92.21	95.15	93.86	89.62
Surgical, medical, and dental equipment.....	91.13	89.87	88.62	89.28	88.48	87.56	87.23	87.45	86.83	86.76	86.80	84.41	87.02	85.63	84.45
Photographic equipment and supplies.....		126.28	124.39	121.25	120.56	122.09	120.10	119.65	118.49	116.69	117.96	116.57	119.55	115.77	114.68
Watches and clocks.....		87.89	87.45	86.55	84.53	84.32	85.97	83.71	82.18	81.37	81.24	80.98	83.16	83.13	83.37
Miscellaneous manufacturing industries.....	84.40	83.60	83.41	81.35	82.80	81.74	82.58	81.95	82.76	82.97	82.56	80.26	82.99	80.39	78.61
Jewelry, silverware, and plated ware.....	98.90	97.06	95.72	89.02	89.65	88.18	90.09	90.27	90.09	89.65	87.96	84.97	94.73	88.70	84.82
Toys, amusement, and sporting goods.....		74.09	75.22	73.53	75.22	73.53	73.72	72.96	74.11	74.50	73.73	71.80	72.39	72.76	71.37
Pens, pencils, office and art materials.....		82.01	80.00	79.99	80.40	75.00	79.80	78.40	78.20	78.01	78.80	75.24	78.39	78.00	74.82
Costume jewelry, buttons, and notions.....		76.42	76.42	74.69	75.46	75.64	76.80	77.20	77.41	77.16	77.18	73.15	76.57	73.84	71.68
Other manufacturing industries.....	91.03	90.63	90.23	88.70	89.24	88.75	89.20	87.91	89.20	89.65	88.58	86.85	89.24	86.58	84.82
Average weekly hours															
Instruments and related products.....	41.8	41.5	41.1	41.1	41.1	40.8	41.1	40.7	40.5	40.4	40.5	39.9	41.1	40.8	40.9
Engineering and scientific instruments.....		41.6	41.5	41.5	41.7	41.2	41.5	40.8	40.7	40.7	40.7	39.9	41.4	41.2	41.3
Mechanical measuring and control devices.....	41.9	41.3	40.6	40.8	40.7	40.7	41.0	40.6	40.6	40.6	40.5	39.8	40.9	40.7	40.4
Optical and ophthalmic goods.....	41.5	41.6	41.3	41.5	41.1	40.9	41.7	41.4	41.3	41.3	41.5	40.8	42.1	41.9	41.3
Surgical, medical, and dental equipment.....	40.5	40.3	40.1	40.4	40.4	39.8	40.2	40.3	40.2	39.8	40.0	38.9	40.1	40.2	40.6
Photographic equipment and supplies.....		43.1	42.6	42.1	42.3	42.1	41.7	41.4	41.0	40.8	41.1	40.9	41.8	41.2	41.7
Watches and clocks.....		40.5	40.3	39.7	39.5	39.4	39.8	39.3	38.4	38.2	38.5	38.2	39.6	39.4	39.7
Miscellaneous manufacturing industries.....	40.0	40.0	40.1	39.3	40.0	39.3	39.7	39.4	39.6	39.7	39.5	38.4	39.9	39.6	39.7
Jewelry, silverware, and plated ware.....	43.0	42.2	41.8	40.1	40.2	39.9	40.4	40.3	40.4	40.2	39.8	38.8	42.1	40.5	40.2
Toys, amusement, and sporting goods.....		39.2	39.8	38.7	39.8	38.7	38.8	38.4	38.6	38.6	38.2	37.2	38.1	38.7	39.0
Pens, pencils, office and art materials.....		40.6	40.0	39.6	40.2	37.5	39.7	39.2	39.1	39.4	39.6	38.0	40.2	40.0	39.8
Costume jewelry, buttons, and notions.....		39.8	39.8	38.9	39.3	39.6	40.0	40.0	39.9	40.4	40.2	38.1	40.3	39.7	39.6
Other manufacturing industries.....	40.1	40.1	40.1	39.6	40.2	39.8	40.0	39.6	40.0	40.2	39.9	39.3	40.2	39.9	40.2
Average hourly earnings															
Instruments and related products.....	\$2.59	\$2.57	\$2.56	\$2.55	\$2.53	\$2.54	\$2.53	\$2.52	\$2.52	\$2.52	\$2.51	\$2.51	\$2.52	\$2.49	\$2.44
Engineering and scientific instruments.....		2.94	2.92	2.93	2.90	2.89	2.91	2.89	2.90	2.88	2.88	2.89	2.90	2.87	2.80
Mechanical measuring and control devices.....	2.60	2.59	2.56	2.56	2.55	2.56	2.57	2.55	2.55	2.55	2.54	2.52	2.54	2.51	2.45
Optical and ophthalmic goods.....	2.35	2.33	2.33	2.31	2.30	2.26	2.27	2.27	2.24	2.24	2.24	2.26	2.26	2.24	2.17
Surgical, medical, and dental equipment.....	2.25	2.23	2.21	2.21	2.19	2.20	2.17	2.17	2.16	2.18	2.17	2.17	2.17	2.13	2.08
Photographic equipment and supplies.....		2.93	2.92	2.88	2.85	2.90	2.88	2.89	2.89	2.86	2.87	2.85	2.86	2.81	2.75
Watches and clocks.....		2.17	2.17	2.18	2.14	2.14	2.16	2.13	2.14	2.13	2.11	2.12	2.10	2.11	2.10
Miscellaneous manufacturing industries.....	2.11	2.09	2.08	2.07	2.07	2.08	2.08	2.08	2.09	2.09	2.09	2.09	2.08	2.03	1.98
Jewelry, silverware, and plated ware.....	2.30	2.30	2.29	2.22	2.23	2.21	2.23	2.24	2.23	2.23	2.21	2.19	2.25	2.19	2.11
Toys, amusement, and sporting goods.....		1.89	1.89	1.90	1.89	1.90	1.90	1.90	1.92	1.93	1.93	1.93	1.90	1.88	1.83
Pens, pencils, office and art materials.....		2.02	2.00	2.02	2.00	2.00	2.01	2.00	2.00	1.98	1.99	1.98	1.95	1.95	1.88
Costume jewelry, buttons, and notions.....		1.92	1.92	1.92	1.92	1.91	1.92	1.93	1.94	1.91	1.92	1.92	1.90	1.86	1.81
Other manufacturing industries.....	2.27	2.26	2.25	2.24	2.22	2.23	2.23	2.22	2.23	2.23	2.22	2.21	2.22	2.17	2.11

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
	Average weekly earnings														
Manufacturing—Continued															
<i>Nondurable goods</i>															
Food and kindred products	\$99.46	\$98.40	\$97.88	\$98.53	\$97.23	\$98.06	\$98.23	\$98.40	\$96.56	\$96.08	\$95.68	\$95.91	\$96.59	\$94.48	\$91.84
Meat products	111.61	110.93	108.80	105.00	105.25	104.04	107.36	105.32	103.28	103.06	101.24	105.11	108.20	101.68	98.66
Dairy products	104.16	104.83	103.91	107.75	103.46	104.25	103.03	102.55	100.74	100.98	101.46	100.91	100.32	98.75	96.05
Canned and preserved food, except meats	---	72.89	78.58	81.16	79.18	77.60	74.26	78.11	76.84	75.03	75.11	74.54	73.83	75.65	73.72
Grain mill products	108.93	109.81	111.45	112.24	108.96	106.91	111.80	107.04	104.54	104.06	105.03	108.09	106.72	105.02	101.92
Bakery products	97.42	97.76	97.44	100.61	98.25	98.33	98.57	96.80	95.44	94.80	95.04	93.62	95.94	93.90	91.71
Sugar	---	103.27	101.95	113.71	112.02	112.06	111.64	111.07	107.33	105.52	98.49	101.58	100.58	104.43	101.67
Confectionery and related products	81.80	81.00	82.21	81.59	81.80	80.55	79.76	80.17	79.76	78.19	78.99	76.58	77.81	78.41	76.61
Beverages	110.00	109.73	108.93	111.93	111.65	114.51	109.74	108.95	108.94	107.73	106.92	104.01	106.13	107.18	103.31
Miscellaneous food and kindred products	95.85	97.18	97.86	97.58	95.76	96.18	95.53	96.64	94.47	94.92	96.50	94.95	96.34	93.70	91.38
Tobacco manufactures	79.60	74.11	73.85	73.10	75.47	80.13	81.78	80.17	80.78	75.60	69.19	72.69	74.86	74.11	71.41
Cigarettes	---	93.56	92.67	92.12	97.58	96.08	98.29	93.85	94.56	87.66	75.37	91.26	93.67	92.20	89.54
Cigars	---	65.57	64.08	60.76	63.96	62.54	64.41	66.57	67.40	65.67	66.50	57.73	63.24	60.48	57.82
Textile mill products	76.49	76.49	75.71	71.82	73.10	72.22	73.10	72.75	71.63	71.63	71.98	70.40	72.69	69.43	68.21
Cotton broad woven fabrics	79.49	79.12	77.96	72.90	73.68	72.80	73.68	73.92	72.38	72.21	73.08	72.31	73.78	68.30	66.75
Silk and synthetic broad woven fabrics	84.48	82.72	82.72	79.10	79.10	77.22	78.37	78.19	78.01	77.22	77.58	76.68	79.20	74.65	73.44
Weaving and finishing broad wools	80.26	77.74	78.47	74.86	77.23	78.73	78.91	77.56	76.41	74.19	75.26	75.30	75.81	75.40	77.17
Narrow fabrics and smallwares	75.48	74.66	73.71	72.62	73.62	72.98	73.51	73.51	73.16	71.91	72.57	69.74	73.46	71.34	70.93
Knitting	66.22	67.37	67.77	63.92	66.42	64.85	65.02	64.85	64.56	64.51	64.34	60.62	62.58	62.65	61.44
Finishing textiles, except wool, knit	85.97	86.00	83.78	77.61	79.10	77.74	83.42	82.45	80.48	82.64	83.66	78.74	84.44	79.76	78.07
Floor covering	---	80.78	79.90	77.41	76.80	74.62	74.26	73.71	74.39	74.88	74.64	72.18	77.65	75.18	73.04
Yarn and thread	70.31	70.56	69.64	66.00	67.39	66.91	67.07	66.17	65.04	64.88	65.37	64.40	66.33	63.59	62.22
Miscellaneous textile goods	85.08	85.28	85.49	85.08	84.46	83.43	86.28	83.42	81.60	81.39	80.99	80.79	83.38	80.95	78.91
	Average weekly hours														
Food and kindred products	41.1	41.0	41.3	41.4	41.2	41.2	41.1	41.0	40.4	40.2	40.2	40.3	41.1	40.9	41.0
Meat products	42.6	42.5	42.5	41.5	41.6	40.8	42.1	41.3	40.5	40.1	39.7	40.9	42.6	41.0	40.6
Dairy products	42.0	42.1	41.9	43.1	42.4	42.9	42.4	42.2	41.8	41.9	42.1	41.7	41.8	42.2	42.5
Canned and preserved food, except meats	---	37.0	38.9	39.4	39.2	38.8	36.4	38.1	37.3	36.6	37.0	36.9	37.1	38.4	38.8
Grain mill products	44.1	44.1	45.5	46.0	45.4	45.3	46.2	44.6	43.2	43.0	43.4	44.3	44.1	44.5	44.7
Bakery products	39.6	39.9	40.1	40.9	40.6	40.8	40.9	40.5	40.1	40.0	40.1	39.5	40.4	40.3	40.4
Sugar	---	44.9	43.2	41.5	41.8	41.2	41.5	41.6	40.2	40.9	40.2	42.5	44.7	42.8	42.9
Confectionery and related products	40.1	39.9	40.3	39.8	39.9	39.1	39.1	39.3	39.1	38.9	39.3	38.1	39.7	39.8	39.9
Beverages	40.0	39.9	39.9	41.0	41.2	42.1	41.1	40.5	40.2	39.9	39.6	39.1	39.6	40.6	40.2
Miscellaneous food, kindred products	42.6	43.0	43.3	42.8	42.0	42.0	41.9	42.2	41.8	42.0	42.7	42.2	43.2	42.4	42.7
Tobacco manufactures	40.2	38.2	40.8	39.3	38.9	38.9	39.7	39.3	39.6	37.8	35.3	36.9	39.4	38.6	38.6
Cigarettes	---	38.5	39.1	39.2	41.0	40.2	41.3	39.6	39.9	37.3	31.8	39.0	40.2	39.4	39.1
Cigars	---	38.8	38.6	36.6	38.3	37.9	38.8	40.1	40.6	39.8	40.3	35.2	38.8	37.8	37.3
Textile mill products	41.8	41.8	41.6	39.9	41.3	40.8	41.3	41.1	40.7	40.7	40.9	40.0	41.3	40.6	40.6
Cotton broad woven fabrics	43.2	43.0	42.6	40.5	42.1	41.6	42.1	42.0	41.6	41.5	42.0	41.8	42.4	40.9	40.7
Silk and synthetic broad woven fabrics	44.7	44.0	44.0	42.3	43.7	42.9	43.3	43.2	43.1	42.9	43.1	42.6	44.0	42.9	42.7
Weaving and finishing broad wools	41.8	40.7	41.3	39.4	41.3	42.1	42.2	41.7	41.3	41.0	40.9	40.7	41.2	41.2	42.4
Narrow fabrics and smallwares	41.7	40.8	40.5	39.9	40.9	41.0	41.3	41.3	41.1	40.4	41.0	39.4	41.5	41.0	41.0
Knitting	38.5	39.4	39.4	37.6	39.3	38.6	38.7	38.6	38.2	38.4	38.3	36.3	37.7	38.2	38.4
Finishing textiles, except wool, knit	43.2	43.0	42.1	39.8	41.2	40.7	43.0	42.5	41.7	42.6	42.9	40.8	43.3	42.2	42.2
Floor covering	---	43.9	43.9	42.3	42.2	41.0	40.8	40.5	41.1	41.6	41.7	40.1	42.9	42.0	41.5
Yarn and thread	42.1	42.0	41.7	40.0	41.6	41.3	41.4	41.1	40.4	40.3	40.6	40.0	41.2	40.5	40.4
Miscellaneous textile goods	41.5	41.6	41.7	41.3	41.4	41.3	42.5	41.5	40.8	40.9	40.7	40.6	41.9	41.3	41.1
	Average hourly earnings														
Food and kindred products	\$2.42	\$2.40	\$2.37	\$2.38	\$2.36	\$2.38	\$2.39	\$2.40	\$2.39	\$2.39	\$2.38	\$2.38	\$2.35	\$2.31	\$2.24
Meat products	2.62	2.61	2.56	2.53	2.53	2.55	2.55	2.55	2.52	2.57	2.55	2.57	2.54	2.48	2.43
Dairy products	2.48	2.49	2.48	2.50	2.44	2.43	2.43	2.43	2.41	2.41	2.41	2.42	2.40	2.34	2.26
Canned and preserved food, except meats	---	1.97	2.02	2.06	2.02	2.00	2.04	2.05	2.06	2.05	2.03	2.02	1.99	1.97	1.90
Grain mill products	2.47	2.49	2.45	2.44	2.40	2.36	2.42	2.40	2.42	2.42	2.42	2.44	2.42	2.36	2.28
Bakery products	2.46	2.45	2.43	2.46	2.42	2.41	2.41	2.39	2.38	2.37	2.37	2.37	2.36	2.33	2.27
Sugar	---	2.30	2.36	2.74	2.68	2.72	2.69	2.67	2.67	2.58	2.45	2.39	2.25	2.44	2.37
Confectionery and related products	2.04	2.03	2.04	2.05	2.05	2.06	2.04	2.04	2.04	2.01	2.01	2.01	1.96	1.97	1.92
Beverages	2.75	2.75	2.73	2.73	2.71	2.72	2.67	2.69	2.71	2.70	2.70	2.66	2.68	2.64	2.57
Miscellaneous food, kindred products	2.25	2.26	2.26	2.28	2.28	2.29	2.28	2.29	2.26	2.26	2.26	2.25	2.23	2.21	2.14
Tobacco manufactures	1.98	1.94	1.81	1.86	1.94	2.06	2.06	2.04	2.04	2.00	1.96	1.97	1.90	1.92	1.85
Cigarettes	---	2.43	2.37	2.35	2.38	2.39	2.38	2.37	2.37	2.35	2.37	2.34	2.33	2.34	2.29
Cigars	---	1.69	1.66	1.66	1.67	1.65	1.66	1.66	1.66	1.65	1.65	1.64	1.63	1.60	1.55
Textile mill products	1.83	1.83	1.82	1.80	1.77	1.77	1.77	1.77	1.76	1.76	1.76	1.76	1.76	1.71	1.68
Cotton broad woven fabrics	1.84	1.84	1.83	1.80	1.75	1.75	1.75	1.76	1.74	1.74	1.74	1.73	1.74	1.67	1.64
Silk and synthetic broad woven fabrics	---	1.89	1.88	1.87	1.81	1.80	1.81	1.81	1.81	1.80	1.80	1.80	1.80	1.74	1.72
Weaving and finishing broad wools	1.92	1.91	1.90	1.90	1.87	1.87	1.87	1.86	1.85	1.85	1.84	1.85	1.84	1.83	1.82
Narrow fabrics and smallwares	1.81	1.83	1.82	1.82	1.80	1.78	1.78	1.78	1.78	1.78	1.78	1.77	1.77	1.74	1.73
Knitting	1.72	1.72	1.72	1.70	1.69	1.68	1.68	1.68	1.68	1.68	1.68	1.67	1.66	1.64	1.60
Finishing textiles, except wool, knit	1.99	2.00	1.99	1.95	1.92	1.91	1.94	1.94	1.93	1.94	1.95	1.93	1.95	1.89	1.85
Floor covering	---	1.84	1.82	1.83	1.82	1.82	1.82	1.82	1.81	1.80	1.79	1.80	1.81	1.79	1.76
Yarn and thread	1.67	1.68	1.67	1.65	1.62	1.62	1.62	1.61	1.61	1.61	1.61	1.61	1.61	1.57	1.54
Miscellaneous textile goods	2.05	2.05	2.05	2.06	2.04	2.02	2.03	2.01	2.00	1.99	1.99	1.99	1.99	1.96	1.92

