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February 1971

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MONTHLY LABOR REVIEW

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- G. H. Moore, J. N. Hedges **3 Trends in labor and leisure**
In 1970, the average American worker had 50 hours more free time than in 1960
- P. O. Flaim, P. M. Schwab **12 Employment and unemployment in 1970**
Special Labor Force Report indicates that impact of slowdown fell unevenly among major industries and labor force groups
- Raymond O. Konstant **20 Job vacancies in 1970**
- E. Jay Howenstine **24 Programs for providing winter jobs in construction**
Subsidies and scheduling of public works projects help foreign governments cut seasonal unemployment
- Sol Swerdloff **33 Surveying the gaps in construction statistics**
Cabinet subcommittee offers proposals for improving data on manpower requirements and industrial relations
- W. J. Layng, T. Nakayama **38 The anatomy of price change in 1970**
- Lucretia M. Dewey **42 Women in labor unions**
Increase in membership lags behind growth in employment of women; only a few women hold office in international unions
- Joseph P. Goldberg **49 Seamen and modernization of merchant shipping**
Labor problems arising from technical improvements are debated at ILO maritime conference
- Vera C. Perrella **55 Students and summer jobs**
Special Labor Force Report describes the work experience of the students who enter the labor force each summer
- George L. Perry **68 Inflation versus unemployment: the worsening trade-off**

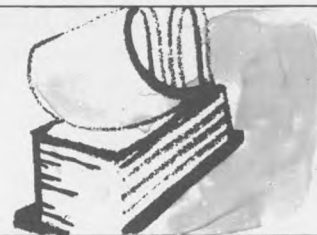
DEPARTMENTS

- 2** Labor month in review
63 Significant decisions in labor cases
68 Communication
72 Major agreements expiring next month
74 Developments in industrial relations
78 Book reviews and notes
86 Current labor statistics

FEBRUARY 1971

VOLUME 94, NUMBER 2

Labor Month in Review



Work stoppages. Work time lost as a result of labor-management disputes increased sharply in 1970. Preliminary data show 62 million man-days idle, nearly 50 percent more than in 1969. (See Current Labor Statistics, table 32, page 119).

Although the number of work stoppages was slightly less than the record 5,700 in 1969, many more workers (3.3 million) were involved. Time lost because of strikes and lockouts was 0.34 percent of all working time (about 1 day idle for every 294 worked). Not since 1959, the year of the 116-day steel strike, has time lost been so high.

Of the 5,600 work stoppages beginning during the year, 31 accounted for approximately one-half of the workers and man-days idle. By far the biggest was the strike of the United Auto Workers against General Motors, involving 329,000 workers. It lasted 71 days and resulted in nearly 16 million idle man-days.

One-half of all stoppages occurred in transportation and contract construction.

Construction bargaining. The severity and frequency of work stoppages in construction focused renewed attention on that industry. President Nixon met with union and management leaders on January 18, asked them to report back in 30 days with a plan to stabilize wages, prices, and bargaining in the construction industry.

One wide-ranging proposal was put forward by John C. Garvin, an industry labor relations consultant. Mr. Garvin would reduce the industry's employment instability by hiring a basic work force "on a minimum annual basis of 225 work days." Work would be assigned by computer. Union shop clauses would be written into all labor agreements. The industry would be organized into 10 to 15 regions for bargaining and training purposes and to administer consolidated pension and health and welfare programs. The entire program, including a research and development center, would be financed by a cents-per-hour amount in all building contracts.

Professor John T. Dunlop of Harvard University recently told a meeting of construction industry executives that—after 25 years of resisting the idea—he now favors legislation to deal with collective bargaining in the construction industry. The legislation would provide for (a) a tripartite body, made up of labor, management, and government, to determine the geographical scope of bargaining; (b) a procedure that would prevent the breakup of bargaining units once formed; and (c) machinery for settling contract disputes.

Two other issues affecting the construction industry are discussed in this issue of the *Review*: European and Canadian programs to reduce winter unemployment (page 24) and the gap in U.S. statistics (page 33.)

Rebased BLS indexes to appear in March Review

The reference year of indexes published in the *Monthly Labor Review* and other BLS publications will be changed from the 1957-59 base to a 1967 base beginning with data for January 1971. The Office of Management and Budget established the new reference base for use by all Government statistical agencies in line with a longstanding policy that index bases should be updated periodically.

Rebasing an index does not alter the percentage change between index figures over time (except for rounding differences). A note on rebasing is scheduled for the March *Review*.

The base change will affect price, productivity, and earnings indexes. Current and historical data published in the *Review* will use the 1967=100 base beginning next month. The CPI all items index also will continue to be reported on a 1957-59=100 basis. Rebasing factors for other indexes will be available on request.

Trends in labor and leisure

GEOFFREY H. MOORE AND JANICE NEIPERT HEDGES

LEISURE is intrinsically bound up in the quality of life. Its distribution—among the population and over lifetimes—and the uses to which it is put are indicative of the well-being of a society. Yet the increase in the United States in time free of work and available for leisure activities has been far less widely noted than the upward march of the output of goods and services.

The relative neglect of leisure as a measure of the Nation's advance in living standards is related to its elusive quality. Worktime, and its reduction over a period of years, can be measured statistically. It is more difficult to tell whether leisure has actually grown. Even to define leisure is difficult. "Free, unoccupied time" expresses one common definition. Students of leisure, however, are likely to think of it as a state of being, rather than as time. De Grazia expressed this concept: "Leisure is a state of being in which activity is performed . . . for its own sake."¹

Significantly, most current definitions of leisure use work as the reference point. That is, leisure time or leisure activities are contrasted, implicitly or directly, with worktime or productive activities. In some other societies, leisure has been the reference point. In Greece, in the 5th century B.C., for example, "business" was the negative form of the word we translate as leisure, "schole." And the Latin word for business, "negotium," is the antonym of "otium," which is leisure. In Athens or Rome, the Bureau of Labor Statistics would have been the Bureau of Leisure Statistics. But times have changed.

Geoffrey H. Moore is Commissioner of Labor Statistics. Janice Hedges is an economist in the Division of Economic Studies, Bureau of Labor Statistics. Susie Scandrett assisted in developing the statistical data. Mr. Moore presented an earlier version of this paper to a seminar on "The Economics of Leisure," sponsored by the National Association of Business Economists and the University of Denver, Denver, Colo., October 26-27, 1970.

Leisure in ancient Greece and leisure in "advanced" societies such as ours differ in another important aspect. The Greek concept of leisure was time to develop human capacities through contemplation and music. Webster's New World Dictionary defines leisure for our age as "time in which to indulge in rest and recreation." One writer has labeled the Greek concept "full time" and the modern concept "empty time."²

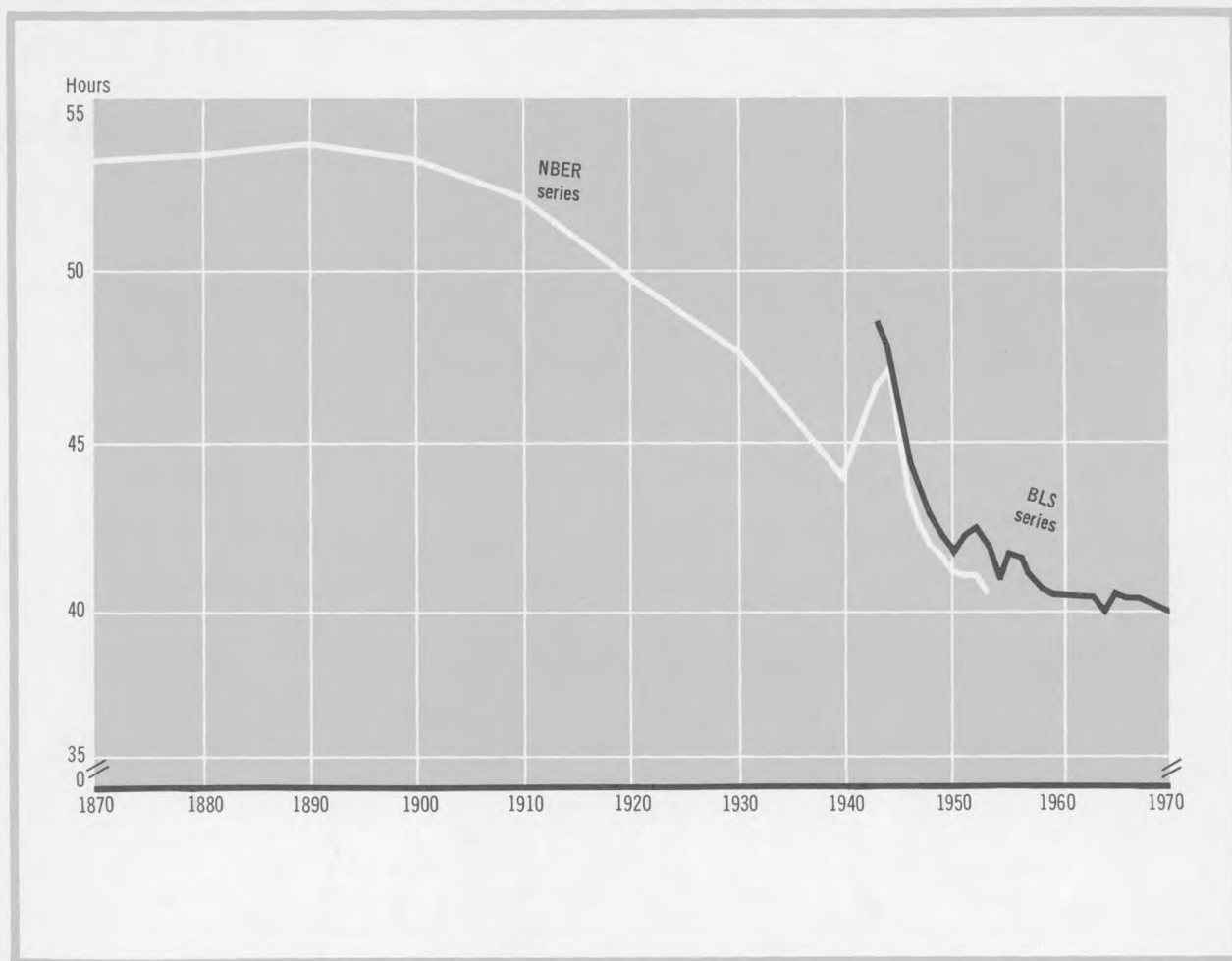
Nor are the perimeters of modern leisure clearly established. To some they encompass nonworking time, to others, only time that is free of all commitments. "Discretionary time" expresses for still others the boundary between work and leisure. In recent years some economists, notably Becker and Linder, have thought of the allocation of time not as a dichotomy but as a continuum, and have treated it as a scarce resource whose allocation among different activities is governed by economic principles.³ The activities that occupy one's time are not always easy to classify as work or leisure—commuting, for example, or sleeping, shopping, eating, caring for one's children, or seeking a job. But all such activities have a cost in terms of opportunities foregone, and they confer benefits of one kind or another. This kind of cost-benefit analysis applied to time promises to illuminate many of the choices people make, and the economics of leisure will in due course be profoundly affected by it.

Composition and growth of leisure

In this paper, leisure is discussed largely as time free of the necessity to earn a living. With the aid of data compiled by the Bureau of Labor Statistics, we shall try to present a picture of the size and shape of American leisure, and answer such questions as: Who gets it? How has it grown in the past? How might it grow in the future?

The best indicator of the long-term swing toward more leisure hours in the past century is the

Chart 1. Average weekly hours per worker, civilian economy, selected years, 1869-1970



shortening workweek. Paid vacations and other forms of free time have assumed major importance only in recent years.

SHORTER WORKWEEK. In the 1870's the average workweek was about 53 hours. Today the average is close to 40 hours—about 13 hours less than a century ago. (See chart 1 and table 1.) The decline during the 1960's was about 40 minutes for all workers, and about 30 minutes for full-time workers.⁴ (See table 2.)

Factors other than the desire for leisure have been important in achieving this reduction in the workweek. The concept of shorter hours as a work-sharing device, for example, has played a large role in reducing hours of work, as illustrated by the National Industrial Recovery Act and the Fair Labor Standards Act, under which the substantial hours reductions of the 1930's and 1940's were accomplished. Other important factors include

changes in the industrial and occupational structure, such as an increase in service industries, which employ significant proportions of part-time workers, and a decrease in agricultural workers, who characteristically work long hours. Some reductions in scheduled hours have been for the purpose of increasing overtime earnings, rather than increasing time free of work. It is significant that between 1956 and 1968, while the straight-time workweek in manufacturing fell from 37.6 to 37.1 hours, overtime hours rose from 2.8 to 3.6 hours, more than canceling out the reduction.

PAID VACATIONS AND HOLIDAYS. Although the movement toward shorter hours was dominated for many years by reductions in the workweek and the workday, vacations and holidays have become increasingly important. Paid vacations and holidays were extended first to managers, officials, and professional workers. Most wage earners, at

least until the 1940's, were paid for the number of hours they worked or the number of pieces they produced; their earnings ceased if they stopped working to take a vacation because of a holiday or any other reason.

Since 1960, paid vacations have spread rapidly. In 1968, two-thirds of all workers in the private nonfarm economy received a paid vacation. (See table 3.) Of the remainder, some were newly hired employees, and the rest worked in firms that made no provision for paid vacations.

The recent growth in the number of vacation weeks has been spectacular. In 9 years, from 1960 to 1969, the total number of weeks that workers spent on vacation increased almost 50 percent, or from 87 to 129 million weeks. (See table 4.) The average length of a worker's vacation increased from 1.3 to 1.7 weeks, while vacations for full-time workers increased from about 1.8 to 2.2 weeks.

The practice of paying workers for holidays and for time lost for personal reasons also has been increasing in recent years. Between 1960 and 1968, paid holidays for office workers increased by three-

Table 1. Average weekly hours per worker, civilian economy, selected years, 1869-1970

Year	National Bureau of Economic Research	Bureau of Labor Statistics
1869-78	¹ 53.2	
1879-88	¹ 53.4	
1890	53.7	
1900	53.2	
1910	52.1	
1920	49.8	
1930	47.7	
1940	43.9	
1943	46.6	48.5
1944	47.0	47.8
1945	45.7	46.1
1946	43.5	44.3
1947	42.5	43.5
1948	42.0	42.8
1949	41.6	42.1
1950	41.2	41.7
1951	41.0	42.2
1952	41.0	42.4
1953	40.6	41.9
1954		40.9
1955		41.6
1956		41.5
1957		41.0
1958		40.6
1959		40.5
1960		40.5
1961		40.5
1962		40.5
1963		40.4
1964		40.0
1965		40.5
1966		40.4
1967		40.4
1968		40.1
1969		39.9
1970		² 39.6

¹ Decade average.

² May 1970.

Table 2. Hours worked by full-time workers, May 1955, 1960, and 1965-70¹

[Numbers in thousands]

Year	Number of workers	Average	Hours at work				
			Percent distribution				
			Total	35-39	40	41-48	49 and over
1955	51,008	46.0	100	7	49	21	23
1960	52,723	45.8	100	7	52	17	23
1965	56,483	46.2	100	8	49	18	25
1966	57,195	45.7	100	8	51	17	24
1967	56,527	45.3	100	8	51	17	24
1968	57,839	45.2	100	9	51	17	23
1969	58,679	45.3	100	9	52	16	24
1970	58,360	45.1	100	9	53	15	22

¹ Persons 14 years and over for 1955-66, 16 years and over for 1967 forward.

NOTE: Columns may not add due to rounding.

tenths of a day on the average; for plant workers, by seven-tenths of a day. In 1968, office workers received an average of 8 paid holidays; plant workers, about 7.5.

The terms of choice between work and leisure are, of course, altered drastically when the cost of an hour's or a day's or a week's less work is shifted from the employee to the employer. The trends mentioned above show the effect of the shift in those terms.

LIFE EXPECTANCY AND WORKLIFE. Reductions in the workweek and increases in vacations, holidays, and time off for personal reasons tell only part of the story, for the growth in leisure has not been limited to the worklife. The widening gap between the worklife and total life expectancy is responsible for a significant share of the growth in time free of paid work.

Life expectancy for men at birth increased by 18 years (to almost 67 years) between 1900 and 1960. (See table 5.) Their worklife expectancy in the same period increased by 9 years (from 32 to 41 years). The net effect of changes in life and worklife expectancy was an increase of 9 years of work and 9 years of time out of the labor force.

Women gained more than men, both in life expectancy and in worklife expectancy, but about the same as men in time out of the labor force. Between 1900 and 1960, women's life expectancy rose by 22 years (from 51 to 73 years), their worklife expectancy by 14 years (from 6 to 20 years), and their time out of the labor force by more than 8 years, compared with 9 years for men. The rise in the earning power of women is one of the inducements, no doubt, that caused them to split their

Table 3. Percent distribution of workers by weeks of paid vacations, private nonfarm economy, 1968

Industry	Total	Without paid vacation	Weeks of paid vacations			
			Under 1	1 and under 2	2 and under 3	3 and over
All workers:						
All industries.....	100	34	2	16	28	20
Manufacturing.....	100	18	3	18	30	32
Nonmanufacturing.....	100	43	2	16	26	14
Office workers:						
All industries.....	100	20	2	13	39	25
Manufacturing.....	100	10	2	9	40	38
Nonmanufacturing.....	100	24	2	14	39	21
Nonoffice workers:						
All industries.....	100	40	3	18	22	16
Manufacturing.....	100	20	4	21	27	28
Nonmanufacturing.....	100	52	2	17	20	9

22-year increase in life expectancy 14 to 8 in favor of paid employment, while men split their 18-year increase 9 to 9.

GAINS OVER THE CENTURY. What does the additional time free of work in the past 100 years add up to in terms of the lifetime of the full-time worker? And what gains were made in the 1960's?

During the past century, reduction of the average workweek by about 13 hours amounts to a gain of about 675 hours of free time annually. BLS data indicate that workers average about 1.7 weeks vacation. With an average workweek of about 40 hours, vacations account for about 70 more hours of free time a year, compared with the worker a century earlier. Similarly, BLS data indicate that all workers receive an average of about 5.5 holidays a year, which can be translated into approximately 45 hours of additional free time annually. Vacation and holiday time for workers thus add to about 115 hours per year, or a total gain in time free of work of nearly 800 hours annually—roughly 1 month out of 12. The additional years of nonworking time in youth and old age represent a further gain of about 18,000 hours during a man's lifetime. Altogether, the lifetime gain for all workers in the past 100 years comes to about 50,000 hours free of work.

TRENDS OF THE 1960's. Since 1960, all workers have gained about 50 hours a year in time free of work—about 30 hours from a reduction in the workweek, 15 hours in additional vacation time, and 4 hours in additional holiday time. Full-time workers have gained about the same total, although changes in vacation and holiday time have

been relatively more important in reducing the total worktime.

The reduction in hours worked since 1960 accounts for only a small fraction of the gain in productivity that the economy has achieved since 1960. BLS estimates of output per man-hour indicate that to produce the 1969 output with the 1960 productivity would have required an additional 650 hours of working time for each person employed in 1969. Thus, the reduction of about 50 hours in worktime amounted to only about 8 percent of the hours that have been made available by the Nation's increased productivity in the past decade.

Limits on leisure

The gains that workers have made in time free of work have been substantial. Why then do so many people feel they have so little leisure?

DISTRIBUTION OF WORK HOURS. Contributing to a feeling of a lack of leisure is the distribution of total hours worked among employed persons.⁵ Although the 40-hour week is regarded as the "standard" workweek, the standard is by no means universal. Many full-time workers today work much longer than 40 hours, either because their job normally exceeds the standard, or because of overtime, or because they hold more than one job. Total hours worked by full-time workers in May 1970 averaged 45 hours a week, according to the household survey conducted by the Bureau of the Census for the Bureau of Labor Statistics.⁶ Little more than half of all full-time workers actually worked a 40-hour week. (See table 6.)

Table 4. Vacation weeks, 1960 and 1969

Item	1960	1969
Number of weeks (in millions).....	86.7	129.0
Average weeks per worker.....	1.3	1.7
Average weeks per full-time worker.....	1.8	2.2
Percent distribution.....	100.0	100.0
January.....	1.8	1.7
February.....	2.1	2.3
March.....	1.8	2.3
April.....	4.9	5.5
May.....	3.6	3.6
June.....	12.1	11.6
July.....	29.2	28.4
August.....	27.3	26.0
September.....	7.2	7.4
October.....	4.5	5.2
November.....	3.0	3.2
December.....	2.3	2.8

NOTE: This table understates vacation weeks since the survey week, which includes the 12th of the month, generally avoids all major holidays whereas vacations tend to occur more frequently during holiday weeks.

Table 5. Life and worklife expectancy at birth, by sex, 1900, 1940, and 1960

[Number of years]

Life and worklife expectancy	1900	1940	1960	Increase	
				1900-60	1940-60
MEN					
Life expectancy.....	48.2	61.2	66.6	18.4	5.4
Worklife expectancy.....	32.1	38.3	41.4	9.3	3.1
Difference.....	16.1	22.9	25.2	9.1	2.3
WOMEN					
Life expectancy.....	50.7	65.9	73.1	22.4	7.2
Worklife expectancy.....	6.3	12.1	20.1	13.8	8.0
Difference.....	44.4	53.8	53.0	8.6	-0.8

Nine percent worked less, the balance worked more—some, much more. Over one-fifth were at work 49 hours or more and over 1 in 10 worked 60 hours or more. Who are these workers who put in long workweeks? Hours data by worker characteristic and occupation give some answers.

Among male full-time workers in May 1970, 14 percent worked 49–59 hours and another 14 percent worked 60 hours or more. (See table 7.) In the 20–24 year age group, about one-fifth worked 49 hours or more. In every older age group, including workers 65 years of age and over, about 3 out of 10 men employed full time worked 49 hours or more a week.

Among all full-time women workers in May 1970, 6 percent worked 49–59 hours and 4 percent worked 60 hours or more. The proportion working long hours increased in each successive age group.

Marital status also affects hours at work. In the survey week in May 1970, about 30 percent of all married males compared with 19 percent of all single males worked 49 hours or more. (See table 8.)

Occupation is another factor associated with working hours. Among managers, officials, and proprietors, more than two-fifths worked 49 hours or more a week last May. A smaller but still substantial proportion of professional workers—about one-fourth—were at work 49 hours or more. (See table 6.)

About 3 out of 10 salesworkers and private household workers reported working 49 hours or more. Most farm workers reported long hours. Over three-fifths of the farmers and farm managers and more than one-third of the farm laborers worked 60 hours or more in the May survey week.

MOONLIGHTING. Among those who work long hours are the “moonlighters,” those who hold two

or more jobs.⁷ In May 1969, about 4 million persons, more than 5 percent of all workers, held two jobs or more at the same time. About half of them worked 55 hours or more during the survey week.

Most moonlighters work at two jobs or more because they value additional income over leisure. In 1969, 2 out of 5 moonlighters cited the need for additional income for regular household expenses. Another 1 out of 5 said they worked at two jobs or more either to pay debts or to save for the future. The importance of economic reasons for multiple job holding is supported by data on marital and family status. The moonlighting rate was less than 4 percent for single men. Among married men, rates were about 6 percent for those with no children under 18 and rose as the number of children in the family increased. The rate for men with five children or more under 18 was 11 percent.

OVERTIME. The number of workers who put in overtime on their regular job is much larger than the number of moonlighters. In May 1970, 14.5 million workers were on extended workweeks. The prevalence of overtime work has been increasing as scheduled overtime for day-to-day operations has become an integral part of the wage-hour structure. Management decisions to schedule overtime are affected by factors that include economic conditions, alternative costs of hiring and training new workers, requirements of manufacturing

Table 6. Percent distribution of hours worked by full-time workers, by major occupation, May 1970

[Numbers in thousands]

Occupation	Number of workers	Hours at work					
		Total	35-39	40	41-48	49-59	60 or more
Total.....	58,360	100	9	53	15	12	11
White-collar workers.....	29,371	100	11	51	14	13	11
Professional and technical.....	8,990	100	9	51	16	15	11
Managers, officials, and proprietors.....	7,428	100	5	35	17	19	24
Clerical workers.....	9,951	100	18	66	10	4	2
Sales workers.....	3,000	100	11	45	15	18	11
Blue-collar workers.....	21,408	100	6	60	18	10	6
Craftsmen and foremen.....	8,395	100	5	57	19	12	6
Operatives.....	10,675	100	7	62	16	9	7
Nonfarm laborers.....	2,340	100	5	64	18	8	5
Service workers.....	5,259	100	10	57	15	9	9
Private household.....	435	100	14	45	16	12	14
Other service workers.....	4,823	100	9	58	15	9	9
Farm workers.....	2,321	100	7	12	12	16	53
Farmers and farm managers.....	1,437	100	4	9	9	15	63
Farm laborers and foremen.....	883	100	10	17	17	18	37

NOTE: Columns may not add due to rounding.

Table 7. Percent distribution of hours worked, by sex and age, May 1970

[Numbers in thousands]

Sex and age	Part time						Full time						
	Number	Hours at work					Number	Hours at work					
		Total	1-4	5-14	15-29	30-34		Total	35-39	40	41-48	49-59	60 or more
MEN													
16 years and over.....	7,150	100	4	22	46	27	39,904	100	5	50	17	14	14
16-19 years.....	2,126	100	6	34	50	10	1,078	100	12	51	20	8	9
20-24 years.....	1,015	100	2	23	50	25	3,926	100	7	54	18	12	10
25-34 years.....	974	100	2	11	42	45	9,634	100	4	48	18	16	13
35-44 years.....	700	100	2	9	40	49	9,252	100	4	48	17	15	16
45-54 years.....	695	100	1	10	41	48	9,030	100	4	51	16	14	15
55-59 years.....	375	100	3	13	44	41	3,499	100	5	53	15	13	14
60-64 years.....	324	100	5	17	48	30	2,360	100	5	51	16	14	14
65 years and over.....	941	100	8	31	48	13	1,122	100	12	43	15	14	17
16-21 years.....	2,617	100	5	32	50	12	2,149	100	10	54	18	8	10
Major activity:													
School.....	1,790	100	7	38	49	6	136	100	36	38	11	7	9
Other.....	829	100	3	20	52	25	2,014	100	8	55	18	8	10
WOMEN													
16 years and over.....	9,707	100	5	24	47	24	18,456	100	18	61	11	6	4
16-19 years.....	1,651	100	9	41	41	9	843	100	20	67	9	3	1
20-24 years.....	1,149	100	4	23	45	28	3,052	100	18	65	11	4	2
25-34 years.....	1,719	100	5	21	46	27	3,455	100	17	64	12	5	2
35-44 years.....	1,849	100	4	19	50	27	3,696	100	19	61	11	6	4
45-54 years.....	1,687	100	3	17	52	28	4,305	100	17	61	12	6	5
55-59 years.....	645	100	3	18	50	29	1,698	100	18	57	11	7	6
60-64 years.....	503	100	3	21	50	26	965	100	18	53	13	9	6
65 years and over.....	505	100	9	31	49	11	443	100	22	47	12	8	12
16-21 years.....	2,164	100	8	38	42	12	2,025	100	20	67	10	3	1
Major activity:													
School.....	1,327	100	11	48	38	3	46	100	46	30	13	11	-----
Other.....	838	100	4	22	47	27	1,979	100	19	68	10	3	1

NOTE: Columns may not add due to rounding.

processes, and union-management agreements. For workers, a reduction in scheduled hours with no reduction in time worked may be a device for securing higher wages through premium pay.

MORE PEOPLE IN THE LABOR FORCE. The high proportion of men and women in the labor force also contributes to a lack of leisure. Among the population 16 years and over in 1969, 81 percent of the men and 43 percent of the women were working or looking for work. Although labor force participation rates for men have declined, the decline has been concentrated among younger and older men. To illustrate, the proportion of young men age 18 and 19 who were in the labor force fell from about 81 percent in 1947 to 70 percent in 1969, reflecting longer periods of formal education. During the same years, the proportion of men age 65 and over who were in the labor force fell from 48 to 27 percent, reflecting reduction in retirement ages. In contrast, labor force participation of men in the prime working age (45-54 years) remained substantially the same, at about 95 percent.

Moreover, labor force participation rates for women have risen substantially—despite Veblen's

observation at the turn of the century that "propriety requires respectable women . . . to make more of a show of leisure than men of the same social classes."

Insufficient data on worktime and free time for women performing unpaid housework and child-care at home make it impossible to calculate the loss in leisure for married women and their families when they take paid employment. Advances in technology and small family size are widely assumed to have reduced the working hours of housewives, facilitating their entry into paid employment. However, a recent survey indicates that the worktime of full-time homemakers is not less than it was 40 years ago—about 8 hours a day. For employed homemakers, it is about 5 hours a day.⁸

DO-IT-YOURSELF PROJECTS. The high proportion of the population in the labor force and the unequal distribution of hours worked are major factors in the scarcity of leisure. Other factors include the popularity of "do-it-yourself," which to some extent represents a substitution of unpaid labor for the earning of income, rather than leisure-time activities. Instead of taking a second paid job, the

worker performs a variety of skilled trades in his own home, such as television and radio repair, painting, wallpapering, and carpentry. "Do-it-yourself" extends beyond the home; in stores, it goes under the name of "self-service."

MAINTENANCE AND SERVICING OF DURABLE GOODS. In addition, economic growth and higher living standards cause an increasing variety of demands upon time. Roy Harrod first drew attention to a growing scarcity of time due to the servicing and maintenance required by consumption goods.⁹ In 1965, the general theory of time allocation developed by Gary Becker, referred to earlier, included time spent in using consumer goods. Linder, in *The Harried Leisure Class*,¹⁰ follows the same basic approach. He observes that the material riches of advanced societies are apparently incompatible with the superfluity of time that is characteristic of materially poor cultures. An example is the economic commitment to maintain and service durable goods, such as automobiles and washing machines, that goes with their ownership.

What is the future of leisure

In past periods, the strength of the movement toward shorter hours has been influenced by factors that include increases in productivity; the value workers and their unions place on shorter hours versus larger earnings; the needs of employers or the technical constraints imposed by industrial equipment; and changes in the occupational and industrial structure. These same influences

will continue to determine trends in leisure hours.

Productivity gains over the past two decades averaged 3.1 percent annually. BLS has projected a similar growth rate for the next decade. Thus, the potential for increased leisure and/or increased income should continue to be about the same during the 1970's as in the 1950's and 1960's.

If the entire gain in output per man-hour expected during this decade were taken in leisure time, then hours for workers would be reduced by an average of 3 percent a year, and the workweek in 1980 would be 29 hours. However, this is most unlikely. Gains in productivity in the 1970's probably will be divided, as in the past, between shorter worktime and higher real incomes.

The economic answer to the distribution of gains in productivity lies in the combination of leisure and goods (or purchasing power) that will maximize the satisfaction of individuals. Workers of course have individual preferences between extra leisure and additional income, although these preferences cannot always be realized. Younger workers, older workers, and married women seem to prefer shorter hours to additional income. Most of the part-time workers who do not wish full-time work are in these groups. In contrast, males in the prime working years, especially those who are married, are more likely to choose income rather than leisure, as evidenced by the extensive moonlighting of this group referred to earlier.

Social sciences other than economics provide perspective on the choice of work or leisure. Sociologists, social anthropologists, and psychologists point to the satisfaction and status that men

Table 8. Percent distribution of hours worked by male workers, full time, by age and marital status, May 1970

[Numbers in thousands]

Age	Single							Married, wife present						
	Number	Hours at work						Number	Hours at work					
		Total	35-39	40	41-48	49-59	60 or more		Total	35-39	40	41-48	49-59	60 or more
16 years and over.....	4,801	100	9	57	15	9	10	33,064	100	4	49	17	15	15
16-19 years.....	890	100	14	51	17	8	10	176	100	6	48	36	6	5
20-24 years.....	1,598	100	9	63	14	8	7	2,205	100	6	48	20	14	12
25-34 years.....	1,071	100	5	57	16	11	11	8,162	100	4	47	18	17	14
35-44 years.....	486	100	7	55	16	9	12	8,332	100	4	47	17	16	17
45-54 years.....	442	100	8	55	15	11	12	8,083	100	4	50	17	14	16
55-59 years.....	147	100	14	45	9	6	26	3,117	100	4	53	16	13	14
60-64 years.....	105	100	13	48	16	7	16	2,065	100	5	52	15	14	14
65 years and over.....	61	100	10	49	7	13	21	924	100	12	42	16	14	16
16-21 years.....	1,493	100	11	56	16	8	9	629	100	8	48	23	9	13
Major activity:														
School.....	132	100	34	39	11	7	9	4	100					
Other.....	1,363	100	9	57	16	8	9	626	100	7	48	23	9	13

NOTE: Columns may not add due to rounding.

find in work or in the work situation. Although the work ethic has been a strong influence on choices for work or leisure, some weakening in it has become evident. Margaret Mead, expressing the change, remarked that "As once it was wrong to play so hard that it might affect one's work, now it is wrong to work so hard that it may affect family life."¹¹ Nevertheless, the attitude that work gives purpose to life is much more widely held today than is Aristotle's view that "the goal . . . of business is leisure."

Collective bargaining and legislation also will play a role in determining the amount of time free of work in the 1970's. On the whole, legislation has been most effective in reducing hours in industries that lag far behind the norms. Labor-management agreements have been pace setters in the movement for shorter hours. The collective bargaining policies adopted by resolution at the AFL-CIO convention in October 1969 indicate that unions will continue seeking to reduce working hours through reduction in scheduled hours, longer vacations, and additional paid holidays.

Changes in the industrial and occupational structure of the economy also will automatically influence the leisure time of workers. The reduction in farm employment and the rise in employment in the service industries will in the future, as in the past, tend to reduce the average workweek.

A further reduction in working hours over the long term seems to be assured. Although the increasing proportion of part-time employees, due to the growth of employment in trade and services, will be a contributing factor, small reduction in the workweek of full-time workers also is expected during the 1970's. Increased holidays, vacations, and shorter worklife will add to a decrease in worktime.

Forms leisure will take

Although productivity increases, choices between income and leisure, and the mix of employment by industry and occupation will determine to a large extent the *amount* of additional leisure, the *form* leisure will take involves other considerations. "Lumps of leisure,"¹² in contrast to small bits of leisure added to each day, have been gaining in favor.

Retirement years represent one such "lump of leisure" that is growing. By 1980, the labor force

participation rate for men 65 and over is expected to decline to 22 percent, down 4 percentage points from 1968. Improvements in social security benefits and private pension plans are enabling increasing numbers of older workers to choose retirement over work. For long-service employees, total retirement income (including private pension and social security payments) is approaching preretirement income after taxes.

Longer vacations and longer weekends also represent lumps of leisure that are gaining favor. A 5-day (or even more, a 4-day) week offers economies of scale, such as a saving in commuting time, over a 5½- or a 6-day week. In addition, it provides a wider selection of leisure-time activities, increasing the utility of free time. Longer vacations offer similar benefits. Although the 4-day week may be distant for most workers, slow advances in that direction continue. About 7,000 workers in a small number of firms distributed throughout the United States were on a 4-day week in 1970.¹³ Many companies that have gone to the 4-day week require their workers to put in 9 or even 10 hours a day. Growing interest in a 4-day week is reflected in a Federal law that, effective in 1971, shifts five mid-week holidays to Mondays.

Another development is the use of working time for education, training, or retraining. This is not strictly leisure time, representing rather the reunification of work and education. One observer, who would maintain the standard 40-hour week at work, but schedule part of it for education, draws on the example of the Boimondau watchcase factory in France.¹⁴ In this factory, owned and managed by the workers, the work force studies engineering, literature, music, and other subjects on company time. The same workers have an interesting approach to the use of free time. They and their families spend three 10-day periods each year working on a farm owned in common.

The sabbatical is another form of leisure that may become more extensive in the future. The utility to a worker of a year's leisure may be greater at age 50 or 55 than at the end of his life. Or it may be greater than a reduction of 1 hour in the workweek over an entire worklife, which is roughly equivalent to a year's leisure. The sabbatical, first established for college teachers in the 1880's, was adopted in the steel industry in 1963. Negotiations in that year provided 3 months of

paid vacation every 5 years for workers in the top half of the seniority roster. Those with lesser service became eligible under the 1968 negotiations for 3 weeks of paid vacation every 5 years in addition to their regular paid vacation time. (It is interesting to note that office workers in the steel industry—who, unlike the plant workers, had the option of a sabbatical or added income—generally preferred the income.)

IN SUMMARY, tremendous shifts in the worklife of the average man have occurred during the past century, and time free of the necessity of earning a living has increased spectacularly. Reductions in the average workweek, longer vacations, more holidays, greater opportunities for part-time work, the shift away from farming, changes in educational and retirement opportunities all have played a role. The choice between work and leisure has been profoundly altered as these changes have occurred.

In the past decade, many of these changes have continued. The reduction in the average workweek has been at a slower rate, however, than in previous periods. A significant share of the reduction has been due to an increasing proportion of part-time workers and a decreasing proportion of farm-

workers. Scheduled hours for full-time workers showed little change.

Paid vacations and holidays also continued to increase during the 1960's and contributed to a 50-percent increase in the number of vacation weeks enjoyed by employees.

Workers took about 8 percent of the increased productivity during the 1960's in leisure, somewhat less than during preceding decades.

Although leisure time has increased overall, some groups have increased their labor force participation, hold more than one job, and work long hours. Groups that work long hours include executives and proprietors, professional workers, farmworkers, and married men. And if household work is added to the workweek of married women in the labor force, we have another group that puts in a long workweek.

For the 1970's, the potential for increased leisure and/or income is expected to continue at about the level of the 1960's. The actual change in time free of work will depend largely on preferences for leisure versus goods, and changes in the industrial and occupational structure. However, further reductions in working time are likely to be small during the 1970's, with attention centering on the reshuffling of time free of work in order to provide larger blocks of leisure. □

—FOOTNOTES—

¹ Sebastian de Grazia, *Of Time, Work and Leisure* (New York, Twentieth Century Fund, 1962).

² A. R. C. Duncan, *The Concept of Leisure* (Ontario, Canada, Queen's University, Industrial Relations Centre, 1963).

³ Gary Becker, "A Theory of the Allocation of Time," *The Economic Journal*, September 1965, pp. 494-517, and Staffan Burenstam Linder, *The Harried Leisure Class* (New York, Columbia University Press, 1970).

⁴ In analyzing changes in the workweek, trends for full-time workers and for all workers need to be distinguished. The trend for all workers is affected by the growing relative importance of part-time workers, especially of women, students, and partially retired workers who do not appear in the full-time count.

⁵ Peter Henle, "Leisure and the Long Workweek," *Monthly Labor Review*, July 1966, pp. 721-727. Reprint No. 2500.

⁶ The customary reference month for trend data on hours obtained through the household survey is May. This practice is followed for two reasons: (1) May is considered a normal month for hours data since the survey week does not include a holiday, while annual average data may be distorted because of the varying incidence of holidays in other months of the year; and (2) for some

of the earlier years, data on hours are available only for the month of May, when special surveys were made.

⁷ Vera C. Perrella, "Moonlighters: Their Motivations and Characteristics," *Monthly Labor Review*, August 1970, pp. 57-64.

⁸ Kathryn E. Walker, "Homemaking Still Takes Time," *Journal of Home Economics*, October 1969, pp. 621-624.

⁹ Roy F. Harrod, untitled paper in *Problems of United States Economic Development*, Vol. 1 (New York, Committee for Economic Development, January 1958), pp. 207-213. Mimeographed.

¹⁰ Linder, op. cit.

¹¹ See "The Pattern of Leisure in Contemporary American Culture," *Annals of the American Academy of Political and Social Science*, Vol. 313, 1957, p. 14.

¹² Juanita Kreps, "Lifetime Tradeoffs Between Work and Play," *Proceedings of the Twenty-first Annual Winter Meeting, Industrial Relations Research Association*, 1968, pp. 307-316.

¹³ Riva Poor, ed., *Four Days, Forty Hours* (Cambridge, Mass., Bursk and Poor, 1970).

¹⁴ Sidney Lens, "A Shorter Work Week," Fogel and Klingartner, eds., *Contemporary Labor Issues* (Belmont, Calif., Wadsworth Publishing Co., Inc., 1966), pp. 169-176.

Changes in employment and unemployment in 1970

Special Labor Force Report indicates that job growth leveled off while unemployment rose sharply

PAUL O. FLAIM AND PAUL M. SCHWAB

GROWTH in employment in 1970 was held back by a general slackening of private demand for goods and services resulting, at least in part, from Government anti-inflationary measures, a sharp reduction in Government spending for defense and aerospace activities, and a major strike in the automobile industry. As a result, the number of employed persons showed only a moderate rise of 700,000 between 1969 and 1970. In contrast, between 1968 and 1969 employment rose by about 2 million.

This limited employment growth was inadequate to accommodate the substantial rise in the labor force, which, boosted by a reduction in the Armed Forces as well as by normal growth of the population and the gradually rising job-market participation of women, rose by nearly 2 million to 82.7 million. The outcome was a sharp rise in unemployment, the average number of jobless persons rising from 2.8 to 4.1 million, and the jobless rate going from 3.5 to 4.9 percent.

These developments affected major industrial sectors, labor force groups, and geographic areas rather unevenly. Although most industries were affected to some degree, the decline in manufacturing, particularly in defense and aerospace plants, was larger than in other industries. Many workers who lost their jobs, particularly in the early stages of the slowdown, had been engaged in relatively skilled work. The Pacific coast, New England, and the East North Central region (or industrial Midwest), which contain large concentrations of the affected industries, experienced a disproportionately large share of the increase in unemployment. Joblessness among whites rose more rapidly than among Negroes, partly because there were fewer

Negroes in some of the industries and areas most affected.

The year's changing picture

Total employment averaged 78.6 million in 1970, up from 77.9 million in 1969. This 700,000 rise, modest in relation to those of previous years, masked a significant shift in trend during 1970.

The upward trend in employment which characterized the late 1960's came to a halt early in 1970. After hitting a peak of 79.1 million in March, total employment began to recede sharply. By June, the employment level had dropped nearly 1 million below the March peak. After the sharp March-to-June decline, employment stabilized, indicating that the wave of layoffs had subsided. By October, the total employment level had, in fact, recovered about half of the March-to-June drop. At this point, however, the employment picture became clouded by a major strike in the automobile industry. (See chart 1.)

Although the impact of the auto strike on the total employment level is difficult to measure, it is clear that many workers were displaced—at least temporarily—because of the secondary strike effects.¹ An indication of this is provided by the factory layoff rate. Prior to the strike, the layoff rate had reached a 7-year high (of 20 per 1,000 workers) in April 1970, but had then receded. In October, the first full month of the strike, the layoff rate moved up sharply to 22 per 1,000 workers.

Just as the sharpest reductions in employment—exclusive of strike effects—took place in the first half of 1970, the steepest increases in joblessness were registered then. In the first 4 months, for example, the jobless rate jumped from 3.5 to 4.8 percent. After that, unemployment continued to rise, but more moderately.

The composition of the increase in unemploy-

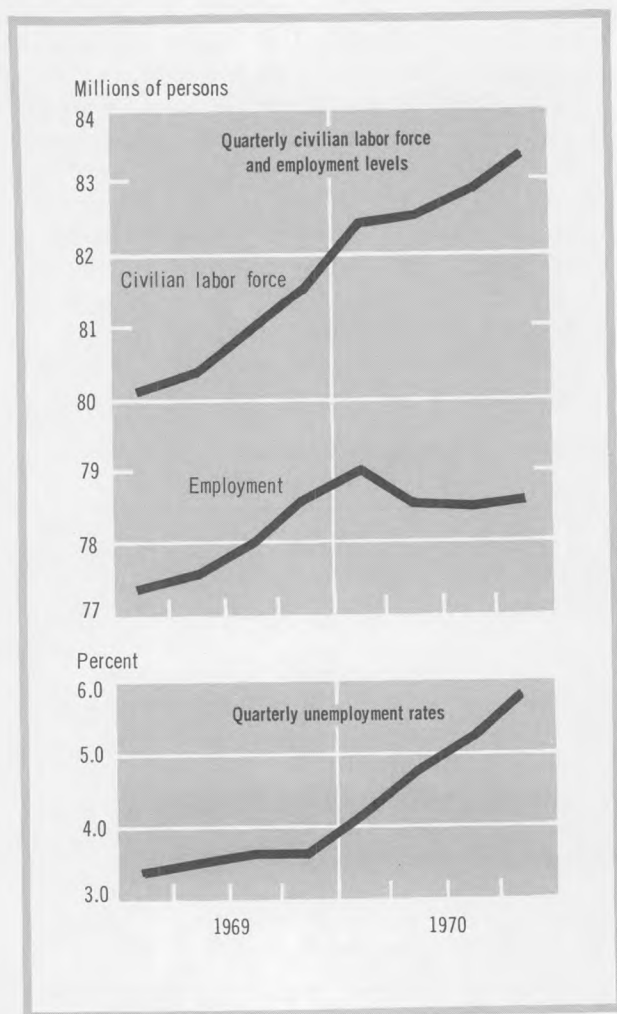
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ment also changed over the year. In the early part of 1970, the contraction in employment was generally confined to durable goods industries, in which a large proportion of the work force has traditionally consisted of men of prime working age. Layoffs among these men thus accounted for a relatively large share of the unemployment increase in the first half. By mid-year, the slowdown in employment began shifting, with women and youths bearing a larger share of rising unemployment. The following tabulation shows the number of persons added to the unemployment count each quarter (seasonally adjusted) and the proportion of the increase accounted for by men 25 years and over and by other workers:

	1st quarter	2d quarter	3d quarter	4th quarter
Total increase in unemployment (in thousands).....	494	566	353	495
Percent of increase accounted for by:				
Men 25 years and over.....	34.2	44.9	20.1	32.3
Other workers.....	65.8	55.1	79.9	67.7

Most of the persons who became unemployed in 1970 managed to find work after a relatively short period of job hunting. Thus, the average duration of unemployment increased only moderately during the year. At an 8.8-week average, it was only 1 week higher than in 1969, but well below the levels that, in earlier years, had been associated with unemployment rates of the magnitude reached in 1970. Nevertheless, a gradually higher proportion of the unemployed (about one-fifth at year's end) had been jobless for at least 15 weeks, while a limited number apparently had left the labor force.

Chart 1. Employment and unemployment, 1969-70 (seasonally adjusted)



Industry developments

The goods-producing sector was clearly the hardest hit in terms of employment cutbacks in 1970. The service-producing sector, on the other hand, was not as severely affected. In fact, this sector posted substantial job gains through early 1970. By spring, however, the economic slowdown became more pervasive, and from April to September employment remained at a virtual standstill even in service-oriented industries. After September, it resumed moderate growth.

GOODS-PRODUCING INDUSTRIES. The largest cutbacks in employment within the goods-producing sector occurred in the highly cyclical manufacturing industry group. Table 1 shows that manufacturing employment, which grew rapidly since the mid-1960's, leveled off during the summer of 1969 and later that year began to decline rapidly. The decline continued well into 1970, lowering the annual level of factory employment to 19.4 million, about three-fourths of a million below the 1969 level. Part of the year-to-year decline, however, is attributable to the strike in the automobile industry. (The general weakness of manufacturing employment during 1970 was also clearly reflected by some newly developed data on job vacancies for factory workers. The number of such vacancies declined almost steadily in 1970. See the discussion on pages 20-21.)