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
	Average weekly earnings														
Manufacturing—Continued															
<i>Non-durable goods—Continued</i>															
Apparel and related products.....	\$65.52	\$65.70	\$64.98	\$63.00	\$66.06	\$64.25	\$64.07	\$63.54	\$64.08	\$64.79	\$64.61	\$60.34	\$63.37	\$62.45	\$61.18
Men's and boys' suits and coats.....	78.91	78.17	75.33	74.55	77.28	74.62	76.08	76.65	75.60	75.87	76.08	73.78	77.70	74.87	72.54
Men's and boys' furnishings.....	57.99	57.90	57.29	55.90	57.46	56.63	57.00	55.94	55.94	56.54	56.54	56.24	53.00	55.72	53.53
Women's, misses', and juniors' outerwear.....	67.26	67.06	67.54	64.52	69.95	68.46	65.43	66.15	67.86	69.34	68.75	61.82	65.13	65.66	64.79
Women's and children's undergarments.....	59.33	61.83	61.66	59.17	59.89	58.77	57.96	58.84	58.68	59.50	58.00	53.77	58.24	57.04	55.48
Hats, caps, and millinery.....	59.04	66.39	68.57	66.43	71.99	70.86	67.71	66.98	67.32	73.13	74.84	66.01	65.68	65.33	65.52
Girls' and children's outerwear.....	59.04	59.24	59.07	55.10	58.84	60.47	60.15	58.44	56.80	57.72	59.73	53.27	55.69	55.96	54.72
Fur goods and miscellaneous apparel.....	70.87	71.24	66.40	67.16	65.15	67.16	65.88	63.72	66.07	64.44	62.61	67.12	64.80	64.98	
Miscellaneous fabricated textile products.....	74.09	73.52	69.27	72.00	72.15	68.61	70.46	70.10	70.67	68.78	68.42	68.08	71.37	67.61	64.64
Paper and allied products.....	109.82	109.82	111.89	112.06	111.71	110.51	109.65	108.46	107.53	106.85	107.10	106.09	108.36	105.90	102.00
Paper and pulp.....	120.70	120.41	123.64	125.65	123.60	124.43	121.28	120.01	120.01	119.14	119.41	118.43	119.24	117.75	112.92
Paperboard.....	123.23	122.54	127.52	128.86	126.78	127.92	123.32	121.44	121.55	122.27	122.27	121.44	122.54	118.90	114.48
Converted paper and paperboard products.....	98.00	96.88	97.39	97.58	97.44	96.05	97.16	95.87	95.17	94.71	94.99	94.71	98.18	93.79	90.64
Paperboard containers and boxes.....	102.61	103.03	104.00	102.55	102.85	99.84	101.34	99.48	98.36	96.59	96.59	95.58	98.47	96.51	94.24
Printing, publishing, and allied industries.....	117.39	114.82	116.10	116.10	114.55	113.37	113.66	114.35	113.96	113.58	112.01	110.75	113.98	110.69	108.01
Newspaper publishing and printing.....	120.66	117.98	118.95	120.01	117.12	116.84	117.21	118.22	116.16	115.02	113.44	111.74	118.67	112.58	110.35
Periodical publishing and printing.....	124.14	128.03	128.24	124.94	121.60	123.32	117.71	121.20	119.80	117.71	114.66	116.61	115.02	111.67	111.67
Books.....	106.39	108.14	109.33	109.41	105.86	108.36	106.49	107.38	105.78	104.90	103.97	105.01	104.49	99.85	99.85
Commercial printing.....	120.10	117.21	118.70	118.50	117.11	115.24	114.85	116.03	115.64	116.03	114.07	113.10	114.65	112.61	110.15
Bookbinding and related industries.....	91.65	89.71	90.40	88.70	88.46	88.62	88.69	89.24	89.86	90.09	88.32	88.31	90.02	88.01	85.91
Other publishing and printing industries.....	118.78	114.73	114.90	115.58	116.52	115.53	115.12	116.19	117.26	118.34	117.18	115.50	117.81	113.96	110.88
Average weekly hours															
Apparel and related products.....	36.4	36.3	36.1	35.0	36.7	36.3	36.2	35.9	36.0	36.4	36.3	33.9	35.8	36.1	36.2
Men's and boys' suits and coats.....	37.4	36.7	35.7	35.5	36.8	36.4	36.4	36.5	36.0	36.3	36.4	35.3	37.0	36.7	37.2
Men's and boys' furnishings.....	37.9	37.6	37.2	36.3	37.8	37.5	37.5	36.8	36.8	37.2	37.0	35.1	36.9	37.2	37.7
Women's, misses', and juniors' outerwear.....	33.8	33.7	33.6	32.1	34.8	34.4	33.9	34.1	34.8	35.2	34.9	31.7	33.4	34.2	34.1
Women's and children's undergarments.....	36.4	37.7	37.6	36.3	37.2	36.5	36.0	36.1	36.0	36.5	35.8	33.4	36.4	36.8	36.5
Hats, caps, and millinery.....	36.0	35.5	35.9	34.6	37.3	37.1	36.6	36.4	36.0	37.5	37.8	34.2	35.5	35.7	36.2
Girls' and children's outerwear.....	36.0	35.9	35.8	33.6	36.1	37.1	36.9	36.3	35.5	36.3	37.1	33.5	35.7	36.1	36.0
Fur goods and miscellaneous apparel.....	37.3	37.3	35.7	36.9	35.6	36.3	36.2	35.6	36.3	36.2	34.4	35.7	36.0	36.1	
Miscellaneous fabricated textile products.....	39.2	38.9	38.7	38.3	39.0	37.7	38.5	38.1	38.2	38.0	37.8	36.6	39.0	38.2	37.8
Paper and allied products.....	42.4	42.4	43.2	41.4	43.3	43.0	43.0	42.7	42.5	42.4	42.5	42.1	43.0	42.7	42.5
Paper and pulp.....	42.5	42.7	44.0	44.4	44.3	44.6	44.1	43.8	43.8	43.8	43.9	43.7	44.0	44.1	43.6
Paperboard.....	43.7	43.3	44.9	44.9	44.8	45.2	44.2	44.0	44.2	44.3	44.3	44.0	44.4	44.2	44.2
Converted paper and paperboard products.....	41.7	41.4	41.8	41.7	42.0	41.4	41.7	41.5	41.2	41.0	41.3	41.0	42.5	41.5	41.2
Paperboard containers and boxes.....	42.4	42.4	42.8	42.2	42.5	41.6	42.4	41.8	41.5	41.1	41.1	40.5	41.9	41.6	41.7
Printing, publishing, and allied industries.....	39.0	38.4	38.7	38.7	38.3	38.4	38.4	38.5	38.5	38.5	38.1	37.8	38.9	38.3	38.3
Newspaper publishing and printing.....	36.9	36.3	36.6	36.7	36.6	36.4	36.4	36.6	36.3	36.4	35.9	35.7	37.2	36.2	36.3
Periodical publishing and printing.....	40.7	41.3	41.5	41.1	41.0	40.4	40.7	39.5	40.4	39.8	39.5	39.0	39.8	39.8	39.6
Books.....	40.3	40.5	41.1	41.6	40.1	41.2	40.8	41.3	41.0	40.5	40.3	40.7	40.5	40.1	40.1
Commercial printing.....	39.9	39.2	39.7	39.5	39.3	38.8	38.8	39.2	39.2	39.2	38.8	38.6	39.4	39.1	39.2
Bookbinding and related industries.....	39.0	38.5	38.8	38.4	38.8	38.7	38.9	38.8	38.9	39.0	38.4	37.9	38.8	38.6	38.7
Other publishing and printing industries.....	39.2	38.5	38.3	38.4	39.1	38.9	38.5	38.6	38.7	38.8	38.8	38.5	39.4	38.5	38.5
Average hourly earnings															
Apparel and related products.....	\$1.80	\$1.81	\$1.80	\$1.80	\$1.80	\$1.77	\$1.77	\$1.77	\$1.78	\$1.78	\$1.78	\$1.78	\$1.77	\$1.73	\$1.69
Men's and boys' suits and coats.....	2.11	2.13	2.11	2.10	2.10	2.05	2.09	2.10	2.10	2.09	2.09	2.09	2.10	2.04	1.95
Men's and boys' furnishings.....	1.53	1.54	1.54	1.54	1.52	1.51	1.52	1.52	1.52	1.52	1.52	1.51	1.51	1.46	1.42
Women's, misses', and juniors' outerwear.....	1.99	1.99	2.01	2.01	2.01	1.99	1.93	1.94	1.95	1.97	1.97	1.95	1.95	1.92	1.90
Women's and children's undergarments.....	1.63	1.64	1.64	1.63	1.61	1.61	1.61	1.63	1.63	1.63	1.62	1.61	1.60	1.55	1.52
Hats, caps, and millinery.....	1.87	1.87	1.91	1.92	1.93	1.91	1.85	1.84	1.87	1.95	1.98	1.93	1.85	1.83	1.81
Girls' and children's outerwear.....	1.64	1.65	1.65	1.64	1.63	1.63	1.63	1.61	1.60	1.59	1.61	1.59	1.56	1.55	1.52
Fur goods and miscellaneous apparel.....	1.90	1.91	1.86	1.82	1.83	1.85	1.82	1.79	1.82	1.78	1.82	1.88	1.80	1.80	
Miscellaneous fabricated textile products.....	1.89	1.89	1.79	1.88	1.85	1.82	1.83	1.84	1.85	1.81	1.81	1.86	1.83	1.77	1.71
Paper and allied products.....	2.59	2.59	2.59	2.60	2.58	2.57	2.55	2.54	2.53	2.52	2.52	2.52	2.52	2.48	2.40
Paper and pulp.....	2.84	2.82	2.81	2.83	2.79	2.79	2.75	2.74	2.74	2.72	2.72	2.71	2.71	2.67	2.59
Paperboard.....	2.82	2.83	2.84	2.87	2.83	2.83	2.79	2.76	2.75	2.76	2.76	2.76	2.76	2.69	2.59
Converted paper and paperboard products.....	2.35	2.34	2.33	2.34	2.32	2.32	2.33	2.31	2.31	2.31	2.30	2.31	2.31	2.26	2.20
Paperboard containers and boxes.....	2.42	2.43	2.43	2.42	2.42	2.40	2.39	2.38	2.37	2.35	2.35	2.36	2.35	2.32	2.26
Printing, publishing, and allied industries.....	3.01	2.99	3.00	3.00	2.96	2.96	2.96	2.97	2.96	2.95	2.94	2.93	2.93	2.89	2.82
Newspaper publishing and printing.....	3.27	3.25	3.25	3.27	3.20	3.21	3.22	3.23	3.20	3.16	3.16	3.13	3.19	3.11	3.04
Periodical publishing and printing.....	3.05	3.05	3.09	3.04	3.01	3.03	2.98	3.00	3.01	2.98	2.94	2.93	2.89	2.82	2.82
Books.....	2.64	2.67	2.66	2.63	2.64	2.63	2.61	2.60	2.58	2.59	2.58	2.58	2.58	2.58	2.49
Commercial printing.....	3.01	2.99	2.99	3.00	2.98	2.97	2.96	2.96	2.95	2.96	2.94	2.93	2.91	2.88	2.81
Bookbinding and related industries.....	2.35	2.33	2.33	2.31	2.28	2.29	2.28	2.30	2.31	2.31	2.30	2.33	2.32	2.28	2.22
Other publishing and printing industries.....	3.03	2.98	3.00	3.01	2.98	2.97	2.99	3.01	3.03	3.05	3.02	3.00	2.99	2.96	2.88

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Manufacturing—Continued															
Average weekly earnings															
Nondurable goods—Continued															
Chemicals and allied products	\$118.43	\$118.01	\$117.45	\$120.41	\$116.47	\$116.20	\$116.34	\$116.20	\$114.40	\$114.40	\$113.99	\$113.85	\$115.51	\$112.88	\$110.24
Industrial chemicals	134.45	133.34	132.39	136.95	130.73	130.00	130.94	130.31	129.17	128.75	128.75	128.75	130.00	128.02	124.27
Plastics and synthetics, except glass	117.32	118.58	117.74	121.95	117.74	118.43	117.73	115.78	115.08	115.08	113.84	113.30	115.08	113.01	109.93
Drugs	104.75	104.49	103.83	103.83	101.63	100.58	102.21	102.11	101.81	101.15	102.11	101.40	101.75	100.53	98.40
Soap, cleaners, and toilet goods	107.47	108.00	108.40	110.03	108.00	107.47	109.61	107.60	107.06	106.39	106.39	106.27	107.83	106.08	103.89
Paints, varnishes, and allied products	108.92	108.39	108.65	110.54	108.50	110.88	109.25	110.62	110.77	108.47	107.01	104.78	106.45	105.22	101.59
Agricultural chemicals	94.43	95.11	95.11	96.60	94.66	94.92	93.91	100.76	95.64	97.61	95.05	93.48	94.79	93.53	88.39
Other chemical products	118.53	115.60	114.24	115.06	112.44	111.72	111.19	112.14	110.92	109.71	110.39	111.61	111.83	108.00	103.75
Petroleum refining and related industries	134.88	135.11	133.86	140.51	133.88	134.09	133.46	133.14	130.92	131.24	131.65	132.16	132.89	131.77	126.88
Petroleum refining	141.10	141.52	138.24	146.63	138.77	138.69	138.02	137.94	136.20	137.20	137.94	138.69	139.86	137.45	131.43
Other petroleum and coal products	108.99	110.66	117.48	118.88	116.10	117.39	116.87	114.62	108.71	107.02	105.34	102.82	103.48	108.28	107.75
Rubber and miscellaneous plastic products	108.52	106.40	106.50	108.26	107.26	103.22	105.25	104.74	102.25	101.59	101.09	101.25	104.67	100.78	100.04
Tires and inner tubes	150.58	147.20	151.20	154.50	152.60	139.06	145.61	141.88	132.99	130.80	127.79	130.54	141.19	131.30	130.47
Other rubber products	102.67	100.94	100.37	101.93	101.11	98.82	100.45	99.31	97.77	97.77	98.25	98.82	100.36	97.27	95.53
Miscellaneous plastic products	92.18	90.06	89.64	90.49	89.66	88.15	88.61	89.66	89.44	88.81	88.38	87.53	89.45	87.56	85.90
Leather and leather products	70.29	69.37	69.00	68.45	70.46	70.25	70.46	68.43	66.43	68.24	68.76	66.95	69.63	66.00	64.67
Leather tanning and finishing	96.12	95.65	94.77	95.76	95.30	93.73	95.58	95.12	93.79	91.60	90.97	90.35	94.16	91.13	87.42
Footwear, except rubber	67.48	66.23	65.15	65.87	68.17	68.50	68.00	66.02	63.54	66.02	66.50	65.25	67.12	63.44	62.66
Other leather products	69.27	68.71	69.45	64.94	67.58	65.80	67.23	65.10	64.77	66.33	66.47	63.53	66.64	64.30	62.58
Average weekly hours															
Chemicals and allied products	41.7	41.7	41.5	42.1	41.3	41.5	41.7	41.8	41.6	41.6	41.3	41.1	41.7	41.5	41.6
Industrial chemicals	41.9	41.8	41.5	42.4	41.5	41.4	41.7	41.5	41.4	41.4	41.4	41.4	41.8	41.7	41.7
Plastics and synthetics, except glass	42.7	42.5	42.2	43.4	42.2	42.6	42.5	42.1	42.0	42.0	41.7	41.5	42.0	41.7	41.8
Drugs	40.6	40.5	40.4	40.4	39.7	39.6	40.4	40.2	40.4	40.3	40.2	40.4	40.7	40.7	41.0
Soap, cleaners, and toilet goods	40.1	40.3	40.6	40.6	40.3	40.1	40.9	40.3	40.4	40.3	40.3	39.8	41.0	40.8	40.9
Paints, varnishes, and allied products	41.1	40.9	41.0	41.4	41.1	42.0	41.7	41.9	41.8	41.4	41.0	40.3	41.1	41.1	40.8
Agricultural chemicals	41.6	41.9	41.9	42.0	41.7	42.0	42.3	45.8	44.9	45.4	43.4	42.3	42.7	43.5	42.7
Other chemical products	42.7	42.5	42.0	42.3	41.8	42.0	41.8	42.0	41.7	41.4	41.5	41.8	42.2	41.7	41.5
Petroleum refining and related industries	41.5	41.7	41.7	43.1	42.1	42.3	42.1	42.0	41.3	41.4	41.4	41.3	41.4	41.7	41.6
Petroleum refining	41.5	41.5	40.9	42.5	41.3	41.4	41.2	41.3	40.9	41.2	41.3	41.4	41.5	41.4	41.2
Other petroleum and coal products	41.6	42.4	44.5	45.2	45.0	45.5	45.3	44.6	42.8	42.3	41.8	40.8	40.9	42.8	43.1
Rubber and miscellaneous plastic products	41.9	41.4	41.6	41.8	41.9	40.8	41.6	41.4	40.9	40.8	40.6	40.5	41.7	40.8	41.0
Tires and inner tubes	42.9	42.3	43.2	43.4	43.6	40.9	42.7	42.1	40.3	40.0	39.2	39.8	42.4	40.4	40.9
Other rubber products	41.4	40.7	40.8	41.1	41.1	40.5	41.0	40.7	40.4	40.4	40.6	40.5	41.3	40.7	41.0
Miscellaneous plastic products	41.9	41.5	41.5	41.7	41.7	41.0	41.6	41.7	41.6	41.5	41.3	40.9	41.8	41.3	41.1
Leather and leather products	38.2	37.7	37.5	37.2	38.5	38.6	38.5	37.6	36.5	37.7	38.2	37.4	38.9	37.5	37.6
Leather tanning and finishing	40.9	40.7	40.5	41.1	40.9	40.4	41.2	41.0	40.6	40.0	39.9	39.8	41.3	40.5	40.1
Footwear, except rubber	37.7	37.0	36.6	36.8	38.3	38.7	38.2	37.3	35.9	37.3	38.0	37.5	38.8	37.1	37.3
Other leather products	38.7	38.6	38.8	36.9	38.4	37.6	38.2	37.2	36.8	37.9	38.2	36.3	38.3	37.6	37.7
Average hourly earnings															
Chemicals and allied products	\$2.84	\$2.83	\$2.83	\$2.86	\$2.82	\$2.80	\$2.79	\$2.78	\$2.75	\$2.75	\$2.76	\$2.77	\$2.77	\$2.72	\$2.65
Industrial chemicals	3.21	3.19	3.19	3.23	3.15	3.14	3.14	3.14	3.12	3.11	3.11	3.11	3.11	3.07	2.98
Plastics and synthetics, except glass	2.79	2.79	2.79	2.81	2.79	2.78	2.77	2.75	2.74	2.74	2.73	2.73	2.74	2.71	2.63
Drugs	2.58	2.58	2.57	2.57	2.56	2.54	2.53	2.54	2.52	2.51	2.54	2.51	2.50	2.47	2.40
Soap, cleaners, and toilet goods	2.68	2.68	2.67	2.71	2.68	2.68	2.68	2.67	2.65	2.64	2.64	2.67	2.63	2.60	2.54
Paints, varnishes, and allied products	2.65	2.65	2.65	2.67	2.64	2.64	2.62	2.64	2.65	2.62	2.61	2.60	2.59	2.56	2.49
Agricultural chemicals	2.27	2.27	2.27	2.30	2.27	2.26	2.22	2.20	2.13	2.15	2.19	2.21	2.22	2.15	2.07
Other chemical products	2.75	2.72	2.72	2.72	2.69	2.66	2.66	2.67	2.66	2.65	2.66	2.67	2.65	2.59	2.50
Petroleum refining and related industries	3.25	3.24	3.21	3.26	3.18	3.17	3.17	3.17	3.17	3.17	3.18	3.20	3.21	3.16	3.05
Petroleum refining	3.40	3.41	3.38	3.45	3.36	3.35	3.35	3.34	3.33	3.33	3.34	3.35	3.37	3.32	3.19
Other petroleum and coal products	2.62	2.61	2.64	2.63	2.58	2.58	2.58	2.57	2.54	2.53	2.52	2.52	2.53	2.53	2.50
Rubber and miscellaneous plastic products	2.59	2.57	2.56	2.59	2.56	2.53	2.53	2.53	2.50	2.49	2.49	2.50	2.51	2.47	2.44
Tires and inner tubes	3.51	3.48	3.50	3.56	3.50	3.40	3.41	3.37	3.30	3.27	3.26	3.28	3.33	3.25	3.19
Other rubber products	2.48	2.48	2.46	2.48	2.46	2.44	2.45	2.44	2.42	2.42	2.42	2.44	2.43	2.39	2.33
Miscellaneous plastic products	2.20	2.17	2.16	2.17	2.15	2.15	2.13	2.15	2.15	2.14	2.14	2.14	2.14	2.12	2.09
Leather and leather products	1.84	1.84	1.84	1.84	1.83	1.82	1.83	1.82	1.82	1.81	1.80	1.79	1.79	1.76	1.72
Leather tanning and finishing	2.35	2.35	2.34	2.33	2.33	2.32	2.32	2.32	2.31	2.29	2.28	2.27	2.28	2.25	2.18
Footwear, except rubber	1.79	1.79	1.78	1.79	1.78	1.77	1.78	1.77	1.77	1.77	1.75	1.74	1.73	1.71	1.68
Other leather products	1.79	1.78	1.79	1.76	1.76	1.75	1.76	1.75	1.76	1.75	1.74	1.75	1.74	1.71	1.66