The initial decline in manufacturing employment was confined entirely to the durable-goods sector. The industries most affected were those heavily engaged in defense and aerospace activities, where employment spurted upward during the Viet Nam escalation of the mid-1960's. These industries began to reduce their work forces in early 1969 as the Nation gradually disengaged from Viet Nam and reduced the tempo of space activity.

The annual level of employment in three industries heavily affected by defense and aerospace spending—aircraft and aircraft parts, radio and television communication equipment, and ordnance—dropped about 250,000, or nearly one-sixth, between 1969 and 1970. Although they make up less than one-tenth of factory employment, they accounted for nearly one-third of the 1969 to 1970 net decline in factory jobs.

Other factors underlying job cutbacks in the durable-goods sector in 1970 were: (1) Weakness in automobile sales, exclusive of the effects of the strike; (2) the slowdown in construction activity, especially in new housing starts, which affected the building material industries as well; (3) a gradual weakening of capital investments; and (4) efforts by employers to meet rising costs by trimming the number of nonproduction workers. The impact of all of these factors was reflected in the rising rate of unemployment for durable-goods workers, which jumped from 3.0 to 5.7 percent between 1969 and 1970 (table 2).

In nondurable-goods manufacturing, employment was relatively stable entering 1970 and declined only moderately during the year. Nondurable-goods employment was down about 100,000 from the 1969 average. Over half of this decline occurred in the textile and apparel fields and could be attributed to reduced purchases by the Armed Forces, weakening private demand, and increased foreign competition.

Adjustment to lower levels of production in manufacturing industries also involved reductions in the average workweek. In fact, in line with historic patterns,² average weekly hours started edging down in early 1969 several months before employers began laying off workers. (See chart 2.)

By mid-1970, when the economy began to brake its downward slide, the factory workweek also halted its rapid contraction. Although the level of manufacturing employment continued to decline in the following months, the workweek firmed up, an indication that a return to relative job stability for factory workers might not be too distant. However, the picture became clouded by the effects of the automobile strike, which caused some further reduction in employment and shortening of the workweek.

Construction is another cyclically sensitive industry in which employment was also reduced considerably during 1970. The increasingly tight money market which prevailed during 1969 had lowered the rate of new housing starts to a 3-year

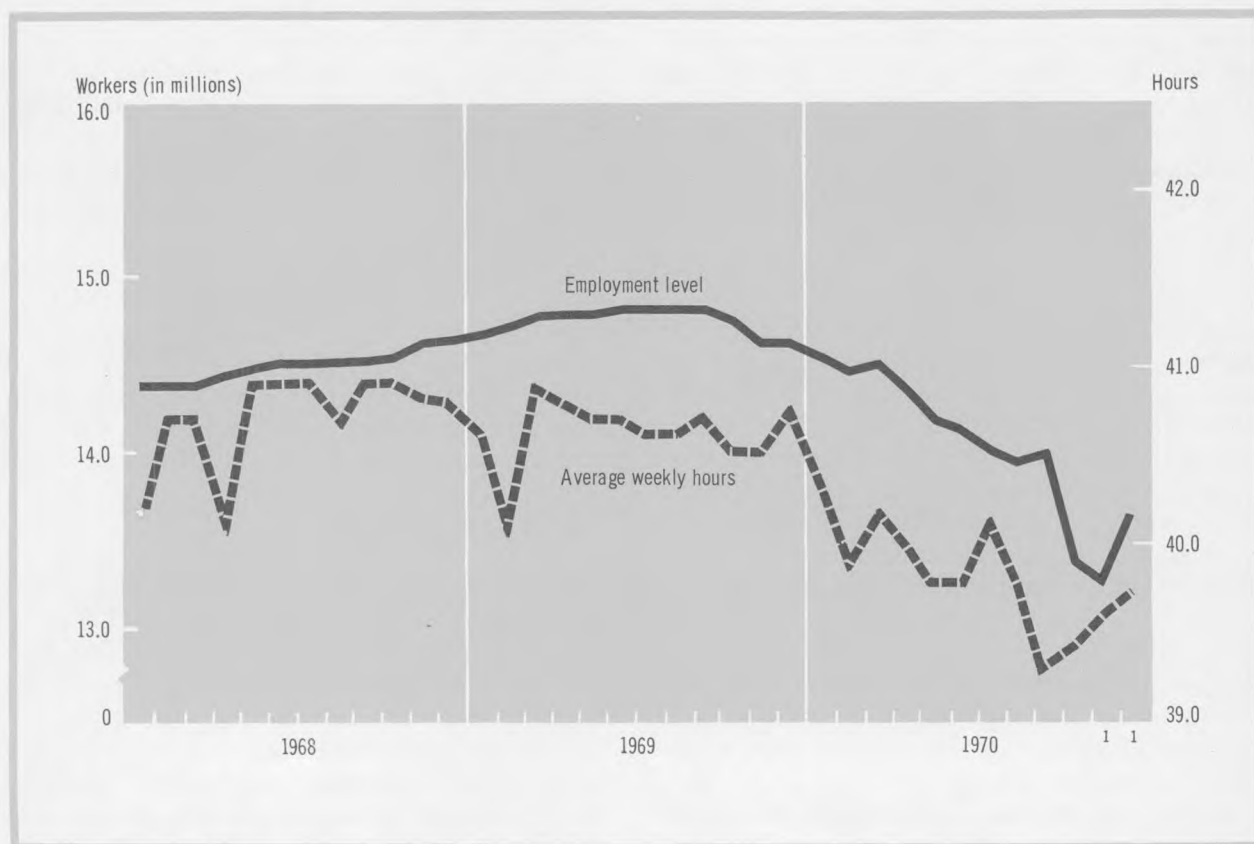
Table 1. Employees on nonagricultural payrolls by industry, 1969 and 1970 (seasonally adjusted)

[In thousands]

Industry	Annual averages		Quarterly averages							
	1970 ¹	1969	1970				1969			
			4th ¹	3d	2d	1st	4th	3d	2d	1st
Total.....	70,669	70,274	70,207	70,510	70,872	71,123	70,829	70,488	70,170	69,595
Goods-producing.....	23,369	24,225	22,636	23,232	23,602	24,039	24,227	24,301	24,258	24,120
Mining.....	622	619	624	619	621	626	624	621	614	617
Construction.....	3,346	3,437	3,295	3,294	3,367	3,447	3,471	3,432	3,436	3,408
Manufacturing.....	19,401	20,130	18,717	19,319	19,614	19,966	20,132	20,248	20,208	20,095
Durable goods.....	11,210	11,893	10,633	11,165	11,400	11,651	11,840	11,958	11,925	11,851
Nondurable goods.....	8,190	8,277	8,084	8,154	8,214	8,316	8,292	8,291	8,283	8,244
Service-producing.....	47,300	46,048	47,571	47,278	47,270	47,084	46,600	46,187	45,912	45,474
Transportation and public utilities.....	4,499	4,431	4,482	4,523	4,486	4,502	4,465	4,457	4,426	4,371
Wholesale and retail trade.....	14,947	14,645	14,923	14,936	14,962	14,970	14,807	14,708	14,600	14,458
Wholesale trade.....	3,849	3,738	3,856	3,849	3,854	3,836	3,788	3,752	3,722	3,688
Retail trade.....	11,098	10,907	11,067	11,087	11,108	11,133	11,019	10,957	10,878	10,770
Finance, insurance, and real estate.....	3,679	3,557	3,709	3,677	3,676	3,655	3,611	3,577	3,542	3,500
Services.....	11,577	11,211	11,693	11,552	11,556	11,513	11,392	11,247	11,163	11,048
Government.....	12,599	12,204	12,764	12,591	12,590	12,445	12,325	12,198	12,181	12,097
Federal.....	2,707	2,758	2,656	2,659	2,765	2,734	2,730	2,754	2,767	2,762
State and local.....	9,893	9,446	10,109	9,932	9,825	9,711	9,595	9,444	9,414	9,335

¹ The 1970 annual averages and the data for the 4th quarter of the year are preliminary.

Chart 2. Employment and average weekly hours of production workers on manufacturing payrolls, 1968-70, monthly averages (seasonally adjusted)



low as 1970 began. This sharp reduction, coupled with a more moderate contraction in nonresidential construction, eventually led to a decline in jobs. Because of the considerable timelag before a change in the rate of new housing starts shows up in changes in employment, the job decline did not materialize until 1970.

Despite some recovery in new housing starts during 1970, construction employment dropped about 100,000, or 3 percent, below the 1969 average, and the jobless rate for the industry rose sharply from 6.0 to 9.7 percent. As 1970 ended, however, the rate began to show signs of improvement, and prospects for resumed employment growth, based on the rising rate of new housing starts, looked considerably better.

Mining employment was not heavily affected by 1970's economic developments. Although this industry has been the source of much unemployment in the post-World War II period, its employment situation has stabilized considerably since the early 1960's. The revitalized coal mining

segment, now enjoying a boom in demand from electric utilities, has in fact been contending with a novel problem: a manpower shortage.

The exodus of workers from agriculture continued. Employment in this industry declined another 150,000 in 1970 to 3.5 million.³ With the mechanization of farming and the elimination of marginal operations continuing to displace some workers, agricultural employment has now shrunk to only 4.5 percent of total employment, compared with 10 percent of total employment 15 years ago.

SERVICE-PRODUCING INDUSTRIES. Jobs in the service-producing sector of the economy were not as heavily affected by the economic slowdown as were those in goods-producing industries. Employment in this sector—which includes transportation and public utilities, wholesale and retail trade, services, government, and finance, insurance, and real estate—continued to grow vigorously through the first few months of 1970, more than offsetting

the employment declines which were taking place elsewhere.

The effects of the economic slowdown, however, spread gradually even among service-oriented industries, first reducing the rate of employment growth and then temporarily halting it. After September, however, employment in the service-producing sector exhibited some renewal of growth.

Service-producing industries visibly affected by the economic slowdown were wholesale and retail trade. After rising almost uninterruptedly during the 1960's, the number of employees in these industries leveled off in early 1970 and remained basically unchanged to year's end. The employment slowdown, however, affected wholesale trade differently than retail trade. In wholesale trade, employment growth did not stop until mid-year, although the workweek was being reduced sharply. In retail trade, which over the years had become an increasingly large user of part-time help, both the employment level and the average workweek remained essentially unchanged throughout the year. With sales slowed, retailers apparently stopped hiring additional part-time workers and relied more on their full-time work force, a factor that tended to halt the long-term decline in the average weekly hours.

In the miscellaneous services industries (hotels, hospitals, laundries, and so on), employment, which had also grown steadily during the 1960's, leveled off in early 1970 and did not resume its growth until the fall. Only in medical services was there any sustained employment growth. This was partly a reflection of increased demand for health services generated by Government-sponsored

health programs. The average workweek of service workers behaved similarly to that of retail trade workers, its stability reflecting a curbing in the hiring of part-time workers.

State and local government employment continued to post substantial gains throughout 1970. The average number of employees in this field increased about 450,000, with over half of the gain being accounted for by teachers and other educational personnel.

Federal Government employment, on the other hand, has been steadily declining since mid-1969 except for the hiring of temporary workers to assist with the 1970 census. Despite the temporary pickup, Federal civilian employment dropped about 50,000 between 1969 and 1970, with the reduction concentrated among defense agencies.

Impact by sex and age

Given the uneven pattern of employment changes by industry, it is not surprising that some labor force groups experienced greater difficulties than others. Adult men, for example, saw their employment growth halted by the sharp job cutbacks in the goods-producing sector. Adult women, on the other hand, being concentrated largely in the less affected service sector, managed to post a relatively sizable employment gain despite the economic slowdown.

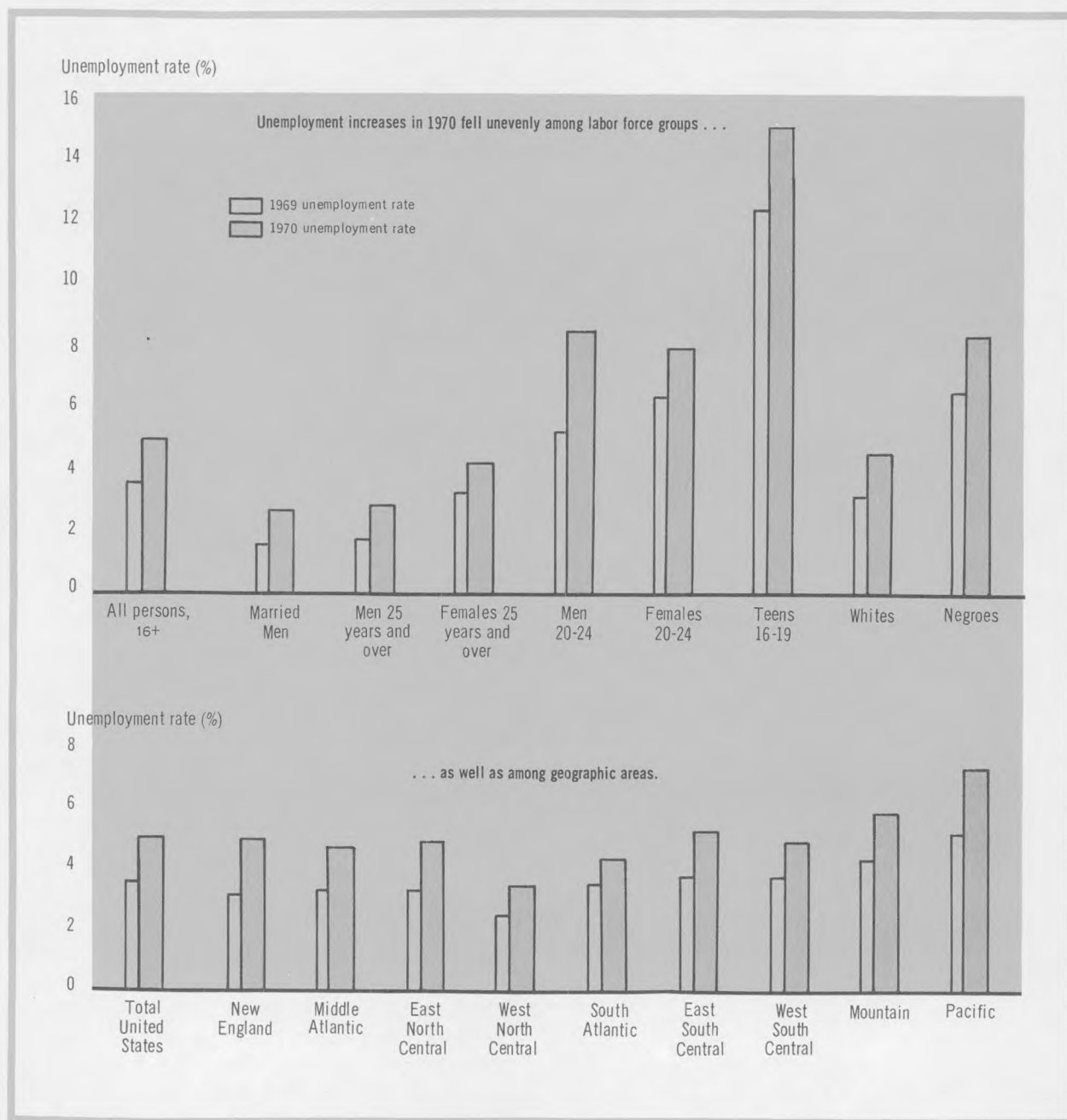
ADULT MEN. Employment of men (20 years and over) had registered a healthy rise of about half a million in 1969 but showed hardly any growth in 1970. This stemmed largely from reduced activity in industries traditionally staffed mostly by men, particularly in contract construction and durable goods manufacturing.

Because of sharp employment cutbacks in these goods-producing industries, unemployment among adult men turned sharply upward in 1970, after having declined almost uninterruptedly from 1962 to 1969. A substantial rise in joblessness among men in their prime working years, who typically are a family's chief earner, was a sharp departure from recent trends. For example, the unemployment rate for married men, generally considered to have the strongest attachment to the labor force, fluctuated around a record low of 1.5 percent during all of 1969, but had more than doubled by the end of 1970. It averaged 2.6 percent for

Table 2. Unemployment rates by industry, 1969 and 1970 (seasonally adjusted)

Industry	Annual averages		Quarterly averages							
	1970	1969	1970				1969			
			4th	3d	2d	1st	4th	3d	2d	1st
Private wage and salary workers ¹	5.2	3.5	6.2	5.7	5.1	4.2	3.7	3.7	3.5	3.4
Construction.....	9.7	6.0	10.7	12.3	10.3	7.7	6.2	6.8	5.6	5.7
Manufacturing.....	5.6	3.3	7.1	5.9	5.1	4.4	3.7	3.3	3.2	3.1
Durable goods.....	5.7	3.0	7.7	5.9	5.0	4.4	3.5	2.9	3.0	2.7
Nondurable goods.....	5.4	3.7	6.3	6.0	5.3	4.3	4.0	3.8	3.4	3.6
Transportation and public utilities.....	3.2	2.2	3.7	3.1	3.5	2.8	2.5	2.0	2.2	2.0
Wholesale and retail trade, finance and service industries.....	5.3	4.1	6.1	5.6	5.3	4.6	4.0	4.3	4.2	3.9
Government wage and salary workers.....	4.2	3.2	4.7	4.8	4.0	3.4	3.0	3.5	3.3	3.1
Agricultural wage and salary workers.....	2.2	1.9	2.8	2.0	2.1	2.1	2.2	1.9	1.7	1.7
.....	7.5	6.0	8.7	9.0	6.9	6.2	6.0	7.3	5.6	5.4

¹ Includes mining, not shown separately.

Chart 3. Unemployment rates for major labor force groups and geographic areas, 1969 and 1970 averages

the year. (See chart 3.)

For all men 20 years of age and over, the unemployment rate rose from 2.1 percent in 1969 to 3.5 in 1970. Unemployment among men 25 years of age and over, who are employed in large numbers in goods-producing industries, rose very steeply early in the year, then remained relatively

stable until fall, when it advanced again, largely because of the secondary effects of the automobile strike. For men 20 to 24 years old, in contrast, joblessness rose steadily throughout the year. Their unemployment averaged 8.4 percent in 1970, compared with 5.1 percent in 1969. Unemployment among this age group was partly a

function of the reduction in draft calls, along with the return to civilian life of several hundred thousand young men released from the Armed Forces. These two factors increased the labor force of 20- to 24-year-olds at a time of curtailed employment opportunities.

ADULT WOMEN. Traditionally employed in the service-producing industries (which were not severely affected by the recent slowdown), women 20 years and over managed to post an employment gain of about 550,000 in 1970. But even this advance—largely in part-time employment—was considerably below the average job gains achieved by women in recent years. The result was a 350,000 increase in female unemployment and a rise in their jobless rate from 3.7 to 4.8 percent. On balance, however, the year-to-year increase in unemployment among women, although substantial, was relatively less sharp than among males. (See table 3.)

TEENAGERS. The employment of youths (16 to 19 years of age) increased only slightly between 1969 and 1970. The labor force group most short in skill and work experience, young workers found it increasingly difficult to obtain jobs. Male youths, some of whom tend to look for work in those industries which were particularly hard hit in 1970, were especially affected by the slowdown.

Unemployment among teenagers, which had been disturbingly high even during the full-em-

Table 3. Employment status by color, age, and sex, 1969 and 1970

(In thousands)

Employment status, sex, and age	Total		White		Negro and other races	
	1970	1969	1970	1969	1970	1969
Total, 16 years and over:						
Civilian labor force.....	82,715	80,733	73,518	71,779	9,197	8,954
Employment.....	78,627	77,902	70,182	69,518	8,445	8,384
Unemployment.....	4,088	2,831	3,337	2,261	752	570
Unemployment rate.....	4.9	3.5	4.5	3.1	8.2	6.4
Men, 20 years and over:						
Civilian labor force.....	47,189	46,351	42,463	41,772	4,726	4,579
Employment.....	45,553	45,388	41,093	40,978	4,461	4,410
Unemployment.....	1,656	963	1,371	794	265	168
Unemployment rate.....	3.5	2.1	3.2	1.9	5.6	3.7
Women, 20 years and over:						
Civilian labor force.....	28,279	27,413	24,616	23,839	3,664	3,574
Employment.....	26,932	26,397	23,521	23,032	3,412	3,365
Unemployment.....	1,347	1,015	1,095	806	252	209
Unemployment rate.....	4.8	3.7	4.4	3.4	6.9	5.8
Both sexes, 16-19 years:						
Civilian labor force.....	7,246	6,970	6,439	6,168	807	801
Employment.....	6,141	6,117	5,568	5,508	573	609
Unemployment.....	1,105	853	871	660	235	193
Unemployment rate.....	15.3	12.2	13.5	10.7	29.1	24.0

Table 4. Occupational distribution of employment, by color, 1969 and 1970

Occupation	Total		White		Negro and other races	
	1970	1969	1970	1969	1970	1969
THOUSANDS OF PERSONS						
Total employment.....	78,627	77,902	70,182	69,518	8,445	8,384
White-collar workers.....	37,997	36,844	35,641	34,647	2,356	2,197
Professional and technical workers.....	11,140	10,769	10,374	10,074	766	695
Managers, officials, and proprietors.....	8,289	7,987	7,992	7,733	297	254
Clerical workers.....	13,714	13,397	12,601	12,314	1,113	1,083
Sales workers.....	4,854	4,692	4,674	4,527	180	166
Blue-collar workers.....	27,791	28,237	24,230	24,647	3,561	3,591
Craftsmen and foremen.....	10,158	10,193	9,466	9,484	692	709
Operatives.....	13,909	14,372	11,905	12,368	2,004	2,004
Nonfarm laborers.....	3,724	3,672	2,859	2,795	866	877
Service workers.....	9,712	9,528	7,514	7,289	2,199	2,239
Farm workers.....	3,126	3,292	2,797	2,935	328	356
PERCENT DISTRIBUTION						
Total employment.....	100.0	100.0	100.0	100.0	100.0	100.0
White-collar workers.....	48.3	47.3	50.8	49.8	27.9	26.2
Professional and technical workers.....	14.2	13.8	14.8	14.5	9.1	8.3
Managers, officials, and proprietors.....	10.5	10.3	11.4	11.1	3.5	3.0
Clerical workers.....	17.4	17.2	18.0	17.7	13.2	12.9
Sales workers.....	6.2	6.0	6.7	6.5	2.1	2.0
Blue-collar workers.....	35.3	36.2	34.5	35.5	42.2	42.8
Craftsmen and foremen.....	12.9	13.1	13.5	13.6	8.2	8.5
Operatives.....	17.7	18.4	17.0	17.8	23.7	23.9
Nonfarm laborers.....	4.7	4.7	4.1	4.0	10.3	10.5
Service workers.....	12.4	12.2	10.7	10.5	26.0	26.7
Farm workers.....	4.0	4.2	4.0	4.2	3.9	4.2

ployment years of the late 1960's, increased further in 1970—from 12.2 to 15.3 percent. Although proportionately smaller than the rise experienced by adult workers, there were nonetheless 250,000 more unemployed teenagers in 1970 than in 1969. This most recent increase in unemployment among teenagers occurred mostly among male teens. As a result, 1970 jobless rates were practically the same for both boys and girls, unlike previous years when girls typically had higher rates.

Occupational developments

The sluggish performance of the goods-producing industries reduced employment and increased unemployment among blue-collar workers. The average annual number of employed blue-collar workers declined almost half a million in 1970 (table 4). This drop, which offset nearly all the 700,000 gain of the preceding year, could be traced largely to the reduced pace of manufacturing and construction activity. As a consequence of cutbacks in these industries, the jobless rate for blue-collar workers rose from 3.9 to 6.2 percent between 1969 and 1970 (table 5).

The "operatives" group, which consists largely of semiskilled workers employed in factories, was

most affected among blue-collar workers. Their average employment level dropped about 450,000 (3 percent) between 1969 and 1970. The more skilled "craftsmen and foremen" group was also affected, though to a lesser degree; their employment declined by 50,000 (less than 1 percent). The least-skilled blue-collar group, laborers, posted a slight increase in employment in 1970 although their unemployment rate rose from 6.7 to 9.5 percent.

In the first half of the year, sharp job cutbacks took place in some "sophisticated" industries, where workers in high-skill jobs were apparently as vulnerable to a layoff as those in low-skill jobs. Because of this, the unemployment rate for craftsmen and foremen rose very sharply during the first half of the year. It then leveled off, however, while the unemployment rate for the operatives group rose rather steadily throughout the year, reflecting the general weakness pervading the durable-goods sector and the effects of the automobile strike. (See table 5.)

Unemployment among laborers also rose considerably in 1970. However, in contrast to the situation for skilled and semiskilled workers, the rise in unemployment among laborers began somewhat later in the year and was relatively less severe. Nevertheless, nearly 1 out of 10 laborers was jobless on the average in 1970 compared with 1 in 25 among craftsmen and foremen, and 1 in 14 among operatives.

In contrast to the decline in blue-collar employment, the number of white-collar workers rose by more than 1 million between 1969 and 1970. This increase, which brought the total number of white-collar workers to 38 million (48.3 percent of the total employed), was only slightly smaller than the annual average gains of recent years. Nevertheless, even the growth in white-collar employment was also slowed considerably during the course of the year, as many firms reduced office staffs as well as production forces in order to cut costs. As a consequence, the unemployment rate for white-collar workers rose from 2.1 percent in 1969 to 2.8 percent in 1970.

One of the more significant features of the unemployment rise in 1970 was a relatively sharp rise in joblessness among high-skill personnel, such as scientists and engineers, for whom there had been an almost insatiable demand during most of the 1960's. In the past 2 years, job opportunities for these highly skilled workers have been reduced

substantially due to spending cutbacks in the defense and aerospace fields and in Government-financed research activities. The rise in the unemployment rate for engineers (from 0.7 percent in 1968 to 2.2 percent in 1970) is a clear reflection of these cutbacks.

A rather modest increase in service employment, coupled with the unusually poor showing of blue-collar employment, had the effect of raising the proportion of workers engaged in white-collar tasks. This was evident both among white and Negro workers. In 1970, for the first time, about half (50.8 percent) of all white workers were employed in white-collar occupations. Although Negroes continued to lag behind whites in this respect, they still made encouraging progress in white-collar employment despite the problems which beset the economy. About 28 percent of Negroes were in white-collar occupations in 1970, up from 26 percent in 1969 and 24 percent in 1968.

Geography of unemployment

Increases in joblessness in 1970 fell unevenly not only among industrial sectors and labor force groups, but also among geographical areas. Weakness in durable-goods production, especially in transportation equipment, machinery, and metals, adversely affected the Midwestern (East North Central) employment situation, while the rise in joblessness in New England and the Pacific coast primarily resulted from sizable reductions in aerospace and defense-related production. In Seattle, for example, the unemployment rate rose from 4.9 to 11.3 percent over the year, a striking illustration of the effects of employment furloughs

Table 5. Unemployment rates by occupational group, 1969 and 1970 (seasonally adjusted)

Occupational group	Annual averages		Quarterly averages							
	1970	1969	1970				1969			
			4th	3d	2d	1st	4th	3d	2d	1st
White-collar workers.....	2.8	2.1	3.5	2.9	2.8	2.4	2.2	2.2	2.0	2.0
Professional and technical workers.....	2.0	1.3	2.5	2.0	1.9	1.9	1.5	1.4	1.3	1.1
Managers, officials, and proprietors.....	1.3	0.9	1.6	1.5	1.3	1.0	0.9	1.0	0.9	0.9
Clerical workers.....	4.0	3.0	5.0	4.1	4.0	3.3	3.2	3.2	2.8	2.9
Sales workers.....	3.9	2.9	4.6	3.9	4.0	3.2	2.8	3.0	2.9	2.9
Blue-collar workers.....	6.2	3.9	7.4	7.0	6.0	4.9	4.3	4.0	3.8	3.7
Craftsmen and foremen.....	3.8	2.2	4.4	4.9	3.9	2.6	2.2	2.2	2.1	2.1
Operatives.....	7.1	4.4	8.7	7.6	6.6	5.7	5.0	4.4	4.3	4.1
Nonfarm laborers.....	9.5	6.7	10.5	10.6	9.4	7.9	6.9	7.2	6.5	6.4
Service workers.....	5.3	4.2	5.9	5.6	5.0	4.7	3.9	4.5	4.4	4.0
Farm workers.....	2.6	1.9	2.9	3.2	2.5	2.1	1.8	2.2	1.9	1.6

in aerospace industries.

In other large metropolitan areas in the Nation, the impact of the economic slowdown upon unemployment closely approximated the regional pattern. As of December 1969, for example, only five major labor areas in the continental United States—Fresno and Stockton, Calif., New Bedford, Mass.; Muskegon, Mich.; and Seattle, Wash.—were classified by the U.S. Labor Department's Manpower Administration as areas of "substantial unemployment."⁴ By mid-1970, 29 major areas

were so classified, with nearly one-half located in either the East North Central region, the Pacific coast, or New England. As the year progressed, however, the rise in unemployment became more general.

Although unemployment rose in both urban poverty and nonpoverty areas, the rise in the poverty neighborhoods was somewhat less rapid than the rise in other urban neighborhoods. Between 1969 and 1970, the jobless rate of poverty-area residents in the Nation's 100 largest metro-

JOB VACANCIES IN 1970

RAYMOND KONSTANT

THE NEW SERIES on job vacancies introduced in 1970 provides, for the first time, some partial information on the shape and size of unfilled demand for labor. Although the series eventually will be extended to include data on all industries, it presently covers only manufacturing industries, which are typically more sensitive to fluctuations in economic activity and have been most affected by the recent economic slowdown, defense cutbacks, and cost-saving retrenchments by employers. The series on manufacturing job vacancy rates (table 17, Current Labor Statistics) clearly reflects this. Vacancy rates (unadjusted for seasonal variation) reached their peak in August 1969 and have been exhibiting a persistent downward trend since then. The lower level of job vacancies mirrored such other indications of declining demand for labor in these industries as increasing unemployment and layoffs, and lower levels of new hires, overtime hours, and employment.

Monthly changes

Seasonal factors undoubtedly affect job vacancies just as they do many other economic series. Increases in the number of vacancies in July and August, for example, occurred in both 1969 and 1970. The same is true for the June decline. The data have not been available for long enough period to permit seasonal adjustment, but such adjustment would not substantially alter the downward trend of the data over the year.

In April 1970, when it became possible to make year-to-year comparisons, it was evident that the job market had become less favorable for those seeking work. The job vacancy rate in April 1970, at 8 per 1,000 employees,

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was 40 percent lower than it had been a year earlier (14 per 1,000). In June it was half what it had been in June 1969, and it has fallen increasingly behind previous year levels since then. Although all industries, for which data are available had vacancies below the level of a year earlier, over-the-year declines have been more pronounced in the durable goods industries than in the nondurable goods industries, a difference also exhibited by employment data. In October, the vacancy rate in durables was down by 67 percent over the year compared with a 45-percent decline in nondurables. Over-the-year declines in the durable goods industries in that month ranged from 60 percent in transportation equipment to over 70 percent in primary metals, machinery, and electrical equipment. Among nondurable goods industries for which data are available, declines from October 1969 levels were smallest in textiles at about a third, and greatest in chemicals and allied products, where the rate declined 60 percent.

It may be noted that the job vacancy data provide a measure of the stock of vacancies as of a particular point in time and reflect the interaction of supply and demand at that point. The greater the supply of labor in relation to demand (that is, the higher the level of unemployment), the more likely it is that vacancies will be filled quickly, and hence, the less likely that vacancies will be available for reporting.

New hires and job vacancies

The new hires component of the labor turnover series provides a measure of all new workers hired over the course of the month. The definitions of job vacancies and new hires are such that new hires may be thought of as vacancies filled during the month. Thus, if vacant jobs were being filled more quickly because of a larger number of job applicants available, the number of unfilled jobs will decline relative to new hires. Declines in new hires from levels of a year ago have, in fact, been substantially less than declines in job vacancies. New hires have ranged from about a fifth to a third less than

politan areas rose from 5.5 to 7.6 percent, a pace at roughly the national average. For persons residing in the nonpoverty urban areas, the jobless rate rose from 3.1 to 4.6 percent over this period.

The difference in rates of increase in unemployment between poverty and nonpoverty areas was primarily a reflection of the situation we have outlined. Since a large proportion of workers from poverty areas are employed in relatively low-skilled and service-related jobs, they were not as heavily affected by the first-half layoffs as were

more skilled workers who generally live in non-poverty neighborhoods. Nevertheless, unemployment within the Nation's poverty areas did worsen considerably in 1970.

The Negro employment situation

Although Negroes⁵ did not escape the effects of the economic slowdown, their employment situation did not deteriorate as much as it has in previous economic downturns. In fact, their un-

they were a year ago, while over-the-year declines in job vacancies have ranged from two-fifths to well over half. This suggests that the vacancies that do occur are being filled more quickly than in the relatively tight labor market of a year ago.

The declining proportion of long-term job vacancies (those which continue unfilled for 30 days or more) also suggests that vacant jobs are not remaining unfilled as long as they did a year ago. The long-term job vacancy rate, as a percentage of the total vacancy rate declined steadily from the last quarter of 1969 through August 1970, then rose slightly in September and October. In November 1969 almost half of all vacancies had remained unfilled for 30 days or more; in October 1970, only about a third of the existing vacancies were long term.

Occupational vacancies

Based on data for 11 metropolitan areas (which during 1970 represented about 15 percent of manufacturing employment and job vacancies), the occupations most in demand in manufacturing industries were in benchwork, which includes assemblers, inspectors, and repairmen. This occupational group averaged almost a quarter of the reported unfilled openings. Occupations in the machine trades and structural work occupations (welders, transportation equipment assemblers, electricians, and so on) accounted for about a third of reported vacancies. White-collar occupations (professional, technical, managerial, clerical, and sales jobs) represented over 25 percent. These ratios are similar to those for nationwide employment in manufacturing industries.

As the number of vacancies declined during 1970, the occupational distribution shifted somewhat. The percentage of vacancies in benchwork occupations and occupations in the machine trades both declined from February to August; the former going from 26 to 23 percent of reported vacancies and the latter from 19 to

15 percent. The demand for clerical workers and for workers in structural occupations each increased from 15 percent of reported vacancies in February to 18 percent in August. The proportion of vacancies for professional, technical, and managerial occupations remained about the same during the year.

Manufacturing job vacancy rates in those metropolitan areas for which data are available reflect local conditions and have been found to vary considerably from area to area. For example, in September 1969, Dallas had the highest vacancy rate at 34 vacancies per thousand jobs; Miami had the lowest at 7 per thousand. Changes in vacancy rates for the areas studied have tended, however, to conform generally to the trends observed in the national vacancy rates; that is, their rates peaked in the summer and early fall of 1969 and have fallen since then. As area vacancy rates declined, differences in vacancy rates among areas tended to narrow. In September 1970, the highest vacancy rate among the areas was 12 per thousand jobs in Greensboro, N.C., and the lowest was 3 per thousand in Jersey City, N.J., and Kansas City and St. Louis, Mo.

The picture presented by the job vacancy estimates during 1970 was one of considerably less unfilled demand for labor in the manufacturing industries than during 1969. As was noted earlier, the manufacturing industries are more sensitive to cyclical changes than most other industries, and cutbacks in defense expenditures had an especially large effect on manufacturing in 1970. Moreover, employment data indicate that manufacturing industries have been hardest hit by the recent economic slowdown, with the number of employees declining from 20.4 million in October 1969 to 18.9 million in October 1970. Employment in nonmanufacturing industries has continued to grow, however, rising from 50.9 million in October 1969 to 51.8 million a year later. It is likely that if vacancy and turnover data were available for them, they would present a more favorable picture than that obtained from data for manufacturing industries only.

employment rate rose at a somewhat slower pace than did the white rate. Moreover, they continued to make encouraging upward progress on the occupational ladder during 1970.

Negro employment registered a modest increase between 1969 and 1970, rising by about 60,000 despite the slowdown in economic activity. This increase, which was proportionately equal to the rise in white employment, was about equally divided between adult men and women. The number of employed Negro teenagers declined slightly between 1969 and 1970. (See table 3.)

The Negro labor force, however, increased at a much faster pace than Negro employment, rising about 250,000 to 9.2 million despite the apparent withdrawal of some workers discouraged over job prospects. Thus, the number of jobless Negroes rose substantially between 1969 and 1970—from 570,000 to 750,000—and their jobless rate climbed from 6.4 to 8.2 percent, the highest annual level since 1964. The white jobless rate, however, rose at a relatively faster pace—from 3.1 to 4.5 percent. As a result, the ratio between the two rates, which has averaged at least 2 to 1 since the Korean War, was reduced. The following tabulation shows how the white and the Negro rates have compared over the past 5 years:

	1970	1969	1968	1967	1966
White jobless rate.....	4.5	3.1	3.2	3.4	3.3
Negro jobless rate.....	8.2	6.4	6.7	7.4	7.3
Negro-white rate ratio.....	1.8	2.1	2.1	2.2	2.2

At least four factors may have contributed to the relatively slower rise in Negro joblessness and the consequent narrowing of the relative gap between the white and the Negro unemployment rate: (1) The rise in the education and skill level of Negroes, which has enabled many of them to enter occupations where joblessness tends to be low; (2) the impact of Government manpower programs, which have enrolled a relatively large proportion of Negro participants; (3) some lessening of discrimination by employers in the hiring and retention of Negro workers; and (4) the relatively smaller proportion of Negroes employed in industries experiencing the sharpest reduction in employment. The effects of these four factors are difficult to disentangle.

It is quite clear that Negroes have continued to make significant occupational progress despite the economic slowdown. Although total Negro employment rose by only 60,000, or nearly 1 percent,

between 1969 and 1970, the number of Negroes employed in white-collar occupations rose by 150,000, or 7 percent. Even more significantly, there was a measurable increase in Negro employment in the professional, technical, and managerial fields. (See table 4.)

Within the blue-collar sector, however, Negroes did not make any upward progress in 1970. With employment in construction and manufacturing being hard hit by the slowdown, the number of black craftsmen and foremen declined slightly, while the number of blacks employed as operatives and laborers remained at the 1969 level. In the services field and in farmwork, the number of Negroes continued to decline in 1970, but at a slightly lower rate than in recent years, which may reflect the decreased availability of jobs in other fields.

It should finally be noted that despite the relatively slower upturn in Negro unemployment in 1970, the gap between white and Negro unemployment rates for men, women, and teenagers remained very wide. This was especially the case for the teenage group, where the Negro rate (29.1 percent) continued to be more than double the white rate (13.5 percent). For Negro adult men and adult women, however, the jobless rates (5.6 and 6.9 percent, respectively) were considerably less than double those of their white counterparts (3.2 and 4.4 percent).

Labor force growth

The Nation's civilian labor force grew irregularly during 1970, but still posted a healthy gain of 2 million over the 1969 level. This gain, roughly equal to that posted between 1968 and 1969, was achieved largely through normal increases of the population of working age. Part of the rise, however, reflected the gradual reduction in the size of the Armed Forces. Because of this, the composition of the 1970 gain was significantly different than the makeup in recent years. The following tabulation shows the labor force increases (in thousands) accounted for by the major age-sex groups in both 1969 and 1970.

	1970	1969
All persons, 16 years and over.....	1,982	1,996
Men 20-24 years.....	427	212
Men 25 years and over.....	413	285
Women 20-24 years.....	277	362
Women 25 years and over.....	589	785
Both sexes, 16-19 years.....	277	350

The flow of workers into the labor force varied considerably during the course of 1970. In the early months, the labor force grew very rapidly. Nearly 1 million additional workers were added in the first quarter, despite an already weakening job market. It was during this period of very rapid labor force growth that the year's unemployment rise was steepest.

After this strong first-quarter spurt, the flow of workers into the labor force subsided. Adult men, particularly those in the 20-to-24 and 25-to-34 age groups, continued to enter the job market in steady numbers, but the participation of adult women and teenagers, as well as that of men over 60, declined noticeably. This decline may have been linked to growing awareness on the part of these workers of the scarcity of job opportunities even in the service-oriented industries in which most of these persons tend to work. Whatever the reason, the labor force level remained essentially unchanged during the second quarter, helping to brake, at least temporarily, the steep rise in unemployment. In the third quarter, however, the labor force began to grow again.

On balance, it appears that a limited number of persons may have been discouraged from entering the labor force or induced to leave it as job opportunities became scarce during 1970. Detailed data

on nonparticipants in the labor force show a noticeable increase during 1970 in the number of persons who want a job but have given up the quest, convinced that a suitable job could not be found in their occupational field or geographic area. By the fourth quarter of 1970, the number of such persons stood at nearly half a million, about 150,000 higher than at the end of 1969.

VETERANS. About 750,000 Viet Nam War veterans entered the labor force in 1970. A recent study of the employment experience of these young men found that the great majority of them (over 90 percent) entered the job market soon after returning to civilian life. Of those age 20 to 29 years, who had been discharged prior to October 1969, only about 15 percent were enrolled in school that fall.⁶

For young veterans in the job market, the unemployment rate in 1970 was somewhat higher than it was for other men of the same age group. Veterans 20 to 24 years old had an unemployment rate of 9.3 percent, while the unemployment rate for nonveterans of the same age was 8.0 percent. Given the weakened job market brought on by the economic slowdown, the transition to civilian life for hundreds of thousands of young men recently discharged from the Armed Forces has not been easy. □

————FOOTNOTES————

¹ In terms of the total employment figures discussed here, workers directly involved in a strike are still considered as employed—with a job but not at work. Those who are laid off because of the secondary effects of the strike, on the other hand, are not counted as employed, unless they begin working in other fields.

About 325,000 workers participated directly in the automobile strike, which lasted from mid-September to late November. The number of workers temporarily laid off due to the indirect effects of the strike was still open to conjecture at year's end.

² See Hazel M. Willacy, "The factory workweek as an economic indicator," *Monthly Labor Review*, October 1970, pp. 25-32.

³ The figures discussed for nonagricultural industries are derived from payroll data and include only wage and salary workers. The data on agricultural employment are

obtained from a household survey and apply to all workers, including those who are self-employed or unpaid employees of family enterprises.

⁴ The Department of Labor classifies an area as one of "substantial unemployment" when unemployment in the area is equal to 6 percent or more of its work force, discounting seasonal or temporary factors. See *Area Trends*, Manpower Administration, U.S. Department of Labor.

⁵ Because Negroes make up over 90 percent of racial groups other than white in the United States, data which apply to the entire category of persons (which include American Indians and Oriental Americans) are used to delineate the Negro situation.

⁶ See Elizabeth Waldman, "Viet Nam war veterans—transition to civilian life," *Monthly Labor Review*, November 1970, pp. 21-29.

Programs for providing winter jobs in construction

Subsidies and scheduling
of public works projects
help foreign governments cut
industry unemployment
in the winter months

E. JAY HOWENSTINE

IN THE POSTWAR YEARS, foreign governments have hammered out a construction employment policy for all seasons. Recognizing that winter construction is technically feasible,¹ they have tried to remove the institutional barriers to year-round work. More recently, European governments have tried to cool summer demand in the industry as part of the fight against inflation.

As in the United States,² custom and tradition, as well as cost, have sharply curtailed building activity in the winter months, throwing hundreds of thousands out of work. Moreover, since World War II, winter unemployment in Europe has been more of a problem than cyclical joblessness, historically the main target of full-employment policies. In stepping up their attack on the former, policymakers have relied on two major weapons: compensatory employment and compensatory income policies.

Most European countries using a compensatory employment policy have attempted to reduce seasonal unemployment in construction through programing of regular public works projects, adoption of emergency public works programs, stimulation of the private construction sector, scheduling of private projects, and an active manpower policy.

Public works programs

Governments have incorporated seasonal stabilization objectives into their own regular construction programs in a number of ways. Perhaps the simplest device is to concentrate maintenance

and repairs, particularly inside work such as painting, during the off season. Dating from 1955, the Canadians have succeeded in setting aside a large amount of such work for the winter. Denmark has adopted a policy of prohibiting the start of most maintenance and repair work on public buildings before October 1 or between March 1 and May 1, and of requiring that work in progress be completed by or interrupted on May 1. The United Kingdom regularly reminds ministries of the need to have as much interior decorating work as possible carried out in winter.

The programing of new public construction so as to help counteract the traditional seasonal decline is a more important, though more complicated, use of public authority. Such a policy has taken several forms. For example, in 1960 the Federal Republic of Germany decided that 30 percent of Federal construction in a 4-year program should be undertaken between November 1 and March 31.

Beginning in 1965, Sweden directed ministries engaged in construction activities to restrict the labor force on public works by 10 percent until October 31 in each year. Similarly, both Canada and Norway have set up interministerial machinery to plan construction programs with a view to maximum winter employment.

In some countries, specifications in public works contracts have been a useful tool for promoting seasonal stabilization. For example, all contracts awarded by the Canadian Department of Public Works specify that, except for road construction, work cannot be stopped in winter without the Department's permission. In Belgium, construction firms working on public projects may claim reimbursement for extra costs involved in measures for promoting winter construction. Likewise, in the United Kingdom, although it is recognized that some increase in contract prices may result, authorities invite bids on the basis that contractors

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will be required to take all necessary precautions to maintain continuity of work during winter except in the most severe weather.

Emergency programs

A second major type of compensatory employment action has been the adoption of emergency public works programs. In some cases, national governments have financed and administered compensatory public works programs directly; in others, they have extended financial assistance to provincial and municipal governments which have administered the programs.

Sweden has the most sophisticated compensatory public works program. The National Labor Market Board has a fund of approximately 450 kroner (almost \$90 million)—or roughly 1 percent of gross national product—to undertake job-creation programs and other manpower programs promoting training, retraining, and labor mobility. In overemployment conditions its main emphasis has been on coping with seasonal unemployment. With its authority and techniques, the Board, through its regional structure, can search out and eliminate pockets of unemployment which develop anywhere in the economy.³

Norway also has a National Labor Board, operating through 20 regional boards, which administers a seasonal employment stabilization program. It has standing discretionary authority to spend without further legislative action 35 million kroner (approximately \$5 million) directly on emergency public works and manpower activities, as the need arises.

In Belgium, the National Employment Office has employed an average of 6,000 persons in recent years on emergency public works, mostly road-building and maintenance and mainly during the winter season.

In a number of countries, national governments have carried out emergency public works programs by offering various types of grants to local governments as an incentive to maintain or expand winter construction activities. The Canadian Government pays local governments 50 percent (60 percent in areas with particularly high unemployment during winter) of direct payroll costs for approved works projects during a winter period varying (from year to year) from 6 to 7½ months. Norwegian policy provided originally for a 25- to 40-percent direct payroll subsidy for local public works undertaken

in winter; in 1965 the subsidy was changed from a fixed percentage of wages to a bonus based on man-hours.

In Austria, the productive unemployment assistance program aids projects of national importance, that is, public works, workers' housing projects, repairs on residential buildings, and industrial construction in development areas involving the creation of permanent new employment opportunities. Financial assistance is extended mainly to other public bodies, but private sponsors are included, provided the general conditions are fulfilled. Aid is given in the form of loans, interest subsidies, or grants for the initial purchase of machinery, tools and other equipment for winter building operations; shelters, protective materials and other precautions for winter building sites; and work clothes, fare to the worker's principal place of residence, and costs incurred when he is unable to live at home.

The Austrian grants are calculated on the basis of savings made in unemployment insurance benefits and social assistance payments. As a rule, a grant does not exceed the amount of financial savings, nor does a loan exceed 3 times the amount saved. During December and March, grants amount to between 14 and 20 percent of the official wage rate of an unskilled building worker but increase to between 29 and 40 percent during January and February, when the weather is more severe. Financial assistance is designed only as an offset to the extra costs of winter construction, and in principle only for projects that would not normally be undertaken during winter.

Stimulation of private sector

The private sector accounts for one-half to two-thirds of total construction activity in Europe. Because it is inherently more unstable than the public sector, success in reducing seasonality is in a very large measure dependent on public action to stimulate activity in the private sector. Governments have attempted to do this through the provision of subsidies toward the extra costs of winter construction, technical assistance to contractors, and publicity campaigns.

Unquestionably, the most important deterrent to a high level of winter construction is the extra cost to firms. To overcome this, various subsidy programs have been undertaken.

The most comprehensive subsidy system has been developed by the Netherlands Government in its Lay-Off Prevention Scheme, which provides a "continuation-of-work" allowance to cover the extra costs of winter work in all types of private construction. Conditions for payment of the allowance are that the contractor prepare the site in accordance with regulations designed to ensure winter work; that he work a minimum of 3 months between November 15 and March 25; and that he ensure continued work on bad weather days.

The elaborate formula of the Dutch for calculating employer allowances is divided into a basic allowance per person employed to cover additional costs of a general character, and a supplementary allowance paid for days worked which are determined by the meteorological service to be below freezing temperature. The system is financed by an allocation of 75 percent of the savings which two bad-weather insurance funds (one operated for the building industry and a separate one for the painters' trade) enjoy in the form of a reduction in benefits paid as a result of a continuation of building activity. A subsidy from the Ministry of Housing and Physical Planning makes up any deficit.

Another comprehensive incentive scheme is found in Germany. The plan, covering both public and private construction, is financed by the German unemployment insurance system and compensates for roughly two-thirds of the additional costs involved in winter construction. Firms are eligible for subsidies during January and February if they adopt winter construction techniques and provide reasonable protection for workers. The local employment office is responsible for reviewing the adequacy of the protective measures in advance and for deciding on payment of subsidies.⁴

The German winter subsidy scheme, which will be legislatively reviewed in 1973, after a test period of 4 years, has not been exploited to the extent envisioned, primarily because the extra costs are only partially reimbursed. In 1970, however, the Finance Minister agreed to permit inclusion of extra allowances for winter construction in the appropriations for all major Federal construction projects.

A number of countries have adopted special indirect subsidy programs to facilitate the purchase of equipment required for winter building. Germany provides 5-year loans at a 2-percent rate of interest. Japan extends similar loans through

its Employment Promotion Projects Corporation. The Swedish program of providing loans at 5 percent interest for 4 years for the general promotion of mechanization in the industry has proved to be an important indirect stimulus for winter construction. The British Government goes further and provides grants toward the cost of winter building equipment, with additional subsidies being provided for firms operating in development areas.

Special subsidy schemes have also been adopted to promote housebuilding during the winter season. In Germany, homeowners receive a grant amounting to 11 percent of onsite wages paid between December 1 and March 31, on condition the contractor has taken the necessary steps to prepare the site for winter work. In Austria, during December and March the grant available for workers' housing projects varies between 14 and 20 percent of the official wage rate of unskilled building workers, while in January and February, it ranges between 29 and 40 percent. Financial aid is also granted for the repair of residential buildings.

Canada provides a flat \$500 payment to the owner-builder or the first purchaser of a house if the major part of construction is completed during the winter period. In the winter of 1968-69, the Norwegian Ministry of Municipal and Labor Affairs adopted a subsidy plan in four northern counties based on the Canadian model. Achieving success, it was expanded to four other countries the following winter.

Sweden stimulates winter housing construction by extending a third mortgage which is based not on actual, but on "necessary and functional" costs, and includes a subsidy to absorb "additional" costs attributable to winter construction. The subsidy per square meter varies according to the size of the project, climatic zone, and so on. The Danish Government does not subsidize winter work directly, but the costs of winter measures may be included in the approved costs for state-subsidized housing projects.

Tax concessions and rebates constitute another type of subsidy system for stimulating winter construction. The Belgian subsidy system, applicable to all types of private construction, provides that employers who keep their labor force on the job as long as possible may reclaim a portion of their contribution to the social insurance fund. In both Finland and Sweden, the anticyclical investment reserve funds, which industrial firms are permitted

to establish by deducting a part of their net profits before taxes, have also been used to reduce construction unemployment in the winter season.

Two other interesting uses of tax reduction for seasonal stabilization purposes have been proposed. The National Winter Employment Conference in Canada recommended that the Government study the possibility of offering allowances for accelerated depreciation and obsolescence in the case of capital investments undertaken during the winter months.⁵ A Working Party on Winter Building in Germany, consisting of representatives of the ministries and trade groups, has suggested that consideration should be given to special tax relief for winter building and special terms for writing off costs of machinery used during winter months.⁶

Another more modest form of assistance is the provision of technical assistance to contractors to promote private winter construction. Special winter building consultants have been made available to the construction industry in Denmark, Germany, the Netherlands, and the United Kingdom. Such consultants are useful in giving advice, particularly to the small firm, on such matters as special winter equipment and materials, scheduling work operations and adequate advance site preparations.

A final type of measure consists of the educational and publicity campaigns which have been launched to change the habits and attitudes of consumers and producers. Campaigns in Belgium, Canada, Denmark, Germany, the Netherlands, and the United Kingdom have made wide use of radio, television, and film programs, lectures, seminars, evening courses, traveling and permanent exhibits, pamphlets, research publications, and general advertising materials to acquaint the public and persons in the industry with the technical feasibility of winter activity in most kinds of construction and the general advantages of doing as much work in the winter season as possible. Generally, such campaigns are carried out with the collaboration of employers' and workers' organizations in the industry.

Canada undertakes probably the most extensive efforts. Each year, the Department of Manpower and Immigration launches a national promotional campaign, utilizing all communications media and backed up by local campaigns in more than 250 manpower center areas across the country. It is also heavily supported by voluntary promotional

efforts on the part of all segments of business and industry.

Scheduling and manpower policy

Not content with the more or less piecemeal types of measures discussed above, some governments have embarked on a more direct and comprehensive approach to the full utilization of the construction labor force, that is, construction scheduling. This approach does not rely on spontaneous or stimulated collaboration by construction firms; rather, it aims to stabilize construction throughout the year by introducing administrative regulations controlling the timing of starts and completions for various types of projects. By scheduling construction activity in the light of specific occupational, material, and geographical requirements, the Government—generally through the appropriate labor market authority—is able to match the supply of and demand for construction resources and thus eliminate the bulk of seasonal unemployment. Clearly, such an approach depends for its success on the maintenance of full employment.

It received its original impetus during World War II, when governments were seeking to achieve an optimum utilization of scarce manpower resources. More recently, the concept of an active manpower policy, the main elements of which were clarified and systematized in the early 1960's,⁷ has been elaborated by governments for the same general objective in seeking to cope with the pressures stemming from production ceilings placed on resources in an inflationary economy.

Several systems of construction scheduling have been followed in Europe. In Sweden, scheduling, carried out through the issuance of permits, is based upon detailed appraisals of local requirements and resources which are eventually integrated into a national program. Seasonal demand is leveled off in the peak season by issuing building permits which require work to begin in November, and often to be completed by April. If construction does not begin in the month specified, the permit is void.

The Swedish system requires a county labor market board permit for all construction projects costing over \$19,340. Representatives of the construction employers' federations and of the construction trade unions, as well as of the public, sit on the boards in 24 counties. These boards act on

the recommendations of 70 building labor committees which operate within local labor market areas. Their objective is to work out a program that will ensure full and continuous utilization of the area's construction resources. The committees discuss the general timing of projects with consumers, examine occupational requirements and availability of workers for the proposed projects, and fit the projects into a manpower map made up by the board with a view to adjusting projects to the area's available manpower.

Under an agreement with the National Labor Market Board, the employers' federations expel and the trade unions boycott any contractor who starts a project earlier than the date recommended by the committees.

The Finnish Government has a scheme which provides for comprehensive manpower planning for two types of construction: normal public works administered by 14 public agencies; and state-subsidized private construction. As regards public works, each agency is required to submit to the Ministry of Labor a manpower program along with its budget proposals for the coming year. The Ministry consolidates these programs into a national construction plan, which allocates labor and establishes dates for project starts and completions, particularly between May and August. The public construction agencies are required to follow these manpower guidelines.

As regards the state-subsidized private construction sector, contractors submit work plans to the chiefs of the 11 local Manpower Districts. The plans must conform to certain "employment conditions," such as the timing of starts and completions and the size of the labor force.

On every public works project and on every private project receiving financial assistance in the form of a loan, grant or interest subsidy, a biweekly manpower report to the Manpower District is used to coordinate scheduling of projects and allocation of manpower. In addition, firms working on public works contracts are required to employ 60 percent of their work force from the available local labor force allocated by the District. Government payments are conditional on a District certificate of compliance with the employment conditions. Under this system, the extra costs of winter construction techniques are borne by the state, since bidding on a particular project is linked to "employment conditions."

In the Netherlands, the overall building capacity is first estimated at the national level, then broken down into sectors and allocated to provinces, which in turn finally divide it among local authorities.

Until the slackening of industry activity in 1968-69, the Netherlands Ministry of Housing and Physical Planning prepared, first, an indicative building program a year ahead, based on assumptions relating to the labor force available, the number of productive hours expected, changes in productivity, and so on. Second, an allocation of total building capacity into major sectors of activity, such as housing, schools, hospitals and commercial buildings, was made on the basis of political priorities and other relevant considerations, subject to revision after consultation with relevant government ministries. Third, the building program was allocated among the 12 provinces, which in turn made allocations to local authorities on the basis of estimated needs. Large urban municipalities were, however, invited to submit multi-year programs of their building requirements and to suggest suitable priorities.

The above construction scheduling policies have been credited with coping with excess construction demand in an orderly and equitable manner and with helping to iron out seasonal patterns in construction activity. Their applicability tends to be limited, however, to economies where there is widespread agreement on the appropriateness of administrative controls for achieving objectives deemed socially desirable.

Two countries—Austria and Germany—have experimented with a voluntary approach to coordination of construction scheduling in the public and private sectors. In Germany, the effort failed to achieve notable results and was confined to the public building sector. In Austria, however, the Advisory Council for the Construction Industry, which was organized in 1967, was reported in 1970 as having received satisfactory cooperation of all parts of the industry in its program to coordinate public and private construction activity in an attack on the seasonality problem.⁸

An active manpower policy in many countries has also been responsive to the needs of workers through the provision of more comfortable working conditions as an additional incentive for winter work; the financing of some of the "out-of-pocket" costs involved in achieving greater geographic mobility; and financial assistance in the acquisition of specially designed winter clothing. Travel grants

to assist workers employed away from home are paid in Canada, Denmark, Germany, the Netherlands, Norway, and Sweden. Allowances to help defray the extra costs involved in maintaining two households are available in Canada, Germany, and Sweden. Grants and/or loans for the purchase of specially designed winter clothing are extended in Denmark, Germany, the Netherlands, and Sweden. Special vocational training programs for the seasonally unemployed have also been established in a number of countries, including Austria, Canada, Denmark, and Sweden.

Another quite unrelated aspect of manpower policy is that the presence of a large number of foreign workers in the construction labor force of many European countries offers an easy kind of "solution" to seasonality in the host country. All or most of these workers can, as in Austria, France, and Switzerland, be issued only temporary work permits which require that they return to the home country before the Christmas season. New temporary work permits can then be issued with the return of good weather the following spring. This policy, which in reality exports the problem of seasonal unemployment to the country of origin, has another important effect. It prevents the migrant worker from establishing permanent residence, often a condition for acquiring full equality with domestic workers under national legislation.

The compensatory income approach

Second only to a preoccupation with job security has been the longstanding concern of European trade unions and political parties with social security. As social insurance systems improved in adequacy, it was only logical that attention should turn to the provision of special income security for construction workers, who perhaps of all members of the labor force suffer the greatest instability of income. Schemes providing special compensation for time lost on account of bad weather have taken three major forms: statutory systems; contractual systems; and contractual systems given the force of law.⁹

To qualify for bad-weather benefit payments, workers are generally required to report for duty at the usual time and to remain available for any other "reasonable" alternative work which may be assigned to them by the employer—either on the same site or on another. The amount of compensa-

tion usually ranges between 60 and 75 percent of the basic wage, but in some cases is as high as 90 percent. The length of time for which compensation is paid also varies. In some countries, such as Austria, Norway, Sweden, and the United Kingdom, a limit is placed on the period for which bad weather is compensated, ranging from 192 hours to 48 working days a year. In other countries, such as Germany, Ireland, Poland, and the Soviet Union, no time limit has been fixed.

As regards financing, schemes in France, the Netherlands, Norway, Poland, Sweden, Switzerland, the United Kingdom, and the Soviet Union provide only for contributions from employers. In other instances, such as Austria and Ireland, workers also pay contributions on top of their unemployment insurance contributions. In general, government grants are confined to occasions when funds prove inadequate.

Whether compensatory income schemes promote or impede fundamental stabilization of the industry at a high level of production is somewhat in dispute. The potential deterrent effect of compensatory income on employment stabilization depends a great deal on the nature of the worker's motivation and on his response to his immediate social environment. There is much evidence to indicate that basically the construction worker prefers work to idleness, and that he prefers higher income with work rather than less income which he may receive through a compensatory income policy, even though the latter may constitute a substantial portion of his regular income.

Furthermore, bad-weather compensation schemes appear—at least in some cases and in some respects—notably Austria, Germany, and Italy, to have been a stimulus to a high level of winter employment. First, they have discouraged large-scale dismissals, which have been traditional in some countries at the onset of winter, and they have encouraged the contractor to keep his labor force intact and to continue work as long as possible. Second, one of their main purposes, as in Belgium and Germany, has been to promote utilization of the warm spells between periods of frost rather than lose the whole winter period. Third, they have had in Germany and Italy, for example, the effect of promoting an earlier than "normal" spring upswing of building activity, since contractors are no longer so disposed to wait until signs of spring are definite.

In other cases and in other respects the com-

pensatory income approach has not had a positive effect in promoting winter construction. In Japan it is reported that the ease of obtaining unemployment insurance has been an obstacle to the elimination of seasonal unemployment. Moreover, in some countries with fairly temperate winters and reasonably adequate "bad weather" allowance systems, such as Belgium and France, there is a widespread disposition to accept seasonality and to concentrate energies on combating other more important inflationary factors, such as the rising costs of land, credit, and construction materials.

The United Kingdom has approached income security for the construction worker in an altogether different manner, namely the guaranteed workweek. The scheme provides for the payment of the ordinary wage for half the time lost during a normal workweek (that is, 42 hours in building and 40 hours in civil engineering), but at the same time the worker is guaranteed his normal pay for a minimum of 36 hours in the week. He is also entitled to the same guaranteed 36 hours of pay during a following week which may be completely lost for the same reasons. Thereafter, however, if the work stoppage continues, he is required to register as unemployed under the unemployment compensation system. The purpose of this scheme is to place the cost of idleness directly on the shoulders of the employer, thus creating an incentive for him to take full account of his overhead costs and thereby stabilize production at the highest possible level.

Consumer orientation

A major factor influencing Governments' attitude toward seasonality has been the development in the postwar European milieu of what might be called a new consumer orientation. European countries have been faced not only with wartime destruction of capital and the backlog of construction demand inherited from the Great Depression, but also with the rising construction requirements for economic growth. In this situation, the wastage of construction capacity involved in seasonal unemployment becomes unconscionable. For example, the Austrian tripartite National Advisory Committee on the Construction Industry has insisted that output could be increased roughly 50 percent with existing resources, mainly through

the elimination of seasonal unemployment. The attack on the wastage of productive capacity involved in seasonal unemployment has thus become one of the focal points in postwar construction policy, especially in Austria, France, Germany, the Netherlands, the Scandinavian countries, and the United Kingdom.

A second strong interest which consumers have had in the reduction of seasonality is its importance as an instrument of anti-inflation policy. Idleness in winter and excess demand in the summer have been potent factors in causing construction prices in most European countries to rise more rapidly than prices in general.¹⁰ In Italy, for example, the shortage of skilled building workers during the summer season has forced contractors to pay as much as double the minimum wage rates negotiated by trade unions. Moreover, rapidly rising construction costs have seriously limited consumers' capacities to satisfy critical demands, particularly for housing. Consequently, anti-inflation objectives have played an important role in seasonal stabilization programs in most countries, but particularly in Austria, Germany, the Netherlands, and the Scandinavian countries.¹¹

Results and conclusions

The results of seasonal stabilization programs have been fairly impressive. In Finland, employment on government projects has been from 20 to 75 percent higher in the winter than the summer, while in Sweden employment in the controlled building sector is regularly somewhat higher in February than in August. There has been a substantial drop in winter construction unemployment in Denmark, but much remains to be done.

In Canada, seasonality in housebuilding has been virtually eliminated, whereas formerly the level of winter activity was only half that of summer. Moreover, between 1960 and 1967, from 120,000 to 167,000 onsite jobs were created each winter under the municipal winter works incentive program. The addition to total construction output from winter programs in the Netherlands was calculated to be equivalent, in the winter of 1963-64, to 4,800 houses; the following winter it was somewhat less, and the subsequent winter somewhat more. In Norway, most progress has been achieved

in the civil engineering sector, where careful planning and financial aids to construction have contributed substantially to more year-round programs.

The seasonal stabilization program in Germany has virtually abolished mass dismissals by medium- and large-size firms, while in Italy the bad weather compensation scheme is reported to have induced contractors to continue work during the winter as long as possible.

Several major conclusions emerge from foreign experience. First, from the geographical point of view, seasonal stabilization in the construction industry has achieved its greatest success in countries with the longest and hardest winters, that is, the Scandinavian nations and Canada. This fact perhaps mainly reflects the practical necessity that in view of relatively short summers northern countries must somehow maintain a high level of winter activity if they are to obtain the public and private construction works which they want; but it also confirms the conclusion that the principal obstacles to winter construction are institutional, not technological, in character.

Second, crucial factors in the success of winter construction programs are the pressure of demand and the ceiling on available resources that accompany full employment. Neither the collaboration of the employers and workers in the industry nor the legislative support of public policies is likely to be forthcoming if there is general under-employment in the construction industry.

Third, seasonal stabilization of the public construction sector has been most effective when conceived as one element in a long-term public works planning program. Emergency, piecemeal efforts tend to be costly and a poor utilization of resources.

Fourth, seasonal stabilization measures have been most productive when conceived as an integral part of an active manpower policy. Such a policy framework not only utilizes all manner of means to achieve an optimal use of the construction labor force, but also promotes a construction policy which from the output point of view is conducive to a high rate of economic growth.

Fifth, to overcome the inertia of traditional attitudes and the deterrent of additional direct costs involved in private winter construction,

positive financial incentives appear to be essential, at least in the early phases of implementation. Once producer and consumer attitudes toward winter construction have become more favorable, there is a tendency under conditions of continuing full employment for patterns of winter construction to persist, as in Denmark, even though subsidies may be reduced or withdrawn.

Sixth, construction scheduling, that is, administrative control over the timing of construction starts and completions through the construction permit system, has—under conditions of full employment—proved to be probably the most effective single means of promoting optimal utilization of the construction labor force. Such a solution is practicable, however, only in societies which can accept such controls for purposes deemed socially desirable.

Seventh, the long-term effect which compensatory income schemes have on promoting winter employment is unclear. In some countries, such as Austria and Germany, "bad weather" benefit systems have not thwarted the compensatory employment approach in its attempt to achieve year-round employment and production in the industry; rather the one approach has tended to reinforce the other, not only in giving the construction worker greater job and income security but also in helping to ensure maximum utilization of the industry's resources. In other countries, such as Belgium and France, which enjoy relatively mild winters and where bad weather benefit schemes provide a generous measure of income protection to the seasonally unemployed construction worker, a diminution of interest in employment stabilization measures has been evident in recent years. In this connection, the British system of a guaranteed weekly wage is of special interest for its dual effect of income protection and employment stabilization.

Finally, the reduction of seasonal instability has made a significant and well-recognized contribution to consumers' welfare. Not only has it yielded a higher output of urgently needed construction, but it has made a considerable contribution to greater general price stability by reducing inflationary pressures in the construction industry and thereby their importance in creating inflation in the economy as a whole. □

FOOTNOTES

¹ "A review of the present state of development in construction methods and techniques indicates that, although certain extreme climatic conditions place absolute limits on the possibilities of winter construction, by and large, winter construction on most types of work and in most climates is technically feasible." Quoted from *Seasonal Unemployment in the Construction Industry* (Geneva, International Labor Office, 1951), p. 88.

² See Joe L. Russell and Michael J. Pilot, "Seasonality in construction: a continuing problem," *Monthly Labor Review*, December 1969, pp. 3-8.

³ See *Labor Market Policy in Sweden* (Paris, Organization for Economic Cooperation and Development, 1963), pp. 34-41.

⁴ Robert Schmidt, *New Regulations on the Promotion of Winter Construction* [in Germany] (Bonn, Ministry of Labor, 1970).

⁵ *National Winter Employment Conference, Summary of Proceedings* (Ottawa, Canada Department of Labor, 1958), p. 53.

⁶ "Report of the Working Party on Winter Building [in Germany]," *Bulletin of the International Federation of Building and Woodworkers* (Copenhagen), February 1959, p. 53.

⁷ See Recommendation on Manpower Policy as a Means for the Promotion of Economic Growth adopted by the Council of the Organization for Economic Cooperation and Development in May 1964, "Active Manpower Policy: International Management Seminar" (Paris, OECD, 1965), pp. 119-124; and the Employment Policy Recommendation adopted by the International Labor Conference in June 1964, *Official Bulletin*, ILO, Vol. XLVII, No. 3, Supplement I, July 1964, pp. 54-66.

⁸ Bundesministerium für Bauten und Technik, *Vorschau 1970* (Vienna, 1969).

⁹ See "Social Services Provided by Unemployment Insurance Institutes," *Report VI*, prepared for the XVth General Assembly (1968); *Bulletin of the International Social Security Association*, February, March, April 1965 issues, "Particular Aspects of Unemployment Insurance for Seasonal Workers," *Report XIV*, prepared for the XVth General Assembly; and "Administrative Problems of Protection Against Unemployment for Building Workers," *Report VIII*, prepared for the XIIIth General Assembly (1959). (International Social Security Association, 154 Rue de Lausanne, Geneva, Switzerland.)

¹⁰ Mary S. Painter, "Construction in OECD Countries," *OECD Observer*, April 1966, p. 13.

¹¹ E. Jay Howenstine, "Rising construction costs and anti-inflation policies: a report on Western Europe," *Monthly Labor Review*, June 1969, pp. 3-10.

A note on communications

The *Monthly Labor Review* welcomes communications that supplement, challenge, or expand on research published in its pages. To be considered for publication, communications should be factual and analytical, not polemical in tone. Communications should be addressed to the Editor-in-Chief, *Monthly Labor Review*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20212.

Report of Cabinet Subcommittee
includes proposals for improving
data on prices and costs,
manpower requirements,
and industrial relations

SOL SWERDLOFF

Surveying the gaps in construction statistics

THE CRITICAL NEED for good statistical intelligence on the relationship between the health of construction activities and the health of the economy recently has received the expert attention of many of the Federal Government's leading statisticians. Such attention reflects a growing awareness that statistical shortcomings have handicapped the development of effective policies to combat construction inflation and to meet future construction needs.¹

Some—even a good bit of—statistical information about construction is available from the decennial censuses, from the housing surveys, and from other sources at the Census Bureau, the Bureau of Labor Statistics, the Federal Reserve Board, and the Department of Housing and Urban Development. These sources provide many of the more essential facts about construction activities and the relationship between the workers and the contractors. In good times, the data—while far from providing 20–20 vision—have been sufficient to indicate that the industry was growing, that housing starts seemed likely to keep up with demand. But when problems arise, the need for data with which to analyze these problems becomes imperative. Such is the case today.

The Nation's housing shortage remains acute, as high interest rates have priced many buyers right out of the market. Other costs are rising rapidly. For example, wage settlements in this \$100 billion industry are running double the national average for all manufacturing. Yet many construction workers are unemployed.

Sol Swerdloff is director of Research and Program Planning, Bureau of Labor Statistics. This article is adapted from a speech he delivered to the Federal Statistics Users' Conference on October 21, 1970. Copies of the Subcommittee report and recommendations may be obtained from Nick Tiedeman, Council of Economic Advisers, Room 328, New Executive Office Building, Washington, D.C. 20506.

Recognizing the urgent need for better statistics the President asked the Cabinet Committee on Construction for recommendations on improving the statistical information on "prices and costs, industry compensation and fringe benefit patterns, industrial relations . . . mortgage financing and construction loan commitments, industry employment, manpower requirements, training and safety . . . and changes in the housing stock including mobile homes." To develop these recommendations, the Committee set up a Subcommittee on Construction Statistics, chaired by Geoffrey H. Moore, Commissioner of Labor Statistics.²

The Subcommittee's report, approved by the Cabinet Committee in December, contains a lengthy list of recommendations. A summary of major recommendations follows, with emphasis on the manpower and industrial relations proposals.

Compensation statistics

The Subcommittee noted that the conduct of labor management relations and the measurement of wage changes require much more detailed information than is now available. For example, BLS currently obtains information on minimum wage rates and maximum straight-time hours negotiated in union contracts. But little or no data are available on occupational wage rates paid or hours worked that may be above the union contract specifications. Neither are data collected on wage rates paid nonunion workers. Thus, there is scant information on the wages paid in the residential building sector, because this area is largely unorganized.

The study recommended that BLS initiate a program to obtain, for contract construction, information on the straight-time hourly and weekly earnings of employees in selected occupations, on their weekly hours of work, and on such supplementary wage practices as overtime pay,

paid holidays and vacations, and health insurance and pension plans.

One of the arguments for the relatively high hourly wage rates for construction workers, the report noted, is that the intermittent character of their work results in their averaging far fewer hours of work a year than workers in other industries. Social security records provide some limited data on annual earnings, but the information lacks detail on occupations and hours worked. The information suggests that annual earnings and hours of contract construction workers vary significantly by craft, union status, locality, and nature of construction. More detailed data are needed to indicate not only what the annual earnings are, but how they vary by these factors, the Subcommittee said. Although the earnings of some construction workers are augmented by unemployment insurance benefits, the extent of such payments is currently unknown.

The report suggested BLS consider the feasibility of obtaining information every 5 years on annual earnings, unemployment insurance benefits, and the annual number of hours paid by craft, union, and type of construction usually worked on.

Industrial relations

Some observers, the panel noted, have blamed unions for shortages of skilled workers in some occupations and in some areas, citing restrictive admissions policies and union devotion to the apprenticeship system, which requires lengthy training.

The Subcommittee recommended that details on union policies be obtained through an analysis of union constitutions and major contracts, as well as interviews with union officials, members and employers, and a review of national publications of selected unions. Specific items would include apprenticeship procedures, standards, and policies, the operation of joint apprenticeship committees, union work permits, transfer card procedures, requirements to hire workers locally, requirements to hire older workers, the use of union publications as a clearinghouse for labor market information, hiring halls and referral systems, and initiation fees, citizenship, noncraft and craft requirements, admission tests, and other qualifications necessary to attain full union membership.

Because of strikes, the industry has lost in excess of 4 million man-days of labor in each year since 1965; in 1969, the figure was almost 10.4 million man-days. Time lost because of work stoppages as a proportion of estimated total time worked was 5 times the average rate for all industries in 1969. The level, trend, and intensity of construction stoppages, however, differ widely from area to area and within areas by craft.

The Subcommittee recommended that BLS analyze information on work stoppages "to identify strike-prone localities; tabulate work stoppage statistics by contract status and issue; examine public and private dispute settlement machinery available to, or adopted by, the construction industry; and, finally, analyze the success or failure of the parties to conclude a new agreement or to resolve disagreements with a minimum of disruption."

Recognizing that data summarizing the provisions of collective bargaining contracts would be helpful in labor-management relations, the Subcommittee recommended analyses of the contract provisions covering all major crafts and geographic regions. Such major characteristics as contract duration, wage provisions (deferred increases, progression, escalator clauses), holidays, vacations, health, welfare, and pension funds would be studied. Also examined would be provisions for union security and dues checkoff, daily and weekly hours and overtime, operation of shifts, travel and transportation allowances, call-in and callback pay, rest periods, limitations on subcontracting and prefabrication, grievance procedures, seniority, and promotions. The findings would be kept current, and results would be published periodically.

Employment and related statistics

Despite increasing attention being given to the supply of skilled workers and their need for training, little statistical information is available for estimating the supply of and demand for construction workers by craft, type of construction, and locality.

The deficiencies of available statistical data about labor requirements and supply and productivity have been repeatedly singled out by private users, Congressional committees, Presidential commissions, and many others.

The panel proposed a comprehensive program

analyzing manpower requirements. Such a program would provide comprehensive projections of requirements for craftsmen by type of activity and would include annual studies of how well the industry utilizes its workers. In terms of supply, studies of geographical and industrial mobility of craftsmen would be conducted.

Productivity information for the industry as a whole is based on construction output measures that are of uncertain accuracy because of defective price deflators. Also, these productivity indexes depend on output measures and measures of labor input which are not conceptually consistent. And, finally, except for a few sectors, no measures of productivity change exist for major types of construction, such as multifamily dwellings, office buildings, and industrial buildings.

The current BLS labor and material requirements studies provide estimates of the total amount of

employment per dollar of expenditures generated directly and indirectly by various types of construction projects. By comparing results from surveys taken at different periods, changes in labor requirements per unit of output, that is, productivity, are measured. With present resources, only one type of construction can be surveyed each year. The panel recommended that this program be enlarged so that several types of construction would be surveyed annually. The Subcommittee also proposed a series of intensive studies of industry sectors undergoing significant technological changes. Detailed information about such innovations as modular housing and advances in material-handling equipment would be obtained through in-depth interviews with contractors.

With the passage of the construction safety act in 1969 and the Occupational Safety and Health Act of 1970, comprehensive data are needed to

Principal recommendations of the subcommittee on construction statistics

- A. Compensation and industrial relations statistics
 1. Survey of straight-time hourly earnings by occupation in the contract construction industry
 2. Survey of union wages and hours in the heavy construction industry
 3. Quinquennial survey of annual earnings and hours in the contract construction industry
 4. Analysis of union contracts and constitutions to obtain statistics on union practices.
 5. Examination of the major characteristics of collective bargaining agreements
 6. Analysis of information on work stoppages and examination of dispute settlement machinery
 7. Analysis of health insurance and pension plans in the industry
- B. Price and cost statistics
 1. Development of output price indexes for major types of construction activities
 2. Development of price indexes for mobile homes
 3. Development of price indexes for construction materials
- C. Financial statistics
 1. Public construction: Development of a series of statistics to measure flows of intergovernmental payments to aid construction
 2. Private construction: Development of an exploratory series to show the sources of financing for new private multifamily and nonresidential construction
- D. Employment, manpower requirements and supply, training, and safety statistics
 1. Additional studies of labor and material requirements
 2. Analysis of supply of and demand for construction manpower
 3. Development of data on the number and types of work injuries; their causes and costs
- E. Statistics on inventory of structures and inventory changes
 1. An annual housing inventory
 2. An inventory of nonresidential buildings and structures and the uses of land
 3. Development of measures to identify substandard housing
 4. Development of data on housing vacancies
 5. Studies to measure the use, durability and life cycle of mobile homes
- F. Output statistics
 1. Improvement of data on value of new construction put in place
 2. Surveys of characteristics of new nonresidential construction projects
 3. Review of series on the outlook for housing construction
 4. Development of information on new methods or systems of construction
 5. Surveys of maintenance and repair of nonresidential buildings
 6. Survey of geographic location of new mobile homes
- G. Industry statistics
 1. Annual survey of construction firms

measure the magnitude of the work injury problem in the construction industry and to indicate where safety programs should be concentrated. A three-phased program would provide data on the number and types of injuries and their causes and costs.

Prices and costs

"Although construction activity is one of the more volatile sectors of the economy, no satisfactory indexes are available for evaluating the extent and sources of inflation in construction," the panel observed. This need would be met by the adoption of several programs. One recommendation was to develop and compile a set of price indexes covering construction inputs, primarily materials purchased for use in construction. Also recommended was a program to provide quarterly national and annual regional price indexes for each major type of construction output.

With regard to new mobile homes, the report recommended the compilation of monthly indexes of the wholesale price of mobile homes and the collection and publication of information on the distribution of the retail prices of mobile homes sold and the average or median of such prices on an annual basis.

Although the operations of the Federal Reserve System, the Federal Home Loan Bank System, and the Department of Housing and Urban Development provide a great deal of information on the financing of construction, the presently available financial data are inadequate to pinpoint potential trouble spots. For example, no available data show volume of funds going into construction, other than housing, in terms of geographic flow, types of institutions, and sources of funds. Nor are there adequate data for assessing how the Federal and State governments, through direct aid, loans, and loan insurance, influence demand for types of construction.

To better assess the effects of financing in terms of public construction, the development of a consistent series measuring the quarterly flows of intergovernmental payments to aid construction was recommended. The Subcommittee also called for the development of quarterly data showing the relationship between the short-term and long-term borrowings by State and local governments and their outlays for construction.

With regard to financial data relating to private construction, it recommended a number of exploratory programs, involving development of a series indicating sources of financing for new private multifamily and nonresidential building construction. Another exploratory series would be aimed at developing information on the lender-borrower property characteristics of mortgages, both conventionally financed multifamily and nonresidential properties. Although multifamily units now account for nearly half of all housing starts, there is no direct way of determining how much mortgage credit is required to underwrite a typical multifamily unit as compared with a typical single-family unit. A benchmark for nonresidential financing would also be developed that would be consistent with the decennial benchmark for residential financing.

Inventory changes

In his *First Annual Report on National Housing Goals*, the President said, "It is essential as a minimum to have adequate data about annual changes in our housing stock rather than relying on decennial data if we as a Nation are going to be able to evaluate properly the need for adequate housing . . ." The lack of current information on characteristics of housing and occupancy seriously limits government and private industry assessments of housing needs, establishment of housing goals, and the determination of the effectiveness of the industry in meeting these goals.

An annual housing survey, recommended by the Subcommittee, would help to eliminate this information gap by providing data on the inventory and market activity. It would also update the benchmark data of the decennial census.

Because meaningful measurement of the Nation's housing needs requires consideration of varying local conditions, the survey would be designed to produce annual summaries for 50 Standard Metropolitan Statistical Areas, the four geographic regions, and the Nation. Data would be provided on "(a) changes in selected characteristics of the housing stock; (b) characteristics of the current year's housing transactions, including price, rent, and terms-of-lease information as related to the socioeconomic characteristics of the mover households; (c) housing and socioeconomic characteristics of nonmover households;

(d) the magnitude and characteristics of the basic components of change in the housing inventory—that is, units added, units lost, and units remaining the ‘same’; and possibly (e) information on changes in outstanding indebtedness secured by properties.” As a companion to the housing survey, an inventory of nonresidential buildings and structures and land uses was also recommended.

Data on output

Output data are necessary, of course, to indicate whether we are meeting our housing and other construction goals both locally and nationally and for use in national accounts. Although several different measures are currently available, improvements and refinements of the existing statistics are needed. Specifically, improved accuracy and timeliness are essential, and greater detail is required for a number of different measures of output.

The panel proposed that the Census program on the value of new construction put in place be improved and enlarged. To do this, the study recommended that the sample for private nonresidential buildings be expanded and monthly surveys of construction progress on both new multi-family residential buildings and one-family homes be conducted.

Surveys of characteristics of new nonresidential projects were also recommended. “To assess changes in construction methods,” the report said, “measurement of the use of modules, panels, prefabrication, complete site assembly, etc., would be obtained through periodic surveys. In addition, surveys of annual expenditures for maintenance and repair of private nonresidential buildings are recommended. Finally, since analysis of the new additions to local housing markets is seriously incomplete without information on mobile homes, a survey providing a geographic breakdown of the location of new mobile homes is recommended.”

General statistics

Turning to general industry statistics, the Subcommittee said current data “on the number, size, and other characteristics of establishments engaged primarily in construction . . . are now fragmentary and not wholly consistent . . . More comprehensive, internally consistent, and timely

data on construction establishments are required to provide information between the quinquennial censuses on changes in size and operating patterns of construction establishments.

“The large number and the small size of construction firms are generally believed to contribute importantly to the inefficiency of the industry and to its inability to take full advantage of technological advances which offer the prospect of substantially lower construction costs. Particularly at the present time, when government policy and programs are directed specifically towards the development of new lower cost systems of construction, the extent to which the nature of the construction industry is affected requires continuous measurement and analysis.”

The Subcommittee called for a comprehensive annual survey of the construction industry. The survey “would provide summary statistics similar to those of the quinquennial census and cover selected special studies, such as the use of materials by general construction contractors or special trades contractors.”

* * *

Although these recommendations cover a wide range of statistical needs, their adoption would not, of course, solve the problems of the construction industry. They do, however, represent a major step forward on the statistical front that may make it easier to deal effectively with the problems facing the industry. And certainly they would place our knowledge of the workings of this essential industry on a firmer foundation. □

—FOOTNOTES—

¹ Statement by the President on Combating Construction Inflation and Meeting Future Construction Needs, March 17, 1970.

² Other members of the Subcommittee were: Lawrence N. Bloomberg, assistant director, Office of Statistical Policy, Office of Management and Budget; George Brown, director, Bureau of the Census, Department of Commerce; Samuel J. Dennis, chief, Construction Statistics Division, Bureau of the Census; Robert M. Fisher, senior economist, Division of Research Statistics, Board of Governors of the Federal Reserve System; Sidney Jones, special assistant to the chairman, Council of Economic Advisers; Henry Schechter, director, Office of Economic and Market Analysis, Department of Housing and Urban Development; and Sol Swerdloff, director, Research and Program Planning, Bureau of Labor Statistics, Department of Labor.

The anatomy of price change in 1970

W. JOHN LAYNG AND TOSHIKO NAKAYAMA

THE CONTINUED SLOWDOWN in the pace of economic activity in 1970 was accompanied by some moderation in the rate of increase in the Consumer and Wholesale Prices Indexes. Price rises accelerated in the fourth quarter for some nonfood items purchased by consumers and producers, but the rate of increase for each index was slower than in late 1969 and early 1970. The Implicit Price Deflator for private GNP, however, which has changing weights and includes all components of final demand, rose rapidly throughout 1970, particularly in the fourth quarter. (See tables 1 and 2.)

In 1969, fiscal and monetary restraints reduced demand pressures, but price changes continued to reflect earlier wage and price increases and expectations about future increases. Unit labor costs continued to rise sharply, as cutbacks in the work force and in hours of work lagged behind the reduction in demand pressures. Eventually, unemployment began to rise and productivity growth resumed, leading to much smaller increases in unit labor costs in the second and third quarters of 1970 than in the preceding year and a half. Employee compensation per man-hour, however, continued to rise sharply. Prices did not reflect much of the slower rise in unit labor costs because other unit costs—such as capital consumption allowances, indirect business taxes, and net interest—rose at a faster pace. Profits per unit of output also rose after the first quarter of 1970, following a sharp decline in 1969.

The Implicit Price Deflator for private GNP rose at a rapid pace in the fourth quarter of 1970 primarily due to a faster advance for personal consumption items, which have a large weight in the overall deflator. Although the Consumer Price

Index differs from this deflator with respect to product and service coverage and weighting procedures, the two series moved similarly last year.

Early in the year, the CPI was increasing at an annual rate of 7 percent—a 20-year high. By the third quarter, the annual rate of increase had dropped to 4.2 percent (seasonally adjusted)—the slowest since the second quarter of 1968. In the fourth quarter of 1970, the rate of increase accelerated somewhat but remained below early 1970 levels. As shown in table 2, prices of food and, to a lesser extent, consumer services were responsible for the generally slowing trend during the year.

Wholesale prices

The Wholesale Price Index reached its highest rate of increase in many years in the second quarter of 1969—5.7 percent at a seasonally adjusted annual rate. Prices at all major levels of production and distribution—crude materials, intermediate materials, and finished goods—contributed to the advance in wholesale prices. The WPI continued to advance at about the same pace through the first quarter of 1970, but slowed markedly in the second quarter to the slowest pace since early 1968. The rise in the second half of 1970 remained moderate. (See table 2.)

Table 1. The anatomy of price change

Item	Percent change from previous quarter ¹							
	1970				1969			
	IV	III	II	I	IV	III	II	I
Private GNP deflator.....	5.7	4.7	4.1	5.3	4.7	4.5	4.9	4.7
Unit labor costs.....	6.0	3.3	1.5	9.6	7.9	6.5	7.1	6.7
Compensation per man-hour.....	6.5	7.7	5.3	6.8	8.8	8.2	5.9	6.2
Output per man-hour.....	0.5	4.3	3.7	-2.5	0.8	1.6	-1.1	-0.5
Unit nonlabor costs ²	5.2	7.3	8.6	-2.0	-0.8	1.1	1.5	1.4

¹ Seasonally adjusted annual rate (compounded).

² Includes profits, depreciation, interest, rental income, and indirect taxes.

▷ Preliminary

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Table 2. Consumer and Wholesale Price Indexes

Index or group	Percent change from previous quarter ¹							
	1970				1969			
	IV	III	II	I	IV	III	II	I
CPI: All items.....	5.5	4.2	5.9	7.0	5.8	5.4	6.6	5.5
Food.....	1.3	0	3.3	9.1	7.3	6.9	6.7	4.0
Commodities less food.....	5.9	3.9	5.3	3.3	4.1	3.2	5.3	4.8
Services ¹	7.3	6.6	9.0	10.1	6.5	6.6	8.2	7.5
WPI: All commodities.....	1.7	2.9	1.9	4.5	5.2	3.2	5.7	4.3
Crude materials.....	-3.7	-2.7	-0.2	6.4	7.4	2.0	18.3	5.1
Intermediate materials.....	3.5	3.9	4.4	3.7	4.8	2.3	3.2	5.7
Finished goods.....	3.1	1.9	0.2	5.1	5.7	3.5	5.0	3.6
Producer goods.....	7.2	4.3	3.3	5.3	5.3	4.8	2.9	2.7
Consumer goods.....	2.3	1.3	-0.9	4.8	5.9	3.4	5.4	3.5
Food.....	-4.4	0.5	-8.1	8.7	9.7	4.4	9.1	6.4
Excluding food.....	6.6	2.9	2.8	2.6	3.3	3.1	2.8	1.9

¹ Seasonally adjusted annual rate (compounded), except services, which are based on unadjusted indexes.

Prices of crude food and nonfood materials were the first to slow down because they are more sensitive to changes in demand and supply than most commodities. These prices, which had advanced at a progressively slower rate following their 18-percent annual rate (seasonally adjusted) in the second quarter of 1969, declined after the first quarter of 1970. Crude food items were an important factor in reversing the trend, but prices also declined for such nonfood items as crude rubber, hides, and ferrous, and nonferrous scrap. Major exceptions were the sharp increase throughout the year in coal prices and, at year's end, in crude oil prices.

Prices of intermediate materials, which include materials for both manufacturing and nonmanufacturing industries, as well as construction, did not begin to decelerate until the last half of 1970. The continued rise in prices of intermediate materials was particularly important because these prices are given a weight of 45 percent in the WPI, almost the same as finished goods (44 percent). Crude materials account for the remaining 11 percent. The slower rise in intermediate materials in the second half of 1970 reflected the general slowdown in business activity and the strike in the automobile industry.

Prices of metals and metal products, which increased at an annual rate of over 9 percent in 1969 and the first half of 1970, rose at an annual rate of 2 percent in the third quarter and declined in the fourth quarter. Among other intermediate materials, prices trended down during the year for textile mill products, leather, gypsum, and lumber products. Lumber prices declined to a 2-year low

in the fourth quarter despite a strong rise in housing starts after mid-year. Prices rose quite sharply, however, for some other construction materials, such as concrete products, structural metal products, flat glass, and plumbing fixtures.

Prices advanced rapidly in 1970 for processed fuels and lubricants including gas, electric power, residual fuels—the heavy oil used by utilities, and distillate oils used for home heating. Gasoline prices were raised last spring and again late in the year, when crude oil prices were raised.

Prices of both consumer- and investment-type finished goods increased at a rapid pace in 1969 and most of 1970, as earlier increases in materials prices and other costs continued to work through the price system. Prices of producers' durable goods increased more slowly in the second and third quarters but accelerated in the fourth quarter. Higher prices for trucks and construction machinery were important factors in the fourth quarter increases.

Prices of consumer finished goods increased rapidly in 1969 and early 1970, but declined in the second quarter. Prices increased in the third and the fourth quarters, although not as much as earlier in the year. Wholesale prices of consumer goods other than food increased steadily in the first three quarters of 1970 and accelerated sharply in the fourth quarter. In contrast, wholesale prices of consumer foods declined during most of the second half of 1970 in response to declines in prices of crude food materials.

Consumer prices

Food. The smaller rise in wholesale prices of consumer foods had a significant impact on retail food prices in 1970. All major components of the retail food price index rose at a slower pace after the first quarter of the year, but the meat, poultry, and fish category registered the most dramatic reversal in trend. Increases in retail prices of meat, poultry, and fish were progressively smaller after the very high 19-percent annual rate (seasonally adjusted) recorded in the second quarter of 1969. These prices actually declined during the last half of 1970. (See table 3.)

Most of the deceleration in food prices was due to a decline in hog prices. The 1970 pig crop was estimated to be larger than in 1969, and hog slaughter in the late fall was considerably above

levels a year earlier. Some increase in supplies of beef, competition from lower priced pork and poultry, and slower growth of personal income caused beef prices to decline during the last half of 1970, but not as much as pork prices. Compared with prices in the fourth quarter of 1969, beef prices were still moderately higher in the fourth quarter of 1970; pork, poultry, and egg prices were lower.

Prices of fruits and vegetables declined after mid-1970 but were still higher at the end of the year than in the fourth quarter of 1969. Dairy product prices moved up sharply in the first quarter of 1970 when agricultural support levels were raised.

For cereal and bakery products, prices rose sharply throughout the year. Expanded export demand pushed flour prices up, and eventually prices of bread and other bakery products rose. Fears of a possible grain shortage due to blight damage to the corn crop also caused sharp increases in cereal prices.

The upward trend in prices of restaurant meals and snacks also slowed quite noticeably in the second half of 1970—down from an annual rate of about 8½ percent to about 5 percent. Smaller increases in restaurant prices stemmed mostly from lower food prices, but declining patronage was also a factor. The increase, however, was still substantial since other costs—such as wages, equipment, taxes, and rent—have continued to move up.

COMMODITIES OTHER THAN FOOD. Prices of nonfood commodities showed little indication of moderating in 1970. There was some improvement between the second quarter of 1969 and early 1970,

Table 3. CPI: Food

Group	Percent change from previous quarter ¹							
	1970				1969			
	IV	III	II	I	IV	III	II	I
CPI: Food.....	1.3	0	3.3	9.1	7.3	6.9	6.7	4.0
Food at home.....	0.5	-1.3	1.9	9.5	6.8	6.7	6.9	3.6
Meats, poultry, and fish.....	-3.3	-7.7	3.3	9.1	3.7	15.2	19.0	6.4
Cereal and bakery products.....	5.8	4.7	6.9	7.1	4.4	3.0	3.5	3.1
Dairy products.....	2.9	2.3	4.1	9.0	3.7	3.9	3.1	2.6
Fruits and vegetables.....	0.7	-4.5	4.9	4.0	10.7	3.3	.3	-3.9
Other food at home.....	-1.1	6.9	-6.3	16.4	11.2	2.6	0	7.3
Food away from home.....	3.9	4.9	9.1	8.0	8.3	7.6	6.6	5.1

¹ Seasonally adjusted annual rate (compounded).