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ³	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Average weekly earnings															
Transportation and public utilities:															
Railroad transportation:															
Class I railroads ³					\$118.86	\$122.71	\$122.71	\$117.87	\$119.78	\$118.13	\$120.68	\$120.06	\$119.54	\$118.40	\$115.87
Local and interurban passenger transit:															
Local and suburban transportation	\$105.34	\$105.42	\$104.92	105.50	106.75	106.64	105.65	103.49	98.98	101.43	103.49	102.66	101.88	100.11	
Intercity and rural buslines	127.67	129.90	134.55	135.00	141.17	130.52	125.67	125.97	121.64	123.65	131.42	120.51	126.29	118.40	
Motor freight transportation and storage	122.72	124.36	124.07	124.79	123.09	122.93	122.47	120.77	119.19	118.49	115.95	120.67	117.31	113.30	
Pipeline transportation	148.04	145.31	143.44	143.03	141.59	137.42	141.36	141.25	141.92	141.75	142.88	141.51	138.38	132.76	
Communication:															
Telephone communication	109.47	108.12	109.10	104.52	104.52	104.40	104.28	101.79	102.70	102.56	102.18	103.36	102.40	98.95	
Telegraph communication ⁴	116.34	118.43	121.72	118.30	117.59	118.30	116.30	112.32	113.28	113.13	111.51	112.59	110.92	107.78	
Radio and television broadcasting	144.60	143.75	144.40	141.37	143.20	139.12	138.48	138.41	136.89	136.42	135.68	137.86	133.96	127.20	
Electric, gas, and sanitary services:															
Electric companies and systems	128.75	128.96	126.90	125.05	125.75	123.82	124.12	123.41	123.41	123.41	124.50	124.92	121.54	116.85	
Gas companies and systems	129.47	129.58	129.90	128.03	128.33	127.51	126.68	125.25	125.66	124.94	125.25	125.55	122.36	118.24	
Combined utility systems	121.18	121.64	118.08	116.40	115.90	114.52	114.21	113.68	114.37	114.77	116.48	117.16	113.57	108.53	
Water, steam, and sanitary systems	139.70	140.03	136.53	133.17	135.71	132.68	134.72	133.25	132.84	133.25	135.66	136.18	131.65	126.59	
-----	102.51	101.02	102.17	100.67	102.30	100.36	99.63	99.22	98.98	98.98	99.05	100.43	98.29	95.06	
Average weekly hours															
Transportation and public utilities:															
Railroad transportation:					42.3	44.3	44.3	42.4	43.4	42.8	43.1	43.5	43.0	42.9	42.6
Class I railroads ³					42.3	44.3	44.3	42.4	43.4	42.8	43.1	43.5	43.0	42.9	42.6
Local and interurban passenger transit:															
Local and suburban transportation	41.8	42.0	41.8	42.2	42.7	43.0	42.6	41.9	40.9	41.4	41.9	41.9	42.1	42.6	
Intercity and rural buslines	42.7	43.3	44.7	45.0	46.9	43.8	42.6	42.7	41.8	42.2	44.4	41.7	43.7	42.9	
Motor freight transportation and storage	41.6	42.3	42.2	42.3	42.3	42.1	41.8	41.5	41.1	41.0	40.4	41.9	41.6	41.5	
Pipeline transportation	41.7	41.4	41.1	41.1	41.4	40.3	41.7	41.3	40.9	40.5	41.9	40.9	40.7	40.6	
Communication:															
Telephone communication	41.0	40.8	41.8	40.2	40.2	40.0	39.8	39.3	39.5	39.6	39.3	39.6	40.0	39.9	
Telegraph communication ⁴	42.0	42.6	44.1	42.4	42.3	42.4	42.6	41.6	41.8	41.9	41.3	41.7	41.7	42.1	
Radio and television broadcasting	39.4	39.6	40.0	39.6	40.0	39.3	38.9	39.1	39.0	39.2	39.1	39.5	39.4	38.9	
Electric, gas, and sanitary services:															
Electric companies and systems	41.4	41.6	41.2	41.0	41.5	41.0	41.1	41.0	41.0	41.0	41.5	41.5	41.2	41.0	
Gas companies and systems	41.1	41.4	41.5	41.3	41.8	41.4	41.4	41.2	41.2	41.1	41.2	41.3	41.2	41.2	
Combined utility systems	41.5	41.8	41.0	40.7	41.1	40.9	40.5	40.6	40.7	40.7	41.6	41.4	41.0	40.8	
Water, steam, and sanitary systems	41.7	41.8	41.0	40.6	41.5	40.7	41.2	41.0	41.0	41.0	42.0	41.9	41.4	41.1	
-----	41.5	41.4	41.7	41.6	42.1	41.3	41.0	41.0	40.9	40.9	41.1	41.5	41.3	40.8	
Average hourly earnings															
Transportation and public utilities:															
Railroad transportation:					\$2.81	\$2.77	\$2.77	\$2.78	\$2.76	\$2.76	\$2.80	\$2.76	\$2.78	\$2.76	\$2.72
Class I railroads ³					\$2.81	\$2.77	\$2.77	\$2.78	\$2.76	\$2.76	\$2.80	\$2.76	\$2.78	\$2.76	\$2.72
Local and interurban passenger transit:															
Local and suburban transportation	\$2.52	\$2.51	\$2.51	2.50	2.50	2.48	2.48	2.47	2.42	2.45	2.47	2.45	2.42	2.35	
Intercity and rural buslines	2.99	3.00	3.01	3.00	3.01	2.98	2.95	2.95	2.91	2.93	2.96	2.89	2.89	2.76	
Motor freight transportation and storage	2.95	2.94	2.94	2.95	2.91	2.92	2.93	2.91	2.90	2.89	2.87	2.88	2.82	2.73	
Pipeline transportation	3.55	3.51	3.49	3.48	3.42	3.41	3.39	3.42	3.47	3.50	3.41	3.46	3.40	3.27	
Communication:															
Telephone communication	2.67	2.65	2.61	2.60	2.60	2.61	2.62	2.59	2.60	2.59	2.60	2.61	2.56	2.48	
Telegraph communication ⁴	2.77	2.78	2.76	2.79	2.78	2.79	2.73	2.70	2.71	2.70	2.70	2.70	2.66	2.56	
Radio and television broadcasting	3.67	3.63	3.61	3.57	3.58	3.54	3.56	3.54	3.51	3.48	3.47	3.49	3.40	3.27	
Electric, gas, and sanitary services:															
Electric companies and systems	3.11	3.10	3.08	3.05	3.03	3.02	3.02	3.01	3.01	3.01	3.00	3.01	2.95	2.85	
Gas companies and systems	3.15	3.13	3.13	3.10	3.07	3.08	3.06	3.04	3.05	3.04	3.04	3.04	2.97	2.87	
Combined utility systems	2.92	2.91	2.88	2.86	2.82	2.80	2.82	2.80	2.81	2.82	2.80	2.83	2.77	2.66	
Water, steam, and sanitary systems	3.35	3.35	3.33	3.28	3.27	3.26	3.27	3.25	3.24	3.25	3.23	3.25	3.18	3.08	
-----	2.47	2.44	2.45	2.42	2.43	2.43	2.43	2.42	2.42	2.42	2.41	2.42	2.38	2.33	

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
	Average weekly earnings														
Wholesale and retail trade ³	\$79.80	\$80.22	\$80.43	\$81.12	\$81.33	\$80.50	\$79.66	\$79.07	\$78.49	\$78.49	\$78.11	\$77.60	\$77.59	\$75.08	\$75.22
Wholesale trade	104.30	103.38	103.12	102.82	103.07	102.82	102.97	101.91	101.25	100.75	99.70	101.43	99.47	96.22	96.22
Motor vehicles and automotive equipment	97.86	97.63	97.44	96.83	96.83	96.60	96.56	95.72	95.91	94.85	95.26	96.79	94.66	92.82	92.82
Drugs, chemicals, and allied products	106.52	107.45	106.23	106.75	105.30	104.78	104.12	104.00	102.94	102.94	103.06	103.31	101.05	97.84	97.84
Dry goods and apparel	97.38	97.27	97.54	97.02	95.51	94.12	93.87	95.26	95.63	93.74	91.39	92.86	91.99	92.86	92.86
Groceries and related products	97.94	96.17	98.59	97.76	98.75	97.39	96.70	96.05	95.17	94.53	94.53	95.34	93.38	89.86	89.86
Electrical goods	118.72	114.81	111.50	111.11	111.11	110.70	111.65	111.10	109.33	107.33	106.80	109.74	103.83	101.59	101.59
Hardware, plumbing, and heating goods	98.98	99.47	98.74	99.06	97.77	98.90	98.49	97.44	97.03	96.15	96.22	97.34	95.41	92.97	92.97
Machinery, equipment, and supplies	113.85	113.03	112.34	111.79	111.92	110.29	111.66	109.34	109.08	108.54	106.92	109.74	108.24	104.14	104.14
Retail trade ³	69.55	70.31	70.50	71.43	71.62	70.50	69.75	69.19	68.64	68.82	68.26	68.40	68.04	65.95	65.95
General merchandise stores	56.62	56.95	57.63	58.10	57.75	57.27	56.44	55.60	55.42	55.60	55.09	56.68	54.48	52.59	52.59
Department stores	60.54	61.12	62.35	63.14	62.45	61.72	61.18	60.14	59.63	60.30	59.10	59.84	58.65	57.10	57.10
Limited price variety stores	42.21	42.21	42.08	42.51	42.51	41.21	40.30	40.25	40.06	39.99	39.42	40.66	39.98	38.91	38.91
Food stores	68.54	68.06	69.60	69.97	70.17	68.80	67.18	66.84	66.50	66.69	66.54	66.62	66.15	64.78	64.78
Grocery, meat, and vegetable stores	69.91	69.29	70.85	71.60	71.80	70.40	68.40	68.20	67.86	67.72	67.77	67.82	67.74	66.22	66.22
Apparel and accessories stores	55.28	55.95	55.94	56.54	56.70	55.75	54.94	54.43	53.12	54.58	54.61	56.32	54.70	53.63	53.63
Men's and boys' apparel stores	67.51	68.43	67.71	69.54	69.55	67.89	67.53	66.42	64.80	66.97	66.40	67.66	66.59	65.65	65.65
Women's ready-to-wear stores	49.83	49.98	49.62	49.85	50.22	49.83	49.62	49.10	48.47	48.29	49.47	50.75	48.62	47.46	47.46
Family clothing stores	54.78	54.78	54.62	55.27	55.73	53.74	54.10	53.44	52.96	54.08	53.46	54.95	53.94	52.65	52.65
Shoe stores	53.21	55.16	57.10	56.78	56.61	56.05	53.90	53.52	51.27	54.94	53.44	56.24	55.58	55.61	55.61
Average weekly hours															
Wholesale and retail trade ³	38.0	38.2	38.3	39.0	39.1	38.7	38.3	38.2	38.1	38.1	38.1	38.8	38.6	38.7	38.7
Wholesale trade	40.9	40.7	40.6	40.8	40.9	40.8	40.7	40.6	40.5	40.3	40.2	40.9	40.6	40.6	40.6
Motor vehicles and automotive equipment	42.0	41.9	42.0	42.1	42.1	42.0	41.8	41.8	41.7	41.6	41.6	41.9	41.7	42.0	42.0
Drugs, chemicals, and allied products	40.5	40.7	40.7	40.9	40.5	40.3	40.2	40.0	39.9	39.9	40.1	40.2	40.1	40.1	40.1
Dry goods and apparel	37.6	37.7	38.1	37.9	37.9	37.8	37.7	37.8	37.8	37.8	37.0	37.9	37.7	37.9	37.9
Groceries and related products	41.5	41.1	41.6	41.6	42.2	41.8	41.5	41.4	41.2	41.1	41.1	41.2	41.5	41.6	41.6
Electrical goods	42.4	41.3	40.4	40.7	41.0	41.0	41.2	41.3	41.1	40.2	40.3	41.1	40.4	40.8	40.8
Hardware, plumbing, and heating goods	40.4	40.6	40.3	40.6	40.4	40.7	40.7	40.6	40.6	40.4	40.6	40.9	40.6	40.6	40.6
Machinery, equipment, and supplies	41.1	41.1	41.0	41.1	41.3	41.0	40.9	40.8	40.7	40.5	40.5	41.1	41.0	41.0	41.0
Retail trade ³	36.8	37.2	37.3	38.2	38.3	37.7	37.3	37.2	37.1	37.2	37.1	38.0	37.8	37.9	37.9
General merchandise stores	33.5	33.9	34.1	35.0	35.0	34.5	34.0	33.9	34.0	33.9	33.8	36.1	34.7	34.6	34.6
Department stores	32.9	33.4	33.7	34.5	34.5	34.1	33.8	33.6	33.5	33.5	33.2	35.2	34.1	34.4	34.4
Limited price variety stores	31.5	31.5	31.4	32.7	32.7	31.7	31.0	31.2	31.3	31.0	30.8	33.6	32.5	32.7	32.7
Food stores	34.1	34.2	34.8	35.7	35.8	35.1	34.1	34.1	34.1	34.2	34.3	34.7	35.0	35.4	35.4
Grocery, meat, and vegetable stores	34.1	34.3	34.9	35.8	35.9	35.2	34.2	34.1	34.1	34.2	34.4	34.6	35.1	35.6	35.6
Apparel and accessories stores	33.3	33.5	33.7	34.9	35.0	34.2	33.5	33.6	33.2	33.9	33.5	35.2	34.4	34.6	34.6
Men's and boys' apparel stores	36.1	36.4	36.8	38.0	37.8	37.1	36.7	36.1	36.0	36.2	35.7	37.8	37.2	37.3	37.3
Women's ready-to-wear stores	33.0	33.1	33.3	34.4	34.4	33.9	33.3	33.4	33.2	33.3	33.2	35.0	34.0	33.9	33.9
Family clothing stores	33.0	33.2	33.1	33.7	34.4	33.8	33.6	33.4	33.1	33.8	33.0	35.0	34.8	35.1	35.1
Shoe stores	31.3	31.7	31.9	34.0	34.1	32.4	30.8	31.3	30.7	32.7	32.0	32.7	32.5	33.3	33.3
Average hourly earnings															
Wholesale and retail trade ³	\$2.10	\$2.10	\$2.10	\$2.08	\$2.08	\$2.08	\$2.08	\$2.07	\$2.06	\$2.06	\$2.05	\$2.00	\$2.01	\$1.94	\$1.94
Wholesale trade	2.55	2.54	2.54	2.52	2.52	2.52	2.53	2.51	2.50	2.50	2.48	2.48	2.45	2.37	2.37
Motor vehicles and automotive equipment	2.33	2.33	2.32	2.30	2.30	2.30	2.31	2.29	2.30	2.28	2.29	2.31	2.27	2.21	2.21
Drugs, chemicals, and allied products	2.63	2.64	2.61	2.61	2.60	2.60	2.59	2.60	2.58	2.58	2.57	2.57	2.52	2.44	2.44
Dry goods and apparel	2.59	2.58	2.56	2.56	2.52	2.49	2.49	2.52	2.53	2.48	2.47	2.45	2.44	2.45	2.45
Groceries and related products	2.36	2.34	2.37	2.35	2.34	2.33	2.33	2.32	2.31	2.30	2.30	2.27	2.25	2.16	2.16
Electrical goods	2.80	2.78	2.76	2.73	2.71	2.70	2.71	2.69	2.66	2.67	2.65	2.67	2.57	2.49	2.49
Hardware, plumbing, and heating goods	2.45	2.45	2.45	2.44	2.42	2.43	2.42	2.40	2.39	2.38	2.37	2.38	2.35	2.29	2.29
Machinery, equipment, and supplies	2.77	2.75	2.74	2.72	2.71	2.69	2.73	2.68	2.68	2.68	2.64	2.67	2.64	2.54	2.54
Retail trade ³	1.89	1.89	1.89	1.87	1.87	1.87	1.87	1.86	1.85	1.85	1.84	1.80	1.80	1.74	1.74
General merchandise stores	1.69	1.68	1.69	1.66	1.65	1.66	1.66	1.64	1.63	1.64	1.63	1.57	1.52	1.52	1.52
Department stores	1.84	1.83	1.85	1.83	1.81	1.81	1.81	1.79	1.78	1.80	1.78	1.70	1.72	1.66	1.66
Limited price variety stores	1.34	1.34	1.34	1.30	1.30	1.30	1.30	1.29	1.28	1.29	1.28	1.21	1.23	1.19	1.19
Food stores	2.01	1.99	2.00	1.96	1.96	1.96	1.97	1.96	1.95	1.95	1.94	1.92	1.89	1.83	1.83
Grocery, meat, and vegetable stores	2.05	2.02	2.03	2.00	2.00	2.00	2.00	2.00	1.99	1.98	1.97	1.96	1.93	1.86	1.86
Apparel and accessories stores	1.66	1.67	1.66	1.62	1.62	1.63	1.64	1.62	1.60	1.61	1.63	1.60	1.59	1.55	1.55
Men's and boys' apparel stores	1.87	1.88	1.84	1.83	1.84	1.83	1.84	1.84	1.80	1.85	1.86	1.79	1.79	1.76	1.76
Women's ready-to-wear stores	1.51	1.51	1.49	1.45	1.46	1.47	1.49	1.47	1.46	1.45	1.49	1.45	1.43	1.40	1.40
Family clothing stores	1.66	1.65	1.65	1.64	1.62	1.59	1.61	1.60	1.60	1.60	1.62	1.57	1.55	1.50	1.50
Shoe stores	1.70	1.74	1.79	1.67	1.66	1.73	1.75	1.71	1.67	1.68	1.67	1.72	1.71	1.67	1.67

See footnotes at end of table.

TABLE C-1. Gross hours and earnings of production workers,¹ by industry—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
	Average weekly earnings														
Wholesale and retail trade ⁴ —Continued															
Retail trade ⁴ —Continued															
Furniture and appliance stores.....		\$87.02	\$86.62	\$86.00	\$86.46	\$85.86	\$84.63	\$84.42	\$83.81	\$83.62	\$83.42	\$83.81	\$87.15	\$82.62	\$80.75
Other retail trade.....		79.97	80.97	80.36	81.32	81.51	80.73	80.34	79.73	79.13	78.31	78.12	79.27	78.25	75.76
Motor vehicle dealers.....		98.33	99.43	98.10	100.97	102.31	102.75	101.87	99.88	98.11	95.92	95.27	97.01	97.01	93.08
Other vehicle and accessory dealers.....		85.50	85.02	84.97	86.83	88.80	86.88	85.22	84.10	83.47	83.03	84.78	84.55	82.53	80.08
Drug stores.....		60.33	60.14	61.35	61.75	61.59	60.06	59.79	59.26	59.62	59.95	59.95	60.02	58.93	57.41
Finance, insurance, and real estate:															
Banking.....		77.58	77.21	76.43	76.50	76.88	75.89	76.26	76.30	76.47	77.46	76.70	76.13	74.97	72.17
Security dealers and exchanges ⁶		121.78	122.12	118.72	119.04	118.64	118.30	122.50	122.94	121.23	123.41	121.82	127.42	121.53	117.08
Insurance carriers ⁶		93.21	92.60	92.15	92.15	91.94	91.92	91.97	91.55	91.49	92.06	91.29	97.60	96.21	93.45
Life insurance ⁶		92.99	92.72	92.61	92.68	92.64	92.70	93.10	92.08	92.15	92.66	92.54	103.38	101.59	99.08
Accident and health insurance.....		81.87	81.87	80.63	81.03	80.40	80.23	81.03	81.01	81.59	80.71	81.39	83.52	82.24	78.37
Fire, marine, and casualty insurance ⁶		96.05	94.92	94.23	94.15	93.99	93.87	93.27	93.49	93.17	94.40	92.67	92.85	91.92	88.60
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels ⁷		49.26	49.53	48.26	47.67	48.34	48.00	49.02	48.89	48.36	48.09	48.11	47.86	47.58	46.14
Personal services:															
Laundries, cleaning and dyeing plants ⁸		56.36	57.48	56.21	55.73	55.73	56.16	56.59	55.48	54.81	54.00	53.58	52.13	51.87	50.57
Motion pictures:															
Motion picture filming and distributing.....		139.09	140.35	130.79	142.85	136.80	138.45	132.76	132.92	130.88	131.20	131.60	135.13	131.55	123.30
	Average weekly hours														
Wholesale and retail trade ⁴ —Continued															
Retail trade ⁴ —Continued															
Furniture and appliance stores.....		40.1	40.1	40.0	40.4	40.5	40.3	40.2	40.1	40.2	40.3	40.1	41.5	40.7	41.2
Other retail trade.....		40.8	41.1	41.0	41.7	41.8	41.4	41.2	41.1	41.0	41.0	40.9	41.5	41.4	41.4
Motor vehicle dealers.....		43.7	43.8	43.6	43.9	44.1	44.1	44.1	44.0	43.8	43.6	43.7	43.7	43.7	43.7
Other vehicle and accessory dealers.....		43.4	43.6	43.8	44.3	44.4	44.1	43.7	43.8	43.7	43.7	43.7	44.5	43.9	44.0
Drug stores.....		35.7	35.8	36.3	37.2	37.1	36.4	35.8	35.7	35.7	35.9	35.9	36.6	36.6	36.8
Finance, insurance, and real estate:															
Banking.....		37.3	37.3	37.1	37.5	37.5	37.2	37.2	37.4	37.3	37.6	37.6	37.5	37.3	37.2
Security dealers and exchanges.....															
Insurance carriers.....															
Life insurance.....															
Accident and health insurance.....															
Fire, marine, and casualty insurance.....															
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels ⁷		37.6	38.1	38.0	39.4	39.3	38.4	38.6	38.8	39.0	39.1	38.8	38.6	39.0	39.1
Personal services:															
Laundries, cleaning and dyeing plants ⁸		38.6	39.1	38.5	38.7	38.7	39.0	39.3	38.8	38.6	38.3	38.0	38.9	39.0	38.9
Motion pictures:															
Motion picture filming and distributing.....															
	Average hourly earnings														
Wholesale and retail trade ⁴ —Continued															
Retail trade ⁴ —Continued															
Furniture and appliance stores.....		\$2.17	\$2.16	\$2.15	\$2.14	\$2.12	\$2.10	\$2.10	\$2.09	\$2.08	\$2.07	\$2.09	\$2.10	\$2.03	\$1.96
Other retail trade.....		1.96	1.97	1.96	1.95	1.95	1.95	1.95	1.94	1.93	1.91	1.91	1.91	1.89	1.83
Motor vehicle dealers.....		2.25	2.27	2.25	2.30	2.32	2.33	2.31	2.27	2.24	2.20	2.18	2.22	2.22	2.13
Other vehicle and accessory dealers.....		1.97	1.95	1.94	1.96	2.00	1.97	1.95	1.92	1.91	1.90	1.94	1.90	1.88	1.82
Drug stores.....		1.69	1.68	1.69	1.66	1.66	1.65	1.67	1.66	1.67	1.67	1.67	1.64	1.61	1.56
Finance, insurance, and real estate:															
Banking.....		2.08	2.07	2.06	2.04	2.05	2.04	2.05	2.04	2.05	2.06	2.04	2.03	2.01	1.94
Security dealers and exchanges.....															
Insurance carriers.....															
Life insurance.....															
Accident and health insurance.....															
Fire, marine, and casualty insurance.....															
Services and miscellaneous:															
Hotels and lodging places:															
Hotels, tourist courts, and motels ⁷		1.31	1.30	1.27	1.21	1.23	1.25	1.27	1.26	1.24	1.23	1.24	1.24	1.22	1.18
Personal services:															
Laundries, cleaning and dyeing plants ⁸		1.46	1.47	1.46	1.44	1.44	1.44	1.44	1.43	1.42	1.41	1.41	1.34	1.33	1.30
Motion pictures:															
Motion picture filming and distributing.....															