Table 4. CPI: Commodities other than food

Group or item	Percent change from previous quarter ¹							
	1970				1969			
	IV	III	II	I	IV	III	II	I
CPI: Commodities other than food.....	5.9	3.9	5.3	3.3	4.1	3.2	5.3	4.8
Nondurables other than food.....	5.2	3.0	4.7	3.0	4.3	4.3	5.1	4.1
Apparel commodities.....	6.2	3.0	3.0	2.9	5.8	5.1	5.6	5.4
Nondurables other than food and apparel.....	4.7	3.3	5.4	3.4	3.2	3.9	4.7	3.6
Durables.....	6.8	5.4	6.1	3.2	4.1	2.2	5.2	5.4
New cars.....	12.8	3.6	1.1	4.2	2.0	1.5	1.1	1.8
Household durables.....	3.4	2.7	2.9	1.6	1.7	3.4	5.6	4.1

¹ Seasonally adjusted annual rate (compounded).

but the rate of increase jumped sharply in the second quarter, subsided in the third, and rose again in the fourth quarter. (See table 4.) To some extent, these fluctuations reflected changes in prices of used cars and gasoline, which often vary widely in the short run. Nevertheless, prices of apparel products, new cars, and household durables accelerated at the end of the year, and house prices continued to rise substantially.

Retail prices of apparel commodities accelerated sharply in the fourth quarter of 1970, after increasing moderately during the first three quarters of the year. Higher wholesale prices for fall and winter lines of clothing were primarily responsible for the fourth quarter rise. Retail clothing prices rose rapidly from 1965 to 1968—the rate of increase in the second quarter of 1968 was 7.3 percent on a seasonally adjusted annual rate basis, compared with 1.4 percent in the fourth quarter of 1965. Wholesale prices also accelerated during this period but not as much as retail prices. In 1969, wholesale prices continued to accelerate due to rising wage and other costs. Increases in retail prices, however, moderated as economic activity started to slow down. During the first three quarters of 1970, continued sluggishness in the economy and strong resistance to style changes in women's clothing caused rises in wholesale and retail prices to slow substantially. Although prices accelerated in the fourth quarter, retail sales and production of apparel continued to fall short of levels a year earlier.

In every quarter of 1970 except the second quarter, new car prices increased substantially. Continued strength in prices of 1970 models and higher list prices on 1971 models accounted for the

large increase in the CPI for new cars. Dealer concessions on 1970 models did not increase as much as they usually do during the summer months or in the fall when 1971 models were introduced. In addition, dealer concessions on 1971 models were smaller than on comparable 1970 models in September. Both of these situations probably reflected the general shortage of new cars caused by the auto strike. After the strike was settled, additional price increases were announced.

The rate of advance for household durables moderated considerably after the second quarter of 1969, when it reached an annual rate of 5.6 percent. The slowdown reflected primarily the steady weakening since mid-1969 in furniture and rug sales. The increase of 3.6 percent in furniture prices in 1970 was the smallest in 3 years. Appliance prices, however, moved up at a fairly steady rate in 1970 for an increase of 1.7 percent, somewhat larger than in 1969. Further increases were announced by some manufacturers late in the year.

CONSUMER SERVICES. After advancing at an exceptionally sharp rate in the first half of 1970, the rise in prices of consumer service moderated in the second half of the year to about the same rate as in the second half of 1969. As shown in table 5, the most significant slowdown occurred in household services other than rent. After a long and sharp upward movement, mortgage interest rates leveled off late in the spring, as credit conditions began to ease. Prices of houses, which also influence mortgage interest costs, also increased at a slower pace. As prospects for home mortgage financing continued to improve, the interest rate ceiling on FHA and VA loans was lowered from 8.5 percent to 8.0 percent in late 1970. The rate was reduced again in early 1971 to 7.5 percent. This will have a dampening effect on the CPI.

Table 5. CPI: Services

Group or item	Percent change from previous quarter ¹							
	1970				1969			
	IV	III	II	I	IV	III	II	I
CPI: Services ¹	7.3	6.6	9.0	10.1	6.5	6.6	8.2	7.5
Rent ¹	5.3	4.0	4.0	4.4	4.1	4.1	3.1	3.1
Household services other than rent.....	8.8	6.9	11.5	11.5	9.5	8.8	11.0	8.4
Transportation services.....	9.0	9.8	7.7	18.5	9.2	5.7	6.7	10.7
Medical care services.....	6.8	8.7	9.4	7.3	2.6	7.7	9.5	9.3
Other services.....	5.5	6.2	6.1	4.9	4.8	5.4	4.8	4.0

¹ Seasonally adjusted at annual rate (compounded), except total services and rent, which are based on unadjusted indexes.

Among other household services, charges for home repairs, laundry, and day-care services rose less rapidly than in 1969. However, charges for domestic services, property taxes, gas and electricity rates rose more than in 1969. Higher fuel prices contributed to increasing costs of utilities in meeting expanding demand.

The rate of advance of the rent component accelerated steadily from less than 2 percent annually in mid-1967 to 4.4 percent in early 1970. In the fourth quarter the rate rose to 5.4 percent. Increased operating costs, including property taxes, labor, maintenance, and repairs, were cited as reasons for higher rent in recent years. Another important factor in the faster rise in prices of rental units has been the increase in demand for apartments, as the cost of purchasing and maintaining a home advanced sharply.

The rate of advance in transportation services accelerated sharply in the first quarter when New York City transit fares were raised following a wage increase for transit workers. Although the uptrend in the following quarters moderated, increases were still large. Local transit fares were raised later in the year in many cities, including Chicago, San Francisco, Washington, D.C., St. Louis, Detroit, and Cincinnati reportedly due to rising costs and declining revenues. Airline and train fares also increased last fall. In addition to higher prices for public transportation, charges for auto services, such as parking fees, auto repairs, and insurance, accelerated.

Prices of medical care services rose at an annual rate of about 8.5 percent in the first three quarters of 1970, about the same as in the first three quarters of 1969. A slower rise in the fourth quarter of 1969 and in 1970 resulted mostly from the annual adjustment of retained earnings of health insurance companies. Premiums for health insurance are represented in the index by prices of services for which benefits are paid and a measure of changes in the ratio of profits and overhead costs to benefits. The upward trend was about the same as in 1969 for physicians fees, slightly slower for dentists' fees, and somewhat faster for hospital services. Although the upward pace in the charges for hospital services in the past 3 years has been somewhat more moderate than the sharp advances recorded in late 1966 and early 1967, the increase in 1970 was still substantial, as wages and other costs, plus demand, continued to rise in relation to supply. □

Women in labor unions

Increase in women membership
lags behind growth in employment;
only a few women hold office
in international unions

LUCRETIA M. DEWEY

AT THE TURN of the century, women activists often joined with labor unions in a cooperative effort to improve their role in society. This joint effort is less evident today; however, despite their lack of affinity with the current "women's lib" movement, women who are members of unions have begun pressing for job equality and a greater voice within their unions.

This article discusses women as trade union members and as union officers and reports on their recent activities.

The number of women members of unions—while increasing in absolute and relative terms—has not kept pace with the increase in women entering the labor force.

In 1958, women unionists totaled 3.1 million, or 18.2 percent of total union membership; by 1968, their number had risen to 3.7 million, or 19.5 percent of all members.¹ During these 10 years, unions added over 2 million members to their ranks; women made up 30 percent of the increase, with their largest gain occurring in the last half of the decade. Since 1958, 600,000 women in the United States have joined unions.²

During the same 10 years, however, the number of women in the civilian labor force grew from 32.7 percent of the total to 37.1 percent. Thus, the ratio of women union members to employed women has declined, over the decade, from 13.8 to 12.5 percent. (See table 1.)

A major proportion of total women membership has consistently come from only a small number of unions. Approximately three-quarters of all women members in both periods belonged to 21 unions, each with more than 50,000 women members (table 2). These unions operate in a variety of major employment sectors: metals and machinery, clothing, communications, transportation, service, trade, and government. With one excep-

tion (the American Federation of Teachers), they bargain for both blue-collar and white-collar workers. In some unions, such as the Communications Workers of America, American Federation of Teachers, Alliance of Independent Telephone Unions (Ind.), Amalgamated Clothing Workers of America, and the International Ladies' Garment Workers' Union, women represent a sizable proportion of total membership. Although women are a relatively small proportion of total memberships in other unions, they are significant in terms of absolute numbers in such large labor organizations as the United Automobile, Aerospace and Agricultural Implement Workers of America (Ind.), International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America (Ind.), and Amalgamated Meat Cutters and Butcher Workmen of North America.

Four unions contributed almost one-half of the 600,000 gain in women members over the decade: the Retail Clerks International Union, Service Employees International Union, United Automobile Workers, and American Federation of Government Employees. Each has experienced a high overall membership growth during the decade, ranging from 43 to 391 percent. However, only in the Service Employees and the Auto Workers has the proportion of women members increased at a faster rate than total membership.

In 1968, women made up at least one-half of the total membership in 1 out of 7 unions (table 3). While some shifts occurred from 1958 to 1968 in the number of unions and members, certain concentrations among ratio groupings have remained fairly constant. In both years, approximately one-quarter of all unions had no women on their rolls. These are primarily unions representing workers in industries and occupations considered male domains, such as railroad, construction, mining, fire fighting, and so on. The number of unions in which women represent over one-half of membership has increased slightly over the decade, from 25 to 30; these unions account for

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an almost consistent percentage of all women members, 44 percent in 1958 and 42 percent in 1968. Of the three unions reporting that women composed at least 90 percent of the total on their rolls in 1958, only one, the Laundry and Dry Cleaning International Union (AFL-CIO), remained in that size class in 1968.

Women in industry

Are industries in which women constitute a high proportion of the labor force less susceptible to organization than those in which their number is negligible? Or, to put it another way, what is the sexual composition of the labor force in those industries in which unions have made their greatest organizing gains?

An inverse relationship between the proportion of women workers and the extent of organization of an industry is suggested by table 4. In six industries in which 75 percent or more of the workers are organized, women workers range from a negligible to a relatively small proportion of total employment. On the other hand, of five industries in which women make up at least half of those employed, only two (apparel and telephone) show a relatively high degree of organization—between 50 and 75 percent; in one (leather), it is between 25 to 50 percent, and in two (finance and services), it is less than 25 percent.

Table 1. Women civilian labor force participation and union membership in the United States, 1958-68¹

[Numbers in thousands]

Year	Civilian labor force		Union membership ²		Women as a percent of total civilian labor force	Women union membership as a percent of—	
	Total	Women	Total	Women		All women in labor force	Total union membership in the United States
1958.....	67.6	22.1	16.8	3.1	32.7	13.8	18.2
1960.....	69.6	23.2	16.9	3.1	33.4	13.3	18.3
1962.....	70.6	24.0	16.4	3.1	34.0	12.8	18.6
1964.....	73.1	25.4	16.7	3.2	34.8	12.5	19.1
1966.....	75.8	27.3	17.8	3.4	36.0	12.6	19.3
1968.....	78.7	29.2	18.8	3.7	37.1	12.5	19.5
Change, 1958-68:							
Number.....	11.1	7.1	2.0	.6			
Percent.....	16.4	32.1	11.8	19.7			

¹ Union membership figures exclude 2 large associations predominantly composed of women, the American Nurses Association with well over 200,000 members and the National Education Association with approximately 1.1 million members, as well as single-firm intrastate unions with 162,100 women. Other groups not included are State employee associations and members of directly affiliated AFL-CIO unions.
² Membership data are limited to the United States.

Table 2. Women members in unions with 50,000 women members or more, 1958 and 1968

Union	Women membership			
	1958		1968	
	Number of women members	Percent of total membership	Number of women members	Percent of total membership
Total, all unions.....	3,274,000	18.2	3,940,000	19.5
Total, selected unions.....	2,408,000	26.0	2,964,000	26.3
AFL-CIO:				
Bakery ¹	(?)	(?)	52,300	32
Clothing.....	282,000	75	(?)	(?)
Communications Workers.....	153,200	60	178,800	50
Electrical (IUE).....	111,300	40	113,500	35
Electrical (IBEW).....	225,000	30	269,100	30
Garment, Ladies.....	332,200	75	364,000	80
Government (AFGE).....	24,000	40	97,300	33
Hotel.....	174,500	40	146,900	32
Machinists.....	99,300	10	(?)	(?)
Meat Cutters ²	77,200	14	75,000	15
Railway Clerks.....	41,200	11	56,000	20
Retail Clerks.....	176,900	58	(?)	(?)
Retail, Wholesale.....	56,000	35	70,000	40
Service Employees.....	52,000	20	128,400	33
State, County.....	(?)	(?)	(?)	(?)
Steel.....	(?)	(?)	(?)	(?)
Teachers.....	33,000	65	99,000	60
Textile Workers.....	78,800	40	73,200	40
Unaffiliated:				
Automobile Workers.....	102,700	10	176,700	12
Teamsters.....	156,000	11	(?)	(?)
Telephone.....	54,000	60	51,500	97

¹ Includes the Bakery and Confectionery Workers' International Union of America (Ind.) and the American Bakery and Confectionery Workers' International Union (AFL-CIO).
² Data not reported. Estimates made by the Bureau are included in totals. Unlike table 1, figures include members in areas outside the United States, primarily in Canada.
³ Includes the Packinghouse Workers in 1958 and 1968.

In assessing these figures it should be noted that those industries which are large employers of women and traditionally have been well organized have significantly expanded their female work force, thereby outstripping gains in membership during the decade. In the apparel industry, for example, predominantly represented by four unions which together accounted for some 702,000 women members in 1968, approximately 31,000 women members have been added to union rolls over the 10-year period. A disproportionate increase in the number of employed women, about 6 times that of membership, reflects the adverse effect of the movement of the industry into areas unfavorable to organized labor. Similarly, while employment of women in communications has risen by about 50,000, three major unions in the industry have added only about 14,000 women to their ranks.

On the other hand, the relatively recent upsurge of organization in government has provided a new source of women members. Just as membership in government unions has made a significant contribution to the overall growth of the labor

movement, rising from 5.8 percent of total union membership in 1958 to 10.7 percent in 1968, the increase of women government members has added greatly to their total in unions. In 1968, the 30 unions with 80 percent or more of their membership employed in government included 450,000 women, or 11.4 percent of all women members, compared with 172,000, or 5.3 percent in 1958.

The findings of a 1967 Bureau study of unaffiliated local unions³ differ from those for national unions. Replies from these organizations indicate that women represented a greater proportion of their total membership than they did in national unions. In 1967, 34 percent of the 475,000 members in unaffiliated unions were women, up from 29 percent in 1961; in national unions the proportion has remained at about 20 percent of the total. Of the 884 unaffiliated unions reporting, about 44 percent reported no women members, compared with 23 percent in national unions; however, a greater number of unaffiliated unions reported that women represented more than one-half of their membership. Unions in this category accounted for 70 percent of women members in all unions, while in national unions they represented 42 percent.

One explanation for the greater proportion of women members in the unaffiliated unions may be found in the industries in which these unions were certified as the collective bargaining representatives. More members, 12 percent, were in the service industry than any other sector, and large concentrations were also noted in communications and electrical machinery.

A number of explanations have been offered to explain why women appear less inclined to join unions, ranging from the nature of the industries and occupations in which they work to their attitudes and intentions as labor force participants. Some of these explanations are based on the premises that as a young entrant into the labor force, a woman views work as a temporary phase until she marries; married women—who make up close to 60 percent of all women workers—work to supplement the family income or to provide luxuries and savings for the children's education; and the majority of these married women are in the labor force on a less than full year-round basis. Women have generally been characterized, therefore, as not being interested in the benefits that unionization can bring: representation, job security, pension, and other benefits. Strikes or even the threat

of strikes are believed to be a further disincentive.

Evidence upholding or rejecting these assertions is hard to come by.

However, recent data on NLRB white-collar elections indicate that, when the opportunity was available, women in these occupations did not differ significantly from men in their preference for union representation.⁴

A recently published study by the Bureau of the Census indicates that women and men employed year round full time are more likely to be union members than those not fully employed.⁵ Seventeen percent of women working full time were union members, as against 13 percent of those working less than year round full time. For men the percentages were 33.5 and 31.4, respectively.

The study also reveals that union members earn higher wages than their nonunion fellow workers in most of the occupations which permitted comparisons. The difference in median earnings between union and nonunion workers working at any time during the year was \$1,540 for women and \$1,517 for men. In all comparable occupations studied, however, organized women received lower wages than all men.

Women as union officials

"It is true that in many cases customs and attitudes from an earlier period have to be overcome before women feel entirely at home in a union, or

Table 3. Proportion of women members in national and international unions, 1958 and 1968

[Numbers in thousands]

Percent of women members	All unions				Women members ¹			
	1958		1968		1958		1968	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All unions.....	185	100.0	189	100.0	3,274	100.0	3,940	100.0
No women members.....	48	25.9	45	23.8	---	---	---	---
Under 10 percent.....	59	31.9	58	30.7	171	5.2	197	5.0
10 and under 20 percent.....	23	12.4	22	11.6	570	17.4	620	15.7
20 and under 30 percent.....	11	5.9	11	5.8	157	4.8	346	8.8
30 and under 40 percent.....	9	4.9	14	7.4	467	14.3	855	21.7
40 and under 50 percent.....	10	5.4	9	4.8	473	14.4	254	6.5
50 and under 60 percent.....	6	3.2	14	7.4	279	8.5	627	15.9
60 and under 70 percent.....	10	5.4	9	4.8	376	11.5	269	6.8
70 and under 80 percent.....	5	2.7	2	1.1	661	20.2	309	7.8
80 and under 90 percent.....	1	.5	2	1.1	28	.9	367	9.3
90 percent and over.....	3	1.6	3	1.6	93	2.8	96	2.4

¹ Includes members outside the United States, primarily in Canada.

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

are made to feel entirely welcome there . . ."⁶ This observation was made by a close student of the American labor movement in 1947. Years later, women officeholders apparently still do not "feel entirely at home . . ."

In terms of the standard measure used to determine the adequacy of representation available to minority groups in public or private office, women had not in 1958 attained the level of responsibility and authority that would be indicated by their numbers as union members. Despite the substantial increase in number by 1968, the best that can be said is that their position had not deteriorated. At the beginning of the 10-year period, women officeholders constituted 4.7 percent of all union officials listed in the Bureau's biennial Directory; in 1968 the proportion was 4.6 percent.

In 1958, 32 women held 36 elective and appointive positions while in 1968, 38 women held 48 positions (table 5). The increase both in the number of women with positions and number of positions held by women can be attributed in part to the addition of three positions in the Directory

listing; legal, legislative and public relations activities. When these three categories are eliminated to coincide with the positions existing in 1958, the 1968 total is reduced to 35 women and 40 positions. Hence, on a comparable basis, three women officers were added to union payrolls with a gain of four positions.

Women held one more elective position in 1958 than in 1968, 13 versus 12; most commonly, in both years, secretary-treasurer.⁷ However, at the end of the decade four more women were directing major departments or activities in appointive positions than at the beginning of the period. An unpublished BLS survey shows that in 1947, AFL and CIO unions had 10 women research directors, in 1958 they had 8, and in 1968 only 5. On the other hand, there were 10 women social insurance directors and five editors in 1968, compared with three each 10 years earlier. While two of the unions in the 1947 survey have since merged, other unions have been included in the Directory listing.

The Associated Actors and Artistes of America (AFL-CIO), with its 65,000 members in 1968 and

Table 4. Women as a percent of nonagricultural employment and estimated extent of union organization by industry, 1968¹

Industry group	Women as a percent of nonagricultural employment	Extent of unionization	
		Percent	Rank
Total	36	25-50	
Manufacturing	28	50-75	12
Ordnance and accessories	26	75 and over	4
Food and kindred products (including beverages)	25	50-75	9
Tobacco manufacturers	45	50-75	21
Textile mill products	45	Less than 25	29
Apparel and other finished products made from fabrics and similar materials	80	50-75	11
Lumber and wood products, except furniture	10	50-75	16
Furniture and fixtures	23	25-50	26
Paper and allied products	22	75 and over	5
Printing, publishing and allied industries	31	50-75	20
Chemicals and allied products	20	50-75	13
Petroleum refining and related industries	9	75 and over	6
Rubber and miscellaneous plastic products	32	50-75	19
Leather and leather products	56	25-50	25
Stone, clay, glass, and concrete products	16	50-75	17
Primary metals industries	7	50-75	8
Fabricated metal products, except ordnance, machinery and transportation equipment	18	25-50	24
Machinery, except electrical	15	25-50	23
Electrical machinery, equipment and supplies	40	50-75	7
Transportation equipment	11	75 and over	2
Professional, scientific and controlling instruments	36	25-50	28
Miscellaneous manufacturing industries	45	Less than 25	14
Nonmanufacturing	38	Less than 25	27
Mining and quarrying (including crude petroleum and natural gas production)	6	50-75	10
Contract construction	5	75 and over	3
Transportation	11	75 and over	1
Telephone and telegraph	50	50-75	15
Electric, gas and sanitary services (including water)	15	50-75	18
Wholesale and retail trade	39	Less than 25	32
Finance, insurance and real estate	51	Less than 25	34
Service industries	53	Less than 25	31
Government	42	Less than 25	30
Federal	26	25-50	22
State and local	47	Less than 25	33

¹ Extent of unionization is based on total union membership.

SOURCE: Percent of women on nonagricultural payrolls from *Employment and Earnings*, March 1970. Extent of union organization and ranking from *Directory of National and International Labor Unions in the United States, 1969* (BLS Bulletin 1665, 1970).

Table 5. Selected union offices held by women, 1958 and 1968

Position	Size of union																					
	All unions		Under 1,000		1,000-4,999		5,000-9,999		10,000-24,999		25,000-49,999		50,000-99,999		100,000-199,999		200,000-299,999		300,000-399,999		400,000 and over	
	1958	1968	1958	1968	1958	1968	1958	1968	1958	1968	1958	1968	1958	1968	1958	1968	1958	1968	1958	1968	1958	1968
Total positions held by women	36	48	3	4	5	14	4	1	8	7	6	10	5	3	1	6	3	1	1	1	1	1
Total women	32	38	2	3	5	10	4	1	8	6	5	7	4	3	1	5	2	1	1	1	1	1
ELECTIVE OFFICES																						
President	2				1	5	2	1	2													
Secretary-treasurer	11	12	1						3	1	2	3	2	1					1			
APPOINTIVE POSITIONS																						
Director of organizing activities	1	2			1	4	1			3	1											
Research director	8	5	1			1	1		1	1	2	2	3	1					3	2		1
Research and education director	2				1																	
Education director	3	1	1	3	1		1															
Director of social insurance	5	14		2	1	3			1	4		2	1	1	1	2	1			1	1	1
Editor	4	6		1	1	5	1				2	2	1	1	1	5	1					
Legal activities	(9)	1	(9)		(9)		(9)		(9)		(9)		(9)		(9)	1	(9)		(9)		(9)	(9)
Legislative activities	(9)	3	(9)		(9)	1	(9)		(9)		(9)		(9)		(9)	1	(9)		(9)		(9)	1
Public relations activities	(9)	4	(9)		(9)	2	(9)		(9)		(9)	1	(9)		(9)	1	(9)		(9)		(9)	(9)

¹ Same person was also research director.

² Same person was also editor.

³ Same person was also social insurance director.

⁴ Same person was also social insurance, legislative, and public relations director.

⁵ Same person was also public relations director.

⁶ Not surveyed in 1958.

women estimated at 40 percent of the total, has contributed a high proportion to the total number of women holding office, AAAA affiliates had seven women holding an equal number of offices in 1958 and five women holding eight positions in 1968. The only instances in which women were elected to the office of president—two in 1958—were in AAAA affiliates, the American Federation of Television and Radio Artists and the American Guild of Variety Artists.⁸

Other unions with two women holding positions in 1958 were the Amalgamated Lithographers of America with women as research director and editor; the National League of Postmasters of the United States (Ind.) and the International Airline Stewards and Stewardesses Association (affiliated with the Air Line Pilots Association), each with women serving as secretary and as treasurer. In 1968, four unions listed two women or more in elective and appointive capacities. In the Writers Guild of America, Inc. (Ind.), women served as treasurer and executive director,⁹ in the Textile Workers Union of America as director of social insurance and legal activities; in the Overseas Education Association (Ind.) as secretary and treasurer, and in the Journeymen Barbers, Hairdressers, Cosmetologists and Proprietors' International Union of America as social insurance director and editor.

Surprisingly, a number of unions with no or only a small number of women members have placed women in appointive offices. Among these

are the United Plant Guard Workers of America (Ind.) and the International Brotherhood of Firemen and Oilers, both with women research directors, the National Marine Engineers' Beneficial Association and the Metal Polishers, Buffers, Platers and Helpers International Union with women social insurance administrators, and the Amalgamated Transit Union with one woman serving as editor and public relations director.

These data, of course, do not include the numerous other elected and appointed positions held by women, particularly at the local union level.¹⁰ A review of the names of vice presidents and executive board members listed in publications of unions with a substantial number of women, however, indicates that women fare about the same as in the case of offices shown in the Directory. The Amalgamated Clothing Workers Union, for example, had 28 vice presidents, one of them a woman; the late Mrs. Bessie Hillman, widow of Sidney Hillman, a former ACWA president. Both the RWDSU and ILGWU have one woman vice president out of a total of 20 each. There are no women vice presidents in several unions with sizable female contingents; for example, the Communications Workers of America, Machinists, and Bakery Workers. Similarly, no woman is found on the 15-member General Executive Board of the Teamsters or the top leadership of the IBEW. There is one woman vice president in the UAW, and none in the IUE; however, 4 of IUE's 20 executive board members are women.

A number of unions have conducted studies of women officeholders in local unions. For some, these data indicated that women hold a greater proportion of leadership positions at the local than at the national level. The American Bakery and Confectionery Workers International Union in a January 1967 study¹¹ found that 58 of the 136 locals had female officers. Of 965 office holders, 115 were women. The most commonly held positions were recording secretary and trustee, however; only three were local union presidents.

In 1962, the UAW reported that among its then 150,000 women members, over 800 held elective local union office; "thousands" more served on negotiating committees and on recreation, citizenship, community services, and fair practices committees, to which they had been either appointed or elected.

In the 282 locals that reported information for a United Packinghouse Workers of America survey in 1964,¹² women occupied a total of 542 executive offices. The most prevalent were recording secretary, member of the executive board, trustee, and financial secretary. There were, however, 24 local presidents and 38 vice presidents. Additionally, in key plant positions 388 were stewards, 56 of them chief stewards. On the basis of these returns, the union concluded that the number of executive office holders in each of its districts was related to the proportion of women in each district.¹³

There is some evidence that women are becoming aware of their failure to fully participate in the direction and operation of trade unions. At the 1970 Convention of the American Federation of State, County and Municipal Employees Union, women delegates of Michigan locals introduced a resolution entitled, "Advancement for Women of AFSCME." This resolution, adopted by the delegates, charged that "AFSCME has not given due consideration to the need for women in positions of staff representative on the International and Council levels in union affairs and activities, such as appointment of Sergeant-at-Arms at conventions . . ." It called upon the international to "direct its efforts to provide staff training programs that take into consideration the needs of women as well as men . . ." and urged "that the International and the Councils will make every effort to recruit and include more women in the positions of staff representatives and all leadership positions."¹⁴

"One of the last all-male strongholds is the executive council of the AFL-CIO. Around the massive table in its meeting room in Washington headquarters are 29 chairs, and every one of them is occupied by a man."¹⁵ The Executive Council, recently expanded to 33 members, has always been reserved for the presidents and former presidents of its affiliates. Since no woman within the Federation holds the highest elective office, the composition of the executive council is likely to remain unchanged.

Work issues

Issues that face women at the work place include equal opportunity for entering occupations, seniority rights, pay, promotional opportunities, and the need for day-care centers. Under legal requirements, unions are required to bargain and represent all workers covered by an agreement, regardless of membership, race, or sex. In a number of instances unions have emphasized the policy of equal treatment for women by including antidiscrimination and equal pay for equal work clauses in their agreements.

Despite the legal and contractual obligations imposed on the union, women members have turned to the Equal Employment Opportunity Commission for redress of alleged grievances. Approximately 400 such cases were referred to the Commission in fiscal 1970, with the majority concerned with seniority and layoff, rates of pay, demotion, and transfers. As might be expected, where violations of law were found both the union and the company charged were ordered to correct the situation and often the complainants were awarded compensation for lost earnings.

Conventions held by the United Auto Workers, American Federation of Teachers, and American Newspaper Guild in 1970 dealt extensively with the problems of women in society and as union members. The issues raised by the three included various types of biases currently encountered by women and the need for child care centers.

The UAW and AFT endorsed revision of maternity leave policies, the UAW endorsing paid maternity benefits for time lost at work and unemployment compensation benefits before and after childbirth when the mother is physically unable to work (including job protection for those returning), and the AFT taking the position that job rights should be maintained during such leave, the length of

which to be determined by the woman and her physician.

Both unions endorsed the "equal rights" amendment, with the AFT urging the AFL-CIO to change its position of opposition, without qualification. They also urged that women be encouraged to participate in skilled trade apprenticeship programs.

The three conventions emphasized the need for day care centers for working parents, the UAW viewing the problem as a national program, the ANG as an employer responsibility, and the AFT as a subject for negotiations. At present few union contracts provide for child care centers, although some unions with large numbers of women, the

Amalgamated Clothing Workers for example, have opened centers, admittedly not sufficient to meet existing needs. The lack of such centers may be due to pre-1969 provisions of the Taft-Hartley Act that prohibited payment into negotiated trust funds for such centers. In expressing one reason for the lack of an adequate number of child care facilities, a vice president (male) of the Amalgamated Clothing Workers said, "For too long we have looked cynically at the problems of women in industry, only wanting to send them home in order to solve the unemployment problem. But now we realize we can't replace women and we might as well accept that."¹⁶ □

—FOOTNOTES—

¹ *Directory of National and International Labor Unions in the United States*, 1959 (BLS Bulletin 1267, 1960) and 1969 (BLS Bulletin 1665, 1970).

² Data in this article are based on information provided to the Bureau by national and international unions in response to biennial requests for information on the structure, composition, and operations of these organizations. These data are augmented by other Bureau studies, Equal Employment Opportunity Commission discrimination case statistics, surveys of locals conducted by national unions, and various other sources.

³ See *Unaffiliated, Interstate, and Single-Employer Unions*, 1967 (BLS Bulletin 1640, 1969).

⁴ White-collar workers indicated a preference for union representation in 56 percent of the 752 unit elections conducted in 1969. See Martin Kaufman, "Putting a Union Label on the White-Collar Employee," *Conference Board Record*, September 1970, pp. 47, 49.

⁵ See "Labor Union Membership in 1966," *Current Population Reports*, No. 202, U.S. Bureau of Census.

⁶ Orlie Pell, "Women in Unions," distributed by American Labor Education Service, 1947.

⁷ During the AFGE convention, August 1970, Mrs. Esther F. Johnson was defeated in her bid for reelection to the post of secretary-treasurer, thus reducing the total to 11 in 1970.

⁸ During October 1970, Dr. Lois E. Hinson was elected President of the National Federation of Veterinarians (Ind.).

⁹ The Executive Director served in a total of four appointive positions.

¹⁰ Women's auxiliaries, chartered by a number of unions, were not studied because in these organizations all offices are likely to be held by women.

¹¹ Prior to the merger between the Bakery and Confectionery Workers' International Union of America (Ind.) and the American Bakery and Confectionery Workers International Union on December 4, 1969.

¹² Prior to the merger with the Amalgamated Meat Cutters and Butcher Workmen of North America in July 1968.

¹³ "Women in the UPWA, An Analysis of the Projects Committee," February 10, 1965.

¹⁴ Resolution, "Advancement for Women of AFSCME," adopted during the 18th International Convention of the American Federation of State, County and Municipal Employees Union, May 4-8, 1970.

¹⁵ Leo M. Solomon, "Who Will Be First Lady Member of AFL-CIO Executive Council?" *Labor's Daily*, August 31, 1956.

¹⁶ *Washington Post*, June 2, 1967.

Labor problems arising
from technological improvements
in maritime shipping
debated at ILO conference

JOSEPH P. GOLDBERG

Seamen and modernization of merchant shipping

TRANSFORMATION and growing modernization of maritime shipping, intensified in the last few years, has energized longstanding international arrangements and activated new ones. Individual national concerns for flag fleets to meet commercial and, in some instances, auxiliary naval needs have been accompanied by consideration for broader, international aspects of maritime trade.

The 55th International (Maritime) Labor Conference, held in Geneva, Switzerland, in October 1970, successfully considered a wide range of matters, particularly those deriving from the major changes and innovations in maritime shipping. These diverse influences included: Contrasting economic conditions confronting major maritime nations and developing countries; the changing mix in world trade and passenger traffic; the substantial increase in number of larger and technologically advanced ships; changes in cargo handling systems as a result of container and barge loading; continued growth in the number of ships under national registries variously referred to as "flags of convenience" or "flags of necessity"; and changes in the organization of shipping management. The conference was notable for adherence to the agenda and pertinent worker concerns of the ILO. This contrasted with the numerous political references extraneous to the ILO's purposes usually made at the organization's labor conferences, a major factor in general criticism and the vote by the U.S. Congress to defer the payment of dues to the ILO for the second half of 1970.

Industry trends

An understanding of the major and basic changes in world trade and shipping services is required to appreciate the nature of the actions taken at the conference. During the 1950-67

period, international seaborne trade increased from 525 million to 1,860 million metric tons, with annual increases averaging about 8 percent. The international transport of petroleum rose from 43 percent to over 55 percent of the growing volume. The growth in world trade in dry bulk commodities, including iron ore, coal, grain, manganese, bauxite, and phosphate rock, accounted for over 40 percent of dry cargo traffic by 1967. With the advance of air transportation, shipborne passenger traffic between North America and Europe declined about two-thirds between 1956 and 1968.

These changes in the volume of trade caused a rapid and growing transformation of international sea transport, particularly in the types of ship and in services. The number of active vessels of over 1,000 tons increased from 15,000 ships totaling 138 million deadweight tons in 1958 to 18,500 ships of 290 million tons. The mix of vessels was altered substantially. The number of tankers increased by one-fourth, while their tonnage increased by 2½ times, reflecting their increased size and carrying capacity. Similarly, the number of dry bulk carriers tripled, while their tonnage increased almost tenfold. Passenger-cargo ships declined by one-fourth. Freighters remained virtually unchanged, but the introduction of larger, faster (both in ship operation and port turnaround time) container ships and barge-carrying ships under the flags of major maritime nations had begun and was progressing rapidly.

Vessel construction has been accompanied by the application of improved technology and materials to improve shipboard operation. Capital

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investment has been increased to obtain greater speed, greater efficiency, and reduced maintenance requirements. Improvements have been made in ship propulsion machinery and in centralized control of machinery. These have reduced manning requirements and other labor costs. Further, with the incorporation of total transport approaches in container and barge carrying operations, the savings have been extended through the rapid loading and discharge of vessels, faster turnaround time in port, and consequent greater operational utilization of the high capital cost ship.

The changes in ship transport have had important repercussions on both public and private concern with the state of national merchant marines. Public bodies in the United Kingdom and the United States, among other major maritime countries, have explored all aspects of merchant marine policy in recent years. In the United States, the subsidy provided by the Merchant Marine Act of 1936 was increasingly viewed as misdirected in that it applied only to liners—passenger and freight ships—at the time of growing reliance (since World War II) on Liberian and Panamanian flag ships to carry petroleum and bulk cargo. While advanced ship technology was incorporated in freighters built with subsidy in the 1960's, the remainder of the U.S. merchant marine, tankers, tramps, and unsubsidized liners, were rapidly approaching retirement, with few prospects for replacement. The recent revisions of the Merchant Marine Act, enacted with the support of all labor and management maritime organizations, provide means to extend aid for the construction of bulk carriers, along with freighters, as well as for incentives to reduce subsidy costs. However, it is recognized that the upgraded merchant marine, while providing more shipboard employment than would have been the case without any change in policy, will have employment levels below those of the last decade unless there is a substantial increase in cargo carried by U.S. ships.

Manpower

The impact of these developments on manpower is complex, varying among geographical areas and over time. The number of shipboard jobs in the major maritime nations has declined, but the impact has differed. In the case of the Scandinavian countries, Netherlands and West Germany,

foreign seamen have been important components of the maritime labor force, as shoreside opportunities have limited the manpower available for the merchant marine and caused substantial turnover among young and skilled seamen. The United Kingdom traditionally has relied on Indian, Pakistani, Chinese, and West African seamen, employing 30,000 of them in 1966. But with the rapid decline in employment opportunities, the British National Union of Seamen has declared the manning of these ships with U.K. seamen as its long term objective. In developing nations, on the other hand, employment opportunities on their own merchant marines and, where established or possible, employment on the ships of the major maritime nations is viewed as essential.

Technological improvements in the ships of the major maritime nations have been accepted generally by the seamen and their unions, and the trend has been to reduced manning on the technically advanced vessels. The traditional division among ships' departments—deck, engine, and catering—has been altered in some instances, either by the development of general purpose crews or through interdepartmental flexibility. Where traditional ratings are maintained, crewmen are available for other types of work in other departments in agreed upon circumstances. Even where these have been developed, the traditional arrangements are still maintained on the older, conventional ships. There appears to be less agreement, however, on the feasibility of training officers for dual-purpose responsibilities, that is, for combining both deck and engineering skills. Universally, there is recognition of the need to upgrade the skills to meet the altered requirements of the modern, technologically advanced vessel, and to attract and retain capable youngsters for shipboard careers. On this issue, the developing nations are seeking technical assistance in training from the ILO and the major maritime countries.

The role of the ILO

To the international aspects of the changing maritime climate already mentioned should be added the traditional international character of seafaring. This includes the nature of employment, the contacts among seamen of all nations, the importance of parallel training in assuring safe

operation on the seas, and the participation of free trade unions in the International Transport Workers Federation paralleling the international joint activities of ship operators.

For the past 50 years, the ILO has provided the machinery for joint consultation and agreement on standards and guides to be applied in the industry. International shipping conferences have been long established to set freight rates for competing liner companies on respective trade routes, to ensure rate stability, and to avoid cut-throat competition. Concern over pressures on shipboard labor costs as a factor in competition among national merchant marines made the ILO, from its inception, a continuing maritime focus for the exploration of labor conditions and the development of international standards. More recently, international organizations representing governments have been established for complementary purposes. The Intergovernmental Maritime Consultative Organization now functions to deal with technical matters of concern to the industry; matters of safety and pollution are prominent in its considerations. The United Nations Conference on Trade and Development has reflected the aspirations of developing countries with regard to trade and the development of their own national merchant marines. The World Health Organization (WHO) includes the health of seafarers among its concerns. The ILO has cooperated with these organizations in spheres of mutual interest.

The October conference was the eighth maritime labor conference of the ILO—the third since the end of World War II. (The other postwar meetings took place in 1946 and 1958.) Between conferences, the maritime work of the ILO is conducted by the Joint Maritime Commission, the only labor-management body in the ILO tripartite structure. The Commission meets periodically between conferences, discussing developing trends and recommending studies and conference dates and agenda to the tripartite ILO Governing Body. It has also been assisted by tripartite subcommittees when government participation has been deemed necessary in its preparatory work.

Participants in the October conference represented 63 of the 121 member states of the ILO. Dr. Nagendra Singh, Secretary to the President of India, was unanimously elected president of the conference. The three vice presidents were N. Simeonov, Government Delegate of Bulgaria,

E. Brøvig, Employer Delegate of Norway, and H. Wiemers, Worker Delegate of the Federal Republic of Germany.

The U.S. delegation, headed by U.S. Maritime Administrator Andrew E. Gibson (now Assistant Secretary of Commerce for Maritime Affairs), participated actively in all phases of the conference.¹

Some 60 speeches by government, employer, and worker delegates were addressed to the Director-General's report, which dealt with the developments in the industry since 1958 and their implications for the future. Reported improvements included the establishment of employment services for the recruitment of seamen in several Asian countries and progress in systematizing and stabilizing employment elsewhere. The report took note of the strengthening of labor-management ties in many maritime countries, and the broadening of these relations to deal with the impact of changed ship operations, including seamen's well-being on board ship. It also cited the development of such labor-management relations in the new maritime nations.

Although wages have been substantially improved in many countries in recent years, the report noted, the international minimum wage of \$70 a week for an able seaman set by the 1958 conference had not been reached in some countries. Only a few countries have established the basic 40-hour week at sea and in port for seamen, with compensation for overtime work either in premium pay or compensatory time off in port. Progress toward this goal is being made also in other nations. Crew accommodations have been improved substantially, particularly on the newly constructed ships, exceeding standards set in an earlier ILO convention on this subject. The need to cope with the growing number of work-associated injuries through international action was cited. Among other matters, the report dealt with the growth of tonnage under "flags of convenience," citing its importance in the case of Italian, U.S., and Greek ownership, and the employment of over 60,000 seafarers from such countries as Cyprus, Greece, India, Italy, Spain, and China (Taiwan) on Liberian flag ships.

The speakers' serious interest in the subjects encompassed by the Director-General's report and the almost complete absence of extraneous political statements were noteworthy.² The impli-

cations of the report, the first submitted by Wilfred H. Jenks since he became Director-General, were discussed at length. Spokesmen of some major maritime nations saw the need for further exploration of the subject of all-purpose crews, and some Asian delegates asked for the elimination of discriminatory wage and crew accommodation provisions. The developing countries called for aid in building their merchant marines and training their seamen and expressed concern over the possible loss of employment for their nationals on foreign ships due to reduced manning. Several Soviet bloc spokesmen supported a resolution introduced by the French Worker Delegate, calling for transforming the bipartite Joint Maritime Commission into a tripartite group.

In his comments on the Director-General's report, Mr. Gibson pointed to the ability of the free U.S. unions and management to adjust to technological change, including manning reductions, while achieving the highest seamen's wages and working conditions in the world. Acknowledging that "in certain technological areas, notably rationalization of crew structure and automation, other maritime nations have made greater advances," he anticipated further balanced progress in the United States in working conditions and in technological advances. He called for discontinuance of any dual standards for seamen from developing nations. Emphasizing support for the aspirations of underdeveloped nations to own their own ships, he assured them that technical training assistance already being provided in the United States would be continued.

Paul Hall, the U.S. Worker Delegate, stressed the importance of the ILO in meeting the problems facing seafarers, intensified by the acceleration of technological developments. He cited the high wages, good working conditions, and widespread training programs among U.S. unions. But he emphasized the common bond of American workers with other maritime workers of the world, reflecting the broad role of the AFL-CIO in international labor activities. "The distinctive nature of professional seafaring has inspired a human relationship among the toilers of the sea which is not bounded or circumscribed by registry of flag, national origin, race, or creed. It sets sailors apart from all the rest of society, and in this

respect certainly we can agree that they are truly citizens of the world." And he stressed that the conference was a vital factor in dealing with the problems of seafarers on a worldwide basis, particularly since substandard conditions anywhere affected all seamen. He emphasized that recourse to irrelevant political trades would only vitiate the constructive role of the ILO and the conference.

In this climate, the conference was able to complete its work in various areas with a remarkable degree of unanimity. With the exception of the proposal to alter the structure of the Joint Maritime Commission, which was defeated in the Resolutions Committee, every instrument relating to the agenda items and every resolution was adopted unanimously.

The issue of structure of the Joint Maritime Commission was not a new one. At the 1946 conference, marked by substantial uncertainties over the state of labor-management relations in the maritime industry, the seafarers had proposed a change to a tripartite organization. When the employers opposed, an agreement was reached to use tripartite ad hoc subcommittees when necessary. This, and the subsequently demonstrated ability of the bipartite structure to function effectively, persuaded the seafarers' unions in the International Transport Workers Federation to become staunch supporters of the Commission. As a result, an effort supported by the Soviet bloc at the 1958 conference to bring about a change was overwhelmingly defeated. At the recent conference, the Soviet bloc received some additional support from the governments of a few developing countries, but the resolution was defeated by an overwhelming majority of the committee. The proponents of the changed structure indicated at the conclusion of the conference that the pressure for the alteration of the Commission's structure would continue.³

The Conference unanimously adopted the following international standards:

CREW ACCOMMODATION. A new convention supplements a 1949 convention providing for specified improvements in crew accommodations. The charge that the earlier convention was discriminatory in setting separate standards for larger than customary crews, in effect primarily on ships with Asian seamen, was met by setting only one set of

standards. Exceptions are now left to determination by the competent national authority after consultations with shipowners and of seafarers' unions, provided they agree. Two recommendations relating to crew accommodation were also adopted, one dealing with air conditioning of crew quarters and certain other ship areas, and the other calling for research on the causes, effects, and reduction of harmful noise on shipboard.

MINIMUM BASIC WAGE FOR ABLE SEAMEN. This sole instance of an international minimum wage standard was fixed at \$64 a week in 1946 and increased to \$70 in 1958. Previously a matter of substantial disagreement, the minimum wage this time was set at \$100 after a bipartite discussion. In addition, agreement was reached to have the Joint Maritime Commission review the minimum at its next meeting. U.S. labor and management representatives were major contributors to the resolution of this matter.

EMPLOYMENT AND TECHNOLOGICAL DEVELOPMENT. A recommendation calls for the establishment of national manpower projections for the maritime industry to serve the purpose of balanced recruitment. Training and retraining to meet changing skills and functional requirements are proposed, and suggestions are made for providing regular and stable employment for seamen. Provision is made for cooperation among concerned governments, shipowners, and seamen where foreign seamen are likely to be affected by shipboard technical changes.

ACCIDENT PREVENTION. A convention and a recommendation adopted by the conference provide for adequate reporting and investigation of occupational accidents, and for the collection of comprehensive statistics on the subject. Accident prevention codes are to be developed and enforced, including education and training for such prevention.

VOCATIONAL TRAINING. A recommendation sets forth specifications for the organization and content of training programs. It calls for the development of training standards, and suggests the approaches to be taken. Also discussed was a U.S. worker proposal that a joint ILO-who committee

study the subject of training appropriate shipboard personnel in medical care of seafarers.

SEAFARERS' WELFARE. Supplementing a recommendation adopted in 1936, the recommendation on seafarers' welfare contains new and expanded provisions for facilities to make shipboard life more attractive. It was hoped the measure would help reduce turnover in the maritime labor force.

The conference also unanimously adopted 10 resolutions. As U.S. Employer Delegate James J. Reynolds pointed out in reporting for the shipowners on the Resolutions Committee, those resolutions "are not a collection of pious hopes. They represent a program of action." Among other matters, they called for study of the industrial relations in the maritime industry, study of the conventions now applicable to seafarers in the light of altered maritime industry conditions, publication of information on leave arrangements on different ship types, and studies of certain matters relating to the protection of young seafarers. Other resolutions called for providing information to developing countries regarding the technical maritime assistance available from the ILO, and the convening of regional maritime conferences. On "flags of convenience," the resolution called on member states to provide information on the implementation of two ILO recommendations adopted in 1958. One set conditions for employment on foreign registry vessels equivalent to those under collective agreements and social standards accepted and traditionally observed by organizations of shipowners and seafarers of advanced maritime nations. The other required that the country of registry accept the full obligation of such registry and exercise effective jurisdiction and control over its flag vessels for the safety and welfare of seafarers. Finally, a resolution called for an early convening of the Joint Maritime Commission. All the resolutions are subject to approval of the ILO Governing Body.

The results of the conference indicate a joint forwardlooking approach to the uncertainties of future developments in the maritime industry. This is a far cry from the prewar and early postwar apprehension over the shipowners' acceptance of seafaring unions. The continued successful working of the bipartite Joint Maritime

Commission may be viewed as an important concomitant of the purpose of ILO's tripartite structure. The retention of this structure assures an effective mechanism for the consideration of the many and complicated matters formulated by

the conference. But without a constructive purpose—that of adhering to the basic tenets of the ILO and avoiding political dispute—the substantial results and the virtual unanimity could not have been so readily achieved. □

—FOOTNOTES—

¹ Members of the U.S. delegation were: *Government*: Delegates—Andrew E. Gibson, Maritime Administrator, Department of Commerce, and Joseph P. Goldberg, Special Assistant to the Commissioner of Labor Statistics, Department of Labor; Substitute Delegate, Capt. Garth Read, U.S. Coast Guard; Advisers: Capt. K. N. Ayers, Beatrice M. Burgoon, Arthur W. Friedberg, Dominick Manfredi, George E. McCarthy, and Roger C. Schrader; *Employers*: Delegate: James J. Reynolds, President, American Institute of Merchant Shipping; Advisers: Martin F. Hickey, Edmond Marcus, William I. Ristine, Clifford V. Rowland, and Donald J. Schmidt; *Workers*: Delegate: Paul Hall, President, Seafarers' International Union of North America, AFL-CIO; Advisers: Milenko L. Barisic, Peter Bocker, Harry Clark, Max Condiotti, Joseph Gaier, Burt Lanpher, Raymond McKay, Alvin Shapiro, Earl Shepard, Gene Spector, and Shannon Wall.

² Only the three Cuban delegates sought to raise political issues by attacking the United States, but in each case the president of the conference called for adherence to the

standing orders and insisted on relevance to the Director-General's report. The U.S. delegates, in their statements, indicated the importance of avoiding political recriminations which could only impede the constructive efforts of the conference toward meeting the needs of the seafarers.

³ The worker and employer groups agreed to recommend increasing the titular membership on their respective sides from 15 to 18 members to the Governing Body, to take account of the increase in ILO membership since 1958. Both the workers and employers added developing countries to the titular members. The workers elected a Soviet worker representative to titular membership, but the socialist manager candidate failed of election in the employer group. The Soviet bloc representative repeated the charge of discrimination made against the employers' group at the 54th session of the conference, when the Soviet bloc indicated that a prospective alternative to equal participation within that group could be the establishment of a separate group of socialist managers with the same rights as those of the private employer group.

Lawrence R. Klein award

A \$100 award will be presented for the best original article in labor economics or related subjects appearing in the *Monthly Labor Review* during 1970. The award will be made on the basis of the following criteria: Originality of idea or method of analysis; adherence to principles of scientific inquiry; and adherence to principles of good writing. The award will be the second in a series to be made from a fund established by friends of Lawrence R. Klein, editor-in-chief of the *Monthly Labor Review* from 1946 to 1968.

Special Labor Force Report
shows that
nearly 8 out of 10 students
are in the labor force
during the summer

VERA C. PERRELLA

Students and summer jobs

THE SUMMER LABOR FORCE activity of students is important both for the young people and for the economy. For the students, it represents an introduction to the world of work and its benefits, discipline, and responsibilities. In many cases, it provides money needed to continue schooling. In the economy, this summer employment adds to the Nation's total product and purchasing power. From the aspect of labor supply, summer workers provide a source of required seasonal flexibility.

During the course of the year, the greatest net change in the size of the labor force occurs during the school summer vacation period. In 1970, for example, the civilian labor force of all ages increased by 3.1 million between May and July and then dropped by 2.3 million between July and September. The key role of students in this change is evident from the month-to-month changes in the number of 16- to 21-year-olds in the labor force. Students among them shifted from school to nonschool status, and back to school. The following tabulation shows the monthly changes in the labor force (in thousands of persons) from April to September 1970:

	April to May	May to June	June to July	July to August	August to Sep- tember
16 years old and over.....	-219	+2,309	+751	-686	-1,568
16 to 21 years old.....	+26	+2,503	+943	-625	-2,220
Major activity:					
School.....	-57	-2,358	-1,073	-153	+2,272
Nonschool.....	+83	+4,862	+2,015	-472	-4,492

Of course, not all of the change in the 16 to 21 labor force is attributable to students entering the labor force for the summer only. Nonstudents in these ages also enter the labor force during the summer months, and usually not for the summer only. Moreover, some students who enter the labor force during the summer remain in the labor force

when school reopens. Others leave school permanently as graduates or dropouts. Some out-of-school youths reenter school. Nonetheless, most of the change is from students taking or looking for summer jobs only.

The total number of individual students who move into and out of the labor force over the summer can not be determined from the net changes. A survey of the summertime employment of students, made for the first time in October 1969 for the Nation as a whole, indicates that an unduplicated total of 6.1 million students 16 to 21 years old were in the labor force for summer jobs only. This number is substantially greater than the net increase of 3.1 million. This suggests that the net increase of 3.4 million in the summer of 1970 represented close to 6 million students who were working or looking for work at some time during the summer. Programs aimed at helping young people to get employment must take into account the fact that many more individuals will need jobs than the net changes indicate.

Student workers, summer 1969

The survey, financed by the Manpower Administration of the Department of Labor, covered all persons age 16 to 21 as of October 1969.¹ The bulk of the student population of working age is in this group. These are also the ages for which unemployment rates are highest. The data obtained included school status at the time of the survey, labor force status during the summer of 1969, earnings from summer employment, extent of unemployment, and other related information. Because the data furnish some insights into the summer labor force activity of students, the findings, together with some discussion of implications of the 1969 experience, are presented here.

Eight out of 10 of the 12.1 million 16- to 21-year-olds who were enrolled in school in October

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1969 were in the labor force at some time during the summer of 1969.² About 3.5 million of these students had jobs not limited to the summer months. The other 6.1 million students worked, or looked for jobs, for the summer months only. The number of students in the labor force for only the summer was nearly double the net increase of 3.4 million between May and July in the number of youths in the labor force. About the same proportion of white as Negro students were in the labor force at some time during the summer, but the composition of the white and Negro groups differed.³ Relatively more white students worked at jobs which were not limited to the summer, while relatively more Negro students looked for but did not find summer jobs (table 1).

The following portions of this report discuss the labor force experience of the students who worked at, or looked for but did not find, jobs they wanted for the summer only. These students are called summer workers in the following sections.

Summer workers

Over 5 million students 16 to 21 years old in October 1969 had worked at summer jobs, and

about 1 million students looked for but did not find summer jobs. The proportion of students with summer jobs was higher for those 18 to 21 years old than for those 16 and 17, and higher for the men than for the women. This is also the pattern for students throughout the rest of the year.

The proportion of Negro and of white students employed in jobs which were for the summer only was about the same. However, the percentage of Negro students who looked for summer work without success was more than 2½ times that of the white students.

More than 6 out of 10 of the students with summer jobs did not have to spend any time looking for work after school closed. They had either looked for and found jobs before school closed or had been offered jobs before they had started to look (table 2).

The white youths were almost half again as likely as the black to have jobs waiting. Negro women were the least likely to have jobs waiting—only about one-third had obtained them before school ended. The overall differences between white and Negro students result from several factors. In addition to the difficulties Negroes frequently

Table 1. Summer 1969 labor force status of persons 16 to 21 years old enrolled in school in October 1969, by age, sex, and color, October 1969

[Numbers in thousands]

Labor force status and sex	All persons		Color				Age (in years)					
			White		Negro and other races		16-17		18-19		20-21	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
BOTH SEXES												
Total enrolled in school in October 1969.....	12, 094	100. 0	10, 597	100. 0	1, 497	100. 0	6, 711	100. 0	3, 351	100. 0	2, 032	100. 0
In labor force for summer work only ¹	6, 094	50. 4	5, 201	49. 1	893	59. 7	3, 114	46. 4	1, 897	56. 6	1, 083	53. 3
Worked at some time during summer.....	5, 146	42. 6	4, 512	42. 6	634	42. 4	2, 470	36. 8	1, 691	50. 5	985	48. 5
Looked for but did not find a summer job.....	948	7. 8	689	6. 5	259	17. 3	644	9. 6	206	6. 1	98	4. 8
Worked in summer at job not for summer only.....	3, 500	28. 9	3, 228	30. 5	272	18. 2	1, 962	29. 2	980	29. 2	558	27. 5
Did not work and did not look for a summer job.....	2, 500	20. 7	2, 168	20. 5	332	22. 2	1, 635	24. 4	474	14. 1	391	19. 2
MEN												
Total enrolled in school in October 1969.....	6, 494	100. 0	5, 739	100. 0	755	100. 0	3, 452	100. 0	1, 886	100. 0	1, 156	100. 0
In labor force for summer work only ¹	3, 594	55. 3	3, 133	54. 6	461	61. 1	1, 798	52. 1	1, 133	60. 1	663	57. 4
Worked at some time during summer.....	3, 172	48. 8	2, 811	49. 0	361	47. 8	1, 512	43. 8	1, 048	55. 6	612	52. 9
Looked for but did not find a summer job.....	422	6. 5	322	5. 6	100	13. 2	286	8. 3	85	4. 5	51	4. 4
Worked in summer at job not for summer only.....	1, 894	29. 2	1, 734	30. 2	160	21. 2	1, 018	29. 5	565	30. 0	311	26. 9
Did not work and did not look for a summer job.....	1, 006	15. 5	872	15. 2	134	17. 7	636	18. 4	188	10. 0	182	15. 7
WOMEN												
Total enrolled in school in October 1969.....	5, 600	100. 0	4, 858	100. 0	742	100. 0	3, 259	100. 0	1, 465	100. 0	876	100. 0
In labor force for summer work only ¹	2, 500	44. 6	2, 068	42. 6	432	58. 2	1, 316	40. 4	764	52. 2	420	47. 9
Worked at some time during summer.....	1, 974	35. 2	1, 701	35. 0	273	36. 8	958	29. 4	643	43. 9	373	42. 6
Looked for but did not find a summer job.....	526	9. 4	367	7. 6	159	21. 4	358	11. 0	121	8. 3	47	5. 4
Worked in summer at job not for summer only.....	1, 606	28. 7	1, 494	30. 8	112	15. 1	944	29. 0	415	28. 3	247	28. 2
Did not work and did not look for a summer job.....	1, 494	26. 7	1, 296	26. 7	198	26. 7	999	30. 7	286	19. 5	209	23. 9

¹ At some time during June, July, and August.

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

Table 2. Weeks of unemployment for students 16 to 21 years old in labor force¹ in summer 1969, by age, sex, and color, October 1969

[Percent distribution]

Weeks of unemployment	All persons	Color		Sex		Age (in years)		
		White	Negro and other races	Male	Female	16-17	18-19	20-21
WORKED AT SUMMERTIME JOB								
Number (thousands).....	5,146	4,512	634	3,172	1,974	2,470	1,691	985
Weeks unemployed before starting to work ² :								
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
None.....	62.8	65.2	45.3	64.1	60.7	64.1	59.0	65.9
2 or less.....	19.4	18.1	28.6	18.6	20.5	16.2	23.1	20.9
3 or 4.....	10.8	9.9	16.8	10.6	11.1	10.8	11.4	9.6
5 or more.....	7.1	6.8	9.3	6.7	7.7	9.0	6.6	3.5
LOOKED FOR BUT DID NOT FIND A SUMMER JOB								
Number (thousands).....	948	689	259	422	526	644	206	98
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(9)
Weeks unemployed:								
2 or less.....	33.6	35.3	28.9	31.1	35.5	33.9	30.5	-----
3 or 4.....	34.6	32.4	40.6	33.1	35.9	34.2	39.1	-----
5 to 8.....	13.3	13.8	11.8	14.5	12.3	14.0	12.2	-----
9 or more.....	18.5	18.5	18.7	21.3	16.4	18.0	18.3	-----

¹ Persons 16 to 21 years old who worked at summer job only or looked for a summer job but could not find one.² Weeks unemployed after start of summer vacation from school and before starting to work on a job.³ Percent not shown where base is less than 100,000.

encounter in the job market because of discrimination, lesser knowledge of job opportunities, and fewer contacts with people who can help in getting jobs, Negro students were more likely than white to still be in high school. Many employers, if they have a choice, prefer to hire a college student than some one who has not yet graduated from high school.

About half of the students with summer jobs who had looked for employment after school closed found jobs within 2 weeks or less, and about 20 percent looked for 5 weeks or more. Generally, this held for men as well as for women and for Negroes as well as for whites. However, a smaller proportion of the 16- and 17-year-olds than of the 18- to 21-year-olds found jobs within 2 weeks.

The students who looked for a job 5 weeks or longer before getting one were asked what they thought was the main reason it had taken so long. Almost 6 out of 10 indicated as the main reason that not many jobs were available. About 1 out of 10 said that employers thought them too young. Comparatively few gave reasons such as too low pay, did not like the kind of work available, insufficient schooling, training or experience, unacceptable hours, or transportation problems.

As indicated earlier, almost a million students looked for but did not get summer jobs—17 percent of the Negroes and 7 percent of the whites. About a third of the unsuccessful jobseekers looked for a relatively short period of time—2

weeks or less—and about a third looked for 5 weeks or more. These proportions varied little by age, sex, family income, or color.

On the whole, the youths who could not find jobs thought that they were unsuccessful because jobs were not available rather than because they were too selective. The youths were asked, "What was the main reason you did not find a summer job?" About half of the unsuccessful job seekers reported that no jobs were available (table 3). Only 13 percent said they did not take a job because they

Table 3. Main reason students 16 to 21 years old could not find a summer job, by age, sex, and color, October 1969

[Percent distribution]

Reasons given by students	All persons	Color		Sex		Age (in years)		
		White	Negro and other races	Male	Female	16-17	18-19	20-21
Total: Number (thousands).....	948	689	259	422	526	644	206	98
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(1)
No jobs available.....	48.5	50.7	42.5	44.7	51.3	46.8	49.7	-----
Available work too hard.....	.2	.3	-----	.5	-----	-----	-----	-----
Did not like kind of work available.....	6.6	6.1	7.9	7.7	5.8	4.6	13.1	-----
Pay too low.....	1.8	1.1	3.8	2.1	1.6	1.0	3.1	-----
Transportation problem.....	5.9	6.1	5.4	5.6	6.2	7.2	3.1	-----
Hours.....	4.2	4.8	2.5	3.5	4.7	2.3	8.4	-----
Insufficient schooling, training or experience.....	5.1	5.1	5.0	3.2	6.4	5.4	5.2	-----
Too young.....	17.5	15.4	23.3	20.5	15.3	23.3	6.8	-----
Other.....	10.2	10.4	9.6	12.2	8.7	9.6	10.5	-----

¹ Percent not shown where base is less than 100,000.

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

did not like the kind of work available, the pay was too low, or the hours were not to their liking. About 17 percent, mostly 16- and 17-year-olds, said employers thought they were too young. In general, there was no significant difference either by sex or by color in the main reasons given.

Low wage rates were evidently not a major problem when students were trying to find a summer job. Fewer than 2 percent of all the students who could not find jobs gave too low pay as the main reason. The problem of transportation to available job sites has often been cited as a major reason for unemployment among young people. Transportation problems were given as the main reason by only 6 percent of these unsuccessful summer jobseekers; the proportion was about the same for whites and Negroes. Whites and Negroes were about equally likely to give insufficient schooling, training, or experience as the major reason for their inability to find employment.

Industry and occupation

The students who worked were asked to describe the job they had during the summer. If they had more than one, they were to describe their first job. Service, manufacturing, and trade offered the most opportunities to men for summer employment. Work for women centered in the service and trade industries (table 4).

Relatively more white than Negro men were in manufacturing, particularly the durable-goods sector, and in retail trade. A larger proportion of white than Negro women were in trade and private households. However, a larger proportion of Negro women than of white women were in education services and public administration. This may reflect more extensive participation by Negroes in various manpower programs, such as the Neighborhood Youth Corps, and special efforts to provide employment for minority group members.

The 16- and 17-year-old men were more likely to be in agriculture, retail trade, and service than the older ones, but much less likely to be in manufacturing. Legal restrictions tend to reduce the employment of young persons in factories. The 16- and 17-year-old women were more likely than the older women to be in agriculture and private households, but less likely to be in manu-

Table 4. Industry of first job held by students 16 to 21 years old who worked at summer jobs in 1969, by age, sex, and color, October 1969.

[Percent distribution]

Industry	All persons	Color		Sex		Age (in years)		
		White	Negro and other races	Male	Female	16-17	18-19	20-21
Total ¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture.....	10.2	10.0	11.5	13.2	5.4	15.7	5.8	4.2
Construction.....	7.5	7.8	6.0	11.9	0.7	6.3	8.0	9.9
Manufacturing.....	16.5	17.1	12.2	20.9	9.4	8.8	23.2	23.5
Durable goods.....	8.0	8.4	5.5	11.0	3.2	3.4	11.8	12.6
Nondurable goods.....	8.5	8.7	6.7	9.9	6.2	5.4	11.4	10.9
Transportation.....	2.9	2.8	3.2	3.1	2.4	1.5	3.4	5.2
Trade.....	21.1	22.1	14.1	20.3	22.5	22.1	21.9	17.5
Wholesale.....	2.2	2.3	1.6	2.7	1.5	1.9	2.3	2.6
Eating and drinking.....	6.8	7.0	5.8	5.5	8.9	9.1	4.7	5.0
Other retail.....	12.1	12.8	6.7	12.1	12.1	11.0	14.9	9.9
Service and finance.....	37.6	37.1	41.3	26.3	55.3	42.1	33.8	33.2
Finance, insurance, and real estate.....	2.5	2.5	2.6	1.4	4.4	1.6	3.4	3.3
Business and repair.....	2.0	2.2	0.7	1.9	2.1	1.2	2.5	3.0
Private household.....	9.1	9.4	6.5	4.6	16.1	16.1	3.5	1.7
Personal services.....	7.0	7.1	5.8	5.4	9.5	7.1	8.3	4.2
Entertainment.....	5.1	5.4	2.5	4.6	5.8	5.5	4.6	4.9
Medical and hospital.....	3.6	3.1	7.1	1.7	6.6	2.7	4.9	3.6
Education.....	5.8	4.9	12.2	4.1	8.5	5.3	4.5	9.2
Other services.....	2.6	2.4	3.9	2.8	2.3	2.6	2.1	3.3
Public administration.....	3.9	2.8	11.8	3.8	4.2	3.4	3.4	5.8
Federal.....	1.4	.6	7.1	1.3	1.7	1.0	1.5	2.2
State and local.....	2.5	2.2	4.8	2.5	2.5	2.4	1.9	3.7

¹ Includes a small number employed in mining not shown separately.

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

facturing, particularly durable goods, and in retail trade.

The percentages of white and Negro men in the various occupations did not differ very much. Over half the men found summer jobs as unskilled laborers (farm and nonfarm) or as service workers; about 1 out of 5 was a white-collar worker and about the same proportion were craftsmen or operatives (table 5). The 16- and 17-year-old boys were less likely to be white-collar workers or operatives than the older students, and considerably more likely to be in service and farm occupations, which generally require little or no skill or training.

The largest proportions of women students found jobs as clerical workers and in service occupations, including private household; relatively few were blue-collar workers or farmworkers. In contrast with the situation for all employed women, a greater proportion of Negroes than of whites who held summer-only jobs were in clerical occupations, and a smaller proportion were in service occupations, including private household. This difference arises because jobs as babysitters are more readily available in white neighborhoods,

and Government-sponsored programs are directing special efforts to helping minority-group youths to find work.

Weeks and hours worked

Most of the students who had jobs worked more than 2 months during their summer vacations. Nearly 60 percent worked 9 weeks or more and about 27 percent, 5 to 8 weeks. These proportions were about the same for whites as for Negroes. However, a smaller proportion of women than men worked for at least 9 weeks.

The older students were more likely than the younger to work 9 weeks or more, as shown by the following percent distribution:

	16 and 17 years	18 and 19 years	20 and 21 years
Total.....	100	100	100
4 weeks or less.....	21	11	6
5 to 8 weeks.....	30	24	23
9 weeks or more.....	49	66	71

One of the reasons for the smaller percentage of 16- and 17-year-olds in the longest duration group is that among those who looked for work after school closed, relatively more of the 16- and

17-year-olds than of the older students had to look longer before finding work.

Two-thirds of the students who had jobs worked the equivalent of a full-time workweek (35 hours a week or more), with the proportions about the same for whites and Negroes. Relatively fewer women than men, and 16- and 17-year-olds than older students, worked 35 hours or more a week. The number of hours most commonly worked was in the 35 to 40 hours range; about 4 out of 10 of the students were in this group. Although the proportions of Negroes and whites who worked 35 hours a week or more were the same, relatively more white students worked 41 hours or more, 26 percent compared with 17 percent. Older students tended to work longer hours; hours worked also tended to be higher for men than for women.

Reason for working part time

To what degree do students prefer part-time summer jobs to full-time ones? About one-third of the part-time workers reported they were working part-time (less than 35 hours a week) because they could not find full-time work. However, a majority were working part-time for reasons other than not being able to get full time work, as is indicated by the following percentage distribution:

	All persons	White	Negro and other races
Total.....	100	100	100
Could not find full-time work.....	32	31	40
Did not want full-time work.....	26	28	14
Not available for full-time work.....	14	14	12
Other reasons.....	28	28	34

Table 5. Occupation of first job held by students 16 to 21 years old who worked at summer jobs in 1969, by age, sex, and color, October 1969

[Percent distribution]

Occupation	All persons	Color		Sex		Age (in years)		
		White	Negro and other races	Male	Female	16-17	18-19	20-21
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Professional, technical, and managerial.....	8.3	8.3	8.1	7.6	9.4	3.7	11.1	14.6
Clerical.....	18.7	17.1	29.5	10.5	31.0	13.7	22.0	24.8
Stenographers and secretaries.....	4.8	4.1	9.5	0.2	11.8	3.5	5.7	6.3
Other.....	13.9	13.0	20.0	10.3	19.3	10.2	16.3	18.6
Sales workers.....	4.9	5.3	2.0	3.5	7.2	4.6	5.5	4.9
Craftsmen.....	5.9	6.1	4.6	9.3	0.8	5.2	5.8	8.0
Carpenters and other construction workers.....	2.0	2.2	1.1	3.3	0.2	1.6	2.1	2.8
Mechanics.....	2.4	2.4	2.6	3.9	-----	2.8	2.0	1.9
All other craftsmen.....	1.5	1.6	0.9	2.1	0.6	0.7	1.7	3.2
Operatives.....	9.8	10.1	7.1	12.7	5.2	5.9	13.1	13.2
Drivers.....	2.0	2.2	0.7	3.3	0.1	1.4	2.1	3.3
All other operatives.....	7.7	7.9	6.4	9.4	5.1	4.5	11.0	9.9
Nonfarm laborers.....	19.3	19.8	16.1	30.9	1.7	20.0	20.5	15.7
Private household.....	5.8	6.2	2.9	-----	14.6	10.1	2.3	1.5
Service.....	18.5	18.4	19.8	14.3	25.0	22.9	14.8	14.4
Protective service.....	1.8	2.0	-----	1.6	2.0	1.7	1.6	2.2
Waiters.....	6.3	6.5	4.9	3.2	11.0	7.2	5.5	5.4
Others.....	10.5	9.9	14.8	9.5	12.0	14.1	7.7	6.8
Farmworkers.....	8.7	8.6	9.9	11.2	5.1	13.9	4.9	3.0

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

A greater proportion of men than women reported they had to work part time because they could not find a full-time job, 38 and 25 percent, respectively. Over 40 percent of the girls who worked part time did so because they did not want or were not available for full-time work. Black students were somewhat more likely than white students to report that they could not find full-time work.

Overall, the proportions who said they could not find full-time jobs were highest among those in families with income in 1968 below \$5,000 a year. Those in families with income above \$5,000 were more likely to have full-time jobs than those in families with lesser income. However,

the proportion with full-time jobs does not necessarily increase as income increases above the \$5,000 level.

Earnings

The amount the students earned from their summer jobs varied widely, depending upon the rate of pay, the number of hours worked each week, the number of weeks worked, and the kind of work. Of course, even with no unemployment, the maximum length of time they could have worked was relatively brief—approximately 15 weeks. Then too, some States limit the number of hours for young persons and for women.

About 18 percent of the students who held wage or salary jobs earned less than \$100 from their summer employment, and about one-fourth earned \$700 or more (table 6). Relatively more men than women and more whites than Negroes earned at least \$700.

Of the several age groups, the 16- and 17-year-old students earned the least, with about 60 percent making less than \$300. The relatively high proportion earning so little is a reflection of the prevalence of part-time work and the small number of weeks worked; about half worked less than 35 hours a week and almost two-thirds worked 4 weeks or less.

Earnings were considerably higher for the older than the younger students, mainly because the older tended to work longer hours and more weeks. Over a third of the 18- and 19-year-olds and almost half of the 20- and 21-year-olds earned \$700 or more.

When the earnings figures are examined separately for men and women, and for whites and Negroes, wide differences are present. Women generally earned less than men, and Negroes less than whites. Thirty-three percent of the white and 15 percent of the Negro men earned \$700 or more. This difference is very probably the result of lower rates of pay for the Negroes, since the distributions by number of hours or weeks worked were not markedly different for white and Negro men.

There was no great difference in earnings between white and Negro women. Relatively more white women worked in private households and trade, in which wages tend to be low, and more

Table 6. Total amount earned by students 16 to 21 years old who worked at summer jobs in 1969, by age, sex, and color, October 1969

[Percent distribution]

Earnings	All persons	Color		Sex		Age (in years)		
		White	Negro and other races	Male	Female	16-17	18-19	20-21
Total with earnings.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$100.....	18.4	18.4	18.3	15.6	22.7	29.9	9.2	6.4
\$100 to \$299.....	22.3	21.8	25.5	18.8	27.8	30.7	18.1	9.5
\$300 to \$499.....	19.3	18.7	23.2	17.8	21.6	21.0	18.1	17.3
\$500 to \$699.....	16.0	15.8	17.8	17.0	14.5	12.0	20.1	18.8
\$700 to \$999.....	11.8	12.1	9.7	12.9	10.0	4.7	18.9	16.7
\$1,000 or more.....	12.3	13.2	5.6	17.9	3.4	1.8	15.7	31.3

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

Negro women worked in education and public administration, where wages are undoubtedly at least as high as the minimum wage. Overall, about 27 percent of the white and 33 percent of the Negro women earned \$500 or more. Within each color group women had lower earnings than men.

October 1969 status

Most of the students who had been in the summer-only labor force were not in the labor force at the time of the survey in October. Only about 3 out of 10 of those who had worked and of those who had unsuccessfully sought work were in the labor force; they constituted 40 percent of all the 16- to 21-year-old students in the labor force in October 1969.

The October unemployment rates for both the successful and unsuccessful summer jobseekers were high, but considerably more so for the unsuccessful summer jobseekers, whose unemployment rate of 40 percent was more than double the rate of those who had had summer jobs. Since 2 out of 3 of the youths who had not found summer jobs were 16- and 17-year-olds, it is probable that their age was still a factor. Of course, the length of time elapsed between the end of summer vacation and the survey date was relatively brief, and the probability is high that much of the unemployment was of the frictional type which accompanies entry and reentry into the labor force. For all 16- to 21-year-old students who were in the labor force in October 1969, the unemployment rate was 11.8 percent, compared with the overall rate

of 21.1 percent for those who had been in the summer labor force. On the whole, it is perhaps more surprising that so many did find jobs, considering the shortness of the period involved, than that roughly 1 out of 5 did not.

For the white and Negro students who had summer jobs, there was no significant difference in the proportions who were in the labor force in October. However, among the unsuccessful summer jobseekers the percentage in the October labor force was considerably lower for Negroes than for whites.

Implications of the 1969 data

The amount students earn from summer employment is a good indicator of the importance of summer jobs for them. The earnings of students 16 to 21 years old from summer jobs are estimated at over \$2 billion in 1969.

The survey data show that students are strongly work-oriented during the vacation months. Altogether, 4 out of 5 students age 16 to 21 were in the labor force during the summer of 1969, with almost two-thirds in jobs which were for the summer only. The May-July net increase in the 16- to 21-year-old labor force was 3.7 million, but the unduplicated count of students who worked or looked unsuccessfully for summer jobs totaled 6.1 million.

Because 16- and 17-year-olds constitute so large a proportion of the 16- to 21-year-old student population, they are also a large segment of the summer student labor force. Their interest in paid employment is great. In 1969, almost half of all 16- and 17-year-old students wanted summer jobs. They were roughly half of all the 16- to 21-year-old students who entered the labor force for summer work. Their greater youth and inexperience relative to the 18- to 21-year-olds pose special problems, particularly for the Negro youths. Special programs to overcome these handicaps are needed.

Most students who want summer employment want full-time jobs. Two-thirds of the students with summer jobs worked 35 hours or more a week; among those who worked part-time, almost a third said they had not been able to get full-time jobs.

Students are realistic in their expectations about

the kind of work and hourly pay rates for their group. Among the youths who did not find jobs, only 7 percent said they had turned down jobs because they did not like the kind of work and 2 percent because the pay was too low. It could well be that many among the jobs turned down were, by any reasonable standard, too low-paying or too difficult physically for the individual concerned.

Summer jobs are very important to college students, whether they work the rest of the year or not. Many count on earnings from summer employment to help meet school expenses in the following school year. Eight out of 10 college students—underclassmen as well as upperclassmen—had worked at a summer job or looked for one. Many college students return to their homes during the summer vacation period. Thus, even if they have jobs during the school year, they must get other jobs for the summer.

Competition for summer jobs is keen. The fact that a large proportion of the students did not have to spend any time looking for jobs after school closed because they had jobs waiting indicates that summer jobs can be arranged for in advance of the time students can start work. Guidance and counseling for students—about job opportunities in their area, including Government- and business-sponsored programs, the advisability of starting the job-hunt several months before the close of school, the rates of pay they can expect in different types of jobs, and other work-related information—could channel students' efforts so that less time is spent in hunting and more time in working and earning. In the summer of 1969, the proportion of Negro students entering the summer labor force who had jobs waiting was considerably lower than that of white students; the proportion of Negroes who looked unsuccessfully was higher than that of whites, suggesting that in the area of summer work as in other aspects of labor force participation, the Negro is at a disadvantage relative to his white counterpart.

Summer employment for students will undoubtedly continue to be important, particularly since increasing proportions of the population are staying in school longer. Aside from the need for earnings from summer jobs, inability to find work can have undesirable effects for both the youths and the community. □

—FOOTNOTES—

¹ This article is based primarily on information from supplementary questions to the October 1969 monthly survey of the labor force. It was conducted for the Bureau of Labor Statistics by the Bureau of the Census through its Current Population Survey. Data presented in this report were obtained by means of a mail questionnaire completed by persons 16 to 21 years old in the civilian noninstitutional population in the calendar week ending October 18, 1969. All members of the Armed Forces and inmates of institutions were excluded. Since the estimates are based on a sample, they may differ from the figures that would have been obtained from a complete census. Sampling variability may be relatively large in cases where the

numbers in each group are small. Small estimates, or small differences between estimates, should be interpreted with caution.

² Students who may have looked unsuccessfully for jobs which were not limited to the summer are not included. This number was undoubtedly small, since most such job-seekers may be assumed to have settled for summer jobs rather than no job if temporary summer jobs were available to them.

³ Data for all persons other than white are used in this report to represent data for Negroes, since the latter constitute about 92 percent of all persons other than white in the United States.

Tenure of union officers

The issue of turnover in union leadership is often discussed by analysts of the labor movement, but data have been limited. In a survey undertaken by the Bureau of Labor Statistics in connection with the publication of its latest union directory, national and international unions were asked for the first time to indicate the year that the president and the secretary-treasurer were first elected to office. In response, 172 unions representing 96 percent of total union membership reported this information for president, and 155 unions representing 90 percent of membership for secretary-treasurer. The results are analyzed in the recently published directory, as follows:

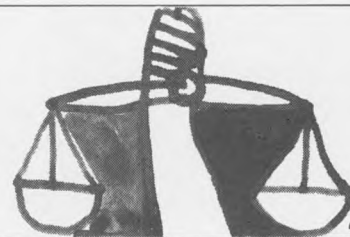
For both offices, the experience is nearly the same. Forty percent of the unions had presidents elected for the first time in 1966 or later (slightly less than 40 percent in the case of secretary-treasurers). Almost 67 percent of the labor organizations had presidents elected since 1960 (slightly more than two-thirds in the case of secretary-treasurers). For both elective offices, over 80 percent have been in office 15 years or less. Among both officers, turnover has been higher beginning in 1964 than before that year. For presidents, turnover was particularly high in 1968, when 30 persons were elected for the first time, and for secretary-treasurers, 1968 and 1969 were years of numerous turnovers, with, respectively, 18 and 17 assuming office for the first time. . . .

. . . Officers first elected prior to 1956 were reported by 16.3 percent of the unions, in the case of presidents, and 18.7 percent of the unions in the case of secretary-treasurers. Long-term leaders included Presidents Joseph Curran of the National Maritime Union (AFL-CIO), Sal B. Hoffman of the Upholsterers' (AFL-CIO), and Harry Bridges of the International Longshoremen's and Warehousemen's Union (IND.), all first elected to office in 1937.

. . . To supplement this data, the Bureau reviewed the officers listed in the biennial surveys dating back to 1955. Over this 14-year period, 1955 to 1968, in addition to reported changes in 1969, turnover of union presidents has averaged 39 every 2 years or 21 percent of the average number of reporting unions. Approximately 45 unions changed presidents at least twice and some changed as often as 3, 4, and 5 times during this period. Generally it has been the smaller unions and government unions in which turnover has been most frequent. Death and retirement, rather than incumbent opposition, resulted in the great majority of the turnover of presidents in the largest unions.

The *Directory of National and International Labor Unions in the United States, 1969* (BLS Bulletin 1665, 1970) is available for \$1.25 from any of the regional offices listed on the inside front cover or from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Significant Decisions in Labor Cases



No-strike pledge and arbitration

Broad arbitration of disputes when the arbitrable issues are not clearly defined or agreed upon by the parties recently gained a judicial approval (*Ice Cream Drivers v. Borden*¹). A Federal court of appeals held it to be "in conformity with the Supreme Court's philosophy so clearly expressed in *Boys Markets*,"² where the High Court ruled that strikes called in violation of no-strike agreements may be enjoined. Such injunctions, the Court had said, are proper under the national policy of encouraging voluntary settlements.

When the Borden Co. discontinued manufacturing and distribution of ice cream in New York City and certain adjacent counties, an area covered by its contract with Teamsters Local 757, the union retaliated by striking at several Borden plants in this and other areas. The actions of both parties were contrary to the provisions of their contract. The union demanded arbitration, as provided by the contract, and asked a Federal district court to compel the employer to arbitrate and to accept the union's formulation of the arbitrable issue. That formulation was: Has the company violated its contractual promise not to go out of business in the area in question, and if so, what remedy was the union entitled to?

Arbitration was ordered, but the issues were not defined. The court merely instructed the arbitrator to consider "the disputes between [the company and the union] arising out of [the company's] closing of its manufacturing operations in the area. . . ."

On appeal, the employer contended that the union waived its right to arbitration when it called the strike, and interpreted the *Boys Markets* decision (without citing any of its specific statements)

as upholding its position. The union maintained to the contrary, relying on the earlier ruling of the High Court in *Needham Packing Co.*³ that a strike called in violation of a no-strike pledge does not automatically invalidate the arbitration provision.

Actually, it was the Supreme Court's 1962 decision in *Drake Bakeries*⁴ that set the principles on which the *Needham* opinion rested. In *Drake Bakeries*, the employer charged the union with instigating and encouraging its members to strike or not to report to work, despite a no-strike agreement, and claimed the union's breach excused him from submitting to arbitration. The Court held that "there is no inflexible rule rigidly linking no-strike and arbitration clauses of every collective bargaining contract in every situation." The arbitration clause involved was so broad, the Court said, that its provisions "cut the ground from under the argument that an alleged strike, automatically and regardless of the circumstances, . . . excused [the employer] from arbitrating. . . ." And it stressed: "Arbitration provisions, which themselves have not been repudiated, are meant to survive breaches of contract, in many contexts, even total breach." The extenuating circumstance in the case was that the strike was of only 1 day's duration.

Upholding the union, the appeals court said, "The congressional policy of encouraging arbitration as a means of settling labor disputes has been strongly supported by court decisions. . . . For this reason, a waiver of rights under an arbitration [clause] is not readily to be found. The decisions in [*Drake Bakeries* and *Needham*] expressly hold that arbitration rights are not necessarily forfeited by the breach of a no-strike clause."

Apparently puzzled by the company's reliance on *Boys Markets*, the court said, "Unless there is to be found any statement in *Boys Markets* to the contrary, the law as expounded in *Drake Bakeries* and in *Needham* is that breach of a no-strike clause in a labor agreement does not ipso facto relieve

Prepared by Eugene Skotzko of the Office of Publications, Bureau of Labor Statistics, in consultation with the Office of the Solicitor of Labor.

an employer of his obligation to arbitrate. . . .” The court further observed that neither majority nor minority opinion in *Boys Markets* made any reference to the earlier decisions, hence they could not be considered overruled—“in fact, *Boys Markets* reaffirms the benefits intended [for] the employer-employee relationship by resort to the arbitration process.”

As for the arbitral issue, the court said one party’s version of the problem must not be submitted to the arbitrator without the other party’s consent. A “yes” or “no” answer to the union’s question in this situation would not resolve the dispute, since the employer’s claim would remain unsatisfied. “Arbitration is not a one-way street,” the court said. The cause of the dispute was clearly the closing of the plant, but the claims and counterclaims of the parties are for the arbitrator to determine. “The [lower] court wisely concluded that there should be no narrowly restricted or piecemeal issues presented for arbitration, but rather that the ‘disputes’ arising out of the plant closing should be heard and resolved,” the court concluded.

Dissenting in part, Judge Kaufman disagreed with the majority’s mandate to the arbitrator to examine and decide the dispute in its entirety. He reminded his colleagues of the “severe limitations” the Supreme Court had imposed⁵ on the courts’ discretion in prearbitral litigation. That discretion must be “confined to ascertaining whether the party seeking arbitration is making a claim which on its face is governed by the contract,” the Supreme Court had said.

Equal-pay award to women

The Secretary of Labor has won his 5-year court battle on behalf of women, employees of a large glass manufacturer, who did work equal to men’s but received a lower rate of pay. After the Supreme Court denied review of an appellate decision in favor of the Secretary, the case of *Wheaton Glass*⁶ recently came back to the district court for final judgment.

This time the lower court’s language was far different from its original holding that the employer had met the burden of proof that the discrimination had been due to a “factor other than sex.” The court adopted the judgment proposed by the Secretary, including an order against

further violation of the Equal Pay Act⁷ and a backpay award retroactive to the effective date of the act. Wheaton Co. contended that, if it had to pay at all, the payments should not date back beyond the day when the Supreme Court denied review—hence to the date of the final disposition of the issues in the dispute; and that the backpay should be free of interest.

But the company insisted it did not have to pay. It boldly challenged the court’s power to grant a backpay award in this situation and the Secretary’s authority to collect or even ask for one. To this end, the company seized upon a seeming inconsistency in the provisions of the Fair Labor Standards Act and construed the language of the law to suit its purpose. The argument ran as follows:

It is true that, under section 16(c) of the FLSA, the Secretary may, upon a written request, take court action to recover unpaid wages due an employee. But that section also provides that the Secretary may not do so, and that no court may exercise authority, in a situation involving a “novel question of law” that has not yet been “settled finally by the courts.”⁸ Even though the Secretary has the power of independent action under the enforcement clause—section 17, as amended in 1961⁹—of the FLSA and may bring suit on behalf of employees without their request or consent, he still is bound by the above restriction. The two sections must be read together since section 17 merely substitutes the Secretary for the employee specified in section 16(c).

The present case is one of a “novel question of law,” the argument went on, since at this juncture it involves various issues not yet “finally settled.” These issues include the appellate court’s interpretation of the statutory reference to “equal work” as meaning only “substantially equal” work; and that court’s construction of the statutory exemption due to a “factor other than sex” as requiring the employer to provide statistical proof of a “one to one relationship between the differential in wages paid and the actual savings realized by the employer due to the extra work done by the male employees.” (Citation from the appellate decision, 421 F.2d 266–267.) The appeals court’s reliance, in addition to the act, on the antidiscrimination provisions of the Civil Rights Act of 1964 (Title VII) was also “novel.” These and other points of law had not

been settled at the time of the charged violations, and the company could not know it was violating the law. (The company listed six "novel" issues.) In other words, the company was an "unwarned" employer. This situation finds analogy in the *Marino* case.¹⁰ There a court of appeals ruled that an employer who did not know that the transporting of crews and equipment by an employee in his private automobile was compensable at an overtime rate was "unwarned" because the question of whether overtime rate was proper for this kind of service had not been finally settled.

The court replied that Wheaton's view of the law as stated in its challenge of the court's and the Secretary's authority was wrong. The 1961 amendment to section 17 of the FLSA, it said, augmented district courts' authority by empowering them to order payment of back wages. Previously their authority was limited to prospectively restraining employees from violating the law. "Under [the present] enforcement provision [the Secretary] is acting in the public interest," said the court. The company misreads the meaning of section 17 when it says that the secretary is bound by the "novel question of law" restriction of section 16(c) in his actions to recover back wages.

Legislative history of the 1961 amendment, the court said, reveals that "[o]ne of the very objects . . . was to settle all matters in controversy in one proceeding, thereby avoiding a multiplicity of suits based upon the same violations of the act. . . . Thus, it was not the sole or restricted purpose of the 1961 amendment, as argued by Wheaton, merely to substitute the Secretary of Labor for an employee desirous of litigating his section 16(c) rights. Were it otherwise, Congress would only have had to amend section 16(c) to such effect. Instead, it very carefully amended section 16(b) and section 17, thereby obviating the necessity for an employee's request of the Secretary to seek vindication of his individual . . . rights and concomitantly conferred upon the courts full equity powers to grant the Secretary complete relief in one proceeding. That the Secretary has a right to recover back wages under section 17 is confirmed by a reading of the case law," particularly of the appellate decision in *Wirtz v. Jones*,¹¹ whose "excellent analysis and discussion of the history of section 17" were adopted by other courts. A district court even ruled¹² that "the Secretary of Labor is not

burdened with section 16(c) restrictions when seeking injunctive relief under section 17."

Nor was Wheaton an "unwarned" employer, the court held. The company's doubt about the legal validity of its job classification and wage rates was serious enough to make it solicit advice and assistance from the Department of Labor. Yet after the Department forewarned it that its job classification was not in compliance with the act, the company "persisted in its erroneous conviction."¹³

To Wheaton's request that the back wages, if any, be computed only from the date the Supreme Court denied review, the court replied by way of citing the Secretary's brief, which read in part: "In effect, the defendant is contending that any employer who disagrees with the Labor Department's interpretation of the act or with the administrative determination of violations is entitled, as a matter of equity, to complete exemption from the act's requirement for as long as it may take to litigate each disagreement to final disposition by the Supreme Court (in the instant case for more than 5 years). . . . The fact that the act may be 'novel' is no reason to exempt employers from its application for an indefinite period beyond the time Congress has specifically provided. Congress, in the Equal Pay Act, specifically provided a period of up to 2 years before the requirements of the act would become effective. In [the] defendant's case, this 'grace period' was 1 $\frac{3}{4}$ years. . . ." The company's contention that it should be granted additional 5 years or more for adjustment was contrary to public interest. "The employees became entitled to the payments required by the act as of the date specified by Congress," the brief concluded.

As for the interest on the back wages, which Wheaton claimed should be denied because it had maintained the improper job classification and wage system in good faith, the court said that the company's good faith is questionable—at least the Secretary challenged it strongly—and the employees were entitled to a compensation for the use of their money for the period it was unlawfully withheld.

Withholding benefits

A benevolent employer may unwittingly become a lawbreaker if, by misreading the law, he

displays—or withholds—his benevolence at the wrong time. For example, he may unilaterally grant—or deny—a certain benefit to employees during or after an election campaign, or during a period of bargaining, thinking that he is legally required to do so. Yet his action may be interpreted as one designed to frustrate the employees' statutory rights.

In short, an employer may be damned if he does and damned if he does not take such unilateral action, depending on what his step really amounts to. In the case discussed here (*Dothan Eagle*¹⁴), the employer departed from a regular practice of compensating his employees in a certain way, and this departure amounted to an unfair labor practice.

A newspaper maintained a publicized policy of granting automatic progression wage increases every 6 months to apprentices in the pressroom and the composition room. During a union's campaign to organize the pressroom employees, the company distributed the scheduled progression increases in the composing room but not in the pressroom, and continued to withhold the benefits from the pressroom apprentices after the election despite the union's protests. The National Labor Relations Board eventually ruled for the union.

In the court of appeals, the employer presented a seemingly well-founded argument that granting of wage increases during the campaign would have amounted to an unlawful attempt to influence the voters—an attempt to “interfere with, restrain, or coerce employees” in the exercise of their rights to organize for mutual aid and protection, a violation under section 8(a)(1). After the election, the company said, the wage issue became bargainable and a unilateral action would have been a refusal to bargain in violation of section 8(a)(5).

The court said this was a misreading of the law. It cited various judicial precedents, with particular reliance on the Supreme Court's decisions in *Crompton-Highland Mills* and *Exchange Parts Co.*,¹⁵ to show that both granting and withholding of employee benefits during and after an election campaign or while bargaining is in progress have been held unlawful if designed either to influence voters or to frustrate the union's efforts on behalf of its members. The court went on: “The cases make it crystal clear that the vice involved in both the unlawful increase situation and the unlawful refusal to increase situation is that the employer

has *changed* the existing conditions of employment. It is this *change* [that] is prohibited . . . and forms the basis of the unfair labor practice charge. . . .”

Governing the present situation was the fact that the progression wage increases had been granted regularly, under a publicized policy in effect for a considerable length of time, and were “such an integral part of the structure of compensation that the refusal to continue [them] was in effect a denial of benefits which the employees had every reason to expect. . . .” Withholding these increases was unlawful during the election campaign (coercion of employees) as well as after (refusal to bargain). The court ruled, reaffirming its position of the past¹⁶:

. . . [W]henver the employer by promises or by a course of conduct has made a particular benefit part of the established wage or compensation system, then he is not at liberty unilaterally to change this benefit either for better or worse during the union campaign or during the period of collective bargaining. Both unprecedented parsimony and deviational largess are viewed with a skeptic's eye during the tensions of organization, recognition, and bargaining. . . .

The court also rebuked the company for making a distinction in benefit distribution between the pressroom apprentices and the unionized composition room apprentices in favor of the latter. This, it said, was a “discrimination between union and nonunion personnel [that] cannot be tolerated.”

NLRB to continue a policy

Last June, the Court of Appeals for the District of Columbia disapproved (in *Plasterers Local 79*¹⁷) of the NLRB's traditional policy of declaring jurisdiction in job-assignment disputes where the employer is not a party to an agreement for voluntary settlement of the rival unions' claims. It was the court's opinion that the law (section 10(k) of the Labor Management Relations Act) commands the Board to abstain from adjudication where the parties have adjusted or have agreed on a method to adjust their disputes. It cited the Supreme Court's ruling¹⁸ that, within the meaning of the law, a “dispute” in such a situation is one “between two groups or more of employees over which is entitled to do certain work for an employer”—hence the parties can only be the rival unions.