¹ For comparability of data with those published in issues prior to January 1965, see footnote 1, table A-2. For employees covered, see footnote 1, table A-3. ² Preliminary.

³ Based upon monthly data summarized in the M-300 report by the Interstate Commerce Commission, which relate to all employees who received pay during the month, except executives, officials, and staff assistants (ICC Group I).

⁴ Data relate to nonsupervisory employees except messengers.

⁵ Excludes eating and drinking places.

⁶ Beginning January 1964, data exclude earnings of nonoffice salesmen and are not necessarily comparable with series for prior years.

⁷ Money payments only, additional value of board, room, uniforms, and tips not included.

⁸ Beginning January 1964, data relate to nonsupervisory workers and are not comparable with the production worker levels of prior years.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics for all series except that for Class 1 railroads. (See footnote 3.)

TABLE C-2. Average weekly hours, seasonally adjusted, of production workers in selected industries¹

Revised series; see box, p. 220.

Industry division and group	1964												1963
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.
Mining.....	42.3	42.3	41.9	41.0	41.6	41.8	41.5	41.7	41.5	41.6	41.6	41.5	41.8
Contract construction.....	39.2	37.7	37.1	35.6	37.0	36.8	37.3	37.3	37.2	37.4	37.6	35.2	37.4
Manufacturing.....	41.1	40.9	40.5	40.5	40.8	40.6	40.6	40.6	40.7	40.6	40.7	40.2	40.7
Durable goods.....	41.9	41.6	41.2	41.4	41.5	41.3	41.4	41.3	41.4	41.2	41.3	41.1	41.3
Ordinance and accessories.....	40.8	40.4	40.6	40.0	40.4	40.4	40.6	40.2	40.3	40.3	40.3	40.7	40.9
Lumber and wood products, except furniture.....	40.7	39.9	39.7	39.4	40.4	40.3	39.9	40.2	40.2	40.3	40.2	39.1	40.6
Furniture and fixtures.....	41.8	41.6	41.2	40.5	41.2	41.0	41.1	41.2	41.2	41.2	41.3	40.1	41.2
Stone, clay, and glass products.....	42.2	41.5	41.5	41.1	41.3	41.5	41.4	41.6	41.7	41.6	41.7	40.8	41.5
Primary metal industries.....	42.0	42.1	41.9	42.8	42.2	41.5	41.5	41.5	41.2	41.4	41.2	41.2	41.1
Fabricated metal products.....	42.1	42.0	41.4	41.3	41.7	41.6	41.4	41.7	41.8	41.6	41.8	41.5	41.7
Machinery.....	42.8	42.8	42.0	42.0	42.5	42.4	42.4	42.3	42.2	42.4	42.4	41.8	42.2
Electrical equipment and supplies.....	40.8	40.9	40.7	40.3	40.6	40.6	40.3	40.4	40.5	40.4	40.4	40.2	40.4
Transportation equipment.....	43.3	41.6	40.5	42.3	42.6	41.7	42.6	41.9	42.1	41.8	42.0	41.9	42.0
Instruments and related products.....	41.5	41.2	40.9	40.9	41.0	41.0	40.9	40.8	40.7	40.7	40.8	40.1	40.8
Miscellaneous manufacturing industries.....	39.7	39.7	39.7	39.1	40.0	39.8	39.5	39.5	39.8	39.7	39.6	38.7	39.6
Nondurable goods.....	39.8	39.9	39.9	39.4	39.7	39.5	39.6	39.7	39.8	39.7	39.8	39.1	39.7
Food and kindred products.....	41.0	40.9	41.0	40.7	40.8	40.6	40.9	41.0	41.1	40.8	40.9	40.8	41.0
Tobacco manufactures.....	39.3	38.4	39.3	37.0	38.4	39.6	39.0	39.7	39.9	39.4	37.3	37.8	38.5
Textile mill products.....	41.6	41.4	41.4	40.0	41.2	40.8	40.9	41.0	41.0	40.9	41.2	40.7	41.1
Apparel and related products.....	36.7	36.4	36.2	34.9	35.9	36.0	36.0	36.0	36.2	36.1	36.4	34.7	36.1
Paper and allied products.....	42.1	42.4	42.9	42.7	43.0	42.9	42.7	42.9	42.8	42.7	42.9	42.6	42.7
Printing, publishing, and allied industries.....	38.6	38.4	38.6	38.5	38.6	38.4	38.4	38.5	38.7	38.4	38.3	38.1	38.5
Chemicals and allied products.....	41.5	41.7	41.6	42.1	41.3	41.4	41.4	41.6	41.6	41.6	41.5	41.3	41.5
Petroleum refining and related industries.....	41.8	41.7	41.6	42.5	42.1	41.6	41.6	41.9	41.6	42.1	42.3	41.3	41.7
Rubber and miscellaneous plastic products.....	41.4	41.4	41.6	41.3	41.8	40.7	41.2	41.4	41.2	41.2	41.1	40.9	41.2
Leather and leather products.....	37.4	38.1	38.5	37.7	37.9	37.9	37.9	38.1	37.8	37.8	37.9	36.6	38.1
Wholesale and retail trade ³	-----	38.3	38.4	38.2	38.5	38.6	38.4	38.4	38.4	38.4	38.4	38.4	38.6
Wholesale trade.....	-----	40.9	40.6	40.5	40.7	40.7	40.7	40.7	40.7	40.7	40.6	40.4	40.7
Retail trade ⁴	-----	37.2	37.5	37.3	37.5	37.7	37.5	37.5	37.4	37.4	37.5	37.3	37.7

¹ For employees covered, see footnote 1, table A-3.² Preliminary.³ Excludes eating and drinking places.NOTE: The seasonal adjustment method used is described in "New Seasonal Adjustment Factors for Labor Force Components," *Monthly Labor Review*, August 1960, pp. 822-827.TABLE C-3. Average hourly earnings excluding overtime of production workers in manufacturing, by major industry group¹

Revised series; see box, p. 220.

Major industry group	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Manufacturing.....	\$2.47	\$2.46	\$2.43	\$2.46	\$2.43	\$2.44	\$2.44	\$2.44	\$2.44	\$2.43	\$2.43	\$2.43	\$2.42	\$2.37	\$2.31
Durable goods.....	2.64	2.62	2.59	2.63	2.60	2.61	2.61	2.61	2.61	2.60	2.60	2.60	2.59	2.54	2.48
Ordinance and accessories.....	2.98	2.98	2.96	2.96	2.95	2.95	2.94	2.93	2.91	2.92	2.91	2.90	2.88	2.82	2.75
Lumber and wood products, except furniture.....	2.05	2.09	2.11	2.09	2.08	2.06	2.05	2.03	1.99	2.00	2.00	2.00	2.00	1.96	1.91
Furniture and fixtures.....	1.98	1.98	1.98	1.96	1.97	1.96	1.95	1.97	1.96	1.96	1.96	1.96	1.95	1.93	1.89
Stone, clay, and glass products.....	2.46	2.45	2.46	2.44	2.43	2.43	2.42	2.42	2.41	2.41	2.41	2.41	2.40	2.37	2.31
Primary metal industries.....	3.01	3.00	3.04	2.99	2.99	2.99	2.99	2.99	2.97	2.97	2.97	2.96	2.96	2.95	2.90
Fabricated metal products.....	2.58	2.54	2.59	2.57	2.57	2.58	2.58	2.58	2.56	2.56	2.56	2.56	2.55	2.51	2.46
Machinery.....	2.76	2.75	2.76	2.74	2.75	2.75	2.75	2.74	2.74	2.73	2.73	2.73	2.72	2.68	2.61
Electrical equipment and supplies.....	2.45	2.45	2.45	2.44	2.46	2.46	2.46	2.45	2.45	2.45	2.44	2.44	2.44	2.40	2.34
Transportation equipment.....	3.00	2.94	2.99	2.97	2.97	2.96	2.96	2.95	2.95	2.95	2.95	2.95	2.95	2.89	2.80
Instruments and related products.....	2.48	2.47	2.47	2.46	2.47	2.46	2.46	2.45	2.45	2.45	2.45	2.45	2.44	2.42	2.37
Miscellaneous manufacturing industries.....	2.02	2.01	2.01	2.00	2.02	2.02	2.02	2.03	2.03	2.03	2.03	2.03	2.02	1.98	1.92
Nondurable goods.....	2.24	2.23	2.22	2.23	2.20	2.21	2.21	2.21	2.21	2.20	2.20	2.21	2.19	2.15	2.09
Food and kindred products.....	2.30	2.27	2.26	2.25	2.27	2.29	2.30	2.30	2.30	2.29	2.29	2.29	2.26	2.22	2.15
Tobacco manufactures.....	1.91	1.78	1.82	1.89	2.00	2.00	2.00	1.99	1.97	1.92	1.95	1.87	1.89	1.83	1.83
Textile mill products.....	1.74	1.74	1.72	1.70	1.70	1.70	1.70	1.70	1.69	1.69	1.69	1.69	1.69	1.65	1.62
Apparel and related products.....	1.77	1.76	1.77	1.76	1.75	1.74	1.74	1.74	1.75	1.75	1.75	1.74	1.74	1.70	1.66
Paper and allied products.....	2.45	2.44	2.45	2.43	2.44	2.42	2.41	2.41	2.40	2.40	2.40	2.39	2.36	2.29	2.29
Printing, publishing, and allied industries.....	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Chemicals and allied products.....	2.74	2.74	2.75	2.73	2.72	2.71	2.68	2.66	2.66	2.66	2.68	2.69	2.69	2.64	2.57
Petroleum refining and related industries.....	3.14	3.12	3.14	3.08	3.06	3.07	3.08	3.09	3.10	3.11	3.12	3.13	3.13	3.07	2.97
Rubber and miscellaneous plastic products.....	2.46	2.44	2.47	2.44	2.44	2.43	2.42	2.41	2.41	2.41	2.42	2.42	2.42	2.38	2.35
Leather and leather products.....	1.80	1.79	1.80	1.78	1.77	1.79	1.79	1.79	1.78	1.76	1.75	1.75	1.75	1.73	1.69

¹ For comparability of data with those published in issues prior to January 1965, see footnote 1, table A-2. For employees covered, see footnote 1, table A-3. Average hourly earnings excluding overtime are derived by assuming that overtime hours are paid for at the rate of time and one-half.² Preliminary.³ Not available because average overtime rates are significantly above time and one-half. Inclusion of data for the group in the nondurable goods total has little effect.

TABLE C-4. Average weekly overtime hours of production workers in manufacturing, by industry ¹

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Manufacturing.....	3.5	3.3	3.3	3.5	3.3	3.0	3.2	3.0	2.9	2.8	2.7	2.7	3.1	2.8	2.8
Durable goods.....	3.8	3.5	3.4	3.7	3.5	3.1	3.4	3.2	3.1	2.9	2.8	2.9	3.3	2.9	2.8
Nondurable goods.....	3.1	3.0	3.1	3.2	3.1	2.9	2.9	2.8	2.7	2.6	2.6	2.5	2.8	2.7	2.7
<i>Durable goods</i>															
Ordnance and accessories.....		1.9	2.0	2.0	1.8	1.6	1.9	1.7	1.7	1.5	1.6	1.9	2.6	2.4	2.2
Ammunition, except for small arms.....		1.9	2.0	1.7	1.6	1.6	1.7	1.5	1.7	1.4	1.6	2.2	2.8	2.5	1.9
Sighting and fire control equipment.....		1.0	1.2	1.2	1.7	1.6	2.2	.9	.9	1.1	1.3	1.1	1.7	1.6	2.9
Other ordnance and accessories.....		2.2	2.0	2.6	2.1	1.6	2.4	2.2	1.9	1.7	1.7	1.5	2.3	2.3	2.5
Lumber and wood products, except furniture.....		3.3	3.5	3.4	4.0	3.4	3.5	3.5	3.2	3.2	3.1	2.9	3.2	3.4	3.2
Sawmills and planing mills.....		3.3	3.5	3.3	3.8	3.5	3.5	3.4	3.1	3.1	3.0	2.7	3.2	3.4	3.1
Millwork, plywood, and related products.....															
Wooden containers.....		3.6	3.6	3.5	4.0	3.3	3.9	3.9	3.6	3.8	3.7	3.1	3.6	3.5	3.3
Miscellaneous wood products.....		2.7	3.0	2.4	3.3	3.3	3.2	3.0	2.8	2.4	2.1	2.1	2.6	3.0	2.9
Furniture and fixtures.....		3.1	3.3	3.3	3.8	3.2	3.4	3.2	3.1	2.8	2.7	2.6	2.8	2.9	2.9
Household furniture.....		3.8	3.8	3.5	3.6	3.0	3.2	2.8	2.9	2.9	2.8	2.5	3.6	3.0	2.9
Office furniture.....		4.0	4.0	3.5	3.6	3.0	3.3	2.9	3.1	3.1	3.0	2.8	4.0	3.2	3.0
Partitions; office and store fixtures.....		2.9	2.8	3.2	3.3	2.5	2.4	2.1	1.7	1.9	2.0	1.7	2.5	2.2	2.1
Other furniture and fixtures.....		2.8	3.5	3.0	3.2	3.0	2.8	1.4	1.9	2.0	1.5	1.3	1.8	2.2	3.0
Stone, clay, and glass products.....		3.5	3.8	4.0	4.2	3.1	3.0	2.9	2.5	2.5	2.3	2.1	3.0	2.8	2.6
Flat glass.....		4.0	4.2	4.1	4.3	4.1	4.0	4.0	3.6	3.3	3.2	3.0	3.3	3.6	3.4
Glass and glassware, pressed or blown.....		6.0	4.0	5.2	3.4	2.9	3.2	3.4	2.5	2.7	3.4	3.4	3.4	2.4	1.7
Cement, hydraulic.....		3.6	3.9	4.0	3.9	3.8	3.2	3.5	3.4	3.5	3.4	3.4	3.0	3.3	3.5
Structural clay products.....		2.2	2.2	2.4	2.4	2.3	2.3	2.1	1.9	2.0	1.7	1.9	1.8	2.0	1.8
Pottery and related products.....		3.3	3.5	3.7	3.5	3.6	3.6	3.5	3.5	3.0	2.7	2.4	2.8	3.2	2.9
Concrete, gypsum, and plaster products.....		2.6	2.5	1.9	2.0	2.1	2.1	2.2	2.0	1.8	1.7	1.7	2.3	2.0	1.8
Other stone and mineral products.....		5.7	6.4	5.5	6.7	6.4	6.4	6.2	5.4	4.4	4.1	3.5	4.3	5.6	5.4
Primary metal industries.....		3.2	3.3	3.6	3.7	3.2	3.4	3.6	3.2	3.0	2.9	2.8	3.0	3.0	2.7
Blast furnace and basic steel products.....		3.4	3.4	4.3	3.3	3.0	3.2	3.0	2.8	2.8	2.6	2.9	2.8	2.7	2.3
Iron and steel foundries.....		2.8	3.0	4.1	2.5	2.3	2.2	2.0	1.8	1.7	1.6	1.7	1.4	1.9	1.4
Nonferrous smelting and refining.....		4.2	4.3	4.9	4.7	4.4	5.1	4.7	4.7	4.6	4.5	4.7	4.7	3.7	2.9
Nonferrous rolling, drawing, and extruding.....		3.3	3.4	4.0	3.2	3.0	3.1	2.9	2.5	2.9	2.8	3.2	2.9	3.0	2.7
Nonferrous foundries.....		4.2	3.6	4.5	4.1	3.7	4.2	3.9	3.6	3.6	3.5	4.0	4.2	3.7	3.6
Miscellaneous primary metal industries.....		3.1	3.3	3.4	3.2	3.0	3.2	3.1	3.2	3.0	3.0	3.1	3.4	3.0	2.9
Fabricated metal products.....		4.6	4.4	4.1	4.0	3.4	4.1	3.8	4.0	3.7	3.4	3.6	3.8	3.3	3.2
Metal cans.....		3.7	3.5	3.8	3.8	3.4	3.5	3.2	3.1	2.9	2.8	2.9	3.3	3.0	2.9
Cutlery, handtools, and general hardware.....		3.2	3.3	4.1	5.2	4.8	4.2	3.6	3.5	3.0	3.3	4.1	3.0	3.4	3.5
Heating equipment and plumbing fixtures.....		2.9	2.9	3.7	3.7	2.9	3.0	3.2	3.2	2.5	2.7	3.0	3.4	2.7	2.5
Fabricated structural metal products.....		2.4	2.8	2.3	2.7	2.5	2.4	2.2	1.8	1.8	1.7	1.9	2.1	2.1	1.9
Screw machine products, bolts, etc.....		3.5	3.4	3.5	3.5	3.3	3.2	2.7	2.6	2.5	2.3	2.2	3.0	2.8	2.5
Metal stampings.....		4.9	4.8	4.0	4.2	3.9	4.2	3.9	4.0	4.1	4.1	3.9	3.6	3.6	4.0
Coating, engraving, and allied services.....		5.1	4.2	5.5	4.9	4.1	4.4	4.4	4.2	3.5	3.6	3.9	4.4	3.7	3.5
Miscellaneous fabricated wire products.....		4.0	4.0	3.8	3.9	3.3	3.7	3.4	3.1	3.5	3.1	3.5	3.6	3.4	3.3
Miscellaneous fabricated metal products.....		3.4	3.4	3.1	3.4	3.0	3.1	3.0	2.8	2.9	2.7	2.6	3.1	3.0	3.0
Machinery.....		2.8	3.0	2.9	2.9	2.5	2.7	2.6	2.5	2.3	2.3	2.3	2.7	2.6	2.6
Engines and turbines.....		3.9	3.8	3.8	3.8	3.8	4.1	3.9	3.9	3.8	3.7	3.5	3.7	3.2	3.1
Farm machinery and equipment.....		3.4	2.5	3.1	3.2	3.8	3.5	3.3	2.6	2.4	2.7	2.4	3.2	2.5	2.2
Construction and related machinery.....		2.4	2.5	2.5	2.5	2.3	2.7	2.4	2.6	3.0	3.2	2.8	2.5	2.2	2.1
Metalworking machinery and equipment.....		3.6	3.4	3.5	3.5	3.4	3.9	3.7	4.0	3.6	3.1	3.2	3.1	2.7	2.6
Special industry machinery.....		5.6	5.5	5.1	5.3	5.7	6.3	6.4	6.4	6.4	6.2	5.6	5.6	4.8	4.7
General industrial machinery.....		4.5	4.4	4.1	4.0	3.9	4.1	3.9	3.7	3.8	3.6	3.5	4.2	3.5	3.5
Office, computing, and accounting machines.....		3.6	3.7	3.7	3.8	3.3	3.6	3.4	3.3	3.1	3.1	2.9	3.4	2.7	2.8
Service industry machines.....		2.6	2.5	2.4	1.9	1.9	1.8	1.4	1.3	1.3	1.4	1.2	1.9	1.7	1.5
Miscellaneous machinery.....		2.1	2.4	2.6	2.5	2.6	2.7	2.3	2.2	2.1	2.0	1.9	2.1	2.1	2.0
Electrical equipment and supplies.....		4.5	4.6	4.4	4.9	4.6	5.0	4.8	4.7	4.5	4.3	4.4	4.7	4.1	4.1
Electric distribution equipment.....		2.6	2.7	2.6	2.5	2.1	2.2	2.0	2.0	1.9	1.8	2.0	2.3	2.0	2.2
Electrical industrial apparatus.....		3.0	3.2	3.0	3.0	2.9	2.9	2.1	1.9	1.7	2.0	1.9	2.9	2.2	2.0
Household appliances.....		3.4	3.2	3.0	3.0	3.0	2.9	2.9	2.7	2.8	2.4	2.7	2.7	2.3	2.2
Electric lighting and wiring equipment.....		2.9	2.8	2.5	2.1	2.0	2.0	1.9	2.0	1.8	1.4	1.4	2.3	2.1	1.9
Radio and TV receiving sets.....		2.3	2.1	2.5	2.6	2.0	2.0	1.9	1.8	1.7	1.9	2.0	2.4	2.0	1.9
Communication equipment.....		1.8	2.2	2.0	2.1	1.9	1.2	1.3	1.2	1.2	1.3	1.5	1.7	1.7	1.9
Electronic components and accessories.....		2.8	2.9	2.7	2.3	1.6	2.3	1.8	1.8	1.7	1.6	1.8	2.1	1.9	2.5
Miscellaneous electrical equipment and supplies.....		2.4	2.3	2.3	2.4	1.8	2.0	1.8	2.0	1.8	1.8	2.0	1.7	1.8	2.0
Transportation equipment.....		1.9	2.7	3.3	2.2	1.9	2.2	2.3	2.3	2.0	2.6	3.2	3.5	2.6	3.2
Motor vehicles and equipment.....		4.1	3.4	4.8	4.1	3.6	4.1	3.6	3.6	3.0	3.2	3.6	4.6	3.6	3.5
Aircraft and parts.....		5.0	4.4	6.4	5.5	4.4	5.4	4.6	4.5	3.4	3.9	4.6	6.3	4.4	4.2
Ship and boat building and repairing.....		2.6	2.6	2.6	2.5	2.4	2.3	2.1	2.3	2.2	2.4	2.5	2.7	2.6	2.9
Railroad equipment.....		3.8	2.9	2.9	3.0	2.9	3.0	3.1	3.2	3.6	3.0	2.7	2.9	3.1	2.8
Other transportation equipment.....		3.8	2.0	2.5	2.3	2.6	2.9	2.8	3.0	2.4	2.4	1.9	2.1	2.1	2.0
Instruments and related products.....		2.5	3.9	3.5	3.5	2.8	3.8	3.8	3.2	2.9	2.4	2.3	3.0	3.1	2.5
Engineering and scientific instruments.....		3.0	2.9	2.7	2.6	2.2	2.4	2.3	2.3	2.1	2.1	2.1	2.5	2.4	2.4
Mechanical measuring and control devices.....		3.2	3.0	3.1	3.2	2.2	2.6	2.1	2.1	2.0	2.0	2.6	3.1	2.5	2.6
Optical and ophthalmic goods.....		3.0	2.9	2.5	2.5	2.2	2.4	2.3	2.3	2.3	2.3	2.1	2.3	2.3	2.2
Surgical, medical, and dental equipment.....		2.6	2.7	2.6	2.2	1.9	2.5	2.5	2.3	2.2	2.2	2.0	2.7	2.4	2.2
Photographic equipment and supplies.....		2.0	2.0	2.3	2.1	1.8	2.0	1.9	2.0	1.7	1.8	1.6	2.1	2.1	2.3
Watches and clocks.....		4.4	3.9	3.4	3.3	3.2	3.0	3.1	3.2	2.6	2.7	2.6	2.8	2.8	2.9
Miscellaneous.....		2.0	2.3	2.5	1.6	1.2	1.4	1.5	1.0	1.2	1.1	1.5	2.2	1.9	1.9

See footnotes at end of table.