But the Board refused to abandon its policy. In another job-dispute case (*Lathers Local 104*¹⁹) that came before it in recent months it said, with obvious assertion of independent judgment and competence in interpreting the law,

With due respect for the opinion of a majority of the District of Columbia Court of Appeals . . . we continue to adhere to our longstanding and consistent

position that section 10(k) must be interpreted to mean that the employer controlling the work assignment, as well as the rival unions or groups of employees involved, [are] the parties to such disputes, and all must approve and enter into a voluntary settlement procedure in order to preclude a hearing and determination pursuant to that section. Finally, we note that the Board's interpretation of this aspect of section 10(k) was neither questioned nor disturbed when the National Labor Relations Act was most recently amended by Congress in 1959. . . . □

—FOOTNOTES—

¹ *Ice Cream Drivers, Teamsters Local 757 v. Borden, Inc.* (C.A. 2, Nos. 151 and 152, October 26, 1970).

² 398 U.S. 235 (1970); see *Monthly Labor Review*, August 1970, pp. 70-72.

³ 376 U.S. 247 (1964); see *Monthly Labor Review*, April 1964, pp. 563-564.

⁴ 370 U.S. 254 (1962); see *Monthly Labor Review*, August 1962, pp. 905-906.

⁵ *United Steelworkers v. American Manufacturing Co.*, 363 U.S. 564, 568 (1960); see *Monthly Labor Review*, August 1960, p. 853.

⁶ *Shultz v. Wheaton Glass Co.* (D.C.-N.J., C.A. No. 53-66, November 9, 1970); for the appellate decision, see *Monthly Labor Review*, April 1970, pp. 74-75.

⁷ The Equal Pay Act comprises the 1963 amendments to the Fair Labor Standards Act.

⁸ Section 16(c) of the FLSA reads in part: "When a written request is filed by any employee with the Secretary claiming unpaid minimum wages or unpaid overtime compensation under section 6 or section 7 of this act, the Secretary may bring an action in any court of competent jurisdiction to recover the amount of such claim: *Provided*, That this authority to sue shall not be used by the Secretary in any case involving an issue of law which has not been settled finally by the courts, and in any such case no court shall have jurisdiction over such action or proceeding initiated or brought by the Secretary if it does involve any issue of law not so finally settled."

⁹ As amended in 1961, section 17 of the FLSA reads: "The district court . . . shall have jurisdiction, for cause shown, to restrain violations of section 15 [proscribing certain acts], including . . . the restraint of any withholding

of payment of minimum wages or overtime compensation found by the court to be due the employees under this act [with certain exceptions]." (Backpay for violation of the Equal Pay Act is treated as unpaid minimum wages.)

¹⁰ *Wirtz v. Marino*, 405 F.2d 938 (C.A. 1, 1969).

¹¹ 340 F. 29 901 (C.A. 5 1965).

¹² *Wirtz v. Lockhart Construction Co.*, 230 F.Supp. 823, 829 (D.C.-N.D. Ohio, 1964).

¹³ Furthermore, the court said, Wheaton's reliance on *Marino* was improper since that was a section 16(c) action for the vindication of individual rights, whereas the present suit was a section 17 action—an independent effort of the Secretary, not requested by anyone but made on behalf of a group of about 400 women employees as a matter of enforcement of the Equal Pay Act.

¹⁴ *NLRB v. Dothan Eagle, Inc.* (C.A. 5, No. 28576, November 2, 1970).

¹⁵ *NLRB v. Crompton-Highland Mills, Inc.*, 337 U.S. 218 (1949); *NLRB v. Exchange Parts Co.*, 375 U.S. 405 (1964)—see *Monthly Labor Review*, March 1964, p. 316.

¹⁶ *Armstrong Cork Co. v. NLRB*, 211 F.2d 843 (C.A. 5, 1954).

¹⁷ C.A.-D.C., No. 22073, June 30, 1970; see *Monthly Labor Review*, October 1970, pp. 48-49. The Board here refers to this case as *Southwestern Construction Co.*

¹⁸ *NLRB v. Radio and Television Broadcast Engineers Union (CBS)*, 364 U.S. 573.

¹⁹ *Lathers Union Local 104 and Associated General Contractors, Seattle Chapter*, 186 NLRB No. 70, October 31, 1970.



INFLATION VERSUS UNEMPLOYMENT: THE WORSENING TRADE-OFF

GEORGE L. PERRY

WHAT RATES OF INFLATION will accompany various unemployment rates? This question is the central concern of stabilization policy today and also a major source of uncertainty for economic forecasting. Relying on both informed judgments and rigorous research, investigators have sought the answer to this question in the historic relation between unemployment rates, on the one hand, and rates of wage increase on the other, with wage increases then used to explain inflation. With many variations and refinements, this concept of a trade-off between wage changes and the aggregate unemployment rate has been the framework for most discussions of inflation during the past decade.

In this view of the inflationary process, the aggregate unemployment rate has served as a proxy for the tightness of labor markets. But significant changes have been taking place in the composition of the labor force—notably an increase in the proportion of teenagers and women—and in the unemployment experience of different age and sex groups. As a result, the aggregate unemployment rate in recent years has been an increasingly misleading proxy for comparing the current labor market with earlier ones. A given unemployment rate is associated with a tighter overall labor market today than it was 10 or 20 years ago. And this means that the trade-off between

inflation and the aggregate unemployment rate has shifted: Today, a given unemployment rate is associated with a more inflationary rate of wage change than in the earlier periods.

This finding rests on some measures of labor market tightness that I have developed for explaining and predicting wage changes. These are the concept of a weighted unemployment rate, in which individuals are weighted by an estimate of what they would produce if employed, and a measure of the dispersion of unemployment. Together they form a better indicator of labor market tightness than the aggregate unemployment rate alone. By this new indicator, labor markets were tighter during 1968 and 1969 than at any previous period in the postwar years. This helps explain the high rate of wage increases and inflation that the U.S. economy has experienced. And it documents the growing need for structural policies in the labor market to reduce the inflation associated with a full employment economy.

Measures of labor market tightness

There are various conceptual objections to using the aggregate unemployment rate to measure labor market tightness. For instance, many stress that what matters is the difference between available jobs and available employees to fill those jobs. If unemployment is conceived as an indicator of the gross excess supply of labor and vacancies as an indicator of gross excess demand, then subtracting vacancies from unemployment should provide an indicator of the net excess supply. Unfortunately, no comprehensive U.S. vacancy statistics exist,¹ so the practical importance of this point is hard to test. The scattered information available about vacancies, together with some conceptualized models of the employment process, suggest that there is a close, inverse relationship between unemployment and vacancy rates.² This

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means that some form of the unemployment rate itself is a useful proxy for the difference between vacancies and unemployment.

Available data do permit some other adjustments to the aggregate unemployment rate. Each of the adjustments I have developed makes use of the substantial changes that have been taking place over time in the age-sex composition of the labor force and in the unemployment experience of the age-sex groups. Table 1 illustrates these trends. The left side of the table shows the percent of the total labor force in each group. In 1955, men of ages 25 to 64 (which I shall refer to as prime age, although that term is more often used for a narrower age group) constituted 56 percent of the work force, while in 1969 they constituted 48 percent. At the same time there were large increases in the proportion of both women and young people of both sexes in the labor force. The right side of the table shows the change in the unemployment rates of other groups relative to prime-age males that has accompanied the steady decline in the latter group's proportion in the work force. This unemployment rate ratio increased for all other groups during the 1960's, and for all but men over 65 years between 1955 and 1969. But by far the greatest increase has been in the relative unemployment rates of young workers.

A weighted unemployment rate

If all individuals offered closely similar supplies of labor, an aggregate unemployment measure could serve despite the changing size and unemployment experience shown in table 1. But large and persistent differences exist in the labor supply

offered by individuals in the several age-sex groups.³

For one thing, some individuals work a different number of average hours than others. In large part because of the difference in the proportion of part-time workers and workers holding more than one job, prime age men work more hours per week than prime age women, and younger and older persons work fewer hours on average than the prime age workers of both sexes. On the reasonable assumption that the unemployed in each age-sex group are offering an average number of hours of work similar to that provided by their employed counterparts, the correct relation between the labor input offered and the number of individuals unemployed varies according to the age-sex composition of the unemployed.

A similar adjustment is needed to account for the fact that average wages vary systematically among age-sex groups. If a similar rate of wage increase for all workers is associated with any given degree of labor market tightness, then weighting groups by their relative wage levels is necessary in a model explaining the change in average wages: A 10-percent change in the wage of workers earning \$2 an hour will have only half the effect on the aggregate wage average as will the same percentage change in the wage of a worker earning \$4 an hour. A second way of looking at this kind of adjustment is to view wage differences as a proxy for productivity differences. If the force of an unemployed worker on labor market tightness is measured by what he would contribute to production if employed, then again weighting by relative wages is called for.

Combining the adjustments for average hours and average wages just discussed leads to the index for

Table 1. Shifts in labor force composition and relative unemployment rates, selected years, 1951-69

Sex and age group	Percent of labor force in each group					Ratio of group unemployment rate to prime-age male unemployment rate ¹				
	1951	1955	1960	1965	1969	1951	1955	1960	1965	1969
Male, total.....	69.2	68.3	66.5	64.7	62.2	1.3	1.3	1.3	1.5	1.7
16-19 years.....	3.8	3.7	4.0	4.6	4.8	3.9	3.8	3.7	5.2	6.8
20-24 years.....	6.4	4.9	5.9	6.6	6.5	1.7	2.4	2.1	2.4	3.1
25-64 years.....	55.2	55.9	53.4	50.7	48.2	1.0	1.0	1.0	1.0	1.0
65 years and over.....	3.9	3.9	3.2	2.8	2.7	1.8	1.4	1.1	1.5	1.3
Female, total.....	30.8	31.7	33.5	35.3	37.8	2.3	1.7	1.5	2.3	2.8
16-19 years.....	2.8	2.6	3.0	3.4	3.8	3.0	2.7	3.0	5.7	8.0
20-24 years.....	4.4	3.8	3.7	4.6	5.7	2.4	2.1	2.1	3.1	3.8
25-64 years.....	22.6	24.0	25.4	26.0	27.0	2.2	1.7	1.3	1.8	1.9
65 years and over.....	0.9	1.3	1.4	1.4	1.3	1.2	0.6	0.6	0.8	1.3

¹ Prime-age group consists of males 25-64 years of age.

SOURCE: All figures are based on the civilian labor force data in *Employment and Earnings*, February 1970, pp. 20-24, and 55-61. Data prior to 1967 are adjusted for

changes in the definition of unemployment described in *Employment and Earnings*, February 1967, pp. 3-30.

weighting individuals according to their age-sex group. And adding up the weighted labor force and weighted unemployment permits the calculation of a weighted unemployment rate. The effect of weighting is not cancelled in computing this new unemployment rate concept, since the relative importance of each of the various age-sex groups in employment and unemployment is not the same. For the most part, the groups with high unemployment also have low values for the weighting index, indicating that, relative to the average employee, they earn lower wages or work fewer hours or both.

Compared with the official unemployment rate, the weighted unemployment rate gives a picture of a progressively tighter labor market in recent years relative to earlier periods. The spread between the official and weighted unemployment rates has widened from less than half a point in the early 1950's to a full point in the late 1960's.

Unemployment dispersion

The weighted unemployment rate scales different members of the labor force more appropriately, but still treats all workers as perfect substitutes. It recognizes the difference between one pint and one quart of an input, which the official unemployment rate does not; but it still treats the input as homogeneous, making two pints a perfect substitute for one quart. If labor force groups are in fact imperfect substitutes for one another, one should expect to find unemployment differentials among groups varying over time. And accounting for the changing dispersion of unemployment should lead to a better measure of labor market tightness.

Although dispersion could be measured from different cross-sections of the labor force, such as geographic or occupational ones, I have focused on the dispersion of unemployment among the age-sex groups of the labor force because the growing disparities in group unemployment rates shown in table 1 suggest that substitution among them is quite imperfect. In my measure, dispersion is the sum over all age-sex groups of the absolute difference between each group's share of total weighted unemployment and its share of the total weighted labor force. In recent years, dispersion has been greater than at any previous time in the postwar period, despite lower average weighted

and official unemployment rates in some earlier years. And it has grown steadily every year from 1961 to 1969.

A combined measure

Using weighted unemployment and its dispersion together provides a combined measure of labor market tightness. The two were combined using as weights their coefficients in an equation explaining wage changes.

The combined measure reveals that labor markets were tighter in 1968 and 1969 than in any previous year. By comparison, in these same years, the measure using the conventional unemployment rate alone was substantially below Korean war levels.

The worsening trade-off

The new measure of labor market tightness developed here has some striking implications for the trade-off between inflation and unemployment. As it is conventionally conceived, the trade-off has worsened. Chart 1 illustrates how much it has worsened since the mid-1950's on the basis of estimates using the combined measure of labor market tightness.

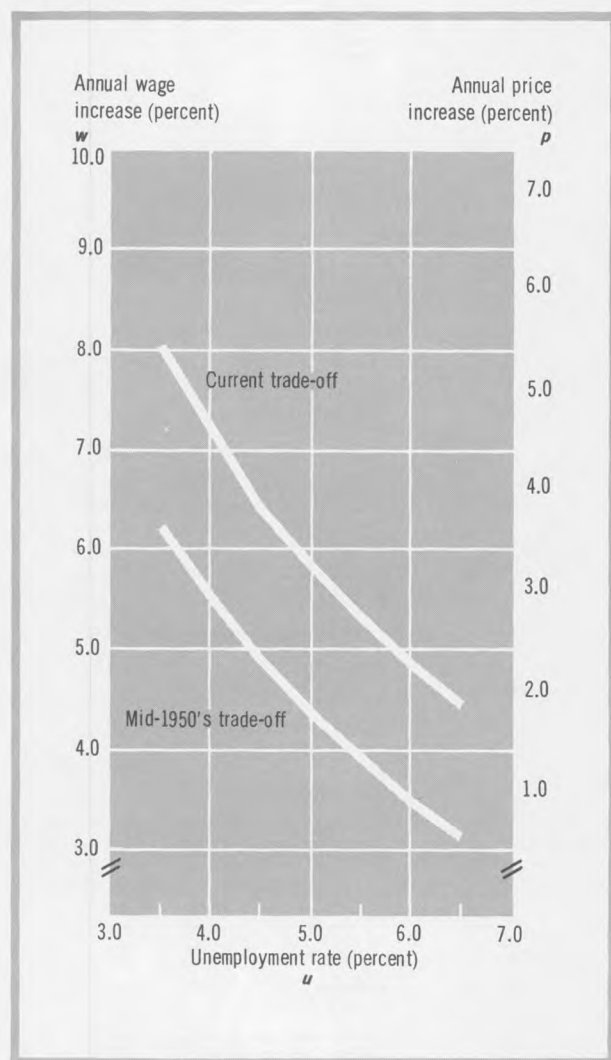
The figure illustrates a steady-state trade-off in which any given unemployment rate has persisted long enough for the price-wage interactions to stabilize. My estimate of the effect of price changes on wage changes indicates that about 35 percent of the change in living costs is translated into a subsequent change in wages. For the effect of wage changes on prices, with some lag, prices are assumed to rise by the excess of wage changes over the trend growth of productivity, taken to be 2.7 percent a year. These calculations, and chart 1, are based on the official compensation per man-hour concept for the private nonfarm economy.

The difference between the trade-off for the mid-1950's and the current trade-off, illustrated in chart 1, results from the changed relation between the official unemployment rate and the combined measure of labor market tightness in the two periods. In the chart, at 4.0 percent unemployment, the annual rate of inflation is 1.7 percentage points higher today than it was in the economy of the mid-1950's—4.5 percent rather than 2.8 percent.

The trade-off curves in chart 1 are different because at the same official unemployment rate, the labor market is tighter today than it was in the mid-1950's.

A good deal of substitution in employment across age-sex groups has been taking place; but it has not been sufficient to keep unemployment rates from diverging. The proportion of jobs held by workers in the different age-sex groups has nearly kept pace with the changing proportion of workers in each group. In 1956, for instance, 15 percent of those employed were under 25 years old. In 1969, this age group accounted for 20 percent of the employed. Still, 50 percent of all the unemployed were under age 25 in 1969, compared with

Chart 1. The shift in the trade-off between inflation and unemployment



31 percent in 1956. In order to reproduce, in 1969, the 1956 pattern of relative unemployment rates, nearly one-half million jobs would have had to be shifted from prime-age workers to young workers, three-fourths of them from prime-age men.

Economists have long recognized that aggregate demand management could reduce the unemployment problem to an essentially structural one. The expansion of demand in the late 1960's and the way labor markets responded to it make it clear that point had been reached in the last years of the decade. Despite the intense total demand for labor that existed, and the tightest overall job market since World War II, unemployment disparities did not narrow.

The need to do something about large unemployment disparities, particularly the high unemployment rates among young people, has been recognized as a social issue. The results presented here isolate the inflationary consequences of these unemployment patterns and show them to be substantial.

It should be emphasized that the structural changes identified here do not imply that a high unemployment policy has any greater merit now than it ever did. Unemployment rates in each group respond to changes in the average unemployment rate as they always have. To choose a higher average unemployment rate as a target for policy is to choose higher unemployment rates for all labor force groups. What is needed is not a way to raise unemployment, but a way to reduce it where it is now highest. □

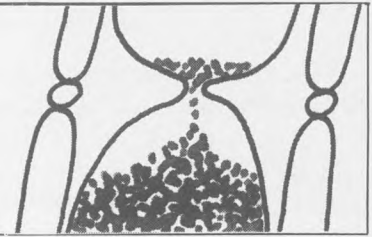
—FOOTNOTES—

¹ Beginning in 1970, BLS has published job vacancy data covering manufacturing industries (see p. 20, this issue, and table 17, p. 97). Eventually the series will be extended to include data on all industries.

² Charles C. Holt, "How Can the Phillips Curve Be Moved To Reduce Both Inflation and Unemployment?" in Edmund S. Phelps and others, *Microeconomic Foundations of Employment and Inflation Theory* (New York, W. W. Norton & Co., 1970), pp. 224-256. A number of papers discussing vacancy statistics are given in *The Measurement and Interpretation of Job Vacancies* (New York, Columbia University Press for the National Bureau of Economic Research, 1966).

³ Edward F. Denison kindly gave me access to his worksheets on these differences, prepared for another purpose. The weighting index discussed here is based on his data.

Major Agreements Expiring Next Month



This list of collective bargaining agreements expiring in March is based on contracts on file in the Bureau's Office of Wages and Industrial Relations. The list includes agreements covering 1,000 workers or more in all industries except government.

Company and location	Industry	Union ¹	Number of workers
Air West, Inc., Mechanics (Interstate) ²	Air transportation	Machinists	1,000
American Can Co. (Interstate)	Fabricated metal products	Machinists	3,000
American Oil Co., Whiting Refinery (Whiting, Ind.)	Petroleum	Independent Petroleum Workers of America (Ind.)	2,300
Associated Building Contractors of Terre Haute, Ind. (Indiana)	Construction	Laborers	1,100
Associated General Contractors of America, Inc.:			
New York State Chapter, Heavy and Highway Construction (New York)	Construction	Teamsters (Ind.)	2,000
New York State Chapter, Inc., Heavy and Highway Construction (New York)	Construction	Carpenters	2,000
New York State Chapter, Inc., Labor Relations Division (New York)	Construction	Operating Engineers	2,500
Oklahoma Chapter, Builders Division (Oklahoma City, Okla.)	Construction	Carpenters	1,000
Associated Milk Dealers of Denver, Inc. (Denver, Colo.)	Food products	Teamsters (Ind.)	1,000
Auto Specialties Manufacturing Co. (St. Joseph, Mich.)	Transportation equipment	Auto Workers (Ind.)	1,500
Beaunit Corp., Beaunit Fibers Division (Tennessee)	Chemicals	United Textile Workers	2,800
Braniff Airways, Inc., Pilots (Interstate) ²	Air transportation	Air Line Pilots	1,150
Brooklyn Union Gas Co. (New York, N.Y.)	Utilities	Transport Workers	2,100
Brown & Williamson Tobacco Corp.:			
(Louisville, Ky.)	Tobacco manufactures	Tobacco Workers	3,350
(Virginia and North Carolina)	Tobacco manufactures	Tobacco Workers	2,900
Builders' Association of Kansas City, Missouri (Missouri and Kansas)	Construction	Teamsters (Ind.)	1,800
Builders' Association of Kansas City, Missouri (Missouri and Kansas)	Construction	Carpenters	7,500
Cabot Corp., Stellite Division (Kokomo, Ind.) ²	Primary metals	Steelworkers	2,350
California Metal Trades Association (San Francisco, Calif.)	Fabricated metal products	Machinists	2,500
Carrier Corp., Elliott Co. Division (Ohio and Pennsylvania)	Machinery	Steelworkers	1,350
Commonwealth Edison Co. (Chicago, Ill.):			
Clerical Employees	Utilities	Electrical Workers (IBEW)	1,500
Production and Maintenance (7 local unions)	Utilities	Electrical Workers (IBEW)	3,500
Production and Maintenance (4 local unions)	Utilities	Electrical Workers (IBEW)	2,600
Consolidated Edison Co. of New York, Inc. (New York, N.Y.)	Utilities	Utility Workers	19,200
Consumers Power Co., Operating, Maintenance, and Construction Employees (Michigan)	Utilities	Utility Workers	5,200
Continental Baking Co., Morton Frozen Foods Division (Crozet, Va.)	Food products	Teamsters (Ind.)	1,300
Continental Can Co., Inc. (Interstate)	Fabricated metal products	Machinists	2,500
Crown Cotton Mills (Dalton, Ga.)	Textiles	Textile Workers Union	1,000
Crown Zellerbach Corp. (Camas, Wash.)	Paper	Association of Western Pulp and Paper Workers (Ind.)	2,500
Cutler-Hammer, Inc., Industrial Systems Division and Specialty Products Division (Milwaukee, Wis.)	Electrical products	Machinists	2,000
Detroit Breweries (Detroit, Mich.) ³	Food products	Brewery Workers	1,000
Dow Chemical Co. (Midland and Bay City, Mich.)	Chemicals	District 50, Allied and Technical (Ind.)	6,500
Eastern Electrical Wholesalers Association, Inc. (New York, N.Y.)	Wholesale trade	Electrical Workers (IBEW)	1,000
Edition Bookbinders of New York, Inc. (New York, N.Y.):			
Female Bindery Employees	Printing and publishing	Bookbinders	1,000
Male Bindery Employees and Female Gold Layers	Printing and publishing	Bookbinders	1,700
Ex-Cell-O Corp. (Lima, Ohio)	Transportation equipment	Auto Workers (Ind.)	1,450
Fibreboard Corp. (California, Oregon, and Washington)	Paper	Association of Western Pulp and Paper Workers (Ind.)	3,000
Food Markets (Minneapolis, Minn.): ³			
Grocery Employees	Retail trade	Meat Cutters	4,000
Meat Department Employees	Retail trade	Meat Cutters	1,000
General Contractors Association of Bridgeport, Inc. (Connecticut)	Construction	Laborers	1,000
Glass Container Manufacturers Institute, Inc. (Interstate)	Stone, clay, and glass products	Glass Bottle Blowers	8,000
Grower-Shipper Vegetable Association of Central California (California)	Wholesale trade	Meat Cutters	1,200
Hayes International Corp. (Birmingham, Ala.)	Transportation equipment	Auto Workers (Ind.)	2,500
Humble Oil & Refining Co., Baton Rouge Refinery, Enjay Chemical Co., Baton Rouge Chemical Plant (Baton Rouge, La.)	Petroleum	Independent Industrial Workers Union (Ind.)	2,950
Johns-Manville Products Corp. (Waukegan, Ill.)	Stone, clay, and glass products	Chemical Workers (Ind.)	1,700
Kollsman Instrument Corp. (Syosset and Elmhurst, N.Y.)	Instruments	Machinists	1,700
Kroehler Manufacturing Co. (Interstate)	Furniture	Upholsterers	3,000
Lenkurt Electric Co., Inc. (San Carlos, Calif.)	Electrical products	Electrical Workers (IBEW)	2,400
Liggett & Myers Tobacco Co. (Durham, N.C., and Richmond, Va.)	Tobacco manufactures	Tobacco Workers	3,000

Major agreements expiring next month—Continued

Company and location	Industry	Union ¹	Number of workers
Magee Carpet Co. (Bloomsburg, Pa.)	Textiles	Textile Workers Union	1,300
Melville Shoe Corp., J. F. McElwain Co. Division (Manchester, N.H.)	Leather	New Hampshire Shoe Workers Union of Manchester (Ind.)	1,150
Melville Shoe Corp., J. F. McElwain Co. Division (Nashua, N.H.)	Leather	New Hampshire Shoe Workers Union (Ind.)	1,000
Metropolitan Life Insurance Co. (Interstate)	Insurance	Insurance Workers	11,000
Michigan Distribution Contractors Association (Pontiac, Mich.)	Construction	Laborers	1,000
Midland-Ross Corp., Chicago Works Plant, National Castings Division (Cicero, Ill.)	Primary metals	Auto Workers (Ind.)	1,200
Mobil Oil Corp., Mid-Continent Exploration and Producing Regions (Interstate)	Mining	Associated Petroleum Employees Union (Ind.)	1,000
Moving and Storage Industry of New York (New York, N.Y.) ³	Trucking	Teamsters (Ind.)	3,500
Pet Inc., Whitman's Chocolates Division (Philadelphia, Pa.)	Food products	Bakery Workers	1,250
Raybestos-Manhattan, Inc., United States Asbestos Division (Manheim, Pa.)	Stone, clay, and glass products	United Textile Workers	1,200
Restaurant-Hotel Employers' Council of Southern California, Inc. (California)	Restaurants	Hotel and Restaurant Employees	10,000
Salt River Project Agricultural Improvement and Power District (Arizona)	Utilities	Electrical Workers (IBEW)	1,000
Santa Barbara Restaurant Association and 2 other associations (California)	Restaurants	Hotel and Restaurant Employees	2,100
Sears, Roebuck & Co. (Detroit, Mich.)	Retail trade	Retail Clerks	1,200
Standard Oil Co. of California, Western Operations, Inc., and 2 others (California)	Petroleum	Seafarers (Petroleum Workers)	2,700
Textron, Inc., Campbell, Wyant and Cannon Foundry Co. Division (Muskegon, Mich.)	Primary metals	Auto Workers (Ind.)	2,350
UGI Corp., Philadelphia Gas Works Division (Philadelphia, Pa.)	Utilities	Gas Works Employees' Union of Philadelphia (Ind.)	2,350
United Metal Trades Association, Shop Work Agreement (Oregon)	Primary metals	Portland Metal Trades Council Machinists; Boilermakers; Electrical Workers (IBEW); Laborers; Operating Engineers; Painters; Sheet Metal Workers; and Teamsters (Ind.)	2,000
United Parcel Service, Inc. (New York)	Trucking	Teamsters (Ind.)	3,000
Washington Metal Trades, Inc. (Seattle, Wash.)	Fabricated metal products	Boilermakers	1,700
Washington Metal Trades, Inc., Metal Products Manufacturing Firms (Seattle, Wash.)	Machinery	Machinists	1,600
J. Weingarten, Inc. (Texas)	Retail trade	Retail Clerks	3,000
White Motor Corp., White Truck Division, Factory Agreement (Cleveland, Ohio)	Transportation equipment	Auto Workers (Ind.)	2,500

¹ Union affiliated with AFL-CIO except where noted as Independent (Ind.).³ Industry area (group of companies signing same contract).² Information is from newspaper account of settlement.

Indexes to the Monthly Labor Review

Each year the December issue of the *Monthly Labor Review* contains an index, by subject, of articles published in the *Review* in the current year. Also included are listings of statistical tables and of books reviewed, by author of book. In recent years, the index has also included an alphabetical list of authors.

At intervals, these yearend indexes have been combined and published as BLS Bulletins:

Bulletin 695, *Subject Index to the Monthly Labor Review, Volumes 1 to 11*, July 1915 to December 1920

Bulletin 696, *Subject Index to the Monthly Labor Review, Volumes 12 to 51*, January 1921 to December 1940

Bulletin 1080, *Subject Index of Volumes 52-71, Monthly Labor Review*, January 1941 to December 1950

Bulletin 1335, *Index of Volumes 72-83, Monthly Labor Review*, January 1951 to December 1960

Work is now in progress on the next bulletin in the series, to cover volumes 84 to 93, January 1961 to December 1970.

Developments in Industrial Relations



Ford and UAW settle

Ford Motor Co. and the Auto Workers reached accord December 7 on a 3-year agreement nearly identical to the union's new contract with General Motors. (See *Monthly Labor Review*, December 1970, p. 51.) On December 15, the union announced ratification of the agreement, covering 161,000 workers at Ford. By early January, the last of the 99 bargaining units had settled on local issues. The final national issue resolved was the effective date of the initial wage increase. Ford and the UAW had agreed earlier that 26 cents in cost-of-living catchup money would be retroactive to September 15, termination date of the previous agreement. The UAW contended that the 23 to 35 cents in new money should also be effective on that date; Ford maintained it should not be effective until the Monday after the union formally notified the company that the national and all local agreements had been ratified. The contract set November 2 as the effective date. At GM, the entire 49 cents to 61 cents was effective November 23, except that 26 cents was retroactive to September 15 for UAW members not included in the walkout because they produce parts for other auto manufacturers.

There were two other differences between the Ford and General Motors agreements. At GM, the fund set up to finance November 1971 wage inequity adjustments is equal to \$1.25 cents an hour for each worker (396,051) in the bargaining unit in April 1970; at Ford, funding was set at 0.5 cent an hour for each worker. Ford also agreed to check-off dental care premiums from workers' pay if the UAW establishes such a plan. Some union officials view this as a first step toward the

company-financed dental plans the union had attempted to win from GM and Ford.

Meanwhile, GM and the UAW were continuing to resolve local issues. As of January 1, 3 of the 155 bargaining units were still on strike.

At Chrysler, negotiators were unable to meet their December 18 target date for settlement, and talks were recessed until January. After talks resumed, the union set a strike deadline of January 19.

Settlements were also reached in the automotive parts and farm and construction industries, where UAW contracts traditionally are patterned after agreements with the Big Three auto makers.

On December 4, Dana Corp. and the UAW negotiated a 3-year contract covering 10,000 employees at 17 plants in Ohio, Michigan, Indiana, and Pennsylvania. Terms were described by the union as "closely paralleling the General Motors . . . settlement."

A new 3-year contract covers 32,000 workers at Caterpillar Tractor Co. Unlike the GM agreement, unlimited quarterly cost-of-living adjustments begin in March 1971, rather than December 1971. This provision was negotiated in late September, with bargaining on all other wage and benefits items suspended until after the GM talks. (See *Monthly Labor Review*, December 1970, p. 52.) Other terms of the December 11 settlement included a 46- to 52-cent wage increase (including the 32 cents in cost-of-living adjustments that would have been paid during the previous agreement if it had not provided for a 16-cent maximum) retroactive to October 1, a 3-percent (12 to 17 cents) increase on October 1, 1971, and another 3 percent (12 to 18 cents) on October 2, 1972.

Airline walkout ends

A 5-month walkout at Northwest Airlines ended December 13, when the Railway and Airline Clerks approved a 39-month agreement calling for wage increases averaging 37.6 percent. Other

Prepared by George Ruben and other members of the staff of the Division of Trends in Employee Compensation, Bureau of Labor Statistics, and based on information from secondary sources.

economic terms were reportedly the same as those in an October 22 agreement voted down because union members objected to recall procedures. The new contract provided for what the parties said was "an expedited schedule for return to jobs."

The agreement, covering 3,400 employees, included total increases ranging from 44.67 percent (\$176 a month) for the lowest grade to 33.2 percent (\$253 a month) for the top grade, with some intermediate grades receiving slightly larger increases. Initial raises were retroactive from Oct. 1, 1969, through July 8, 1970, when the strike began. Other terms included a 10-cent-an-hour increase in shift premiums, a ninth paid holiday, improvements in paid vacations (resulting in a schedule ranging from 2 weeks after 1 year of service to 6 weeks after 25 years), and provision for company-financed retirement and hospital-medical-surgical plans (replacing contributory plans).

New York City strikes

A 15-day New York City taxi strike, which affected about 800,000 riders, ended December 20, when members of Local 3036 of the Taxi Drivers Union ratified a settlement with the Metropolitan Taxicab Board of Trade. The settlement, which provided for an arbitrator to decide the duration of the contract, was contingent on City Council approval of the fare rise Mayor Lindsay had earlier proposed. Under the agreement, the first 10 cents clocked on the meter would be used for pensions, holidays, sick benefits, and other items. The balance of the fare would be split 50-50 between the owner and the driver. (New drivers would start at 42 percent of the fare and receive 2-percentage-point increases every 200 days until they attain the 50-50 split.) Previously, starting drivers received 49 percent of the full total on the meter. Drivers with 10 years of service received 50 percent and those with 60 days of service in each quarter year received an additional percentage point, with the owners paying for benefits from their share of the fare. Under the contract, pensions would be increased to \$100 a month, from \$75, with another \$25 increase scheduled if the new financing should prove adequate. Bulletproof partitions would also be installed in all cabs by June 1, 1971. The contract would cover 36,000 drivers and 1,200 inside workers employed by 69 fleets (6,816 cabs) that are members of the association. In addition, 4,963 owner-drivers participated in the walkout.

The 6-day strike by 2,200 fuel oil deliverers and 600 oil burner repairmen ended December 20, when the Teamsters reached agreement with the New York Oil Heating Association, comprised of 300 companies that serve 40 percent of the homes and businesses that use fuel oil in New York City. Terms of the 2-year pact included total wage increases of \$40 a week for drivers and \$44 for repairmen (bringing their minimum scales to \$215 and \$225) and improvements in pension and welfare benefits.

Actors Equity Association and the League of Off-Broadway Theaters agreed December 16 to submit their contract differences to binding arbitration. The 31-day walkout by 200 actors had shut down 17 shows. The eight issues to be arbitrated include salaries, pensions, welfare benefits, and union shop. Under the 3-year pact that ended November 1, actors received a minimum of \$75 a week for shows grossing \$4,500 or less a week, rising to \$150 for shows grossing \$9,500 to \$10,000.

Mayor Lindsay asked the City Council to permit the Office of Collective Bargaining to impose binding arbitration to end stalemates involving unions bargaining with the city. Either side could appeal a decision, within 30 days, to the appellate division of the State supreme court. The Mayor said, "It is essential that the citizens of New York have this vital safeguard as we move into the police, fire, and sanitation negotiations." Contracts for these and other employees were effective through December 31.

On December 22, the City offered total raises of \$1,000 for policemen and firemen and \$900 for sanitationmen. The proposal came from Director of Labor Relations Herbert L. Haber, who said the increases (in July 1971, January 1972, and January 1973) would match the projected rise in the cost of living during the 3-year contract. The offer was immediately rejected by union leaders, who have been seeking 30- to 45-percent wage increases, plus benefit improvements. Current yearly scales are \$10,950 for patrolmen and firemen and \$9,871 for sanitationmen.

Occupational safety law

President Nixon signed a bill authorizing the Secretary of Labor to set occupational safety and health standards for 55 million Americans. Employers contesting Department of Labor cita-

tions for alleged violations of the standards will be able to appeal to an independent review board appointed by the President. The party losing the appeal will have the right to seek a court review. The Secretary and the courts may impose civil penalties and fines, with criminal action permitted only for willful violations that result in death.

The new law establishes the post of Assistant Secretary of Labor for Health and Safety and authorizes union representatives to accompany inspectors.

As Congress acted, the Bureau of Labor Statistics reported that in 1969 the rate of disabling injuries in manufacturing was the highest since 1951. The 1969 rate of 14.8 injuries per million hours worked compared with 14.0 in 1968 and 11.4 in 1958. Of the 21 major manufacturing classifications, only tobacco, lumber, and leather showed improvement during 1969. The rate for wholesale and retail trade increased to 11.6 in 1969, from 11.3 in 1968. The highest rates were in coal mining (41.2), trucking and warehousing (36.4), and lumber and wood products (34.6).

Job bias charged

The Equal Employment Opportunity Commission asked the Federal Communications Commission (FCC) to deny American Telephone & Telegraph Co.'s bid for a \$385 million a year increase in interstate phone rates until the company ends alleged discrimination against women, blacks, and Spanish-surnamed Americans. The Commission urged the FCC to seek writs compelling the 24 Bell System companies to end six alleged employment practices, which it said are illegal.

The Commission accused A. T. & T. of maintaining job classifications based on race, sex, or national origin; refusal to hire women and blacks or members of other minorities because they lack a high school diploma, have illegitimate children, or have an arrest record; sexually discriminatory retirement plans, both in age of retirement and in benefits; sexually and racially discriminatory wage structures; sexually and racially discriminatory seniority systems, and denial of job promotional opportunities in cases where women and blacks or other members of minorities lack the necessary training because of alleged past discriminatory employment practices. The Commission also called for establishment of a company-financed board to prepare a report within 1 year on methods

for ending the asserted discrimination.

H. I. Romnes, chairman of A.T. & T., denounced the charges as "outrageous" and "completely distorted," declaring, "In the field of equal employment we have been leaders, not followers." He cited the following figures:

"Total minority employment in the Bell System stands at 128,038, or 12.4 percent of our work force.

"In the past 5 years nonwhite employment in the Bell System has increased 152 percent.

"Since 1963, total employment in the Bell System has increased 37.5 percent, nonwhite employment 265 percent.

"Minorities currently represent some 2.9 percent of Bell System management and professional employees. Of employees advanced to management ranks in the telephone companies in 1970, minorities accounted for 9.3 percent.

"Women account for 55.5 percent of Bell System employment; they account for 33.5 percent of management and professional employment."

In a separate development, the Department of Justice sued United States Steel Corp., the Steelworkers union, and 12 of its locals, charging discrimination against blacks at the company's plant in Fairfield, Ala. The Department asked

Earnings index

The Bureau's index of average hourly earnings for manufacturing production workers (excluding overtime premium pay and the effects of interindustry employment shifts) rose 1.5 in September, to 159.7. Data for prior periods are shown below.

1969	Index (1957-59=100)	1970	1970 Index (1957-59=100)
September	149.5	January	152.9
October	150.2	February	153.4
November	151.0	March	154.4
December	152.0	April	155.1
		May	156.0
		June	156.6
		July	157.4
		August	158.2
		September	159.7

Annual averages:

1968----- 139.5 1969----- 147.7

Monthly data from 1947-68 and data for selected periods from 1939 to 1947 are contained in *Summary of Manufacturing Production Workers Earnings Series, 1939-68* (BLS Bulletin 1616, 1969).

the Federal District Court in Birmingham to enjoin the company from continuing allegedly discriminatory practices. It also asked the court to require U.S. Steel to compensate black employees for the alleged bias in hiring, job assignment, and promotions. The suit charged the company had hired and assigned employees on the basis of race, with blacks being given less desirable jobs, with the least chance of promotion; set more stringent requirements for blacks than for whites in hiring and job assignments and transfers; failed to recruit blacks for clerical, technical, and supervisory jobs; and signed labor contracts with the Steelworkers that deprived blacks of equal job opportunities through a seniority system based on length of service in certain departments or areas to which blacks have had little or no access.

E. H. Gott, chairman of U.S. Steel, said the suit was filed the day after his company had rejected a "grossly outrageous" demand by the Department that blacks constitute 40 percent of all employees promoted to managerial positions during the next 5 years. Mr. Gott asserted that such demands were "in direct opposition to the premise of Title VII of the Civil Rights Act, which provides that there be no discrimination in employment and upgrading because of race, color, creed, national origin, or sex."

The company said separate seniority lists were maintained for blacks and whites until 1963, and that blacks now hold a disproportionate share of lower paying jobs because "a large number of Negroes were hired who had a very limited educational background and were placed in lines of promotion in which only laboring types of functions were required." The plant employes 9,100 whites and 3,900 blacks.

Virginia Electric Power Co. and eight locals of the Electrical Workers (IBEW) were charged with racial discrimination in a Justice Department suit filed in the Federal District Court in Richmond. The Department charged that the utility is "engaged in acts and practices that limit, segregate, classify, and otherwise discriminate against its black employees and black applicants

for employment." It also said the company has "traditionally maintained a racially segregated system of jobs and lines of progression" for its 6,053 employees, of whom 586 are black. Vice Chairman John M. McGurn said the suit "does not have any real merit" and that Virginia Electric has a formal written policy calling for equal opportunity for every employee. The locals denied the Government's charges that their contract with the company is discriminatory.

In the first sex discrimination case filed under the Civil Rights Act of 1964, Libbey-Owens-Ford Co., Inc., of Toledo, Ohio, and the Glass and Ceramic Workers and Local 9 of the union signed a consent agreement not to discriminate against women. The Justice Department filed the suit in July 1970. (See *Monthly Labor Review*, September 1970, p. 60.)

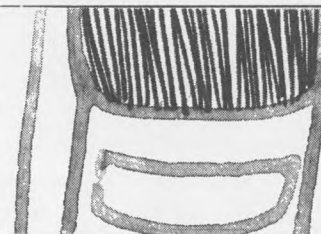
Government job cuts

Fiscal difficulties led New York State to announce layoffs. Earlier, New York City and Cleveland had also cut payrolls. (See *Monthly Labor Review*, January 1971, p. 71.) The State was expected to cut 5,000 to 15,000 temporary and provisional employees from a total payroll of about 140,000. This was one of a number of economies underway as New York expected a \$100 million deficit for the fiscal year ending March 31, 1971.

Union merger

On January 1, 1971, the 20,000-member United Stone and Allied Products Workers of America merged into the 1.2-million-member Steelworkers. Officers of both unions said the merger was a necessary development, particularly in bargaining with conglomerate companies. Officers and staff of the Stone Workers were added to the Steelworkers staff. The Stone Workers union was founded in 1903 as the Quarry Workers International. At that time it represented granite workers in New England. □

Book Reviews and Notes



Black employment patterns

Negro Employment in Basic Industry: A Study of Racial Employment Policies in Six Industries. By Herbert R. Northrup and others. Philadelphia, Pa., University of Pennsylvania, Wharton School of Finance and Commerce, Industrial Research Unit, 1970, 769 pp. (Studies of Negro Employment, Volume 11.) \$10, University of Pennsylvania Press, Philadelphia.

Herbert Northrup was associated with Gunnar Myrdal in the studies leading to *The American Dilemma*, and in the ensuing quarter century he has maintained a continuing interest in the interacting problems of industrial relations and racial discrimination. Thus it was altogether fitting for the Ford Foundation to invite him to direct a study on the patterns of Negro employment in American industry.

This book, the first hardcover report from the study, collects together six previously published paperback monographs plus a valuable introduction and conclusion. (Three of the monographs, the introduction and conclusion are by Northrup, the rest by his associates.) The six industries included—autos, steel, rubber tires, aerospace, chemicals, and petroleum—are all basic industries. Studies of 25 additional industries (including some service industries) have been commissioned, a majority of which have already been published. Though a total of nine hard-cover books are contemplated, enough of the project is now complete to assess its strengths and limitations.

The purpose of the project, as twice repeated, is "to determine why some industries are more hospitable to the employment of Negroes than are others and why some companies in the same industry have vastly different racial employment policies." Each of the studies utilizes roughly the same methodologies and is presented in roughly the same manner. Each study begins with a des-

cription of the history, economic structure, and industrial relations practices of the industry in question. Next, changes in patterns of Negro employment over time are described. Finally, an effort is made to explain these changing patterns in terms of factors such as plant location, changes in overall employment levels, technology, and so forth. Much of the description is based on works already published; liberal use is made of Census and EEOC data as well as those collected by the authors themselves; in addition there was fairly intensive interviewing (the extent of which is not indicated) within the industries themselves.

Among the findings are the following: Occupational mix, plant location, and historical accident seem to be crucial determinants of overall levels of Negro employment. Blacks are most heavily represented in plants which have substantial numbers of hard, dirty, unskilled jobs (auto, steel, and older tire plants) which are located near centers of Negro population (Detroit, central Los Angeles) or which developed their hiring patterns prior to the advent of jim crow (southern steel mills). The skilled trades have more blacks in steel than in autos largely because of differences in seniority rules—and so forth.

In recent years, what factors have seemed favorable to increases in Negro employment? These seem to include expansion of overall employment (autos, aerospace, and chemicals, but not steel or tires) and exposure to governmental or civil rights pressures (aerospace and petroleum, respectively). On the other hand, rapid technological changes (as in petroleum and some tire plants) has reduced the demand for unskilled workers and made implementation of equal employment programs more difficult. In some instances, the interaction of these factors is significant. Of the industries studied, aerospace is subject to greatest Government pressure, but perhaps has greatest need for highly skilled personnel. Together these

two factors help explain the aerospace's heavy commitment to training black employees.

The findings, though well documented, will hardly surprise anyone interested in the field (especially since the monographs were widely circulated). The conclusions are quite cautiously stated and no policy implications are suggested. Given the massive scope of the study, I would have liked the authors' views as to tactics, strategy, and public policy. In terms of realistic possibilities, how well have these companies done? What sorts of effort are likely to lead to greatest payoff? How useful are the various governmental efforts, such as fair employment laws, contract compliance procedure, the JOBS program, and various other Government-supported training programs?

Along these lines, the study places much more emphasis on the end results of integration than on the process by which it has been achieved. In what areas was resistance to change greatest and how has this resistance been overcome? What tactics seem to be most useful? To be sure, there are a number of short, perhaps too short, case studies (for instance, of the Armstrong Rubber Co. in Natchez) which dramatically illustrates how the battles have been fought. However, I wish the book had given the same sort of systematical analysis to the microproblems of making integration work as it gives to the microexplanations of the final result.

Finally, some stylistic comments. Sentence by sentence this book flows very well. Overall, however, one gets the impression of redundancy and excessive length. By the time one reads through six cases and a conclusion, the main points have been more than adequately driven home. This series will undoubtedly be extremely valuable for those interested in developments in particular industries, but few people are likely to read all nine volumes from end to end. Not even the first six chapters jell into an integrated book.

In terms of scope and imagination, this book is perhaps not another *American Dilemma*. But within its limitations it is a notable contribution. Together the series will represent our most thorough study of the present state of American black employment patterns.

—GEORGE STRAUSS
Professor of Business Administration
University of California

Coping with regional problems

Rural Poverty and the Urban Crisis: A Strategy for Regional Development. By Niles M. Hansen. Bloomington, Indiana University Press, 1970. 352 pp., bibliography. \$12.50.

This book, originally submitted as a report to the Manpower Administration, U.S. Department of Labor, provides a lucid and comprehensive discussion of a wide range of regional and urban problems. There is a great deal of discussion about regional problems and the Federal programs designed to cope with them. Introductory chapters discuss differences in regional income and growth rates. These are followed by detailed discussions of economic problems and development opportunities in the South and in Appalachia and of the Regional Commissions established by the Public Works and Economic Development Act. The plight of Indians and Mexican-Americans is discussed in some detail, these groups being singled out, presumably, because they are concentrated in a limited number of regions.

The author offers little that is new in the way of factual material on regional disparities in income and employment, or on geographic and ethnic concentrations of poverty. Along with his description, however, he provides a running commentary and evaluation of the Nation's major regional programs. While he is a gentle critic, Hansen does not give these programs high grades.