TABLE C-4. Average weekly overtime hours of production workers in manufacturing, by industry¹—Continued

Revised series; see box, p. 220.

Industry	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
Manufacturing—Continued															
<i>Durable goods—Continued</i>															
Miscellaneous manufacturing industries.....	2.7	2.9	2.4	2.5	2.0	2.3	2.2	2.4	2.3	2.2	1.9	2.4	2.4	2.2	2.3
Jewelry, silverware, and plated ware.....	4.4	4.5	2.6	3.0	2.3	3.1	3.0	3.1	2.9	2.7	2.1	4.4	3.0	3.0	3.0
Toys, amusement and sporting goods.....	2.5	2.8	2.4	2.3	1.5	1.8	1.9	1.8	1.8	1.7	1.3	1.3	1.3	1.8	1.9
Pens, pencils, office and art materials.....	2.0	2.0	2.1	2.2	1.6	1.7	1.5	1.6	1.3	1.6	1.5	2.6	2.1	2.0	2.0
Costume jewelry, buttons, and notions.....	2.7	2.6	2.1	2.4	1.9	2.5	2.5	2.6	2.7	2.8	2.1	2.6	2.3	2.2	2.2
Other manufacturing industries.....	2.5	2.8	2.6	2.6	2.4	2.4	2.2	2.7	2.4	2.2	2.2	2.4	2.3	2.5	2.5
<i>Nondurable goods</i>															
Food and kindred products.....	3.8	3.8	4.2	3.8	3.8	3.8	3.6	3.2	3.1	3.2	3.3	3.4	3.4	3.4	3.4
Meat products.....	5.5	5.1	4.4	4.4	3.8	4.5	4.0	3.7	3.5	3.0	3.9	4.9	3.8	3.6	3.6
Dairy products.....	3.3	3.3	4.0	3.5	3.9	3.7	3.7	3.3	3.3	3.3	3.3	2.9	2.8	3.1	3.4
Canned and preserved food, except meats.....	2.3	2.8	3.7	3.0	3.0	2.5	2.4	2.0	2.0	2.3	2.1	2.0	2.4	2.6	2.6
Grain mill products.....	5.8	7.1	7.7	7.1	6.9	7.4	6.4	5.3	5.0	5.3	6.2	5.5	6.3	6.3	6.3
Bakery products.....	3.0	3.1	3.7	3.3	3.4	3.5	3.2	2.9	2.8	3.1	2.8	2.9	3.0	3.1	3.1
Sugar.....	4.3	3.7	4.7	3.5	3.5	2.9	2.8	2.4	3.1	3.3	4.3	2.9	3.6	3.7	3.7
Confectionery and related products.....	2.7	2.6	2.7	2.3	1.8	1.7	1.8	1.8	1.8	2.3	2.0	2.6	2.5	2.5	2.5
Beverages.....	2.6	2.8	3.6	3.5	4.3	3.8	3.4	3.1	3.0	2.8	2.3	2.6	3.1	2.8	2.8
Miscellaneous food and kindred products.....	4.5	4.4	4.3	4.0	3.7	3.7	3.9	3.7	3.7	4.3	4.2	3.9	3.9	3.9	3.9
Tobacco manufactures.....	1.1	1.6	1.7	1.9	2.3	2.2	1.7	2.1	1.3	1.2	.8	1.3	1.1	1.0	1.0
Cigarettes.....	.8	1.7	1.2	2.5	3.3	2.4	1.4	1.8	.5	.7	.5	1.2	1.2	.9	.9
Cigars.....	1.7	1.6	1.8	2.3	1.6	2.5	2.7	3.1	2.6	2.1	1.1	1.5	1.1	1.1	.9
Textile mill products.....	4.2	4.1	3.9	3.7	3.3	3.7	3.5	3.3	3.3	3.3	3.2	3.5	3.2	3.2	3.2
Cotton broad woven fabrics.....	5.0	4.6	5.1	4.1	3.6	4.2	4.3	3.8	3.7	4.0	4.0	4.0	3.4	3.4	3.4
Silk and synthetic broad woven fabrics.....	5.6	5.4	6.0	5.1	4.4	4.7	4.8	4.5	4.6	4.6	4.6	4.9	4.3	4.3	4.3
Weaving and finishing broad woollens.....	3.5	3.5	3.3	3.5	4.0	4.0	3.6	3.2	2.6	2.8	3.1	3.1	3.4	4.2	4.2
Narrow fabrics and smallwares.....	3.5	3.7	2.7	3.4	2.8	2.9	2.9	3.0	2.9	2.9	2.8	3.2	3.1	3.3	3.3
Knitting.....	2.5	2.7	2.0	2.5	2.2	2.2	2.0	2.0	2.0	1.8	1.4	1.7	2.0	2.2	2.2
Finishing textiles, except wool and knit.....	4.8	4.3	3.9	3.8	3.7	4.6	4.1	4.2	4.5	4.4	3.6	4.6	4.1	4.2	4.2
Floor covering.....	5.8	5.7	5.3	4.3	4.0	3.5	3.1	3.5	4.4	3.8	3.6	5.0	4.4	4.1	4.1
Yarn and thread.....	4.2	4.1	3.9	3.7	3.4	3.7	3.5	3.1	3.1	3.1	3.0	3.2	3.1	3.2	3.2
Miscellaneous textile goods.....	3.8	4.2	3.5	3.9	3.8	4.3	3.7	3.1	3.1	3.0	3.3	3.9	3.5	3.5	3.5
Apparel and related products.....	1.4	1.4	1.2	1.5	1.2	1.3	1.2	1.3	1.4	1.2	1.0	1.2	1.3	1.3	1.3
Men's and boys' suits and coats.....	1.1	1.1	.9	1.1	.5	1.0	1.0	1.0	1.1	1.1	.9	1.0	1.1	1.2	1.2
Men's and boys' furnishings.....	1.2	1.2	1.0	1.3	1.1	1.2	1.0	1.2	1.1	.9	.7	1.0	1.1	1.3	1.3
Women's, misses', juniors' outerwear.....	1.1	1.2	.9	1.4	1.3	1.2	1.2	1.4	1.6	1.5	1.1	1.0	1.3	1.4	1.4
Women's and children's undergarments.....	2.1	1.9	1.9	1.7	1.3	1.2	1.2	1.3	1.2	.9	1.4	1.4	1.4	1.3	1.3
Hats, caps, and millinery.....	1.0	1.3	1.1	1.6	1.5	.9	1.0	1.2	2.1	2.2	1.1	1.1	1.4	1.5	1.5
Girls' and children's outerwear.....	1.3	1.2	.8	1.4	1.6	1.6	1.2	1.0	1.3	1.5	1.2	.9	1.2	1.2	1.2
Fur goods and miscellaneous apparel.....	1.7	1.7	1.0	1.1	.8	.9	.8	.8	1.0	1.0	.7	1.2	1.1	1.2	1.2
Miscellaneous fabricated textile products.....	2.2	2.1	2.3	2.2	1.7	1.9	1.9	1.8	1.5	1.3	1.6	2.2	1.8	1.7	1.7
Paper and allied products.....	4.7	5.1	5.3	5.0	4.9	4.7	4.4	4.3	4.3	4.3	4.3	4.5	4.5	4.4	4.4
Paper and pulp.....	5.3	5.8	6.3	5.8	6.0	5.6	5.4	5.5	5.4	5.5	5.5	5.3	5.4	5.2	5.2
Paperboard.....	6.5	6.6	7.4	6.8	6.9	6.1	5.9	5.5	5.9	5.8	5.9	5.9	5.9	5.9	5.9
Converted paper and paperboard products.....	3.1	3.6	3.6	3.6	3.4	3.3	3.1	3.0	2.9	3.0	3.2	3.6	3.2	3.1	3.1
Paperboard containers and boxes.....	4.7	5.0	4.8	4.6	4.0	4.2	3.9	3.6	3.4	3.4	3.2	3.7	3.8	3.9	3.9
Printing, publishing, and allied industries.....	2.9	3.2	3.2	3.0	2.7	2.8	2.9	2.8	2.8	2.5	2.5	3.2	2.7	2.8	2.8
Newspaper publishing and printing.....	2.5	2.7	2.5	2.4	2.3	2.5	2.7	2.4	2.2	2.0	1.8	3.2	2.3	2.5	2.5
Periodical publishing and printing.....	4.2	5.3	5.3	4.8	3.7	3.5	3.0	3.9	3.8	3.5	3.2	3.2	3.2	3.1	3.1
Books.....	3.2	3.6	4.3	4.6	3.5	4.2	4.1	4.3	3.7	3.2	3.4	3.6	3.5	3.4	3.4
Commercial printing.....	3.1	3.5	3.6	3.2	2.8	2.7	3.0	3.0	3.1	2.8	2.8	3.3	3.0	3.0	3.0
Bookbinding and related industries.....	2.2	2.5	2.4	2.5	2.3	2.5	2.5	2.5	2.6	2.2	2.3	2.5	2.2	2.4	2.4
Other publishing and printing industries.....	2.7	2.6	2.8	2.8	2.6	2.7	2.6	2.7	2.5	2.5	2.5	3.0	2.5	2.6	2.6
Chemicals and allied products.....	2.7	2.7	3.2	2.7	2.6	2.6	2.8	2.8	2.7	2.4	2.4	2.4	2.5	2.5	2.5
Industrial chemicals.....	2.7	2.7	3.3	2.7	2.6	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Plastics and synthetics, except glass.....	2.8	2.9	3.4	2.8	2.7	2.9	2.5	2.5	2.4	2.2	2.1	2.2	2.3	2.3	2.3
Drugs.....	2.3	2.2	2.1	1.9	1.6	1.6	1.8	2.2	2.0	2.1	1.9	1.9	2.2	2.4	2.4
Soap, cleaners, and toilet goods.....	2.4	2.7	3.2	2.7	2.2	2.6	2.1	2.0	2.2	2.2	2.2	2.6	2.5	2.7	2.7
Paints, varnishes, and allied products.....	1.8	2.4	2.9	2.8	3.1	2.7	2.7	2.8	2.4	2.2	1.7	1.9	2.3	2.1	2.1
Agricultural chemicals.....	3.4	3.2	3.4	3.2	3.2	3.4	7.6	6.9	7.1	4.3	3.9	3.7	4.7	4.1	4.1
Other chemical products.....	3.0	3.2	3.6	3.2	2.9	3.0	2.9	2.8	2.7	2.6	2.9	2.8	2.7	2.6	2.6
Petroleum refining and related industries.....	2.5	2.5	3.3	2.7	2.9	2.8	2.5	2.0	2.0	2.0	1.9	2.1	2.3	2.3	2.3
Petroleum refining.....	1.9	1.5	2.4	1.7	1.9	1.8	1.7	1.5	1.6	1.6	1.7	1.8	1.8	1.6	1.6
Other petroleum and coal products.....	4.9	6.1	6.4	6.0	6.4	6.3	5.6	4.2	3.6	3.6	2.9	3.4	4.6	4.8	4.8
Rubber, miscellaneous plastic products.....	3.6	4.0	4.2	4.2	3.1	3.6	3.6	2.9	2.7	2.6	2.8	3.2	3.0	3.1	3.1
Tires and inner tubes.....	4.8	5.8	6.1	5.9	3.7	4.8	4.6	2.7	3.0	2.0	2.2	3.6	3.0	3.3	3.3
Other rubber products.....	2.7	3.0	3.3	3.3	2.5	2.8	2.6	2.3	2.2	2.4	2.7	2.8	2.6	2.9	2.9
Miscellaneous plastic products.....	3.8	4.0	4.1	4.1	3.5	3.7	4.0	3.6	3.1	3.1	3.2	3.4	3.3	3.2	3.2
Leather and leather products.....	1.7	1.8	1.7	2.0	1.9	1.7	1.4	1.2	1.5	1.8	1.6	1.8	1.4	1.4	1.4
Leather tanning and finishing.....	3.2	3.1	2.9	3.1	2.9	3.3	3.1	2.8	2.4	2.7	2.6	3.2	2.8	2.6	2.6
Footwear, except rubber.....	1.2	1.4	1.5	1.8	1.9	1.5	1.2	1.0	1.4	1.6	1.6	1.6	1.2	1.1	1.1
Other leather products.....	2.4	2.3	1.8	2.0	1.5	1.7	1.3	1.3	1.6	1.9	1.3	1.9	1.6	1.8	1.8

¹ For comparability of data with those published in issues prior to January 1965, see footnote 1, table A-2. For employees covered, see footnote 1, table A-3.

These series cover premium overtime hours of production and related workers during the pay period which includes the 12th of the month. Overtime hours are those paid for at premium rates because (1) they exceeded

either the straight-time workday or workweek or (2) they occurred on week-ends or holidays or outside regularly scheduled hours. Hours for which only shift differential, hazard, incentive, or other similar types of premiums were paid are excluded.

² Preliminary.

TABLE C-5. Indexes of aggregate weekly man-hours and payrolls in industrial and construction activities¹

[1957-59=100]

Revised series; see box, p. 220.

Activity	1964												1963	Annual average	
	Dec. ²	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
	Man-hours														
Total.....	106.1	107.2	106.7	108.1	108.1	105.7	106.2	103.2	107.6	98.5	97.3	95.0	100.7	100.9	99.7
Mining.....	84.0	84.8	85.4	83.2	84.9	84.1	85.8	82.6	80.4	77.7	78.1	78.5	81.9	82.1	83.3
Contract construction.....	103.5	113.1	121.7	116.5	126.6	122.8	118.6	110.3	99.4	89.8	85.3	79.1	93.2	103.2	99.1
Manufacturing.....	107.7	107.2	105.0	107.8	105.9	103.7	105.0	103.0	101.8	101.1	100.5	98.8	103.0	101.4	100.6
Durable goods.....	111.2	109.7	104.8	109.8	105.7	105.4	107.4	105.4	104.4	102.8	101.9	100.7	104.5	102.0	100.2
Ordnance and accessories.....	131.5	128.2	127.2	127.2	125.4	126.1	130.3	131.6	135.1	135.7	137.5	144.5	147.7	145.0	148.3
Lumber and wood products, except furniture.....	93.9	94.1	97.8	99.2	102.4	101.1	96.4	92.2	89.6	89.4	86.7	93.1	93.8	93.5	93.5
Furniture and fixtures.....	117.5	116.3	117.2	114.5	114.8	108.4	110.4	106.1	107.3	106.6	105.8	102.2	110.5	106.3	104.7
Stone, clay, and glass products.....	102.7	107.9	109.9	110.6	111.8	110.6	110.6	107.5	103.8	99.1	96.7	93.9	99.7	102.3	100.0
Primary metal industries.....	110.9	108.7	106.6	111.2	106.8	105.8	106.9	105.2	103.7	102.0	100.5	99.0	98.9	98.4	95.5
Fabricated metal products.....	113.4	112.5	108.3	113.6	110.9	107.2	109.9	107.7	106.7	104.9	104.2	103.3	107.2	103.5	100.6
Machinery.....	116.5	113.1	111.6	112.9	111.3	111.9	114.2	112.8	112.1	111.1	108.4	107.2	108.4	104.4	102.1
Electrical equipment and supplies.....	120.6	119.8	118.3	116.8	113.4	110.8	111.3	109.6	109.7	109.5	110.0	110.4	114.2	112.5	114.8
Transportation equipment.....	108.2	102.4	79.0	100.5	85.6	93.1	97.5	97.3	95.4	95.3	95.5	100.2	93.7	89.2	
Instruments and related products.....	108.6	108.3	105.6	106.6	105.7	103.6	104.8	102.8	102.6	102.7	102.6	101.1	105.4	103.9	102.6
Miscellaneous manufacturing industries.....	106.7	113.6	115.1	110.5	108.1	100.6	104.7	100.8	99.6	98.0	96.3	90.7	99.8	100.7	101.6
Nondurable goods.....	103.1	103.9	105.2	105.3	106.1	101.5	101.9	99.8	98.5	98.9	98.6	96.3	101.1	100.7	101.2
Food and kindred products.....	91.5	94.5	100.0	104.2	102.9	95.5	91.6	88.0	85.5	84.4	85.2	86.9	92.5	94.1	95.5
Tobacco manufactures.....	100.4	98.6	118.6	108.8	97.3	76.9	79.2	78.2	79.2	79.5	78.3	84.5	98.1	89.5	92.7
Textile mill products.....	99.7	100.5	99.8	95.6	98.6	95.6	98.6	97.1	95.9	95.8	96.0	93.1	96.8	95.5	97.4
Apparel and related products.....	112.7	114.0	112.6	109.6	114.9	107.8	110.2	107.5	107.5	110.8	110.2	99.7	106.7	108.0	106.6
Paper and allied products.....	107.0	108.0	110.1	110.4	110.2	108.0	109.3	106.6	105.8	104.9	104.7	104.1	107.7	106.3	105.5
Printing, publishing, and allied industries.....	110.0	108.1	108.6	108.4	107.2	105.5	106.3	106.3	105.9	105.8	104.2	103.1	107.6	104.0	104.7
Chemicals and allied products.....	105.7	105.7	104.8	107.9	106.0	106.0	107.1	107.4	107.0	106.0	103.8	102.9	104.8	105.1	104.0
Petroleum refining and related industries.....	75.7	77.8	79.7	83.6	82.4	82.8	82.7	81.0	78.7	79.0	79.0	78.5	80.0	82.9	86.2
Rubber and miscellaneous plastic products.....	126.7	125.3	125.2	126.9	124.1	117.0	120.3	119.3	116.6	116.5	115.4	114.3	118.6	115.7	114.2
Leather and leather products.....	99.0	97.9	96.1	95.9	100.9	99.0	98.6	93.7	90.4	94.8	96.3	93.0	98.1	94.9	98.2
	Payrolls														
Mining.....		98.1	98.6	95.6	96.7	94.8	96.8	93.1	90.1	86.6	87.6	88.6	92.2	90.9	90.2
Contract construction.....		142.8	155.6	147.8	158.8	153.3	146.5	136.6	124.1	111.6	106.7	100.0	116.6	124.6	116.1
Manufacturing.....	131.4	129.6	125.4	130.9	126.4	124.1	125.8	123.3	121.7	120.2	119.2	117.5	122.3	117.9	113.8

¹ For comparability of data with those published in issues prior to January 1965, see footnote 1, table A-2.

For mining and manufacturing, data refer to production and related

workers and for contract construction, to construction workers, as defined in footnote 1, table A-3.

² Preliminary.

TABLE C-6. Gross and spendable average weekly earnings of production workers in manufacturing¹

[In current and 1957-59 dollars]

Revised series; see box, p. 220.

Item	1964												1963		Annual average	
	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	1963	1962	
<i>Manufacturing</i>																
Gross average weekly earnings:																
Current dollars.....	\$104.70	\$102.97	\$104.60	\$103.07	\$102.97	\$103.48	\$102.97	\$102.47	\$101.40	\$101.15	\$100.30	\$102.66	\$100.85	\$99.63	\$96.56	
1957-59 dollars.....	96.32	94.90	96.49	95.26	95.08	95.81	95.52	95.06	94.15	94.01	93.13	95.41	93.90	93.37	91.61	
Spendable average weekly earnings:																
Worker with no dependents:																
Current dollars.....	85.77	84.40	85.69	84.48	84.40	84.80	84.40	84.10	83.16	82.97	82.30	82.14	80.75	79.82	77.86	
1957-59 dollars.....	78.91	77.79	79.05	78.08	77.93	78.52	78.29	77.93	77.21	77.11	76.42	76.34	75.19	74.81	73.87	
Worker with 3 dependents:																
Current dollars.....	93.61	92.18	93.53	92.26	92.18	92.60	92.18	91.77	90.89	90.68	89.98	90.06	88.58	87.58	85.53	
1957-59 dollars.....	86.12	84.96	86.28	85.27	85.12	85.74	85.51	85.13	84.39	84.28	83.55	83.70	82.48	82.08	81.15	

¹ For comparability of data with those published in issues prior to January 1965, see footnote 1, table A-2. For employees covered, see footnote 1, table A-3.

Spendable average weekly earnings are based on gross average weekly earnings as published in table C-1 less the estimated amount of the workers' Federal social security and income tax liability. Since the amount of tax liability depends on the number of dependents supported by the worker as well as on the level of his gross income, spendable earnings have been com-

puted for 2 types of income receivers: (1) A worker with no dependents, and (2) a worker with 3 dependents.

The earnings expressed in 1957-59 dollars have been adjusted for changes in purchasing power as measured by the Bureau's Consumer Price Index.

² Preliminary.

NOTE: These series are described in "The Calculation and Uses of the Spendable Earnings Series," *Monthly Labor Review*, January 1959, pp. 50-54.

D.—Consumer and Wholesale Prices

TABLE D-1. Consumer Price Index¹—U.S. city average for urban wage earners and clerical workers (including single workers) all items, groups, subgroups, and special groups of items

[1957-59=100 unless otherwise specified]

Group	1964: New series ²												1963		Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1964	1963	
All items.....	108.8	108.7	108.5	108.4	108.3	108.3	108.0	107.8	107.8	107.7	107.6	107.7	107.6	108.1	106.7	
All items (1947-49=100).....	133.5	133.4	133.1	133.0	132.8	132.9	132.5	132.3	132.3	132.1	132.0	132.1	132.0	132.6	131.0	
Food.....	106.9	106.8	106.9	107.2	106.9	107.2	106.2	105.5	105.7	105.7	106.0	105.8	105.4	106.4	105.1	
Food at home.....	105.1	105.1	105.3	105.6	105.3	105.7	104.4	103.7	103.9	104.0	104.4	104.2	103.7	104.7	103.5	
Cereals and bakery products.....	111.0	110.7	110.4	109.9	109.6	109.2	109.2	108.9	108.8	108.8	109.0	109.1	109.0	109.6	109.1	
Meats, poultry, and fish.....	99.0	99.5	100.6	101.4	99.2	98.9	96.8	96.6	97.0	97.2	98.3	98.3	99.2	98.6	100.2	
Dairy products.....	105.6	105.3	105.3	104.6	104.4	104.3	104.0	103.9	104.1	104.5	104.8	105.0	105.0	104.7	103.8	
Fruits and vegetables.....	114.5	113.0	111.7	112.2	117.3	122.3	120.2	115.7	115.7	115.1	113.9	112.4	109.8	115.3	111.0	
Other foods at home ³	101.9	102.3	102.7	103.5	101.9	101.0	100.3	100.5	101.1	100.9	101.7	101.8	100.2	101.6	97.8	
Food away from home.....	116.0	115.9	115.7	115.5	115.3	115.2	115.1	115.0	114.9	114.7	114.4	114.3	114.3	115.2	113.2	
Housing.....	107.8	107.7	107.6	107.4	107.2	107.1	107.1	106.9	107.0	107.1	106.9	106.9	106.9	107.2	106.0	
Shelter ⁴	109.5	109.3	109.2	109.0	108.8	108.6	108.4	108.2	108.2	108.4	108.3	108.1	108.0	108.7	106.9	
Rent.....	108.4	108.3	108.2	107.9	107.9	107.8	107.8	107.7	107.7	107.5	107.5	107.3	107.3	107.8	106.8	
Homeownership ⁵	110.0	109.8	109.6	109.5	109.2	108.9	108.7	108.4	108.6	108.9	108.8	108.5	108.4	109.1	107.0	
Fuel and utilities ⁶	107.9	107.5	107.4	107.2	107.1	107.0	107.1	107.2	107.4	107.3	106.8	106.6	105.8	103.5	104.0	
Fuel oil and coal ⁷	105.8	103.7	102.9	101.5	100.9	100.9	101.4	102.1	103.3	106.1	106.6	106.6	106.1	108.1	107.9	
Gas and electricity.....	108.3	108.1	108.2	108.2	108.2	107.9	108.1	108.0	108.0	107.1	106.2	106.1	105.8	103.5	104.0	
Household furnishings and operation ⁸	102.9	102.9	102.8	102.8	102.6	102.8	102.9	102.9	102.9	102.8	102.7	102.7	102.9	102.8	102.4	
Apparel and upkeep ⁹	106.6	106.4	106.2	105.9	105.3	105.5	105.7	105.7	105.6	105.3	105.1	105.0	106.1	105.7	104.8	
Men's and boys'.....	107.1	107.0	106.7	106.6	106.0	106.0	106.3	106.2	105.9	105.2	105.0	105.2	106.2	106.1	104.7	
Women's and girls'.....	103.3	103.2	102.9	102.4	101.3	101.9	102.2	102.3	102.2	102.1	101.8	101.4	103.3	102.3	101.7	
Footwear.....	111.7	111.6	111.4	110.9	110.8	110.8	111.0	111.0	110.9	110.7	110.7	110.9	111.2	111.0	110.5	
Transportation.....	110.5	110.0	109.4	108.9	109.3	109.4	109.2	109.1	109.0	108.9	108.6	109.4	108.9	109.3	107.8	
Private.....	109.0	108.6	108.0	107.4	107.9	107.9	107.8	107.7	107.6	107.4	107.2	108.0	107.5	107.9	106.4	
Public.....	120.3	119.5	119.3	119.3	119.1	119.0	118.9	118.6	118.4	118.3	118.4	118.3	119.0	118.3	116.9	
Health and recreation.....	114.3	114.2	114.0	113.9	113.8	113.7	113.5	113.5	113.4	113.1	112.9	112.7	112.7	113.6	111.4	
Medical care.....	120.3	120.2	119.9	119.7	119.8	119.5	119.3	119.1	119.0	118.7	118.5	118.2	117.9	119.4	117.0	
Personal care.....	110.0	109.7	109.7	109.5	109.4	109.3	109.1	108.9	108.7	108.7	108.4	108.5	108.8	109.2	107.9	
Reading and recreation.....	114.9	114.9	114.5	114.3	114.2	114.1	114.0	114.1	114.0	113.6	113.3	113.1	113.1	114.1	111.5	
Other goods and services ¹⁰	109.2	109.1	109.1	109.0	108.9	108.9	108.7	108.7	108.6	108.5	108.4	108.3	108.3	108.8	107.1	
Special groups:																
All items less shelter.....	108.6	108.5	108.3	108.2	108.1	108.2	107.9	107.7	107.6	107.5	107.5	107.6	107.5	108.0	106.7	
All items less food.....	109.6	109.5	109.2	109.0	108.9	108.8	108.8	108.7	108.6	108.6	108.4	108.4	108.5	108.9	107.4	
Commodities ¹¹	105.7	105.6	105.5	105.4	105.2	105.3	105.0	104.8	104.9	104.8	104.8	104.9	104.9	105.2	104.1	
Nondurables ¹²	106.5	106.4	106.4	106.4	106.1	106.3	105.8	105.5	105.6	105.6	105.6	105.7	105.6	106.0	104.9	
Durables ^{11, 13}	103.4	103.5	103.1	102.8	102.8	102.9	102.9	102.8	102.9	102.9	102.9	102.9	103.0	102.1		
Services ^{11, 14, 15}	116.2	116.0	115.7	115.5	115.4	115.3	115.1	114.9	114.8	114.5	114.3	114.2	114.1	115.2	113.0	
Commodities less food ¹¹	104.9	104.8	104.6	104.3	104.2	104.3	104.3	104.3	104.3	104.3	104.1	104.3	104.5	104.4	103.5	
Nondurables less food.....	106.3	106.1	106.0	105.8	105.6	105.7	105.6	105.6	105.6	105.6	105.3	105.6	105.9	105.7	104.8	
Apparel commodities.....	105.8	105.7	105.4	105.1	104.4	104.7	104.9	104.9	104.7	104.5	104.2	104.2	105.4	104.9	104.0	
Apparel less footwear.....	104.6	104.5	104.2	103.9	103.1	103.4	103.7	103.7	103.5	103.2	102.9	102.8	104.2	103.6	102.8	
Nondurables less food and apparel.....	106.7	106.3	106.3	106.2	106.3	106.1	106.0	106.1	106.1	106.2	106.0	106.5	106.2	106.2	105.3	
New cars.....	101.6	102.5	101.3	98.7	99.9	100.6	100.8	101.2	101.6	101.8	102.2	102.3	102.1	101.2	101.5	
Used cars.....	123.7	122.9	121.9	121.9	122.2	122.7	122.7	121.6	120.9	119.6	119.0	119.6	120.3	121.6	116.6	
Household durables ¹⁶	97.9	98.0	98.0	98.2	98.1	98.3	98.5	98.7	98.7	98.6	98.6	98.7	98.9	98.4	98.5	
Household furnishings.....	98.2	98.3	98.2	98.3	98.1	98.4	98.6	98.7	98.7	98.6	98.4	98.5	98.8	98.4	98.5	
Services less rent ^{11, 14}	118.2	117.9	117.6	117.4	117.2	117.0	116.8	116.6	116.5	116.3	116.0	116.0	115.8	117.0	114.5	
Household services less rent ¹¹	115.6	115.5	115.4	115.3	115.0	114.8	114.7	114.4	114.4	114.3	113.9	114.1	114.0	114.8	113.0	
Transportation services.....	116.8	116.2	115.3	115.1	115.0	114.9	114.7	114.6	114.4	114.1	114.2	114.1	113.7	115.0	112.4	
Medical care services.....	124.5	124.4	124.0	123.7	123.7	123.4	123.1	122.9	122.7	122.3	122.1	121.7	121.3	123.2	120.3	
Other services ^{11, 17}	119.8	119.6	119.3	119.0	118.8	118.6	118.4	118.3	118.2	117.7	117.4	117.1	117.1	118.5	115.3	

¹ The CPI measures the average change in prices of goods and services purchased by urban wage-earner and clerical-worker families.

² Beginning January 1964, the Consumer Price Index structure has been revised to reflect buying patterns of wage earners and clerical workers in the 1960's. The "new series" indexes shown here are based on expenditures of all urban wage-earner and clerical-worker consumers, including single workers living alone, as well as families of two or more persons. The "old series" indexes were discontinued after June 1964.

³ Includes eggs, fats and oils, sugar and sweets, nonalcoholic beverages, and prepared and partially prepared foods.

⁴ Also includes hotel and motel room rates not shown separately.

⁵ Includes home purchase, mortgage interest, taxes, insurance, and maintenance and repairs.

⁶ Also includes telephone, water, and sewerage service not shown separately.

⁷ Called "Solid and petroleum fuels" prior to 1964.

⁸ Includes household furnishings and household supplies and services.

⁹ Includes dry cleaning and laundry of apparel, infants' wear, sewing materials, jewelry, and miscellaneous apparel, not shown separately.

¹⁰ Includes tobacco, alcoholic beverages, and funeral, legal, and bank service charges.

¹¹ Recalculated group—indexes prior to January 1964 have been recomputed.

¹² Includes foods, paint, furnace filters, shrubbery, fuel oil, coal, household textiles, housekeeping supplies, apparel, gasoline and motor oil, drugs and pharmaceuticals, toilet goods, nondurable recreational goods, newspaper, magazines, books, tobacco, and alcoholic beverages.

¹³ Includes home purchase, which was classified under services prior to 1964, building materials, furniture and bedding, floor coverings, household appliances, dinnerware, tableware, cleaning equipment, power tools, lamps, venetian blinds, hardware, automobiles, tires, radios, television sets, tape recorders, durable toys, and sports equipment.

¹⁴ Excludes home purchase costs which were classified under this heading prior to 1964.

¹⁵ Includes rent, mortgage interest, taxes and insurance on real property, home maintenance and repair services, gas, electricity, telephone, water, sewerage service, household help, postage, laundry and dry cleaning, furniture and apparel repair and upkeep, moving, auto repairs, auto insurance, registration and license fees, parking and garage rent, local transit, taxicab, airplane, train, and bus fares, professional medical services, hospital services, health insurance, barber and beauty shop services, movies, fees for sports, television repairs, and funeral, bank, and legal services.

¹⁶ Called "Durables less cars" prior to 1964. Does not include auto parts, durable toys, and sports equipment.

¹⁷ Includes the services components of apparel, personal care, reading and recreation, and other goods and services. Not comparable with series published prior to 1964.

TABLE D-2. Consumer Price Index—U.S. and selected areas for urban wage earners and clerical workers (including single workers)¹

[1957-59=100 unless otherwise specified]

Area ²	1964: New series ³ (except as noted)												1963		Annual average		1947-49=100
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962	Dec. 1964	
	All Items																
U.S. city average ⁴	108.8	108.7	108.5	108.4	108.2	108.3	108.0	107.8	107.8	107.7	107.6	107.7	107.6	106.7	105.4	133.5	
Atlanta, Ga.....	107.4	(5)	(5)	107.2	(5)	(5)	106.3	(5)	(5)	106.6	(5)	(5)	105.8	105.1	104.1	133.0	
Baltimore, Md.....	108.6	(5)	(5)	107.9	(5)	(5)	108.0	(5)	(5)	107.5	(5)	(5)	107.5	106.8	105.2	134.8	
Boston, Mass.....	(5)	(5)	111.6	(5)	(5)	111.2	(5)	(5)	110.6	(5)	(5)	110.1	(5)	109.5	107.4	(5)	
Buffalo, N.Y. (Nov. 1963=100).....	(5)	102.1	(5)	(5)	101.3	(5)	(5)	100.7	(5)	(5)	100.1	(5)	(5)	(5)	(5)	(5)	
Chicago, Ill.—Northwestern Ind.....	106.5	106.6	106.4	106.3	106.3	106.6	106.2	105.9	105.7	105.7	105.7	105.8	106.1	105.3	104.6	134.3	
Cincinnati, Ohio—Kentucky ⁵	106.9	(5)	(5)	107.0	(5)	(5)	106.1	(5)	(5)	105.6	(5)	(5)	105.1	104.7	103.6	130.1	
Cleveland, Ohio.....	(5)	105.9	(5)	(5)	105.2	(5)	(5)	104.5	(5)	(5)	105.2	(5)	(5)	104.7	103.5	(5)	
Dallas, Tex. (Nov. 1963=100).....	(5)	100.7	(5)	(5)	99.9	(5)	(5)	100.3	(5)	(5)	99.7	(5)	(5)	(5)	(5)	(5)	
Detroit, Mich.....	104.8	104.6	104.9	104.6	104.3	104.2	103.6	103.2	103.8	103.6	103.1	103.7	103.6	103.2	102.2	129.2	
Honolulu, Hawaii (Dec. 1963=100).....	101.2	(5)	(5)	100.5	(5)	(5)	99.9	(5)	(5)	100.5	(5)	(5)	(5)	(5)	(5)	(5)	
Houston, Tex. ⁶	(5)	107.3	(5)	(5)	107.3	(5)	(5)	106.9	(5)	(5)	107.2	(5)	(5)	105.7	104.6	(5)	
Kansas City, Mo.—Kansas ⁶	(5)	(5)	110.1	(5)	(5)	109.5	(5)	(5)	109.0	(5)	(5)	108.5	(5)	107.2	106.1	(5)	
Los Angeles—Long Beach, Calif.....	111.4	111.3	111.0	110.0	110.2	109.9	110.0	109.9	109.9	109.7	109.0	109.6	108.7	108.2	106.6	138.9	
Milwaukee, Wis. ⁷	(5)	106.8	(5)	(5)	106.3	(5)	(5)	105.6	(5)	(5)	105.2	(5)	(5)	104.9	103.9	(5)	
Minneapolis—St. Paul, Minn. ⁸	(5)	(5)	108.6	(5)	(5)	108.1	(5)	(5)	107.3	(5)	(5)	107.5	(5)	107.0	105.5	(5)	
New York, N.Y.—Northeastern N.J.....	111.1	111.0	110.9	110.9	110.5	110.2	110.2	110.2	110.1	110.0	110.1	109.7	109.9	108.7	106.4	133.9	
Philadelphia, Pa.—N.J.....	109.6	109.5	109.3	109.0	108.6	108.8	108.5	108.4	108.4	108.4	108.7	108.6	108.5	107.2	105.2	134.6	
Pittsburgh, Pa.....	(5)	(5)	108.9	(5)	(5)	108.8	(5)	(5)	108.1	(5)	(5)	107.7	(5)	107.1	105.9	(5)	
Portland, Oreg.—Wash. ⁹	(5)	(5)	109.5	(5)	(5)	109.1	(5)	(5)	108.6	(5)	(5)	107.6	(5)	106.6	104.6	(5)	
St. Louis, Mo.—Ill.....	109.0	(5)	(5)	108.7	(5)	(5)	107.7	(5)	(5)	107.5	(5)	(5)	107.3	106.2	105.1	135.3	
San Francisco—Oakland, Calif.....	111.6	(5)	(5)	111.0	(5)	(5)	110.6	(5)	(5)	109.9	(5)	(5)	109.9	108.9	107.4	141.6	
Scranton, Pa. ⁸	(5)	109.9	(5)	(5)	110.0	(5)	(5)	108.7	(5)	(5)	108.8	(5)	(5)	107.3	105.9	(5)	
Seattle, Wash.....	(5)	110.1	(5)	(5)	110.3	(5)	(5)	109.1	(5)	(5)	109.4	(5)	(5)	108.2	106.5	(5)	
Washington, D.C.—Md.—Va.....	(5)	108.9	(5)	(5)	108.7	(5)	(5)	107.5	(5)	(5)	107.3	(5)	(5)	106.4	104.6	(5)	
Food																	
U.S. city average ⁴	106.9	106.8	106.9	107.2	106.9	107.2	106.2	105.5	105.7	105.7	106.0	105.8	105.4	105.1	103.6	-----	
Atlanta, Ga.....	105.6	105.6	105.7	106.1	105.4	104.9	103.9	103.9	103.9	104.0	104.0	104.4	103.8	103.8	103.0	-----	
Baltimore, Md.....	106.5	106.8	107.0	107.1	106.6	107.1	(5)	(5)	106.1	106.2	106.3	105.9	105.7	104.7	103.3	-----	
Boston, Mass.....	110.7	111.0	110.8	110.8	111.1	111.0	109.2	109.1	108.5	108.8	108.5	108.5	108.4	107.4	104.6	-----	
Buffalo, N.Y. (Nov. 1963=100).....	101.6	101.7	101.8	102.4	102.2	102.6	101.9	100.9	101.1	101.1	100.8	100.4	(5)	(5)	(5)	-----	
Chicago, Ill.—Northwestern Ind.....	106.5	106.9	106.9	107.0	106.3	106.8	105.7	104.8	105.1	105.1	105.7	105.8	106.1	105.7	104.6	-----	
Cincinnati, Ohio—Kentucky ⁵	104.9	104.5	105.4	106.2	105.5	105.7	105.1	103.9	103.3	103.4	103.2	102.9	102.7	102.9	101.9	-----	
Cleveland, Ohio.....	102.8	102.2	102.4	103.0	102.5	102.3	101.3	101.0	101.5	101.5	102.1	102.3	101.9	101.8	101.0	-----	
Dallas, Tex. (Nov. 1963=100).....	101.2	101.3	101.1	101.0	100.9	100.5	100.0	99.5	100.1	99.7	100.1	100.0	(5)	(5)	(5)	-----	
Detroit, Mich.....	102.0	102.2	102.5	102.4	102.4	103.0	101.8	101.0	101.4	101.1	101.4	101.4	100.8	101.5	101.1	-----	
Honolulu, Hawaii (Dec. 1963=100).....	101.7	101.3	101.1	100.8	101.1	100.8	100.7	100.6	100.8	100.5	100.3	99.8	(5)	(5)	(5)	-----	
Houston, Tex. ⁶	106.9	106.1	106.8	105.8	105.8	105.8	104.9	104.6	105.2	105.1	105.5	105.6	105.5	103.8	102.9	-----	
Kansas City, Mo.—Kansas ⁶	108.3	108.0	108.2	108.2	108.4	108.2	106.6	106.3	106.5	106.7	106.0	105.9	105.3	104.3	103.3	-----	
Los Angeles—Long Beach, Calif.....	109.1	108.8	109.6	108.3	108.1	108.3	107.6	107.4	107.9	107.3	108.0	108.1	107.8	107.1	105.5	-----	
Milwaukee, Wis. ⁷	(5)	104.9	(5)	(5)	105.6	(5)	(5)	104.9	(5)	(5)	104.3	(5)	(5)	104.9	104.2	-----	
Minneapolis—St. Paul, Minn. ⁸	105.5	105.0	105.2	105.7	104.6	105.7	104.7	104.2	103.7	103.3	103.8	104.0	103.4	102.5	101.8	-----	
New York, N.Y.—Northeastern N.J.....	108.6	109.0	109.2	109.6	108.9	109.2	108.0	107.5	107.5	107.5	108.1	108.1	107.8	107.1	104.9	-----	
Philadelphia, Pa.—N.J.....	105.1	105.5	105.7	105.9	105.4	105.8	104.9	104.5	104.3	105.5	105.2	104.3	104.2	103.1	103.1	-----	
Pittsburgh, Pa.....	104.8	104.9	105.1	106.2	105.5	105.9	104.3	103.5	104.1	104.8	104.3	103.8	103.3	103.6	102.4	-----	
Portland, Oreg.—Wash. ⁹	108.1	107.5	107.5	108.1	107.7	108.1	106.9	106.4	106.8	106.0	106.5	106.2	105.6	105.2	103.6	-----	
St. Louis, Mo.—Ill.....	108.6	108.5	108.9	109.1	108.7	108.5	107.6	106.6	106.7	106.1	106.1	106.1	105.9	104.9	103.0	-----	
San Francisco—Oakland, Calif.....	107.9	107.8	107.8	107.6	107.3	108.3	107.2	107.0	107.7	108.0	108.0	107.3	106.5	106.8	105.4	-----	
Scranton, Pa. ⁸	105.9	105.6	105.8	106.8	106.8	107.4	105.2	104.7	104.5	104.7	105.0	104.9	104.7	104.1	103.1	-----	
Seattle, Wash.....	109.3	108.7	108.7	109.3	109.1	109.2	108.5	107.9	108.7	108.4	108.7	108.2	107.9	107.3	105.7	-----	
Washington, D.C.—Md.—Va.....	106.1	106.3	106.7	108.0	107.5	107.5	105.3	104.9	105.2	105.0	104.9	104.6	103.9	104.2	102.0	-----	

¹ See footnote 1, table D-1. Indexes measure time-to-time changes in prices. They do not indicate whether it costs more to live in one area than in another.