The author questions the feasibility of industrializing rural areas. The report of the President's National Advisory Commission on Rural Poverty comes under critical scrutiny, and Hansen is particularly skeptical about the conclusion that every citizen has a right to equal access to employment without discrimination because of race, religion, national origin, or place of residence. He is not sanguine about the ability of public policy to "bring jobs to workers" wherever the latter are located. Hansen feels that regional development efforts should be concentrated in a limited number of potential growth centers. This can be accomplished, he believes, only if the mobility of labor is increased. It appears that this is the essence of his strategy of regional development.

When he turns to urban economics, Hansen's sympathies appear to be with urban scholars who believe that many metropolitan areas are already

too large. He would not want to add to the problems of urban ghettos by encouraging further rural migration into larger cities. Instead, rural migrants should be "channeled" to growth centers of an "intermediate" size.

It is difficult to dispute Hansen's conclusions on logical grounds. The proposal of increased labor mobility as a solution to the problem of unemployment in specific geographic areas is far from new. Economists have been advocating this since the problem of localized employment was first discovered, but we have yet to find an effective mechanism for implementing the proposal in a noncoercive way. Hansen mentions the conventional approach of retraining, counseling, and relocation allowances. This has been discussed at infinitum, and has been tried experimentally. It may be an important tactic of regional development, but it falls short of a total strategy.

The value of this book does not stem from the novelty of its ideas. Hansen's contribution—and it is an important one—has been to bring together in one volume a comprehensive discussion of regional problems and policies in the United States. While he does not succeed in synthesizing urban and regional economics, he provides a few links between the two. This is a stimulating book, and one need not accept all of the author's conclusions to recognize it as an important contribution to the literature of spatial economics.

—WILLIAM H. MIERNYK

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British white-collar unions

The Growth of White-Collar Unionism. By George Sayers Bain. New York, Oxford University Press, 1970. 233 pp. \$9.

To "isolate the major factors which determine the growth of white-collar unionism" is the stated purpose of Mr. Bain's study. Included for analysis are such varied groups as clerks, scientists, salesmen, and government administrators in England. Between 1948 and 1964, growth of the British labor movement was negligible. By 1964, 29 percent of white-collar workers were unionized.

The author bases the conclusions presented in this study on analysis of published data and results of responses to questionnaires and personal inter-

views. Employee sex, social origin, age, job status, and amount of economic security are rejected as having no significant influence on white-collar union growth. Also rejected are the amount of mechanization and automation, opportunities for promotion, and proximity to unionized manual workers. Union organizational activities are found to be insignificant.

Mr. Bain concludes that "growth of aggregate white-collar unionism in Britain can be adequately explained by three strategic variables":

(1) **Employment Concentration:** In a large organization, rules apply to employees as members of a group; the most effective way to favorably influence those rules is seen as being through collective bargaining.

(2) **Union Recognition by Management:** Within the private sector, white-collar unionization is greater where employer policies and practices more favorable to unions have been most in evidence. In the public sector, employers have agreed to negotiate with unions, and most managements have "actively encouraged" their employees to join unions. As a result, over 80 percent of public employees are union members. Most private employers do not recognize white-collar unions, and many discourage their white-collar employees from joining. This is seen as an explanation for the low 10-percent unionization of employees in the private sector.

(3) **Government Action:** "Most white-collar recognition in private industry has come about, directly or indirectly, as a result of Government policies and the favorable climate they created for trade unionism." However, the Government has given no more than "normal support to the principle of trade union recognition."

The research-oriented reader is aided by frequent references to related literature and a discussion of the method of data handling. There is a concise review of the white-collar union movement in Britain to 1964.

Reference to data no more recent than 1964 detracts from what could have been a timely review. Because of the "lack of detail in the systems of classifying both labour force and union membership figures, only rough estimates of the real growth of white-collar unionism could be obtained." Certain conclusions and apparent contradictions appear to require additional explanation.

The reader is left to discover from other sources why employees in large organizations are more likely to join unions and why some employers are more receptive than others to negotiating with unions. Indeed, as the author points out, since the end of the Second World War, legislation in Britain has tended to restrict, not support, union recognition.

It can be agreed with the author that this study has some important implications for research into the growth of aggregate white-collar unionism, for the functions of unions in industrial society, and for the future growth of white-collar unionism. However, the book, while interesting reading, should be approached with some selectivity.

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Jobs for the nonprofessional

The Nonprofessional Revolution in Mental Health.
By Francine Sobey. New York, Columbia University Press, 1970. 239 pp., bibliography. \$10.

This book is a report of a survey of 185 projects funded by the National Institute of Mental Health, all concerned with the utilization of training of nonprofessionals. A 17-page mail questionnaire, (with a response rate of 96 percent) derived from projects ongoing between 1966 and 1968, provides the basis for the report. In addition, this report was supplemented by personal site visits to projects within the New York metropolitan area. The total report is concerned with evaluations of the work of over 10,000 nonprofessionals.

The questionnaire focuses primarily on the characteristics of the nonprofessional population, the functions performed, and the recruitment and training of nonprofessionals. As Professor Sobey comments, the day of the exclusive mental health interdisciplinary team, psychiatrist, psychiatric social worker, psychologist, and nurse in the hospital setting is rapidly disappearing. The team has definitely expanded.

Who does what part of the mental health job receives preliminary appraisal in the report of this book. Findings include the fact that a majority of projects (59 percent) employed more nonprofessionals than professionals (6.1 percent), and

that the paid nonprofessionals were located equally between small towns (2,500–25,000) and the medium and larger cities (25,000 to under 500,000). An unexpected finding was that the largest number of projects served only persons diagnosed as mentally ill. Of more significance was the finding that 40 percent of the projects gave “new” types of care not previously given by the sponsoring agency. A finding of major interest for the innovative aspects of the work of the nonprofessional was that three-fourths of the projects were medium or high in their emphasis on preventive services—services to the young, non-ill segments of a community, and those focusing on education services.

The major contribution of this book is that it summarizes a selection of data regarding the wide range of activities subsumed under the heading of the nonprofessional. If the reader is a purist, he can look at the array of findings, and reflect upon the confusion as the variety of roles that are performed. A more pragmatic note is that this variety suggests an exciting diversity in the provision of mental health service. Such expansion, while not revolutionary, offer a more adaptive response to local community needs.

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Integration of politics and economics

Power and Money: The Economics of International Politics and the Politics of International Economics. By Charles P. Kindleberger. New York, Basic Books, Inc., 1970. 246 pp. \$6.95.

As the subtitle suggests, this book attempts to bridge the gap that clearly exists between discussions of international politics by political scientists and analyses of international economic problems by economists. Professor Kindleberger, an economist who teaches at Massachusetts Institute of Technology, has impressive credentials for such an undertaking, having authored a large number of books and articles dealing with the theory of international trade, the balance of payments, the economics of underdeveloped areas, and modern European economic history. Moreover, in contrast with many contemporary economists, Professor Kindleberger has consistently

exhibited a strong interest in the political constraints that surround economic policymakers.

Unfortunately, the book falls far short of its goal. Aside from two introductory chapters in part I, which offer some rather discursive comparisons of economics and political science as scholarly disciplines, the book is organized into two self-contained divisions: one dealing with "The Economics of International Politics" (part II), the other with "The Politics of International Economics" (part III). Bridges between these segments of the book are few and far between, and there is no summary chapter which attempts to pull together the disparate materials that have been presented.

Part II includes brief chapters on Sovereignty, Power, Imperialism, War, and Peacekeeping. Economist Kindleberger does not pretend to have anything very penetrating to say about these political categories. Instead, his purpose is to examine critically some of the implicit economic theories that creep into discussions of these topics and to explode a few myths—for example, "the naive political theorem that economic fulfillment leads to political quiescence." Most economists, I suspect, would agree with most of Kindleberger's judgments. However, one wonders what audience will find these chapters useful. Mature scholars on both sides of the fence may find Kindleberger's treatment elementary and uninteresting, while undergraduates and general readers are apt to find either the politics or the economics, or both, rather baffling.

There are seven chapters in part III: Trade, Aid, Migration, Capital, Corporations, Payments, and Money. The treatment here is entirely symmetrical to that of part II in that the *economics* of these topics is, on the whole, suppressed (or at least highly compressed), in favor of discussions of their *political* implications. Speaking as an economist, I found some of this material interesting. Again, however, one wonders whether readers who lack training in international economics will find these chapters helpful. The final two chapters, in particular, will be difficult reading for noneconomists. At the same time, many readers will find Kindleberger's political judgments highly questionable. As an example, consider his verdict on the fixed versus flexible exchange rate issue. Kindleberger rightly calls attention to political difficulties with flexible rates—difficulties that

economists often sweep under the carpet. But he then offers the reader, without the slightest apology for lack of political realism, one of his own proposals to achieve international monetary coordination, namely the extension of membership on our Federal Open Market Committee to the leading European central banks.

One can only applaud Professor Kindleberger's attempt to break down intellectual parochialism. At the same time, this reviewer regrets to see a man of his scholarship produce a volume that, in effect, attempts to integrate political science and economics by searching for a lowest common denominator. The result will not be informative to members of either discipline.

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Explaining educational failures

Mexican Americans in School: A History of Educational Neglect. By Thomas P. Carter. New York, College Entrance Examination Board, 1970. 235 pp., bibliography. \$4.

Despite its excellence, this book is not, as the title suggests, a history delineating the problems encountered by Mexican-Americans after the conquest of the Southwest by the United States. Although the work does contain one brief introductory chapter on the historical aspect, it is primarily concerned with present-day conditions and their causes, and solutions for the Mexican-American child's educational failure. Consequently the study contains important chapters on the "Failure of the Mexican-American Culture," the "Default of the School," the "Mexican-American Reactions to School and Community," "Special Programs for Mexican Children," and "Where to From Here."

The work, a substudy of UCLA's Mexican-American Study Project financed by the College Entrance Examination Board, is definitely a synthesis of previous studies. It is not, however, an armchair, ivory tower synthesis. The contents are reinforced by over 250 interviews with educators and laymen, and Professor Carter's expert knowledge and understanding of the Mexican-Americans' educational needs in the Southwest. Consequently, Carter's synthesis presents valuable

information, conclusions, and questions that teachers, administrators, and professors of education and of Mexican-American studies would find most difficult, if not impossible, to obtain from the myriad of educational studies available.

As a professor of Mexican-American history, and as a former public school teacher in predominantly Mexican-American schools, I was impressed by the chapters entitled "Failure of the Culture" and the "Default of the School." In the first, the author dispassionately demonstrates the lack of understanding and knowledge that teachers and administrators have of the dynamic and multifaceted Mexican-American culture. In the second, he presents the public schools' failure—and the reasons for the failure—in educating the Mexican-American. These revealing chapters will undoubtedly make many public school educators unhappy; they will, however, be most valuable to students who are planning to teach Mexican-American children.

Perhaps Carter's most valuable chapter to non-professionals is the one examining special school programs for Mexican-American children. Demonstrating vast personal knowledge, objectivity, and insight, the author evaluates the various types of special programs available to these minority group children. He arrives at the conclusions that the "overwhelming majority of special programs are little or no different from those for other 'disadvantaged' children" and that they "are not substantially different from regular school programs." This honest, objective style makes this book a valuable contribution in the field of education.

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Other recent publications

Agriculture and natural resources

Arango, Jorge, *The Urbanization of the Earth*. Boston, Beacon Press, 1971, 175 pp. \$6.95.

Chao, Kang, *Agricultural Production in Communist China, 1949-1965*. Madison, University of Wisconsin Press, 1971, 357 pp., bibliography. \$15.

Economic growth and development

Barkin, David and Timothy King, *Regional Economic Development: The River Basin Approach in Mexico*. New York, Cambridge University Press, 1970, 262 pp. (Cambridge Latin American Studies, 7). \$10.50.

Bates, Robert H., "Approaches to the Study of Unions and Development," *Industrial Relations*, October 1970, pp. 365-378.

Henderson, William L. and Larry C. Ledebur, "Programs for the Economic Development of the American Negro Community," *American Journal of Economics and Sociology*, October 1970, pp. 337-351.

Kahn, Herman, *The Emerging Japanese Superstate: Challenge and Response*. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1970, 274 pp., bibliography. \$7.95.

Maritano, Nino, *A Latin American Economic Community: History, Policies, and Problems*. Notre Dame, Ind., University of Notre Dame Press, 1970, 265 pp., bibliography. \$9.95.

Reynolds, Clark W., *The Mexican Economy: Twentieth-Century Structure and Growth*. New Haven, Conn., Yale University Press, 1970, 468 pp., bibliography. \$13.50.

Sellekaerts, Willy, "Economic Reforms in Eastern Europe," *MSU Business Topics*, Autumn 1970, pp. 20-26.

Economic statistics

Ruggles, Nancy and Richard, *The Design of Economic Accounts*. New York, National Bureau of Economic Research, 1970, 179 pp., bibliography. (General Series, 89.) \$8, Columbia University Press, New York.

Stone, Bernell Kenneth, *Risk, Return, and Equilibrium: A General Single-Period Theory of Asset Selection and Capital-Market Equilibrium*. Cambridge, Mass., M.I.T. Press, 1971, 150 pp. \$10.

Wood, W. D. and H. F. Campbell, *Cost-Benefit Analysis and the Economics of Investment in Human Resources: An Annotated Bibliography*. Kingston, Ontario, Queen's University, Industrial Relations Center, 1970, 211 pp. \$10.

Education

Faltermayer, Edmund K., "Let's Break the Go-to-College Lockstep," *Fortune*, November 1970, pp. 98-103, 144.

Linden, Fabian, "The Education of the Family," *Conference Board Record*, October 1970, pp. 41-44.

National Education Association, *The Pupils' Day in Court*:

Review of 1969. Washington, 1970, 88 pp. (School Law Series, Research Report 1970-R9.) \$2.

National Education Association, *The Teacher's Day in Court: Review of 1969*. Washington, 1970, 59 pp. (School Law Series, Research Report 1970-R8.)

Smith, C. Selby, "Cost and Benefits in Future Education: Some Evidence From a Pilot Study," *Economic Journal*, September 1970, pp. 583-604.

Southwest Educational Development Laboratory, *Calipers: Planning the Systems Approach to Field Testing Education Products*. Austin, Tex., 1969, 156 pp. \$3.

Special International Education Year Issue, *ILO Panorama*, September-October 1970, pp. 1-32.

Industry and Government organization

Fourre, James P., *Quantitative Business Planning Techniques*. New York, American Management Association, 1970, 176 pp. \$8.25.

Friedmann, W. G. and J. F. Garner, editors, *Government Enterprise: A Comparative Study*. New York, Columbia University Press, 1970, 351 pp. \$10.

Horn, Stephen, *Unused Power: The Work of the Senate Committee on Appropriations*. Washington, Brookings Institution, 1970, 285 pp. \$7.50.

Kobayashi, Shigeru, "The Creative Organization—A Japanese Experiment," *Personnel*, November-December 1970, pp. 8-17.

Kurtz, David L. and Larry R. Trussell, "The Railroads: Subsidy, Nationalization, or a Return to Free Enterprise?" *Conference Board Record*, October 1970, pp. 33-36.

New York State Department of Labor, *Statistics on Operations: Supplement to the Annual Report, 1969*. Albany, 1970, 205 pp.

Thole, Henry C. and Eugene C. McKean, *Business Conditions in Kalamazoo*. Kalamazoo, Mich., W. E. Upjohn Institute for Employment Research, October 1970, 31 pp.

Tokyo Metropolitan Government, *An Administrative Perspective of Tokyo, 1971*. Tokyo, 1970, 64 pp.

Industrial relations

"A Complementary Collection: Work, Performance, and Satisfaction," *Industrial Relations*, October 1970, pp. 405-474.

Kieta, Joseph E., "The Strike and Its Alternatives in Public Employment," *Public Personnel Review*, October 1970, pp. 226-230.

Murphy, Richard J. and Morris Sackman, *The Crisis in Public Employee Relations in the Decade of the Seventies*. Washington, Bureau of National Affairs, Inc., 1970, 256 pp. \$14.50.

Nigro, Felix A., "Labor Relations in the Public Sector, Part I" *Personnel Administration*, September-October 1970, pp. 34-38.

Schwarz, Thomas J., "Plant Relocation or Partial Termination—The Duty to Decision-Bargain," *Fordham Law Review*, October 1970, pp. 81-102.

Sharkley, Samuel M., *Public Employee Strikes: Causes and Effects*. Washington, Labor-Management Relations Service, 1970, 10 pp. (Strengthening Local Government Through Better Labor Relations, 7.)

Staudohar, Paul D., "Compulsory Arbitration of Interests Disputes in the Protective Services," *Labor Law Journal*, November 1970, pp. 708-715.

U.S. Women's Bureau, *Laws on Sex Discrimination in Employment*. Washington, Wage and Labor Standards Administration, U.S. Department of Labor, 1970, 20 pp. 30 cents, Superintendent of Documents, Washington.

Wnorowski, A. K., "Once You Have an Agreement (How to Avoid Grievances)," *Personnel Journal*, October 1970, pp. 843-846.

Industrial health and safety

Smith, David J., "Absenteeism and Presenteeism in Industry," *Archives of Environmental Health*, November 1970, pp. 670-677.

Tabershaw, Irving R., W. Clark Cooper, J. Leroy Balzer, "A Labor-Management Occupational Health Service in a Construction Industry," *Archives of Environmental Health*, December 1970, pp. 784-788.

International economics

Commonwealth of the Bahamas, *External Trade Statistics Report, 1969*. Nassau, Bahamas, Department of Statistics, 1970, 836 pp.

Huntington, Samuel P., "Foreign Aid for What and for Whom," *Foreign Policy*, Winter 1970-71, pp. 161-189.

International Labor Organization, *Equality of Opportunity in Employment in Asia: Problems and Policies—Reports and Documents of a Regional Seminar, Manila, 2-11 December 1969*. Geneva, 1970, \$1.75. Distributed in United States by Washington Branch of ILO.

Levinson, Jerome and Juan de Onís, *The Alliance That Lost Its Way: A Critical Report on the Alliance for Progress*. New York, Twentieth Century Fund, Inc., 1970, 381 pp. \$7.95, Quadrangle Books, Inc., Chicago.

Malmgren, Harald B., "Coming Trade Wars? (Neo-Mercantilism and Foreign Policy)," *Foreign Policy*, Winter 1970-71, pp. 115-143.

Pisar, Samuel, *Coexistence & Commerce: Guidelines for Transactions Between East and West*. New York, McGraw-Hill Book Co., 1970, 558 pp. \$17.50.

Labor and economic history and thought

De Caux, Len, *Labor Radical: From the Wobblies to CIO—A Personal History*. Boston, Beacon Press, 1971, 557 pp. \$15.

London, Joan and Henry Anderson, *So Shall Ye Reap: The Story of Cesar Chavez and the Farm Workers' Movement*. New York, Thomas Y. Crowell Co., 1971, 208 pp. \$6.95.

Sobel, Robert, *The Curbstone Brokers: The Origins of the American Stock Exchange*. New York, Macmillan Co., 1970, 296 pp. \$7.95.

Labor force

Anderson, Bernard E., *The Negro in the Public Utility Industries*. Philadelphia, University of Pennsylvania, Wharton School of Finance and Commerce, Industrial Research Unit, 1970, 261 pp. (Racial Policies of American Industry, Report 10.) \$5.95, University of Pennsylvania Press, Philadelphia.

Archibald, Kathleen, *Sex and the Public Service*. Ottawa, Canada, Queen's Printer, 1970, 218 pp. \$3.25.

Australia Department of Labor and National Service, *An Analysis of Full Employment in Australia*. Melbourne, 1970, 48 pp. (Labor Market Studies, 2.)

Blai, Boris, Jr., *Job Satisfaction and Work Values for Women*. Bryn Mawr, Pa., Harcum Junior College, 1970, 14 pp. (Mimeographed.)

Bowles, Samuel, "Migration as Investment: Empirical Tests of the Human Investment Approach to Geographical Mobility," *Review of Economics and Statistics*, November 1970, pp. 356-362.

California State Department of Industrial Relations, *Union Labor in California, 1969*. San Francisco, 1970, 26 pp.

Heller, Martin W., *Indiana Manpower Projections, 1967-75*. Indianapolis, Indiana Employment Security Division, 1970, 28 pp.

Parrish, John B., "Women's High Level Training and Work: Where to Now?" *Training and Development Journal*, November 1970, pp. 20-22.

Pennell, Maryland Y. and David B. Hoover, *Health Manpower Source Book 21, Allied Health Manpower Supply and Requirements: 1950-80*. Bethesda, Md., U.S.

Department of Health, Education, and Welfare, Bureau of Health Professions Education & Manpower Training, 1970, 107 pp. \$1.25, Superintendent of Documents, Washington.

Rosen, Doris B., *Employment Testing and Minority Groups*. Ithaca, N.Y., Cornell University, New York State School of Industrial and Labor Relations, 1970, 30 pp. (Key Issues Series No. 6.) \$2.

Schrank, Robert, "It Makes No Difference Now," *New Generation*, Fall 1970, pp. 14-21.

Searing, Marjory E., *Estimates of Educational Attainment in Poland: 1950-1969*. Washington, U.S. Bureau of the Census, 1970, 40 pp. (International Population Reports, Series P-95, No. 68.)

Yabroff, Bernard and Marc A. Matland, *New Careers for the Subprofessional*. Washington, Office of Education, U.S. Department of Health, Education, and Welfare, 1970, 23 pp. 30 cents, Superintendent of Documents, Washington.

Labor organizations

Carroll, Norman F. and Gopal C. Pati, "Organized Labor and Social Responsibility," *Personnel Journal*, October 1970, pp. 810-815.

Johnson, Harry G. and Peter Mieszkowski, "The Effects of Unionization on the Distribution of Income: A General Equilibrium Approach," *Quarterly Journal of Economics*, November 1970, pp. 539-561.

Perline, Martin M. and V. R. Lorenz, "Factors Influencing Member Participation in Trade Union Activities," *American Journal of Economics and Sociology*, October 1970, pp. 425-438.

Management and organization theory

Champion, George, "Changing Responsibilities of Management," *Personnel Administration*, September-October 1970, pp. 8-12.

De Witt, George L., "Man at Work," *Personnel Journal*, October 1970, pp. 824-826.

Hayes, Douglas A., "Management Goals in a Crisis Society," *Michigan Business Review*, November 1970, pp. 7-11.

Meyer, G. Dale, *Participative Decision Making: Analysis and Review*. Iowa City, Center for Labor and Management University of Iowa, 1970, 52 pp. (Monograph Series, 15.) \$1.50.

Nadler, David, "Responding to the NOW Employee," *Training and Development Journal*, November 1970, pp. 12-15.

Nouri, Clement J. and James J. Fridl, "The Relevance of Motivational Concepts to Individual and Corporate

Objectives," *Personnel Journal*, November 1970, pp. 900-906.

Pajer, Robert G., "The Relationship of Morale to Productivity: What It Means Today," *Public Personnel Review*, October 1970, pp. 273-278.

Rogers, Carl R., *Carl Rogers on Encounter Groups*. New York, Harper & Row, Publishers, 1970, 172 pp. \$5.95.

Straus, Donald B., "How to Stop Strikes by Really Trying," *Personnel Journal*, October 1970, pp. 827-831.

Terry, Carlos J. Michelsen, "People in Organizations," *Personnel Administration*, September-October 1970, pp. 19-25.

Manpower training and development

Clague, Ewan, "Government Employment and Manpower Planning in the 1970's," *Public Personnel Review*, October 1970, pp. 279-282.

Coleman, Bruce P., "An Integrated System for Manpower Planning," *Business Horizons*, October 1970, pp. 89-95.

Committee for Economic Development, *Training and Jobs for the Urban Poor: A Statement on National Policy by the Research and Policy Committee*. New York, 1970, 78 pp. \$1.25.

Drouet, Pierre, "The Case for More Systematic Evaluation of Vocational Training Programs," *International Labour Review*, October 1970, pp. 355-375.

Ginzberg, Eli, "Swedish Manpower Policies," *Manpower*, November 1970, pp. 26-30.

U.S. Women's Bureau, *Job Training Suggestions for Women and Girls*. Washington, Wage and Labor Standards Administration, U.S. Department of Labor, 1970, 15 pp. 15 cents, Superintendent of Documents, Washington.

Prices and living conditions

Budget Standard Service, *Annual Price Survey—Family Budget Costs, October 1969*. New York, Community Council of Greater New York, 1970, 57 pp. \$2.50.

Linden, Fabian, "People and Spending Power, State by State," *Conference Board Record*, December 1970, pp. 44-47.

Urban affairs

Chamberlain, Neil W., editor, *Business and the Cities: Book of Relevant Readings*. New York, Basic Books, Inc., 1970, 521 pp. \$12.50.

Cohn, Jules, editor, "The Urban Affairs of Business," *Urban Affairs Quarterly*, September 1970, pp. 5-126.

Hoskins, W. Lee, "Housing the Poor: A Frontal Attack," *Federal Reserve Bank of Philadelphia Business Review*, pp. 9-16.

Rodwin, Lloyd, *Nations and Cities: A Comparison of Strategies for Urban Growth*. Boston, Houghton Mifflin Co., 1970, 395 pp. \$4.95.

Wages and compensation

Conference Board, *Top Executive Compensation*. New York, Conference Board, Inc., 1970, 73 pp. \$3.50, associate and educational; \$17.50, nonassociate.

Czarnecki, Edgar R., "The Effect of Profitsharing Plans on Union Organizing Efforts," *Personnel Journal*, September 1970, pp. 763-773.

Dunn, J. D. and Frank M. Rachel, *Wage and Salary Administration: Total Compensation Systems*. New York, McGraw-Hill, Inc., 1970, 468 pp. \$12.50.

Fantl, Henry and Frank Whittingham, *The Short-Run Impact of the Thirty Cent Revision in Ontario's Minimum Wage on Five Industries*. Ontario, Canada, Ontario Department of Labor, Research Branch, 1970, 42 pp.

Kothari, V. N., "Disparities in Relative Earnings Among Different Countries," *Economic Journal*, September 1970, pp. 605-616.

Reuber, G. L., "Wage Adjustments in Canadian Industry, 1953-66," *Review of Economic Studies*, October 1970, pp. 449-468.

Smith, Robert A., "Achieving Flexibility in Compensation Administration," *Compensation Review*, Fourth Quarter 1970, pp. 6-14.

Sullivan, John F., "The Future of Merit Pay for Teachers," *Compensation Review*, Fourth Quarter 1970, pp. 23-30.

U.S. Bureau of Labor Statistics, *Area Wage Survey: The Manchester, N.H., Metropolitan Area, July 1970*. Washington, 1970, 24 pp. (Bulletin 1685-2.) 35 cents, Superintendent of Documents, Washington. Other recent bulletins in this series include the metropolitan areas of Binghamton, N.Y. (Bulletin 1685-6); Rochester, N.Y. (Bulletin 1685-7.) Various pagings and prices.

Wachter, Michael L., "Relative Wage Equations for U.S. Manufacturing Industries, 1947-67," *Review of Economics and Statistics*, November 1970, pp. 405-410.

Lauriat, Patience and William Rabin, "Men Who Claim Benefits Before Age 65: Findings From the Survey of

New Beneficiaries, 1968," *Social Security Bulletin*, November 1970, pp. 3-29.

Schiltz, Michael E., *Public Attitudes Toward Social Security, 1935-1965*. Washington Social Security Administration, U.S. Department of Health, Education, and Welfare, 1970, 231 pp., bibliography. (Research Report 33.) \$1, Superintendent of Documents, Washington.

Schottland, Charles I., *The Social Security Program in the United States*. (Second edition.) New York, Appleton-Century-Crofts, 1970, 210 pp. \$6.95.

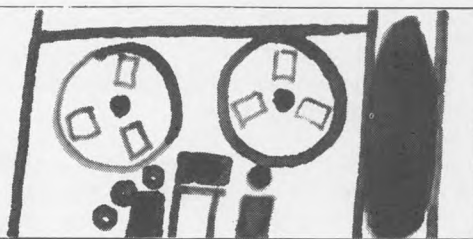
Welfare programs and social legislation

Barfield, Richard E., *The Automobile Worker and Retirement: A Second Look*. Ann Arbor, Mich., Institute for Social Research, University of Michigan, 1970, 49 pp., bibliography.

Kelly, L. A., *Income Maintenance, Tax Savings, and the Incentive to Work*. Kingston, Ontario, Queen's University, Industrial Relations Center, 1970, 18 pp., bibliography. \$1.

Kleiler, Frank M., *Canadian Regulation of Pension Plans*. Washington, U.S. Department of Labor, 1970, 97 pp.

Current Labor Statistics



Employment and unemployment—household data

1. Employment status of noninstitutional population, 1947 to date.....	89
2. Employment status, by color, sex, and age, seasonally adjusted, quarterly averages.....	89
3. Full- and part-time status of civilian labor force.....	90
4. Employment and unemployment, by age and sex, seasonally adjusted, quarterly data.....	90
5. Employment totals, by occupation, with unemployment rates, seasonally adjusted, quarterly averages.....	91
6. Unemployed persons, by reason for unemployment.....	91
7. Unemployment rates, by age and sex, seasonally adjusted.....	92
8. Unemployment indicators, seasonally adjusted.....	93
9. Duration of unemployment, seasonally adjusted.....	93

Unemployment insurance 10. Unemployment insurance and employment service operations.....	94
---	----

Nonagricultural employment—payroll data

11. Employment by industry, 1947 to date.....	95
12. Employment by State.....	95
13. Employment by industry division and major manufacturing group.....	96
14. Employment by industry division and major manufacturing group, seasonally adjusted.....	97

Labor turnover and job vacancies

15. Labor turnover in manufacturing, 1959 to date.....	98
16. Labor turnover in manufacturing, by major industry group.....	99
17. Job vacancies in manufacturing.....	99

Hours and earnings—private nonagricultural payrolls

18. Hours and earnings, by industry division, 1947 to date.....	100
19. Weekly hours, by industry division and major manufacturing group.....	101
20. Weekly hours, by industry division and major manufacturing group, seasonally adjusted.....	102
21. Hourly earnings, by industry division and major manufacturing group.....	103
22. Weekly earnings, by industry division and major manufacturing group.....	104
23. Spendable weekly earnings in current and 1957-59 dollars.....	105

Prices

24. Consumer and Wholesale Price Indexes, 1949 to date.....	105
25. Consumer Price Index, general summary and selected items.....	106
26. Consumer Price Index, selected areas.....	112
27. Wholesale Price Index, by group and subgroup of commodities.....	113
28. Wholesale Price Index, for special commodity groupings.....	115
29. Wholesale Price Index, by stage of processing.....	116
30. Wholesale Price Index, by durability of product.....	117
31. Industry-sector price index for output of selected industries.....	117

Labor-management disputes 32. Work stoppages and time lost.....	119
--	-----

Productivity 33. Indexes of output per man-hour, hourly compensation, and unit labor costs.....	120
--	-----

Schedule of release dates for major BLS statistical series	120
---	-----

1. Employment status of the noninstitutional population, 16 years and over, 1947 to date

[In thousands]

Year	Total non-institutional population	Total labor force		Civilian labor force							Not in labor force
		Number	Percent of population	Total	Employed			Unemployed			
					Total	Agriculture	Nonagricultural industries	Number	Percent of labor force		
1947	103,418	60,941	58.9	59,350	57,039	7,891	49,148	2,311	3.9	42,477	
1948	104,527	62,080	59.4	60,621	58,344	7,629	50,713	2,276	3.8	42,447	
1949	105,611	62,903	59.6	61,286	57,649	7,656	49,990	3,637	5.9	42,708	
1950	106,645	63,858	59.9	62,208	58,920	7,160	51,760	3,288	5.3	42,787	
1951	107,721	65,117	60.4	62,017	59,962	6,726	53,239	2,055	3.3	42,604	
1952	108,823	65,730	60.4	62,138	60,254	6,501	53,753	1,883	3.0	43,093	
1953	110,601	66,560	60.2	63,015	61,181	6,261	54,922	1,834	2.9	44,041	
1954	111,671	66,993	60.0	63,643	60,110	6,206	53,903	3,532	5.5	44,678	
1955	112,732	68,072	60.4	65,023	62,171	6,449	55,724	2,852	4.4	44,660	
1956	113,811	69,409	61.0	66,552	63,802	6,283	57,517	2,750	4.1	44,402	
1957	115,065	69,729	60.6	66,929	64,071	5,947	58,123	2,859	4.3	45,336	
1958	116,363	70,275	60.4	67,639	63,036	5,586	57,450	4,602	6.8	46,088	
1959	117,881	70,921	60.2	68,369	64,630	5,565	59,065	3,740	5.5	46,960	
1960	119,759	72,142	60.2	69,628	65,778	5,458	60,318	3,852	5.5	47,617	
1961	121,343	73,031	60.2	70,459	65,746	5,200	60,546	4,714	6.7	48,312	
1962	122,981	73,442	59.7	70,614	66,702	4,944	61,759	3,911	5.5	49,539	
1963	125,154	74,571	59.6	71,833	67,762	4,687	63,076	4,070	5.7	50,583	
1964	127,224	75,830	59.6	73,091	69,305	4,523	64,782	3,786	5.2	51,394	
1965	129,236	77,178	59.7	74,455	71,088	4,361	66,726	3,366	4.5	52,058	
1966	131,180	78,893	60.1	75,770	72,895	3,979	68,915	2,875	3.8	52,288	
1967	133,319	80,793	60.6	77,347	74,372	3,844	70,527	2,975	3.8	52,527	
1968	135,562	82,272	60.7	78,737	75,920	3,817	72,103	2,817	3.6	53,291	
1969	137,841	84,239	61.1	80,733	77,902	3,606	74,296	2,831	3.5	53,602	
1970	140,182	85,903	61.3	82,715	78,627	3,462	75,165	4,088	4.9	54,280	

2. Employment status, by color, sex and age, seasonally adjusted,¹ quarterly averages

[In thousands]

Characteristic	1970				1969				1968				1967	Annual average	
	4th	3d	2d	1st	4th	3d	2d	1st	4th	3d	2d	1st	4th	1970	1969
WHITE															
Civilian labor force	74,242	73,525	73,263	73,316	72,475	71,942	71,466	71,285	70,392	70,045	69,851	69,587	69,440	73,518	71,778
Men, 20 years and over	42,741	42,503	42,463	42,245	41,956	41,842	41,639	41,656	41,423	41,373	41,235	41,230	41,175	42,463	41,772
Women, 20 years and over	24,938	24,664	24,378	24,513	24,156	23,949	23,684	23,566	23,122	22,843	22,741	22,655	22,632	24,616	23,838
Both sexes, 16-19 years	6,563	6,358	6,422	6,558	6,363	6,151	6,143	6,036	5,847	5,829	5,757	5,792	5,633	6,439	6,168
Employed	70,226	69,956	70,059	70,527	70,096	69,575	69,260	69,135	68,267	67,804	67,617	67,311	67,032	70,182	69,518
Men, 20 years and over	41,048	40,986	41,131	41,180	41,091	40,995	40,871	40,926	40,677	40,553	40,405	40,376	40,300	41,093	40,978
Women, 20 years and over	23,653	23,504	23,347	23,587	23,327	23,120	22,891	22,794	22,372	22,066	21,987	21,777	21,766	23,521	23,032
Both sexes, 16-19 years	5,525	5,466	5,581	5,760	5,678	5,460	5,498	5,415	5,218	5,185	5,225	5,158	4,966	5,568	5,508
Unemployed	4,016	3,568	3,204	2,789	2,379	2,367	2,206	2,150	2,125	2,241	2,234	2,276	2,408	3,337	2,260
Men, 20 years and over	1,693	1,517	1,332	1,065	865	847	768	730	746	820	830	854	875	1,371	794
Women, 20 years and over	1,286	1,159	1,032	926	829	829	793	772	750	777	754	788	866	1,095	806
Both sexes, 16-19 years	1,038	892	841	798	685	691	645	629	644	650	634	667	871	871	660
Unemployment rate	5.4	4.9	4.4	3.8	3.3	3.3	3.1	3.0	3.0	3.2	3.2	3.3	3.5	4.5	3.1
Men, 20 years and over	3.9	3.6	3.1	2.5	2.1	2.0	1.8	1.8	1.8	2.0	2.0	2.1	2.1	3.2	1.9
Women, 20 years and over	5.1	4.7	4.2	3.8	3.4	3.5	3.3	3.3	3.2	3.4	3.3	3.5	3.8	4.4	3.4
Both sexes, 16-19 years	15.8	14.0	13.1	12.2	10.8	11.2	10.5	10.7	10.8	11.0	11.1	10.9	11.8	13.5	10.7
NEGRO AND OTHER															
Civilian labor force	9,167	9,210	9,226	9,224	9,056	8,979	8,867	8,914	8,737	8,700	8,828	8,762	8,733	9,197	8,954
Men, 20 years and over	4,747	4,777	4,706	4,700	4,622	4,593	4,549	4,554	4,513	4,517	4,562	4,543	4,496	4,726	4,579
Women, 20 years and over	3,639	3,653	3,688	3,682	3,616	3,595	3,535	3,550	3,468	3,414	3,467	3,433	3,444	3,664	3,574
Both sexes, 16-19 years	781	780	832	842	818	791	783	810	756	769	799	786	793	807	801
Employed	8,332	8,423	8,447	8,498	8,500	8,394	8,271	8,371	8,164	8,132	8,233	8,147	8,073	8,445	8,384
Men, 20 years and over	4,428	4,484	4,434	4,498	4,445	4,416	4,382	4,397	4,335	4,349	4,388	4,351	4,305	4,461	4,410
Women, 20 years and over	3,374	3,392	3,416	3,468	3,429	3,372	3,307	3,352	3,264	3,205	3,246	3,200	3,191	3,412	3,365
Both sexes, 16-19 years	530	547	597	632	626	606	582	622	565	578	599	596	577	573	609
Unemployed	835	787	779	626	556	585	596	543	573	568	595	615	660	752	570
Men, 20 years and over	320	293	272	201	177	177	167	157	178	168	174	192	191	265	169
Women, 20 years and over	265	260	272	215	187	223	228	198	204	209	221	233	253	252	209
Both sexes, 16-19 years	250	234	235	210	192	185	201	188	191	191	200	190	216	235	192
Unemployment rate	9.1	8.5	8.4	6.8	6.1	6.5	6.7	6.1	6.6	6.5	6.7	7.0	7.6	8.2	6.4
Men, 20 years and over	6.8	6.1	5.8	4.3	3.8	3.9	3.7	3.4	3.9	3.7	3.8	4.2	4.2	5.6	3.7
Women, 20 years and over	7.3	7.1	7.4	5.8	5.2	6.2	6.4	5.6	5.9	6.1	6.4	6.8	7.3	6.9	5.8
Both sexes, 16-19 years	32.0	30.0	28.2	24.9	23.5	23.4	25.7	23.2	25.3	24.8	25.0	24.2	27.2	29.1	24.0

¹ These data have been adjusted to reflect the experience through December 1969. For a description of seasonal adjustment procedures and the historical seasonallyadjusted series, see the February 1970 issue of *Employment and Earnings*.

3. Full- and part-time status of the civilian labor force

[In thousands—not seasonally adjusted]

Employment status	1970												1969	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1970	1969
FULL TIME															
Civilian labor force.....	70,735	70,724	70,756	71,329	74,610	74,884	73,555	69,383	69,255	69,116	69,018	68,869	69,204	71,019	69,700
Employed:															
Full-time schedules ¹	64,563	64,950	65,239	65,910	68,185	68,044	66,779	64,413	64,166	64,108	63,997	64,155	65,302	65,376	65,503
Part-time for economic reasons.....	2,590	2,352	2,370	2,276	2,984	3,088	2,831	2,128	2,301	2,139	2,117	2,135	1,998	2,443	2,055
Unemployed, looking for full-time work.....	3,583	3,422	3,146	3,143	3,441	3,753	3,945	2,842	2,787	2,869	2,904	2,579	1,904	3,201	2,142
Unemployment rate.....	5.1	4.8	4.4	4.4	4.6	5.0	5.4	4.1	4.0	4.2	4.2	3.7	2.8	4.5	3.1
PART TIME															
Civilian labor force.....	12,416	12,624	12,420	11,218	9,504	9,917	10,496	12,358	12,706	12,574	12,266	11,850	12,212	11,696	11,032
Employed (voluntary part-time).....	11,363	11,439	11,306	10,069	8,725	9,159	9,772	11,816	11,940	11,711	11,375	11,023	11,488	10,808	10,343
Unemployed, looking for part-time work.....	1,053	1,185	1,113	1,149	779	757	724	542	765	863	890	827	724	887	689
Unemployment rate.....	8.5	9.4	9.0	10.2	7.6	7.6	6.9	4.4	6.0	6.9	7.3	7.0	5.9	7.6	6.2

¹ Employed persons with a job but not at work are distributed proportionately among the full- and part-time employed categories.4. Employment and unemployment, by age and sex, seasonally adjusted¹

[In thousands]

Employment status	1970												1969	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1970	1969
TOTAL															
Total labor force.....	86,459	86,432	86,432	86,140	85,810	85,967	85,304	85,783	86,143	86,087	85,590	85,599	85,023	85,903	84,239
Civilian labor force.....	83,446	83,393	83,353	83,031	82,676	82,813	82,125	82,555	82,872	82,769	82,249	82,213	81,583	82,715	80,733
Employed.....	78,472	78,535	78,686	78,424	78,445	78,638	78,225	78,449	78,924	79,112	78,822	79,041	78,737	78,627	77,902
Agriculture.....	3,411	3,333	3,288	3,399	3,420	3,519	3,554	3,613	3,586	3,550	3,499	3,426	3,435	3,462	3,606
Nonagriculture.....	75,061	75,202	75,398	75,025	75,025	75,119	74,671	74,836	75,338	75,562	75,323	75,615	75,302	75,165	74,296
Unemployed.....	4,974	4,858	4,667	4,607	4,231	4,175	3,900	4,106	3,948	3,657	3,427	3,172	2,846	4,088	2,831
MEN 20 YEARS AND OVER															
Total labor force.....	50,047	50,139	50,173	50,136	49,905	50,024	49,906	50,020	50,032	49,920	49,707	49,736	49,534	49,948	49,406
Civilian labor force.....	47,420	47,503	47,502	47,439	47,178	47,294	47,154	47,226	47,199	47,060	46,836	46,826	46,578	47,189	46,351
Employed.....	45,365	45,511	45,538	45,522	45,424	45,524	45,521	45,593	45,667	45,709	45,534	45,674	45,553	45,553	45,388
Agriculture.....	2,458	2,452	2,451	2,510	2,523	2,593	2,603	2,625	2,602	2,537	2,479	2,473	2,499	2,527	2,636
Nonagriculture.....	42,907	43,059	43,087	43,012	42,901	42,931	42,918	42,968	43,065	43,172	43,055	43,201	43,054	43,026	42,752
Unemployed.....	2,055	1,992	1,964	1,917	1,754	1,770	1,633	1,633	1,532	1,351	1,302	1,152	1,025	1,636	963
WOMEN, 20 YEARS AND OVER															
Civilian labor force.....	28,654	28,541	28,534	28,200	28,447	28,500	28,026	27,885	28,274	28,295	28,066	28,073	27,875	28,279	27,413
Employed.....	27,025	26,962	27,082	26,750	27,092	27,073	26,772	26,476	27,022	27,016	26,925	27,060	26,897	26,932	26,397
Agriculture.....	549	514	505	507	514	545	573	567	571	583	630	586	585	549	593
Nonagriculture.....	26,476	26,448	26,577	26,243	26,578	26,528	26,199	25,909	26,451	26,433	26,295	26,474	26,312	26,384	25,804
Unemployed.....	1,629	1,579	1,452	1,450	1,355	1,427	1,254	1,409	1,252	1,279	1,114	1,013	978	1,347	1,015
BOTH SEXES, 16-19 YEARS															
Civilian labor force.....	7,372	7,349	7,317	7,392	7,051	7,019	6,945	7,444	7,399	7,414	7,347	7,314	7,130	7,246	6,970
Employed.....	6,082	6,062	6,066	6,152	5,929	6,041	5,932	6,380	6,235	6,387	6,363	6,307	6,287	6,141	6,117
Agriculture.....	404	367	332	382	383	381	378	421	413	430	390	367	351	386	377
Nonagriculture.....	5,678	5,695	5,734	5,770	5,546	5,660	5,554	5,959	5,822	5,957	5,973	5,940	5,936	5,755	5,739
Unemployed.....	1,290	1,287	1,251	1,240	1,122	978	1,013	1,064	1,164	1,027	984	1,007	843	1,105	853

¹ These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonallyadjusted series, see the February 1970 issue of *Employment and Earnings*.