² The areas listed include, for the new series, not only the central city but the entire urban portion of the Standard Metropolitan Statistical Area, as defined for the 1960 Census of Population; except that the Standard Consolidated Area is used for New York and Chicago. For the old series "area" refers to the "urbanized area."

³ See footnote 2, table D-1.

⁴ A average of 50 "cities" (metropolitan areas and nonmetropolitan urban places).

⁵ All items indexes are computed monthly for 5 areas and once every 3 months on a rotating cycle for other areas.

⁶ Old series. Indexes for Cincinnati, Houston, Kansas City, and Minneapolis will be published on the old series basis through 1964 and the first part of 1965, and will be added to the new series national index in 1966.

⁷ Old series. The present index for Milwaukee, calculated by special arrangement with the City of Milwaukee, is now published on the old series basis, and will also be added to the new series national index in 1966.

⁸ Old series. Contrary to original plans, indexes for Portland and Scranton will be published on the old series basis temporarily.

⁹ Insufficient data due to work stoppage in food stores.

TABLE D-3. Indexes of wholesale prices,¹ by group and subgroup of commodities

[1957-59=100, unless otherwise specified]²

Commodity group	1964											1963	Annual average		
	Dec. ³	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
All commodities.....	100.8	100.7	100.8	100.7	100.3	100.4	100.0	100.1	100.3	100.4	100.5	101.0	100.3	100.3	100.6
Farm products and processed foods.....	97.2	97.8	98.2	99.3	97.7	98.1	97.1	96.8	97.8	98.2	98.1	99.7	97.2	98.7	99.6
Farm products.....	92.8	94.0	93.8	95.7	93.6	94.1	93.2	93.7	94.4	95.2	94.5	96.3	93.3	95.7	97.7
Fresh and dried fruits and vegetables.....	99.2	108.0	98.2	101.5	97.9	108.9	113.1	107.4	105.9	104.9	97.9	95.9	94.8	96.1	97.7
Grains.....	90.1	88.0	88.9	90.2	85.7	85.7	89.8	103.2	103.3	99.1	102.0	103.9	101.8	101.9	98.8
Livestock and live poultry.....	83.1	83.6	85.8	90.9	88.4	87.7	82.3	81.2	82.4	83.8	82.8	84.7	79.9	88.8	96.2
Plant and animal fibers.....	92.6	93.9	93.8	94.4	96.0	99.4	101.2	101.3	102.1	102.1	101.7	101.5	101.4	100.6	98.4
Fluid milk.....	105.3	105.4	104.5	103.6	101.8	100.5	98.8	98.4	99.6	101.2	102.3	102.8	103.4	100.6	101.2
Eggs.....	85.3	91.6	97.7	96.9	98.6	87.3	88.7	76.9	79.5	90.5	89.7	106.3	99.8	94.0	95.2
Hay, hayseeds, and oilseeds.....	116.7	115.6	111.0	108.8	105.8	105.6	105.1	104.9	107.4	110.7	113.9	115.5	114.6	113.0	105.4
Other farm products.....	98.3	98.4	99.3	96.8	98.5	98.3	98.7	99.4	99.5	100.7	96.4	99.0	90.6	89.3	91.8
Processed foods.....	100.8	100.9	101.7	102.2	101.0	101.2	100.2	99.4	100.4	100.5	100.9	102.5	100.4	101.1	101.2
Cereal and bakery products.....	108.1	108.3	108.2	108.1	108.3	108.6	107.9	107.5	107.8	106.8	107.4	107.0	106.9	107.3	107.6
Meats, poultry, and fish.....	88.8	89.8	93.2	96.1	93.3	93.3	90.2	86.9	88.3	88.7	88.9	91.8	87.7	93.3	99.1
Dairy products and ice cream.....	108.9	109.5	108.9	108.7	107.3	107.0	107.1	106.6	107.1	107.3	107.5	108.0	108.1	107.5	106.9
Canned and frozen fruits and vegetables.....	101.9	102.3	102.7	102.2	102.1	105.1	106.1	106.3	107.3	107.5	107.4	107.2	106.8	103.9	98.0
Sugar and confectionery.....	107.1	104.7	105.8	105.1	106.4	106.6	108.0	111.9	115.5	117.3	122.9	130.3	124.9	118.4	102.2
Packaged beverage materials.....	98.2	98.2	98.2	98.2	98.2	98.4	98.3	98.3	98.1	98.1	94.6	90.6	85.7	81.2	81.7
Animal fats and oils.....	107.8	107.3	109.8	97.7	93.5	90.8	90.7	89.2	90.0	89.3	91.0	88.2	88.4	83.9	88.4
Crude vegetable oils.....	105.9	106.2	96.1	87.7	82.3	80.4	78.5	79.0	75.1	75.1	73.7	74.4	76.7	82.0	84.5
Refined vegetable oils.....	98.0	99.0	91.2	84.0	79.4	79.2	76.5	77.0	77.1	75.9	74.8	74.8	77.4	84.2	93.1
Vegetable oil end products.....	100.1	94.4	90.4	88.6	87.9	87.9	87.6	87.7	87.7	87.9	88.3	88.2	88.2	88.2	97.3
Miscellaneous processed foods.....	111.2	110.3	109.1	109.3	108.9	108.8	108.4	108.9	110.0	107.7	106.6	107.4	107.4	104.3	101.8
All commodities except farm products.....	101.7	101.5	101.6	101.3	101.1	101.1	100.9	100.8	101.0	101.0	101.2	101.5	101.1	100.8	100.9
All commodities except farm and foods.....	101.8	101.6	101.5	101.1	101.1	101.1	100.9	101.1	101.1	101.1	101.2	101.3	101.2	100.7	100.8
Textile products and apparel.....	101.5	101.4	101.4	101.2	101.2	101.1	101.0	101.2	101.1	101.2	101.2	101.2	101.2	100.5	100.6
Cotton products.....	99.4	99.1	99.0	98.9	98.6	98.3	98.7	99.6	100.5	101.1	101.2	101.3	101.5	100.3	101.7
Wool products.....	102.8	103.3	103.1	102.9	103.0	102.6	102.8	102.8	103.2	103.3	103.3	103.2	102.8	100.9	99.1
Manmade fiber textile products.....	96.8	96.5	96.1	95.7	95.8	96.2	96.2	96.0	95.5	95.5	95.1	94.7	94.6	93.9	93.9
Silk products.....	117.4	117.8	116.6	117.0	117.0	117.0	117.0	116.4	116.4	116.6	121.6	126.3	139.9	125.9	125.9
Apparel.....	103.2	103.2	103.3	103.3	103.3	103.3	102.8	102.7	102.3	102.3	102.3	102.3	102.3	101.9	101.5
Miscellaneous textile products.....	118.5	119.4	120.7	120.7	119.8	117.2	117.3	116.2	115.8	115.8	116.7	117.6	117.6	117.1	122.4
Hides, skins, leather, and leather products.....	105.4	105.5	106.0	105.4	105.6	105.4	104.8	104.7	104.5	102.5	102.5	102.7	103.0	104.2	107.4
Hides and skins.....	90.2	90.7	95.4	95.5	96.0	92.6	90.3	85.7	88.1	75.7	74.0	76.1	76.3	84.0	106.2
Leather.....	103.7	103.9	104.8	104.0	104.5	104.7	103.3	104.5	102.0	99.6	99.7	99.5	99.5	101.9	108.5
Footwear.....	109.0	109.0	109.1	108.4	108.3	108.3	108.3	108.3	108.3	108.2	108.2	108.3	108.2	108.3	108.6
Other leather products.....	104.0	103.9	103.6	103.3	103.7	103.9	103.2	103.4	103.8	101.4	101.9	101.9	103.3	104.0	104.3
Fuel and related products, and power.....	98.2	97.6	96.7	95.2	96.4	96.7	96.3	96.4	96.1	97.0	99.0	99.5	99.3	99.8	100.2
Coal.....	98.2	98.0	97.7	97.3	96.6	96.1	95.3	95.1	95.0	97.1	98.1	98.3	98.3	96.9	96.8
Coke.....	107.3	107.3	107.3	107.3	107.3	107.3	107.3	107.3	106.1	103.6	103.6	103.6	103.6	103.6	103.6
Gas fuels.....	125.4	123.1	120.4	118.4	121.2	120.2	116.0	116.6	120.4	123.2	126.8	124.8	124.8	122.8	119.2
Electric power.....	101.3	101.4	101.5	101.5	101.4	100.6	100.9	101.3	101.3	99.4	101.3	101.3	101.3	101.3	102.0
Petroleum products, refined.....	94.0	93.3	91.9	89.5	91.4	92.5	92.3	92.2	91.1	92.9	95.3	96.6	96.1	97.2	98.2
Chemicals and allied products.....	97.2	97.1	96.9	96.6	96.5	96.6	96.5	96.7	96.6	96.5	96.4	96.3	96.2	96.3	97.5
Industrial chemicals.....	94.2	94.1	94.3	93.9	93.9	94.3	94.3	94.5	94.4	94.4	94.2	94.3	94.3	94.8	96.3
Prepared paint.....	105.1	104.9	104.8	104.8	104.8	104.1	103.9	104.8	104.8	104.6	104.6	105.1	105.1	103.8	103.8
Paint materials.....	91.2	91.3	90.5	89.9	89.8	90.7	90.8	91.8	91.6	91.8	91.5	91.2	91.0	91.1	95.6
Drugs and pharmaceuticals.....	94.7	94.7	94.6	94.6	94.7	94.8	94.6	95.5	95.4	95.2	95.3	95.4	95.0	95.1	96.0
Fats and oils inedible.....	117.0	112.6	107.7	106.2	101.3	95.9	93.2	88.6	87.3	85.8	83.2	83.1	85.0	80.3	76.3
Mixed fertilizer.....	104.7	104.5	104.3	104.4	103.4	103.5	103.6	103.6	103.9	103.8	103.8	103.6	103.5	103.6	103.8
Fertilizer materials.....	100.7	101.0	99.6	99.1	100.2	101.1	100.2	100.2	100.2	100.2	100.2	99.4	98.4	99.9	101.9
Other chemicals and allied products.....	99.6	99.6	99.8	99.6	99.6	99.6	99.5	99.4	99.3	99.1	99.1	99.2	99.1	99.0	99.4
Rubber and rubber products.....	92.1	92.2	92.1	91.9	91.8	91.8	91.6	92.6	93.1	93.9	93.6	93.7	93.8	93.8	93.3
Crude rubber.....	90.3	92.1	91.3	90.4	89.9	90.0	90.6	90.7	91.3	91.2	90.9	89.4	89.9	91.9	93.6
Tires and tubes.....	88.4	88.0	88.0	88.0	88.0	88.0	88.0	88.0	89.2	91.3	91.3	91.3	91.4	90.1	87.1
Miscellaneous rubber products.....	96.5	96.5	96.5	96.4	96.4	96.4	95.7	97.9	97.8	97.7	97.6	97.9	97.9	98.3	99.4
Lumber and wood products.....	99.4	99.6	100.3	100.6	100.9	101.2	101.4	101.8	101.8	101.0	99.9	99.0	99.1	98.6	96.5
Lumber.....	99.1	99.2	100.4	100.7	101.1	101.5	101.8	102.2	102.0	101.4	100.3	99.2	99.2	98.9	96.5
Millwork.....	109.0	109.0	109.0	109.1	109.1	109.1	109.0	108.9	108.8	107.4	106.9	106.7	106.3	104.0	101.8
Plywood.....	90.3	90.7	91.2	91.8	91.8	92.3	92.6	94.2	94.9	94.6	92.2	91.1	92.4	93.5	92.4
Pulp, paper, and allied products.....	98.9	98.9	99.1	98.7	98.7	98.7	98.7	98.7	99.1	99.3	99.9	99.8	99.4	99.2	100.0
Woodpulp.....	96.8	96.8	97.5	95.5	95.5	95.5	95.5	95.5	96.2	96.1	96.1	96.1	94.4	91.7	93.2
Wastepaper.....	95.9	92.5	92.2	92.2	93.3	93.4	93.5	90.8	90.2	91.9	91.1	91.1	90.8	92.2	97.5
Paper.....	103.6	104.0	104.0	103.7	103.7	103.7	103.7	103.7	103.6	103.5	103.1	103.1	102.9	102.4	102.6
Paperboard.....	96.4	96.4	96.4	96.4	96.4	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	94.7	93.1
Converted paper and paperboard products.....	97.9	97.9	98.1	97.6	97.6	97.5	97.6	97.6	98.6	98.9	100.1	100.0	99.5	99.7	101.0
Building paper and board.....	93.9	93.9	94.3	94.5	94.1	94.4	94.4	94.4	93.5	93.7	95.0	95.2	95.2	96.2	97.2

See footnotes at end of table.

TABLE D-3. Indexes of wholesale prices,¹ by group and subgroup of commodities—Continued[1957-59=100, unless otherwise specified]²

Commodity group	1964												1963	Annual average	
	Dec. ³	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
All commodities except farm and foods—Continued															
Metals and metal products.....	104.7	104.3	103.8	103.0	103.0	102.5	102.3	102.1	102.2	102.0	101.8	101.7	101.3	100.1	100.0
Iron and steel.....	113.4	112.0	110.4	107.0	105.2	100.7	100.4	100.3	100.2	100.2	100.2	100.2	100.0	99.1	99.3
Nonferrous metals.....	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6
Metal containers.....	104.8	104.8	104.8	104.9	104.9	104.9	104.8	104.8	104.8	104.8	104.6	104.6	104.3	104.1	103.7
Hardware.....	104.1	104.1	103.9	103.0	102.9	101.3	100.5	100.5	100.3	100.3	100.4	100.5	100.6	100.5	100.1
Plumbing fixtures and brass fittings.....	92.2	91.9	91.8	91.7	91.7	91.9	92.4	92.0	92.1	92.1	91.8	92.0	92.7	92.9	93.2
Heating equipment.....	100.0	99.9	99.6	99.6	99.4	99.3	99.2	98.7	98.9	98.7	99.1	99.0	98.8	98.2	98.2
Fabricated structural metal products.....	108.3	108.2	108.2	108.2	108.0	108.0	108.4	108.2	108.9	109.0	109.4	109.3	108.2	105.1	103.9
Machinery and motive products.....	103.1	103.2	103.0	102.9	102.9	103.1	103.0	103.3	102.9	102.7	102.5	102.5	102.6	102.2	102.3
Agricultural machinery and equipment.....	114.0	113.8	112.9	113.0	113.1	112.9	112.7	112.7	112.7	112.6	112.5	112.1	111.9	111.1	109.5
Construction machinery and equipment.....	113.5	113.4	112.4	112.4	112.3	112.3	112.3	112.3	112.2	112.0	111.8	111.8	111.2	109.6	107.8
Metalworking machinery and equipment.....	114.2	114.1	114.0	113.6	113.3	113.3	112.4	111.8	111.4	111.2	111.0	110.8	110.8	109.8	109.3
General purpose machinery and equipment.....	105.0	104.9	104.8	103.8	103.7	104.4	104.5	104.8	104.7	104.8	104.6	104.6	104.6	103.8	103.3
Miscellaneous machinery.....	104.2	105.1	105.1	104.9	104.7	104.7	104.5	104.4	104.4	104.4	104.3	104.1	103.7	103.5	103.2
Special industry machinery and equipment.....	106.5	106.4	106.0	106.0	106.0	106.0	105.9	105.8	105.8	105.8	105.2	105.2	105.0	104.0	101.9
Electrical machinery and equipment.....	96.3	96.5	96.5	96.6	96.6	96.5	96.5	97.7	97.7	97.0	96.9	96.9	97.7	97.4	98.4
Motor vehicles.....	100.8	100.7	100.7	100.5	100.7	100.9	100.9	101.2	99.9	99.9	99.8	99.8	99.9	100.0	100.8
Transportation equipment railroad rolling stock.....	100.6	100.6	100.6	100.6	100.6	100.6	100.1	100.1	100.1	100.5	100.5	100.5	100.5	100.5	100.5
Furniture and other household durables.....	98.5	98.5	98.5	98.6	98.6	98.6	98.5	98.6	98.6	98.5	98.5	98.4	98.0	98.1	98.8
Household furniture.....	105.6	105.6	105.5	105.3	105.3	105.2	105.1	105.3	105.2	105.0	105.0	105.0	104.7	104.6	103.8
Commercial furniture.....	103.3	103.2	103.2	103.2	103.2	103.2	103.2	103.1	103.1	103.1	103.1	103.1	103.1	102.7	102.3
Floor coverings.....	99.0	99.0	99.0	99.0	99.0	99.0	98.6	99.8	100.1	100.1	100.1	100.1	98.0	96.6	97.0
Household appliances.....	90.8	90.9	91.2	91.1	91.3	91.0	91.2	91.6	91.6	91.7	91.8	91.5	91.1	91.8	94.0
Television, radio receivers, and phonographs.....	87.2	87.2	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.2	87.2	87.2	87.3	88.6	91.1
Other household durable goods.....	104.4	104.3	104.3	104.4	104.4	104.4	104.4	104.3	104.1	103.7	103.7	103.6	103.3	103.2	103.1
Nonmetallic mineral products.....	101.8	101.8	101.8	101.8	101.7	101.5	101.4	101.3	101.3	101.1	101.2	101.1	101.3	101.3	101.8
Flat glass.....	102.1	103.1	103.1	103.1	103.1	102.4	102.4	102.4	102.8	101.7	101.0	101.0	101.0	98.3	97.0
Concrete ingredients.....	102.9	102.9	102.8	102.8	102.8	102.7	102.8	102.7	102.8	102.7	102.7	102.7	103.1	103.0	103.2
Concrete products.....	101.1	101.1	101.1	101.1	100.8	100.9	100.8	100.6	100.6	100.7	101.0	101.2	101.4	101.7	102.6
Structural clay products.....	105.1	104.9	104.8	104.6	104.5	104.4	104.5	104.5	104.5	103.9	103.8	103.5	103.5	103.6	103.5
Gypsum products.....	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	106.1	106.1	105.4	105.0
Prepared asphalt roofing.....	91.2	91.2	91.2	91.2	91.2	88.9	86.4	86.4	86.4	86.4	87.4	87.4	87.4	90.0	94.8
Other nonmetallic minerals.....	101.5	101.5	101.5	101.5	101.8	101.8	101.7	101.3	101.3	101.3	101.3	101.3	101.4	101.4	102.2
Tobacco products and bottled beverages.....	107.5	107.5	107.6	107.5	107.5	107.3	107.4	107.3	107.1	107.1	107.1	107.6	107.5	106.1	104.1
Tobacco products.....	106.1	106.1	106.1	106.1	106.0	106.0	106.0	106.0	106.0	106.0	105.9	105.9	105.9	104.5	102.1
Alcoholic beverages.....	100.5	100.5	100.8	100.8	100.8	100.3	100.3	100.5	100.7	100.7	101.0	101.0	101.0	101.0	101.0
Nonalcoholic beverages.....	128.1	128.1	128.1	127.3	127.4	127.4	127.4	126.6	125.3	125.3	125.3	127.7	127.7	122.6	116.9
Miscellaneous products.....	110.7	108.5	110.1	109.2	107.3	107.5	106.7	107.2	109.5	109.8	110.9	112.6	112.2	110.4	107.3
Toys, sporting goods, small arms, ammunition.....	101.0	100.9	101.1	101.2	101.0	101.0	100.9	100.8	100.8	101.1	100.9	100.9	101.1	101.0	100.8
Manufactured animal feeds.....	116.4	112.4	115.3	113.7	110.2	110.7	109.6	110.5	114.8	115.3	117.4	120.4	119.7	116.4	110.7
Notions and accessories.....	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	98.8	98.7
Jewelry, watches, and photographic equipment.....	103.9	103.9	103.9	103.6	103.9	103.9	102.9	103.2	103.2	103.2	103.3	103.6	103.6	103.7	104.2
Other miscellaneous products.....	103.0	103.2	103.1	103.1	102.5	102.5	102.4	102.4	102.4	102.4	101.7	101.7	101.4	101.4	101.3

¹ As of January 1961, new weights reflecting 1958 values were introduced into the index. See "Weight Revisions in the Wholesale Price Index 1890-1960," *Monthly Labor Review*, February 1962, pp. 175-182.

² As of January 1962, the indexes were converted from the former base of 1947-49=100 to the new base of 1957-59=100. Technical details and earlier

data on the 1957-59 base furnished upon request to the Bureau.

³ Preliminary.

⁴ Revised.

⁵ January 1958=100.

⁶ January 1961=100.

TABLE D-4. Indexes of wholesale prices for special commodity groupings¹[1957-59=100, unless otherwise specified]²

Commodity group	1964												1963	Annual average	
	Dec. ³	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962
	All foods.....	100.1	101.1	101.3	101.9	100.7	101.3	100.8	99.2	100.1	100.5	100.3	102.1	99.9	100.4	100.6
All fish.....	109.5	108.9	111.6	109.7	105.4	106.6	105.6	105.4	103.1	104.1	109.0	109.8	107.5	112.0	119.2
All commodities except farm products.....	101.7	101.5	101.6	101.3	101.1	101.1	100.9	100.8	101.0	101.0	101.2	101.5	101.1	100.8	100.9
Textile products, excluding hard fiber products.....	99.1	98.8	98.7	98.4	98.3	98.3	98.5	98.9	99.2	99.5	99.4	99.4	99.4	98.3	98.8
Bituminous coal—domestic sizes.....	99.5	99.0	98.3	97.7	95.4	93.9	92.4	92.0	92.1	97.9	100.6	101.1	101.0	98.4	98.3
Refined petroleum products.....	94.0	93.3	91.9	89.5	91.4	92.5	92.3	92.2	91.1	92.9	95.3	96.6	96.1	97.2	98.2
East Coast markets.....	95.1	92.9	91.8	91.8	91.8	91.8	91.8	92.3	93.4	95.1	97.8	97.8	97.8	96.7	99.4
Midcontinent markets.....	97.6	96.2	91.0	81.7	83.1	90.2	88.8	90.2	84.5	88.5	89.7	94.5	93.0	96.6	98.2
Gulf Coast markets.....	92.5	91.8	91.8	91.3	94.3	94.3	94.3	94.3	94.9	95.4	96.5	96.7	96.1	97.6	98.6
Pacific Coast markets.....	89.2	89.2	88.2	88.2	89.7	88.2	88.2	84.1	84.1	84.1	87.7	87.7	89.2	89.7	90.9
Midwest markets ⁴	88.9	88.9	87.7	84.6	85.8	85.8	85.8	86.4	84.5	88.3	93.7	95.5	94.6	94.2	94.2
Soaps.....	109.8	109.7	109.4	107.6	106.8	106.8	106.5	106.5	106.0	105.4	105.4	105.4	105.4	104.3	102.6
Synthetic detergents.....	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.4	99.4	99.4	99.4	99.4	99.4	99.5	99.7
Pharmaceutical preparations.....	96.9	96.9	96.7	96.7	96.8	96.8	96.6	97.7	97.5	97.4	97.5	97.5	97.1	96.8	97.3
Ethical preparations ⁵	94.8	94.8	94.7	94.7	94.8	94.8	94.8	96.2	96.2	96.2	96.2	96.2	95.8	95.7	96.9
Anti-infectives ⁵	83.4	83.4	83.4	83.4	83.4	83.4	83.4	88.2	88.2	88.2	88.2	88.2	88.2	88.4	93.1
Anti-arthritis ⁵	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6
Sedatives and hypnotics ⁵	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.0	112.5
Ataractics ⁵	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Anti-spasmodics and anti-cholinergics ⁵	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.1	100.0
Cardiovasculars and anti-hypertensives ⁵	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	99.9	100.5
Diabetics ⁵	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	104.0
Hormones ⁵	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.6	100.1	99.6
Diuretics ⁵	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dermatologicals ⁵	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	108.7	103.3	100.7
Hematitics ⁵	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.8	108.5
Analgesics ⁵	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8
Anti-obesity preparations ⁵	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cough and cold preparations ⁵	104.3	104.3	100.6	100.6	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	96.8	99.3
Vitamins ⁵	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	88.1
Proprietary preparations ⁵	103.7	103.7	103.5	103.4	103.4	103.5	102.7	103.4	102.7	102.2	102.2	102.6	102.1	101.5	100.5
Vitamins ⁵	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.1
Cough and cold preparations ⁵	101.5	101.5	101.5	100.9	100.9	101.5	101.5	101.5	100.5	100.5	100.5	99.9	99.2	99.6	100.0
Laxatives and elimination aids ⁵	106.6	106.6	105.4	105.4	105.4	105.4	105.4	105.0	105.0	104.7	104.7	104.7	104.4	103.5	101.1
Internal analgesics ⁵	102.3	102.3	102.3	102.3	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	101.9	101.8	101.2
Tonics and alteratives ⁵	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	100.0	100.0	100.0
External analgesics ⁵	104.0	103.3	103.3	103.3	103.3	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.3	102.3
Antiseptics ⁵	110.6	110.6	110.6	110.6	110.6	110.6	105.2	110.6	106.8	103.5	106.8	106.8	104.9	103.5	100.4
Antacids ⁵	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	99.7	99.6
Lumber and wood products (excluding millwork).....	97.2	97.3	98.4	98.7	99.1	99.4	99.8	100.4	100.4	99.8	98.5	97.4	97.6	97.7	98.0
Softwood lumber.....	96.9	97.2	98.7	99.1	99.7	100.1	100.6	101.1	100.9	100.4	99.2	97.7	97.8	98.0	95.9
Pulp, paper, and allied products (excluding building paper and board).....	99.1	99.2	99.3	98.9	98.9	98.9	98.9	98.8	99.4	99.6	100.1	100.0	99.6	99.3	100.1
Special metals and metal products ⁶	104.0	103.7	103.4	102.8	102.8	102.5	102.4	102.3	102.0	101.9	101.7	101.6	101.4	100.5	100.5
Steel mill products.....	102.6	102.4	102.4	102.3	102.9	102.9	103.0	103.1	103.1	103.2	103.1	103.1	103.1	102.0	101.4
Machinery and equipment.....	104.0	104.2	103.9	103.8	103.8	103.8	103.7	104.1	104.1	103.8	103.6	103.5	103.7	103.1	102.9
Agricultural machinery (including tractors).....	115.5	115.4	114.3	114.5	114.5	114.3	114.1	114.1	114.0	113.9	113.8	113.4	113.2	112.2	110.5
Metalworking machinery.....	114.0	113.9	113.9	113.5	113.1	113.1	112.5	111.9	111.4	111.4	111.1	110.8	110.8	109.4	108.8
All tractors.....	115.9	115.9	114.3	114.3	114.3	114.1	114.1	114.0	114.0	113.9	113.9	113.2	111.3	109.4	109.4
Industrial valves.....	107.2	107.0	106.0	106.0	106.0	107.9	107.9	107.9	107.9	107.9	107.9	107.6	107.8	107.5	107.5
Industrial fittings.....	93.0	93.0	93.0	93.0	93.0	93.5	92.4	94.8	94.8	94.8	94.8	96.5	96.5	93.7	93.0
Antifriction bearings and components.....	88.8	88.8	89.5	86.8	86.7	89.2	90.6	91.8	91.3	91.3	90.8	90.8	90.8	90.8	90.8
Abrasive grinding wheels.....	95.5	95.5	95.5	95.5	96.2	96.2	96.2	96.2	96.2	96.8	96.8	96.5	96.5	96.7	98.5
Construction materials.....	99.8	99.7	99.8	99.7	99.7	99.7	99.7	99.7	99.7	99.4	99.1	98.8	98.8	98.5	98.3

¹ See footnote 1, table D-3.² See footnote 2, table D-3.³ Preliminary.⁴ Revised.⁵ New series. January 1961=100.⁶ Metals and metal products, agricultural machinery and equipment, and motor vehicles.

TABLE D-5. Indexes of wholesale prices,¹ by stage of processing and durability of product[1957-59=100]²

Commodity group	1964												1963		Annual average	
	Dec. ³	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1963	1962	
	100.8	100.7	100.8	100.7	100.3	100.4	100.0	100.1	100.3	100.4	100.5	101.0	100.3	100.3	100.6	
All commodities.....	100.8	100.7	100.8	100.7	100.3	100.4	100.0	100.1	100.3	100.4	100.5	101.0	100.3	100.3	100.6	
<i>Stage of processing</i>																
Crude materials for further processing.....	94.0	94.0	94.3	95.7	94.1	93.8	92.4	93.5	94.2	94.3	94.0	95.1	92.6	95.0	97.1	
Crude foodstuffs and feedstuffs.....	90.7	91.0	91.8	94.4	91.7	91.5	89.6	91.3	92.1	92.5	92.2	94.0	90.1	94.0	96.8	
Crude nonfood materials except fuel.....	99.6	99.1	98.5	97.7	97.9	97.5	97.5	97.3	97.9	97.1	96.6	96.6	96.3	96.2	97.4	
Crude nonfood materials, except fuel, for manufacturing.....	99.3	98.8	98.2	97.2	97.5	97.1	97.1	96.9	97.6	96.6	96.1	96.1	95.7	95.6	96.9	
Crude nonfood materials, except fuel, for construction.....	102.9	102.9	102.8	102.8	102.8	102.8	102.8	102.8	102.8	102.7	102.7	102.7	103.1	103.0	103.2	
Crude fuel.....	104.7	103.8	102.7	101.9	102.3	101.7	99.8	99.9	101.0	103.2	105.1	104.5	104.6	103.0	101.8	
Crude fuel for manufacturing.....	104.5	103.7	102.7	101.8	102.2	101.6	99.8	99.8	101.0	103.1	104.9	104.4	104.4	103.0	101.8	
Crude fuel for nonmanufacturing.....	105.0	104.1	103.0	102.1	102.6	101.9	100.0	100.0	101.3	103.6	105.5	104.9	104.9	103.3	102.0	
Intermediate materials, supplies, and components.....	101.4	101.1	101.1	100.6	100.4	100.5	100.3	100.6	100.9	100.9	101.2	101.3	101.1	100.5	100.2	
Intermediate materials and components for manufacturing.....	101.2	101.0	100.8	100.2	100.1	100.0	100.0	100.2	100.4	100.4	100.4	100.6	100.2	99.4	99.2	
Intermediate materials for food manufacturing.....	106.1	105.4	104.8	103.8	103.1	103.1	102.7	103.6	105.3	105.5	107.2	110.2	107.1	105.5	100.5	
Intermediate materials for nondurable manufacturing.....	98.3	98.2	98.0	97.6	97.5	97.6	97.6	97.8	97.8	97.8	97.6	97.6	97.5	97.1	98.0	
Intermediate materials for durable manufacturing.....	103.4	103.3	103.2	102.5	102.5	102.4	102.3	102.3	102.4	102.3	101.9	101.8	101.6	100.5	100.4	
Components for manufacturing.....	100.5	100.3	100.0	99.4	99.3	99.3	99.4	99.9	99.9	99.7	99.6	99.5	99.6	98.8	98.8	
Materials and components for construction.....	100.7	100.7	100.7	100.6	100.6	100.6	100.6	100.7	100.7	100.4	100.3	100.1	100.1	99.6	99.3	
Processed fuels and lubricants.....	98.9	98.7	97.9	96.6	97.8	98.0	97.8	97.8	97.1	97.4	99.3	99.8	99.7	100.3	101.2	
Processed fuels and lubricants for manufacturing.....	100.6	100.4	99.7	98.6	99.6	99.6	99.4	99.5	99.1	99.1	100.9	101.2	101.1	101.7	102.3	
Processed fuels and lubricants for nonmanufacturing.....	96.1	95.9	94.9	93.1	94.7	95.3	95.1	95.1	93.9	94.6	96.7	97.3	97.3	98.1	99.4	
Containers, nonreturnable.....	98.8	98.8	99.0	98.7	98.7	98.4	98.3	98.3	99.0	99.1	99.9	99.6	100.4	101.0	102.2	
Supplies.....	105.5	104.4	105.2	104.6	103.6	103.8	103.4	104.2	105.6	105.6	106.6	107.4	107.0	106.1	104.5	
Supplies for manufacturing.....	105.5	105.6	105.7	105.6	105.7	105.8	105.0	105.6	105.7	105.2	105.4	105.3	105.3	105.4	105.7	
Supplies for nonmanufacturing.....	104.9	103.4	104.4	103.7	102.2	102.4	102.2	103.0	105.0	105.1	106.5	107.7	107.1	105.8	103.5	
Manufactured animal feeds.....	109.9	106.0	108.7	107.2	103.9	104.3	103.3	104.1	108.2	108.6	110.8	113.6	112.9	109.7	104.1	
Other supplies.....	100.0	99.9	100.0	99.7	99.4	99.4	99.7	100.5	101.1	101.1	102.0	102.1	101.6	101.4	101.3	
Finished goods (goods to users, including raw foods and fuels).....	101.9	102.1	102.1	102.1	101.9	102.1	101.7	101.3	101.3	101.5	101.6	102.1	101.4	101.4	101.7	
Consumer finished goods.....	100.9	101.1	101.2	101.3	100.9	101.2	100.8	100.2	100.3	100.7	100.8	101.5	100.6	100.7	101.2	
Consumer foods.....	99.9	100.9	101.4	102.2	100.9	101.4	100.7	98.9	99.7	100.2	99.9	101.4	99.4	100.1	101.3	
Consumer crude foods.....	97.3	103.1	100.2	101.1	99.1	101.3	102.8	96.9	97.1	100.1	97.5	100.9	98.8	97.0	98.6	
Consumer processed foods.....	100.3	100.5	101.5	102.4	101.2	101.4	100.3	99.2	100.1	100.2	100.2	101.5	99.4	100.6	101.7	
Consumer other nondurable goods.....	102.1	101.9	101.6	101.0	101.4	101.5	101.2	101.3	101.1	101.5	102.1	102.4	102.2	101.9	101.6	
Consumer durable goods.....	99.9	99.9	100.0	99.9	99.9	100.1	100.0	100.1	99.7	99.6	99.6	99.5	99.5	99.5	100.0	
Producer finished goods.....	104.5	104.6	104.3	104.2	104.3	104.3	104.1	104.3	103.9	103.8	103.7	103.5	103.6	103.1	102.9	
Producer finished goods for manufacturing.....	106.8	106.8	106.6	106.3	106.4	106.4	106.2	106.2	106.0	105.9	105.7	105.6	105.6	105.0	104.4	
Producer finished goods for nonmanufacturing.....	102.2	102.4	102.1	102.0	102.2	102.2	102.1	102.3	101.8	101.6	101.7	101.5	101.5	101.2	101.4	
<i>Durability of product</i>																
Total durable goods.....	103.0	102.9	102.8	102.4	102.5	102.4	102.3	102.4	102.2	102.0	101.8	101.7	101.6	101.0	101.0	
Total nondurable goods.....	99.1	99.1	99.2	99.4	98.7	98.9	98.4	98.4	98.9	99.2	99.5	100.3	99.2	99.6	100.1	
Total manufactures.....	101.5	101.4	101.4	101.2	101.0	101.1	100.8	100.8	100.9	100.9	101.1	101.3	100.9	100.6	100.8	
Durable manufactures.....	103.0	102.9	102.8	102.5	102.5	102.5	102.4	102.6	102.4	102.2	102.1	101.9	101.9	101.3	101.3	
Nondurable manufactures.....	100.0	99.8	100.0	99.8	99.5	99.7	99.1	99.0	99.4	99.6	100.0	100.5	99.9	99.8	100.1	
Total raw or slightly processed goods.....	97.2	97.6	97.5	98.4	97.1	97.0	96.4	96.6	97.5	97.9	97.8	99.4	97.1	98.5	99.5	
Durable raw or slightly processed goods.....	106.5	104.2	102.6	100.7	101.1	96.8	95.6	95.1	96.2	93.1	92.1	92.1	91.2	89.6	89.2	
Nondurable raw or slightly processed goods.....	96.6	97.2	97.2	98.3	96.9	97.0	96.4	96.7	97.6	98.2	98.2	99.8	97.4	99.1	100.1	

¹ See footnote 1, table D-3.² See footnote 2, table D-3.³ Preliminary.⁴ Revised.

NOTE: For description of the series by stage of processing, see "New BLS Economic Sector Indexes of Wholesale Prices," *Monthly Labor Review*, December 1955, pp. 1448-1453; and by durability of product and data beginning with 1947, see *Wholesale Prices and Price Indexes, 1957*, BLS Bulletin 1235 (1958).

E.—Work Stoppages

TABLE E-1. Work stoppages resulting from labor-management disputes ¹

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average).....	2,862	-----	1,130,000	-----	16,900,000	0.27
1947-49 (average).....	3,573	-----	2,380,000	-----	39,700,000	.46
1945.....	4,750	-----	3,470,000	-----	38,000,000	.47
1946.....	4,985	-----	4,600,000	-----	116,000,000	1.43
1947.....	3,693	-----	2,170,000	-----	34,600,000	.41
1948.....	3,419	-----	1,960,000	-----	34,100,000	.37
1949.....	3,606	-----	3,030,000	-----	50,500,000	.59
1950.....	4,843	-----	2,410,000	-----	38,800,000	.44
1951.....	4,737	-----	2,220,000	-----	22,900,000	.23
1952.....	5,117	-----	3,540,000	-----	59,100,000	.57
1953.....	5,091	-----	2,400,000	-----	28,300,000	.26
1954.....	3,468	-----	1,530,000	-----	22,600,000	.21
1955.....	4,320	-----	2,650,000	-----	28,200,000	.26
1956.....	3,825	-----	1,900,000	-----	33,100,000	.29
1957.....	3,673	-----	1,390,000	-----	16,500,000	.14
1958.....	3,694	-----	2,060,000	-----	23,900,000	.22
1959.....	3,708	-----	1,880,000	-----	69,000,000	.61
1960.....	3,333	-----	1,320,000	-----	19,100,000	.17
1961.....	3,367	-----	1,450,000	-----	16,300,000	.14
1962.....	3,614	-----	1,230,000	-----	18,600,000	.16
1963.....	3,362	-----	941,000	-----	16,100,000	.13
1963: December.....	132	336	27,300	82,400	977,000	.10
1964: January ²	210	370	60,000	100,000	1,010,000	.10
February ²	225	375	80,000	125,000	1,130,000	.12
March ²	220	360	65,000	100,000	800,000	.08
April ²	300	450	122,000	163,000	1,100,000	.10
May ²	410	570	176,000	218,000	2,180,000	.21
June ²	360	585	134,000	227,000	1,930,000	.18
July ²	420	660	133,000	194,000	1,710,000	.15
August ²	340	595	83,000	147,000	1,350,000	.13
September ²	275	515	342,000	409,000	2,320,000	.22
October ²	340	580	199,000	524,000	6,540,000	.60
November ²	275	510	137,000	228,000	1,750,000	.18
December ²	130	340	29,800	87,500	1,060,000	.10

¹ The data include all known strikes or lockouts involving 6 workers or more and lasting a full day or shift or longer. Figures on workers involved and man-days idle cover all workers made idle for as long as 1 shift in establishments directly involved in a stoppage. They do not measure the indirect

or secondary effect on other establishments or industries whose employees are made idle as a result of material or service shortages.

² Preliminary.

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