5. Employment totals, by occupation, with unemployment rates, seasonally adjusted,¹ quarterly averages

Characteristic	1970				1969				1968				1967	Annual average	
	4th	3d	2d	1st	4th	3d	2d	1st	4th	3d	2d	1st	4th	1970	1969
EMPLOYMENT (in thousands)	78,564	78,502	78,533	78,992	78,570	78,090	77,550	77,418	76,409	76,017	75,898	75,392	75,121	78,627	77,902
White-collar workers	38,144	37,939	37,981	37,938	37,509	36,923	36,677	36,264	35,906	35,732	35,419	35,140	34,888	37,997	36,845
Professional and technical Managers, officials, and proprietors.....	11,161	11,257	11,129	11,026	10,936	10,764	10,740	10,638	10,473	10,392	10,295	10,142	10,067	11,140	10,769
Clerical workers.....	8,401	8,248	8,290	8,215	8,141	7,970	7,993	7,841	7,897	7,827	7,661	7,716	7,633	8,289	7,987
Sales workers.....	4,935	4,873	4,815	4,791	4,777	4,711	4,663	4,614	4,660	4,690	4,647	4,588	4,564	4,854	4,692
Blue-collar workers	27,644	27,640	27,663	28,236	28,389	28,425	27,931	28,202	27,774	27,491	27,513	27,297	27,279	27,791	28,237
Craftsmen and foremen.....	10,193	10,078	10,109	10,264	10,265	10,174	10,044	10,298	10,147	9,972	10,003	9,936	9,827	10,158	10,193
Operatives.....	13,746	13,824	13,891	14,168	14,412	14,589	14,208	14,264	14,051	13,911	13,956	13,896	13,918	13,909	14,372
Nonfarm laborers.....	3,705	3,738	3,663	3,804	3,712	3,662	3,679	3,640	3,576	3,608	3,554	3,465	3,534	3,724	3,672
Service workers	9,793	9,795	9,589	9,673	9,589	9,493	9,467	9,558	9,411	9,385	9,395	9,337	9,330	9,712	9,528
Farm workers	2,997	3,108	3,234	3,153	3,089	3,231	3,417	3,438	3,346	3,400	3,507	3,649	3,654	3,126	3,292
UNEMPLOYMENT RATE	5.8	5.2	4.8	4.1	3.6	3.6	3.5	3.4	3.4	3.6	3.6	3.7	3.9	4.9	3.5
White-collar workers	3.5	2.9	2.8	2.4	2.2	2.2	2.0	2.0	1.9	2.0	2.0	2.0	2.2	2.8	2.1
Professional and technical Managers, officials, and proprietors.....	2.5	2.0	1.9	1.9	1.5	1.4	1.3	1.1	1.2	1.3	1.2	1.2	1.3	2.0	1.3
Clerical workers.....	1.6	1.5	1.3	1.0	.9	1.0	.9	1.0	1.1	.9	.9	1.0	1.0	1.3	.9
Sales workers.....	5.0	4.1	4.0	3.3	3.2	3.2	2.8	2.9	2.8	2.9	3.0	3.1	3.4	4.0	3.0
Sales workers.....	4.6	3.9	4.0	3.2	2.8	3.0	2.9	2.9	2.8	2.6	2.7	3.0	3.2	3.9	2.9
Blue-collar workers	7.4	7.0	6.0	4.9	4.3	4.0	3.8	3.7	3.8	4.2	4.0	4.4	4.5	6.2	3.9
Craftsmen and foremen.....	4.4	4.9	3.9	2.6	2.2	2.2	2.1	2.1	2.2	2.4	2.4	2.5	2.5	3.8	2.2
Operatives.....	8.7	7.6	6.6	5.7	5.0	4.4	4.3	4.1	4.3	4.5	4.3	4.8	5.1	7.1	4.4
Nonfarm laborers.....	10.5	10.6	9.4	7.9	6.9	7.2	6.5	6.4	6.7	7.4	7.0	7.7	7.8	9.5	6.7
Service workers	5.9	5.6	5.0	4.7	3.9	4.5	4.4	4.0	4.3	4.5	4.6	4.3	4.9	5.3	4.2
Farm workers	2.9	3.2	2.5	2.1	1.8	2.2	1.9	1.6	1.6	2.4	2.3	1.9	2.3	2.6	1.9

¹ These data have been adjusted to reflect the experience through December 1969. For a discussion of a seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of *Employment and Earnings*

6. Unemployed persons, by reason for unemployment

[In thousands—not seasonally adjusted]

Reason for unemployment, age, and sex	1970												1969	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1970	1969
Total, 16 years and over	4,636	4,607	4,259	4,292	4,220	4,510	4,669	3,384	3,552	3,733	3,794	3,406	2,628	4,088	2,831
Lost last job.....	2,412	2,082	1,866	1,698	1,773	1,598	1,598	1,658	1,669	1,797	1,787	1,595	1,133	1,809	1,017
Left last job.....	505	586	629	675	639	635	565	447	507	441	473	485	378	549	436
Reentered labor force.....	1,269	1,398	1,254	1,404	1,242	1,342	1,567	944	1,001	1,143	1,158	999	825	1,227	965
Never worked before.....	450	541	510	514	567	756	939	333	375	351	377	328	292	503	413
Male, 20 years and over	2,108	1,815	1,636	1,562	1,622	1,667	1,584	1,403	1,498	1,606	1,678	1,456	1,052	1,636	963
Lost last job.....	1,464	1,211	1,063	969	1,016	1,013	911	942	988	1,059	1,144	997	693	1,065	556
Left last job.....	209	214	235	235	217	230	206	170	214	200	185	197	150	209	164
Reentered labor force.....	384	341	287	313	342	368	413	251	261	312	310	230	188	318	216
Never worked before.....	52	48	51	46	48	56	55	40	34	35	39	32	20	44	27
Female, 20 years and over	1,399	1,557	1,491	1,598	1,461	1,391	1,302	1,205	1,171	1,264	1,238	1,086	840	1,347	1,015
Lost last job.....	676	617	610	536	515	574	540	562	497	542	451	418	303	545	335
Left last job.....	190	239	246	273	274	256	192	174	188	156	200	177	138	214	171
Reentered labor force.....	489	631	579	711	611	500	473	435	439	530	529	437	354	530	455
Never worked before.....	44	70	56	78	61	62	97	34	47	36	58	54	46	58	55
Both sexes, 16 to 19 years	1,129	1,235	1,133	1,131	1,137	1,451	1,783	776	883	863	878	864	736	1,105	853
Lost last job.....	272	255	193	193	242	191	147	155	184	196	192	180	137	200	126
Left last job.....	107	132	149	168	148	149	167	103	104	85	88	111	90	126	101
Reentered labor force.....	396	426	388	380	288	474	682	259	301	302	319	331	283	379	294
Never worked before.....	354	423	404	391	458	638	786	259	293	280	280	241	226	401	331

7. Unemployment rates, by age and sex, seasonally adjusted ¹

Age and sex	1970												1969	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1970	1969
	TOTAL														
16 years and over.....	6.0	5.8	5.6	5.5	5.1	5.0	4.7	5.0	4.8	4.4	4.2	3.9	3.5	4.9	3.5
16 to 19 years.....	17.5	17.5	17.1	16.8	15.9	13.9	14.6	14.3	15.7	13.9	13.4	13.8	11.8	15.3	12.2
16 and 17 years.....	19.3	18.2	20.1	19.6	17.4	15.2	16.0	15.6	18.7	15.7	16.3	17.2	13.7	17.1	14.5
18 and 19 years.....	16.1	16.3	15.1	14.6	14.7	13.2	13.3	13.8	13.8	12.4	11.7	11.6	10.2	13.8	10.5
20 to 24 years.....	9.8	9.9	9.5	9.8	8.3	8.6	7.4	8.1	7.7	6.8	7.3	6.1	5.8	8.2	5.7
25 years and over.....	4.1	3.8	3.7	3.5	3.4	3.5	3.2	3.3	3.1	3.0	2.6	2.4	2.2	3.3	2.2
25 to 54 years.....	4.3	4.1	3.9	3.6	3.6	3.7	3.3	3.4	3.2	3.1	2.7	2.5	2.3	3.4	2.3
55 years and over.....	3.5	3.2	3.1	3.1	2.7	2.9	3.0	3.3	2.8	2.7	2.4	2.0	2.1	2.8	2.0
MALE															
16 years and over.....	5.4	5.2	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.6	3.6	3.3	2.9	4.4	2.8
16 to 19 years.....	16.8	16.6	17.1	16.7	15.8	14.1	14.8	15.0	15.2	12.5	13.0	12.6	11.0	15.0	11.4
16 and 17 years.....	19.4	17.6	19.9	19.6	17.2	15.2	16.6	16.4	17.2	14.6	15.4	14.9	13.1	16.9	13.7
18 and 19 years.....	14.7	14.7	15.0	14.1	14.6	13.6	13.2	14.6	13.9	10.8	11.0	10.8	9.3	13.4	9.3
20 to 24 years.....	10.3	10.2	11.3	11.0	8.5	9.1	7.2	7.7	7.9	6.4	6.9	6.1	5.5	8.4	5.1
25 years and over.....	3.6	3.3	3.2	3.0	3.0	3.0	2.9	2.9	2.6	2.4	2.2	2.0	1.8	2.8	1.7
25 to 54 years.....	3.5	3.5	3.3	2.9	3.0	3.0	2.9	2.8	2.6	2.3	2.1	2.0	1.7	2.8	1.6
55 years and over.....	3.7	3.4	3.1	3.1	2.9	2.8	2.8	3.1	2.8	2.8	2.4	2.1	2.2	2.9	1.9
FEMALE															
16 years and over.....	7.0	6.9	6.3	6.4	5.9	5.9	5.5	5.9	5.7	5.7	5.1	4.8	4.5	5.9	4.7
16 to 19 years.....	18.4	18.6	17.1	16.9	16.0	13.7	14.3	13.4	16.4	15.6	13.9	15.2	12.8	15.6	13.3
16 and 17 years.....	19.1	19.1	20.4	19.6	17.6	15.1	15.3	14.6	20.6	17.0	17.3	20.3	14.7	17.4	15.5
18 and 19 years.....	17.9	18.2	15.2	15.1	14.9	12.7	13.4	12.9	13.7	14.3	12.7	12.4	11.2	14.4	11.8
20 to 24 years.....	9.1	9.5	7.5	8.4	8.0	8.1	7.7	8.7	7.5	7.2	7.6	6.2	6.1	7.9	6.3
25 years and over.....	5.0	4.7	4.7	4.4	4.1	4.5	3.8	4.2	3.8	4.0	3.3	3.0	3.0	4.2	3.2
25 to 54 years.....	5.6	5.3	5.1	4.8	4.6	4.8	4.1	4.3	4.2	4.4	3.6	3.3	3.3	4.5	3.5
55 years and over.....	3.0	2.8	3.2	3.2	2.5	3.1	3.2	3.6	2.7	2.5	2.3	1.7	1.9	2.8	2.2

¹ These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1970 issue of *Employment and Earnings*.

8. Unemployment indicators, seasonally adjusted ¹

[In percent]

Selected categories	1970												1969	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1970	1969
Total (all civilian workers).....	6.0	5.8	5.6	5.5	5.1	5.0	4.7	5.0	4.8	4.4	4.2	3.9	3.5	4.9	3.5
Men, 20 years and over.....	4.3	4.2	4.1	4.0	3.7	3.7	3.5	3.5	3.2	2.9	2.8	2.5	2.2	3.5	2.1
Women, 20 years and over.....	5.7	5.5	5.1	5.1	4.8	5.0	4.5	5.1	4.4	4.5	4.1	3.6	3.5	4.8	3.7
Both sexes, 16-19 years.....	17.5	17.5	17.1	16.8	15.9	13.9	14.6	14.3	15.7	13.9	13.4	13.8	11.8	15.3	12.2
White.....	5.5	5.5	5.2	5.1	4.8	4.7	4.2	4.6	4.3	4.1	3.8	3.6	3.2	4.5	3.1
Negro and other.....	9.3	8.8	9.3	9.0	8.4	8.3	8.7	8.0	8.7	7.1	7.0	6.3	5.7	8.2	6.4
Married men.....	3.3	3.2	3.1	2.9	2.8	2.7	2.5	2.6	2.4	2.2	2.0	1.8	1.7	2.6	1.5
Full-time workers.....	5.8	5.5	5.0	5.0	4.7	4.6	4.3	4.7	4.4	4.0	3.7	3.4	3.2	4.5	3.1
Unemployed 15 weeks and over ²	1.3	1.0	.9	1.0	.9	.9	.8	.7	.7	.7	.6	.5	.5	.8	.5
State insured ³	4.2	4.5	4.4	4.2	3.7	3.5	3.7	3.6	3.1	2.7	2.7	2.5	2.4	3.6	2.1
Labor force time lost ⁴	6.3	6.2	6.2	6.0	5.5	5.4	4.9	5.4	5.1	4.8	4.5	4.2	3.9	5.4	3.9
OCCUPATION															
White-collar workers.....	3.7	3.5	3.2	2.8	2.7	3.1	2.6	2.8	2.9	2.7	2.3	2.1	2.1	2.8	2.1
Professional and managerial.....	2.5	2.1	1.8	1.8	1.6	2.0	1.5	1.7	1.7	1.8	1.4	1.3	1.5	1.7	1.2
Clerical workers.....	5.1	5.2	4.7	3.9	3.9	4.4	4.0	3.9	4.0	3.6	3.2	3.1	2.8	4.0	3.0
Sales workers.....	4.8	4.6	4.3	3.9	4.0	4.0	3.4	4.4	4.1	3.5	3.4	2.8	2.6	3.9	2.9
Blue-collar workers.....	7.7	7.3	7.2	7.5	7.0	6.6	6.3	6.2	5.7	5.2	5.0	4.6	4.3	6.2	3.9
Craftsmen and foremen.....	4.8	4.4	4.1	5.8	4.4	4.4	4.0	4.2	3.5	3.1	2.5	2.3	2.3	3.8	2.2
Operatives.....	8.9	8.7	8.5	7.6	7.9	7.2	6.8	6.7	6.3	6.2	6.0	5.1	5.0	7.1	4.5
Nonfarm laborers.....	10.9	10.0	10.7	11.7	10.2	9.9	10.4	9.1	8.8	7.4	7.7	8.5	7.4	9.5	6.7
Service workers.....	6.1	5.9	5.8	5.8	5.5	5.3	5.0	4.9	5.0	4.9	4.8	4.5	3.6	5.3	4.2
INDUSTRY															
Nonagricultural private wage and salary workers ⁵.....	6.4	6.2	6.0	6.0	5.5	5.6	5.2	5.2	4.8	4.6	4.3	3.9	3.6	4.9	3.5
Construction.....	11.0	9.1	11.9	13.8	12.2	11.0	10.9	11.9	8.1	8.1	7.9	7.1	6.0	9.7	6.0
Manufacturing.....	7.5	7.2	6.7	6.1	5.7	6.0	5.3	5.2	4.7	4.7	4.6	3.8	3.8	5.6	3.3
Durable goods.....	8.0	8.1	7.1	6.3	5.5	5.9	5.1	4.9	4.9	4.8	4.7	3.8	3.7	5.7	3.0
Nondurable goods.....	6.9	6.0	6.1	5.8	5.9	6.2	5.6	5.7	4.5	4.6	4.4	3.8	3.9	5.4	3.7
Transportation and public utilities.....	4.0	3.6	3.5	2.8	3.1	3.3	3.3	3.3	3.9	3.1	2.4	2.9	2.4	3.2	2.2
Wholesale and retail trade.....	6.4	6.1	5.9	6.0	5.4	5.3	5.4	5.1	4.7	4.7	4.7	4.3	3.9	5.3	4.1
Finance and service industries.....	4.7	5.0	4.5	5.0	4.4	4.8	4.1	4.2	3.9	4.0	3.2	3.1	2.7	4.2	3.2
Government wage and salary workers.....	3.0	2.9	2.6	1.9	2.1	2.0	1.9	2.2	2.2	2.1	2.0	2.2	2.0	2.2	1.9
Agricultural wage and salary workers.....	9.9	7.8	8.4	10.2	8.2	8.6	5.5	9.3	5.9	6.4	5.8	6.2	6.5	7.5	6.1

¹ These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of *Employment and Earnings*.

² Unemployment rate calculated as a percent of civilian labor force.

³ Insured unemployment under State programs as a percent of average covered employment.

⁴ Man-hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force man-hours.

⁵ Includes mining, not shown separately.

9. Duration of unemployment, seasonally adjusted ¹

[In thousands]

Period	1970												1969	Annual average	
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1970	1969
Less than 5 weeks.....	2,299	2,289	2,447	2,331	2,206	2,061	1,961	2,219	2,295	1,995	1,973	1,756	1,515	2,137	1,629
5 to 14 weeks.....	1,591	1,756	1,507	1,501	1,320	1,334	1,303	1,214	1,075	1,154	1,016	914	893	1,289	827
15 weeks and over.....	1,045	870	745	792	736	711	685	612	569	545	465	409	392	662	375
15 to 26 weeks.....	697	550	496	501	479	470	450	352	372	363	306	276	272	427	242
27 weeks and over.....	348	320	249	291	257	241	235	260	197	182	159	133	120	235	133
15 weeks and over as a percent of civilian labor force.....	1.3	1.0	.9	1.0	.9	.9	.8	.7	.7	.7	.6	.5	.4	.8	.5
Average (mean) duration, in weeks.....	9.8	9.4	8.3	8.9	8.8	9.3	9.5	9.0	8.2	8.4	8.1	7.8	8.1	8.8	8.0

¹ These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1970 issue of *Employment and Earnings*.

10. Unemployment insurance and employment service operations ¹

[All items except average benefits amounts are in thousands]

Item	1970											1969	
	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.
Employment service: ²													
New applications for work.....	p 781	p 838	p 778	759	882	1,148	854	857	828	765	950	658	711
Nonfarm placements.....	p 289	p 300	p 346	341	333	374	339	352	328	295	326	311	372
State unemployment insurance programs:													
Initial claims ^{3,4}	1,437	1,208	1,079	1,068	1,502	1,118	1,010	1,333	1,078	1,169	1,529	1,363	866
Insured unemployment ⁵ (average weekly volume) ⁶	2,017	1,724	1,607	1,710	1,761	1,583	1,667	1,770	1,798	1,874	1,847	1,375	1,030
Rate of insured unemployment ⁷	3.7	3.2	3.0	3.2	3.3	3.0	3.2	3.4	3.5	3.6	3.6	2.7	2.0
Weeks of unemployment compensated.....	6,472	6,058	6,065	6,319	6,504	6,080	6,142	6,743	6,956	6,517	6,418	4,692	3,054
Average weekly benefit amount for total unemployment.....	\$52.17	\$51.45	\$50.64	\$50.63	\$49.57	\$49.51	\$49.30	\$49.00	\$48.93	\$49.11	\$48.49	\$47.42	\$46.47
Total benefits paid.....	\$338,251	\$304,212	\$300,157	\$312,259	\$314,201	\$291,707	\$292,854	\$320,224	\$331,067	\$310,800	\$299,352	\$214,260	\$136,585
Unemployment compensation for ex-servicemen: ^{8,9}													
Initial claims ^{3,6}	51	49	46	44	51	47	38	47	42	38	44	39	30
Insured unemployment ⁶ (average weekly volume).....	97	83	81	89	84	73	70	70	69	66	61	48	38
Weeks of unemployment compensated.....	362	331	355	364	356	303	280	294	289	244	242	193	126
Total benefits paid.....	\$19,081	\$17,336	\$18,344	\$18,618	\$18,048	\$15,299	\$13,972	\$14,564	\$14,200	\$12,028	\$11,957	\$9,517	\$6,240
Unemployment compensation for Federal civilian employees: ^{9,10}													
Initial claims ³	13	15	13	15	16	15	10	13	11	11	15	12	13
Insured unemployment ⁵ (average weekly volume).....	35	33	32	33	31	27	26	27	29	30	28	24	22
Weeks of unemployment compensated.....	138	136	136	131	129	107	107	118	128	109	110	101	75
Total benefits paid.....	\$7,255	\$6,971	\$6,862	\$6,565	\$6,469	\$5,378	\$5,323	\$5,824	\$6,192	\$5,239	\$5,194	\$4,748	\$3,465
Railroad unemployment insurance:													
Applications ¹¹	8	16	12	16	21	12	4	8	9	4	9	5	5
Insured unemployment (average weekly volume).....	20	22	18	17	15	11	15	16	19	18	21	17	14
Number of payments ¹²	42	46	36	38	27	26	30	43	42	38	47	35	28
Average amount of benefit payment ¹³	\$92.97	\$82.07	\$85.41	\$80.86	\$90.41	\$91.89	\$84.87	\$81.50	\$92.00	\$96.76	\$94.78	\$96.02	\$96.28
Total benefits paid ¹⁴	\$3,736	\$3,482	\$2,877	\$3,014	\$2,035	\$2,253	\$2,439	\$3,565	\$3,668	\$3,374	\$4,091	\$3,241	\$2,513
All programs: ¹⁵													
Insured unemployment ⁶	2,233	1,889	1,746	1,855	1,897	1,696	1,778	1,885	1,916	1,987	1,957	1,464	1,105

¹ Includes data for Puerto Rico.² Includes Guam and the Virgin Islands.³ Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transition claims under State programs.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. Includes claims filed under Extended Duration (ED) provisions of regular State laws.

p=preliminary.

SOURCE: U.S. Department of Labor, Office of Manpower Management Data Systems for all items except railroad unemployment insurance which is prepared by the U.S. Railroad Retirement Board. Data for latest month are subject to revision.

11. Employees on nonagricultural payrolls, by industry division, 1947 to date¹

[In thousands]

Year	TOTAL	Mining	Contract construction	Manufacturing	Transportation and public utilities	Wholesale and retail trade			Finance, insurance, and real estate	Services	Government		
						Total	Wholesale trade	Retail trade			Total	Federal	State and local
1947	43,881	955	1,982	15,545	4,166	8,955	2,361	6,595	1,754	5,050	5,474	1,892	3,582
1948	44,891	994	2,169	15,582	4,189	9,272	2,489	6,783	1,829	5,206	5,650	1,863	3,787
1949	43,778	930	2,165	14,441	4,001	9,264	2,487	6,778	1,857	5,264	5,856	1,908	3,948
1950	45,222	901	2,333	15,241	4,034	9,386	2,518	6,868	1,919	5,382	6,026	1,928	4,098
1951	47,849	929	2,603	16,393	4,226	9,742	2,606	7,136	1,991	5,576	6,389	2,302	4,087
1952	48,825	898	2,634	16,632	4,248	10,004	2,687	7,317	2,069	5,730	6,609	2,420	4,188
1953	50,232	866	2,623	17,549	4,290	10,247	2,727	7,520	2,146	5,867	6,645	2,305	4,340
1954	49,022	791	2,612	16,314	4,084	10,235	2,739	7,496	2,234	6,002	6,751	2,188	4,563
1955	50,675	792	2,802	16,882	4,141	10,535	2,796	7,740	2,335	6,274	6,914	2,187	4,727
1956	52,408	822	2,999	17,243	4,244	10,858	2,884	7,974	2,429	6,536	7,277	2,209	5,069
1957	52,894	828	2,923	17,174	4,241	10,886	2,893	7,992	2,477	6,749	7,616	2,217	5,399
1958	51,363	751	2,778	15,945	3,976	10,750	2,848	7,902	2,519	6,806	7,839	2,191	5,648
1959 ²	53,313	732	2,960	16,675	4,011	11,127	2,946	8,182	2,594	7,130	8,083	2,233	5,850
1960	54,234	712	2,885	16,796	4,004	11,391	3,004	8,388	2,669	7,423	8,353	2,270	6,083
1961	54,042	672	2,816	16,326	3,903	11,337	2,993	8,344	2,731	7,664	8,594	2,279	6,315
1962	55,596	650	2,902	16,853	3,906	11,566	3,056	8,511	2,800	8,028	8,890	2,340	6,550
1963	56,702	635	2,963	16,995	3,903	11,778	3,104	8,675	2,877	8,325	9,225	2,358	6,868
1964	58,331	634	3,050	17,274	3,951	12,160	3,189	8,971	2,957	8,709	9,596	2,348	7,248
1965	60,815	632	3,186	18,062	4,036	12,716	3,312	9,404	3,023	9,087	10,074	2,378	7,696
1966	63,955	627	3,275	19,214	4,151	13,245	3,437	9,808	3,100	9,551	10,792	2,564	8,227
1967	65,857	613	3,208	19,447	4,261	13,606	3,525	10,081	3,225	10,099	11,398	2,719	8,679
1968	67,915	606	3,285	19,781	4,310	14,084	3,611	10,473	3,382	10,623	11,845	2,737	9,109
1969	70,274	619	3,437	20,169	4,431	14,645	3,738	10,907	3,557	11,211	12,204	2,758	9,446

¹ The industry series have been adjusted to March 1969 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to July 1970. For comparable back data, see *Employment and Earnings, United States, 1909-70* (BLS Bulletin 1312-7) to be released this spring.

These series are based upon establishment reports which cover all full- and part-time employees in nonagricultural establishments who worked during, or received pay for any part of the pay period which includes the 12th of the month. Therefore, persons who

worked in more than one establishment during the reporting period are counted more than once. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded.

² Data include Alaska and Hawaii beginning 1959. This inclusion has resulted in an increase of 212,000 (0.4 percent) in the nonagricultural total for the March 1959 benchmark month.

12. Employees on nonagricultural payrolls, by State¹

[In thousands]

State	Nov. 1970 ^p	Oct. 1970	Nov. 1969	State	Nov. 1970 ^p	Oct. 1970	Nov. 1969
Alabama	996.1	996.4	1,011.8	Montana	203.0	204.9	197.4
Alaska	88.6	93.5	86.3	Nebraska	486.2	487.0	479.6
Arizona	551.6	548.7	537.5	Nevada	203.3	204.0	199.1
Arkansas	531.8	536.0	535.1	New Hampshire	252.6	256.9	256.2
California ¹	7,016.1	7,024.7	7,031.7	New Jersey	2,599.6	2,601.4	2,622.7
Colorado ¹	755.0	754.1	730.1	New Mexico ¹	289.0	290.5	290.9
Connecticut	1,181.4	1,184.9	1,214.2	New York	7,210.3	7,209.6	7,259.0
Delaware	203.7	204.1	210.8	North Carolina	1,760.6	1,758.2	1,762.1
District of Columbia	687.7	685.4	681.4	North Dakota	168.0	168.4	163.4
Florida	2,175.3	2,146.0	2,134.0	Ohio	3,871.6	3,882.8	3,949.8
Georgia	1,532.5	1,525.3	1,549.5	Oklahoma	761.0	760.3	768.1
Hawaii	286.0	284.9	278.3	Oregon	717.0	723.1	715.3
Idaho	209.4	210.9	204.7	Pennsylvania	4,326.5	4,326.2	4,407.0
Illinois	4,405.2	4,401.0	4,423.0	Rhode Island	335.1	335.6	343.3
Indiana	1,806.4	1,822.1	1,885.4	South Carolina	807.9	809.8	818.3
Iowa	886.2	886.5	891.9	South Dakota ¹	176.7	177.7	175.5
Kansas	669.5	670.1	695.2	Tennessee	1,334.1	1,331.5	1,334.6
Kentucky	925.5	922.8	894.7	Texas	3,727.9	3,716.6	3,671.8
Louisiana	1,054.4	1,050.8	1,062.4	Utah	364.4	364.7	358.2
Maine	328.3	331.2	331.0	Vermont	145.9	148.7	146.2
Maryland	1,315.1	1,311.1	1,305.9	Virginia	1,464.8	1,460.7	1,453.3
Massachusetts	2,246.3	2,232.4	2,255.0	Washington ¹	1,071.5	1,085.3	1,123.6
Michigan ¹	2,832.9	2,838.1	3,124.0	West Virginia	515.3	516.3	518.7
Minnesota	1,311.2	1,319.3	1,326.7	Wisconsin	1,536.9	1,540.6	1,540.5
Mississippi	586.0	586.2	577.5	Wyoming	107.6	109.4	106.2
Missouri	1,634.7	1,638.8	1,691.6				

¹ Revised series; not strictly comparable with previously published data.

SOURCE: State agencies in cooperation with U.S. Department of Labor, Bureau of Labor Statistics. More detailed industry data are available from the State agencies. For addresses, see inside back cover of *Employment and Earnings*.

NOTE: Current employment data by major industry division are published in *Employment and Earnings*, table B-7. For historical data in available industry detail, see the annual compendium, *Employment and Earnings, States and Areas, 1939-69* (BLS Bulletin 1370-7).

^p=preliminary.

13. Employees on nonagricultural payrolls, by industry division and major manufacturing group¹

[In thousands]

Industry division and group	1970												1969	Annual average	
	Dec. ^p	Nov. ^p	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1969	1968
TOTAL	71,309	70,632	70,692	70,922	70,527	70,602	71,385	70,780	70,758	70,460	70,029	69,933	71,760	70,274	67,915
MINING	621	624	622	628	636	635	635	620	616	610	608	611	623	619	606
CONTRACT CONSTRUCTION	3,215	3,376	3,471	3,500	3,606	3,572	3,504	3,344	3,286	3,161	3,071	3,048	3,398	3,437	3,285
MANUFACTURING	18,946	18,653	18,850	19,512	19,446	19,325	19,627	19,432	19,627	19,794	19,770	19,824	20,110	20,169	19,781
Production workers ²	13,718	13,414	13,575	14,224	14,101	13,958	14,261	14,061	14,240	14,385	14,346	14,402	14,680	14,768	14,514
Durable goods.....	10,864	10,508	10,650	11,207	11,102	11,156	11,392	11,352	11,488	11,607	11,573	11,623	11,802	11,893	11,626
Production workers ²	7,808	7,440	7,557	8,103	7,964	7,993	8,228	8,164	8,282	8,379	8,327	8,377	8,556	8,648	8,457
Ordnance and accessories.....	220.7	224.1	228.1	236.3	238.8	242.6	249.9	254.1	260.1	271.0	277.6	282.8	291.3	318.8	338.0
Lumber and wood products.....	560.7	567.2	577.7	585.4	590.9	589.0	596.4	579.2	574.5	578.6	579.2	583.8	597.0	609.2	600.1
Furniture and fixtures.....	454.8	458.3	459.3	460.3	457.2	446.2	454.1	451.4	462.9	468.6	470.3	475.6	482.2	483.5	471.6
Stone, clay, and glass products.....	619.0	628.7	635.9	647.3	649.2	643.8	650.0	638.0	639.8	635.1	632.9	632.0	650.9	656.3	635.5
Primary metal industries.....	1,264.7	1,233.7	1,252.3	1,308.4	1,306.2	1,316.6	1,331.6	1,319.4	1,329.5	1,338.1	1,346.6	1,351.4	1,367.6	1,358.0	1,315.5
Fabricated metal products.....	1,365.9	1,323.4	1,340.0	1,402.3	1,402.3	1,370.0	1,400.9	1,385.6	1,402.5	1,416.1	1,421.1	1,433.1	1,456.6	1,442.1	1,390.4
Machinery, except electrical.....	1,863.3	1,843.1	1,865.0	1,918.0	1,932.8	1,969.3	1,998.1	2,006.4	2,040.4	2,058.3	2,055.9	2,044.6	2,043.2	2,027.7	1,965.9
Electrical equipment.....	1,860.9	1,821.6	1,857.3	1,903.1	1,908.3	1,913.2	1,932.1	1,932.5	1,959.1	1,983.2	1,995.2	1,928.2	1,948.9	2,013.0	1,974.5
Transportation equipment.....	1,800.0	1,534.4	1,552.8	1,859.1	1,745.0	1,795.0	1,889.6	1,897.2	1,928.9	1,963.4	1,901.1	1,999.4	2,042.9	2,067.1	2,038.6
Instruments and related products.....	438.1	443.1	446.7	452.1	456.1	457.2	462.6	465.5	469.1	471.3	471.3	472.6	477.7	476.5	461.9
Miscellaneous manufacturing.....	415.7	430.0	434.7	434.5	431.8	412.9	426.7	422.4	421.3	423.0	421.4	419.0	443.7	440.2	433.4
Nondurable goods.....	8,082	8,145	8,200	8,305	8,344	8,169	8,235	8,080	8,139	8,178	8,197	8,201	8,308	8,277	8,155
Production workers ²	5,910	5,974	6,018	6,121	6,137	5,965	6,033	5,897	5,958	6,006	6,019	6,025	6,124	6,120	6,056
Food and kindred products.....	1,761.6	1,805.7	1,850.6	1,906.6	1,923.0	1,826.4	1,796.7	1,736.7	1,722.2	1,735.6	1,739.9	1,744.3	1,790.7	1,795.9	1,781.5
Tobacco manufactures.....	84.3	83.1	88.4	89.8	88.7	71.8	71.4	70.8	71.4	73.8	77.4	79.9	84.0	82.0	84.6
Textile mill products.....	948.8	949.4	951.6	960.2	961.5	948.2	971.5	967.2	974.6	977.3	979.9	987.6	995.3	998.7	993.9
Apparel and other textile products.....	1,368.4	1,386.1	1,382.9	1,392.5	1,392.7	1,346.8	1,400.0	1,372.4	1,382.4	1,402.8	1,404.0	1,388.8	1,407.6	1,412.3	1,405.8
Paper and allied products.....	698.7	703.2	698.3	708.6	711.9	709.8	720.0	707.8	714.2	714.9	714.2	716.0	722.7	712.1	691.2
Printing and publishing.....	1,106.5	1,104.6	1,104.3	1,103.6	1,104.5	1,104.8	1,105.7	1,102.3	1,109.9	1,112.3	1,110.0	1,107.7	1,116.2	1,093.3	1,065.1
Chemicals and allied products.....	1,039.8	1,040.5	1,047.7	1,055.5	1,065.4	1,066.0	1,063.7	1,058.3	1,063.8	1,064.1	1,060.8	1,058.5	1,062.1	1,060.7	1,029.9
Petroleum and coal products.....	189.4	191.2	191.6	192.8	196.7	197.3	196.7	191.9	190.4	189.7	188.4	188.0	188.9	182.9	186.8
Rubber and plastics products, nec.....	563.6	559.9	561.8	572.1	569.7	569.7	572.5	543.2	580.8	585.0	588.2	593.4	599.6	593.9	561.3
Leather and leather products.....	320.4	321.6	322.3	323.5	330.0	328.0	336.5	329.2	329.1	331.6	334.6	336.7	341.3	345.1	355.2
TRANSPORTATION AND PUBLIC UTILITIES	4,452	4,516	4,527	4,561	4,574	4,593	4,561	4,469	4,432	4,443	4,420	4,435	4,478	4,431	4,310
WHOLESALE AND RETAIL TRADE	15,717	15,176	15,038	14,936	14,869	14,924	14,994	14,878	14,818	14,700	14,606	14,707	15,638	14,645	14,084
Wholesale trade.....	3,894	3,887	3,884	3,869	3,886	3,902	3,872	3,813	3,803	3,797	3,788	3,797	3,841	3,738	3,611
Retail trade.....	11,823	11,289	11,154	11,067	10,983	11,022	11,122	11,065	11,015	10,903	10,818	10,910	11,797	10,907	10,473
FINANCE, INSURANCE, AND REAL ESTATE	3,701	3,696	3,689	3,695	3,732	3,738	3,708	3,670	3,658	3,639	3,615	3,604	3,608	3,557	3,382
SERVICES	11,636	11,660	11,677	11,634	11,648	11,698	11,717	11,641	11,564	11,433	11,357	11,254	11,351	11,211	10,623
Hotels and other lodging places.....	701.2	724.3	771.3	834.0	842.6	787.9	759.6	745.3	727.3	717.5	709.6	713.3	750.3	722.2	
Personal services.....	990.3	989.8	984.1	981.5	995.9	1,016.0	1,009.8	1,006.2	1,006.2	1,003.0	1,005.1	1,022.0	1,025.8	1,031.4	
Medical and other health services.....	3,157.5	3,140.4	3,123.0	3,117.5	3,116.6	3,091.2	3,043.2	3,033.9	3,019.4	3,000.7	2,979.8	2,961.4	2,868.8	2,638.6	
Educational services.....	1,219.8	1,204.5	1,098.9	980.3	1,004.5	1,100.5	1,190.7	1,197.8	1,197.8	1,197.8	1,196.1	1,163.6	1,179.9	1,116.9	1,067.3
GOVERNMENT	13,021	12,931	12,818	12,456	12,016	12,117	12,639	12,726	12,757	12,680	12,582	12,450	12,554	12,204	11,845
Federal.....	2,708	2,648	2,643	2,649	2,675	2,700	2,710	2,765	2,838	2,758	2,694	2,690	2,760	2,758	2,737
State and Local.....	10,313	10,283	10,175	9,807	9,341	9,417	9,929	9,961	9,919	9,922	9,888	9,760	9,794	9,446	9,109

¹ For comparability of data with those published in issues prior to July 1970, and coverage of these series, see footnote 1, table 11.

² Production workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, and watchman 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.

^p = preliminary.

NOTE: For additional detail, see *Employment and Earnings*, table B-2.

14. Employees on nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted¹

[In thousands]

Industry division and group	1970												1969
	Dec. ^p	Nov. ^p	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.
TOTAL	70,364	70,076	70,182	70,531	70,414	70,587	70,629	70,839	71,149	71,242	71,135	70,992	70,842
MINING	625	626	621	621	619	618	620	620	622	626	626	625	627
CONTRACT CONSTRUCTION	3,308	3,300	3,278	3,262	3,305	3,314	3,324	3,351	3,426	3,481	3,466	3,394	3,496
MANUFACTURING	18,920	18,547	18,684	19,285	19,271	19,402	19,477	19,572	19,795	19,944	19,937	20,018	20,082
Production workers ²	13,680	13,297	13,405	14,000	13,974	14,090	14,140	14,180	14,389	14,512	14,489	14,573	14,638
Durable goods.....	10,836	10,460	10,602	11,145	11,134	11,217	11,286	11,386	11,529	11,648	11,625	11,679	11,773
Production workers ²	7,774	7,388	7,504	8,039	8,019	8,082	8,134	8,186	8,318	8,409	8,367	8,425	8,516
Ordnance and accessories.....	220	223	228	237	240	243	250	256	261	271	277	281	290
Lumber and wood products.....	569	569	574	575	570	570	575	582	585	593	598	605	606
Furniture and fixtures.....	451	453	454	457	453	454	453	456	468	471	472	477	478
Stone, clay, and glass products.....	627	626	630	635	631	628	636	638	644	651	657	653	659
Primary metal industries.....	1,276	1,251	1,273	1,315	1,298	1,301	1,305	1,309	1,323	1,337	1,349	1,360	1,380
Fabricated metal products.....	1,356	1,312	1,331	1,395	1,387	1,387	1,388	1,394	1,411	1,425	1,428	1,436	1,447
Machinery, except electrical.....	1,871	1,856	1,878	1,926	1,939	1,969	1,982	2,004	2,032	2,046	2,048	2,043	2,051
Electrical equipment.....	1,842	1,802	1,841	1,896	1,903	1,934	1,936	1,956	1,979	1,995	1,993	1,922	1,930
Transportation equipment.....	1,770	1,515	1,534	1,839	1,841	1,853	1,876	1,897	1,925	1,950	1,890	1,988	2,009
Instruments and related products.....	436	442	447	452	453	458	461	468	471	472	472	474	476
Miscellaneous manufacturing.....	418	411	412	418	419	420	424	426	430	437	441	440	447
Nondurable goods.....	8,084	8,087	8,082	8,140	8,137	8,185	8,191	8,186	8,266	8,296	8,312	8,339	8,309
Production workers ²	5,906	5,909	5,901	5,961	5,955	6,008	6,006	5,994	6,071	6,103	6,122	6,148	6,122
Food and kindred products.....	1,776	1,781	1,769	1,779	1,784	1,789	1,800	1,805	1,805	1,823	1,830	1,817	1,805
Tobacco manufactures.....	78	77	76	76	82	81	81	81	81	81	80	80	77
Textile mill products.....	949	945	948	955	954	955	959	971	979	980	987	999	995
Apparel and other textile products.....	1,371	1,374	1,367	1,380	1,376	1,393	1,385	1,371	1,394	1,396	1,398	1,416	1,410
Paper and allied products.....	696	700	698	706	703	706	711	714	721	721	720	721	720
Printing and publishing.....	1,100	1,100	1,102	1,105	1,103	1,105	1,103	1,108	1,111	1,113	1,113	1,113	1,110
Chemicals and allied products.....	1,045	1,045	1,052	1,056	1,053	1,054	1,055	1,060	1,063	1,066	1,067	1,068	1,067
Petroleum and coal products.....	192	192	190	190	191	191	193	192	193	194	193	193	192
Rubber and plastics products, nec.....	559	554	557	569	567	578	570	548	585	589	591	595	594
Leather and leather products.....	318	319	323	324	324	333	334	332	334	333	333	337	339
TRANSPORTATION AND PUBLIC UTILITIES	4,443	4,494	4,509	4,511	4,520	4,539	4,511	4,478	4,468	4,502	4,496	4,507	4,469
WHOLESALE AND RETAIL TRADE	14,827	14,931	15,011	14,961	14,912	14,933	14,927	14,968	14,991	14,984	14,987	14,938	14,750
Wholesale trade.....	3,859	3,852	3,857	3,850	3,840	3,856	3,849	3,859	3,853	3,847	3,834	3,828	3,807
Retail trade.....	10,968	11,079	11,154	11,111	11,072	11,077	11,078	11,109	11,138	11,137	11,153	11,110	10,943
FINANCE, INSURANCE, AND REAL ESTATE	3,720	3,711	3,696	3,684	3,670	3,676	3,679	3,677	3,673	3,665	3,652	3,648	3,626
SERVICES	11,718	11,695	11,665	11,622	11,521	11,514	11,532	11,572	11,564	11,537	11,530	11,472	11,431
Hotels and other lodging places.....	746	746	754	715	722	749	764	768	772	770	775	770	770
Personal services.....	986	987	988	983	989	1,000	1,005	1,006	1,015	1,018	1,018	1,016	1,016
Medical and other health services.....	3,158	3,144	3,129	3,102	3,086	3,070	3,058	3,034	3,025	3,007	2,992	2,973	2,973
Educational services.....	1,158	1,160	1,143	1,143	1,147	1,145	1,146	1,151	1,143	1,145	1,145	1,125	1,129
GOVERNMENT	12,803	12,772	12,718	12,585	12,596	12,591	12,559	12,601	12,610	12,503	12,441	12,390	12,361
Federal ³	2,652	2,661	2,654	2,649	2,659	2,668	2,689	2,768	2,838	2,766	2,718	2,717	2,721
State and local.....	10,151	10,111	10,064	9,936	9,937	9,923	9,870	9,833	9,772	9,737	9,723	9,673	9,640

¹ For comparability of data with those published in issues prior to July 1970, and coverage of these series, see footnote 1, table 11.

² For definition of production workers, see footnote 2, table 13.

NOTE: These data have been seasonally adjusted to reflect experience through February 1970. For additional detail, see June 1970 issue of *Employment and Earnings*.

^p = preliminary.

15. Labor turnover rates in manufacturing, 1959 to date ¹

[Per 100 employees]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual average
Total accessions													
1959	3.8	3.7	4.1	4.1	4.2	5.4	4.4	5.2	5.1	3.9	3.4	3.6	4.2
1960	4.0	3.5	3.3	3.4	3.9	4.7	3.9	4.9	4.8	3.5	2.9	2.3	3.8
1961	3.7	3.2	4.0	4.0	4.3	5.0	4.4	5.3	4.7	4.3	3.4	2.6	4.1
1962	4.1	3.6	3.8	4.0	4.3	5.0	4.6	5.1	4.9	3.9	3.0	2.4	4.1
1963	3.6	3.3	3.5	3.9	3.9	4.8	4.3	4.8	4.8	3.9	2.9	2.5	3.9
1964	3.6	3.4	3.7	3.8	3.9	5.1	4.4	5.1	4.8	4.0	3.2	2.6	4.0
1965	3.8	3.5	4.0	3.8	4.1	5.6	4.5	5.4	5.5	4.5	3.9	3.1	4.3
1966	4.6	4.2	4.9	4.6	5.1	6.7	5.1	6.4	6.1	5.1	3.9	2.9	5.0
1967	4.3	3.6	3.9	3.9	4.6	5.9	4.7	5.5	5.3	4.7	3.7	2.8	4.4
1968	4.2	3.8	4.0	4.3	4.7	5.9	5.0	5.8	5.7	5.1	3.9	3.1	4.6
1969	4.6	3.9	4.4	4.5	4.8	6.6	5.1	5.6	5.9	5.0	3.6	2.9	4.7
1970	4.0	3.6	3.7	3.7	4.2	5.4	4.4	5.1	4.7	3.8	^p 3.0		
New hires													
1959	2.0	2.1	2.4	2.5	3.7	2.7	3.0	3.5	3.5	2.6	1.9	1.5	2.6
1960	2.2	2.2	2.0	2.0	2.3	3.0	2.4	2.9	2.8	2.1	1.5	1.0	2.2
1961	1.5	1.4	1.6	1.8	2.1	2.9	2.5	3.1	3.0	2.7	2.0	1.4	2.2
1962	2.2	2.1	2.2	2.4	2.8	3.5	2.9	3.2	3.1	2.5	1.8	1.2	2.5
1963	1.9	1.8	2.0	2.3	2.5	3.3	2.7	3.2	3.2	2.6	1.8	1.4	2.4
1964	2.0	2.0	2.2	2.4	2.5	3.6	2.9	3.4	3.5	2.8	2.2	1.6	2.6
1965	2.4	2.4	2.8	2.6	3.0	4.3	3.2	3.9	4.0	3.5	2.9	2.2	3.1
1966	3.2	3.1	3.7	3.6	4.1	5.6	3.9	4.8	4.7	4.2	3.1	2.1	3.8
1967	3.0	2.7	2.8	2.8	3.3	4.6	3.3	4.0	4.1	3.7	2.8	2.0	3.3
1968	3.0	2.7	2.9	3.2	3.6	4.7	3.7	4.3	4.6	4.0	2.9	2.2	3.5
1969	3.3	3.0	3.4	3.5	3.8	5.4	3.9	4.3	4.8	4.0	2.8	2.1	3.7
1970	2.9	2.5	2.6	2.6	2.8	3.9	2.9	3.5	3.4	2.7	^p 1.9		
Total separations													
1959	3.7	3.1	3.3	3.6	3.5	3.6	4.0	4.6	5.3	5.5	4.7	3.9	4.1
1960	3.6	3.5	4.0	4.2	3.9	4.0	4.4	4.8	5.3	4.7	4.5	4.8	4.3
1961	4.7	3.9	3.8	3.4	3.5	3.6	4.1	4.2	5.1	4.2	4.0	4.0	4.0
1962	3.9	3.4	3.6	3.6	3.8	3.8	4.4	5.1	5.0	4.4	4.0	3.8	4.1
1963	4.0	3.2	3.5	3.6	3.6	3.4	4.1	4.8	4.9	4.1	3.9	3.7	3.9
1964	4.0	3.3	3.5	3.5	3.6	3.5	4.4	4.3	5.1	4.2	3.6	3.7	3.9
1965	3.7	3.1	3.4	3.7	3.6	3.6	4.3	5.1	5.6	4.5	3.9	4.1	4.1
1966	4.0	3.6	4.1	4.3	4.3	4.4	5.3	5.8	6.6	4.8	4.3	4.2	4.6
1967	4.5	4.0	4.6	4.3	4.2	4.3	4.8	5.3	6.2	4.7	4.0	3.9	4.6
1968	4.4	3.9	4.1	4.1	4.3	4.1	5.0	6.0	6.3	5.0	4.1	3.8	4.6
1969	4.5	4.0	4.4	4.5	4.6	4.6	5.3	6.2	6.6	5.3	4.3	4.2	4.9
1970	4.8	4.3	4.5	4.8	4.6	4.4	5.3	5.6	6.0	5.3	^p 4.3		
Quits													
1959	1.1	1.0	1.2	1.4	1.5	1.5	1.6	2.1	2.6	1.7	1.2	1.0	1.5
1960	1.2	1.2	1.2	1.4	1.3	1.4	1.4	1.8	2.3	1.3	.9	.7	1.3
1961	.9	.8	.9	1.0	1.1	1.2	1.2	1.7	2.3	1.4	1.1	.9	1.2
1962	1.1	1.1	1.2	1.3	1.5	1.5	1.4	2.1	2.4	1.5	1.1	.8	1.4
1963	1.1	1.0	1.2	1.3	1.4	1.4	1.4	2.1	2.4	1.5	1.1	.8	1.4
1964	1.2	1.1	1.2	1.3	1.5	1.4	1.5	2.1	2.7	1.7	1.2	1.0	1.5
1965	1.4	1.3	1.5	1.7	1.7	1.7	1.8	2.6	3.5	2.2	1.7	1.4	1.9
1966	1.9	1.8	2.3	2.5	2.5	2.5	2.5	3.6	4.5	2.8	2.1	1.7	2.6
1967	2.1	1.9	2.1	2.2	2.2	2.3	2.1	3.2	4.0	2.5	1.9	1.5	2.3
1968	2.0	1.9	2.1	2.2	2.4	2.3	2.4	3.8	4.2	2.8	2.1	1.6	2.5
1969	2.3	2.1	2.4	2.6	2.7	2.6	2.6	4.0	4.4	2.9	2.1	1.6	2.7
1970	2.1	1.9	1.9	2.1	2.1	2.1	2.1	3.0	3.3	2.1	^p 1.5		
Layoffs													
1959	2.1	1.5	1.6	1.6	1.4	1.4	1.8	1.8	2.0	3.2	2.9	2.4	2.0
1960	1.8	1.7	2.2	2.2	1.9	2.0	2.4	2.4	2.4	2.8	3.1	3.6	2.4
1961	3.2	2.6	2.3	1.9	1.8	1.8	2.3	1.8	2.1	2.0	2.2	2.6	2.2
1962	2.1	1.7	1.6	1.6	1.6	1.6	2.2	2.2	1.9	2.2	2.3	2.5	2.0
1963	2.2	1.6	1.7	1.6	1.5	1.4	2.0	1.9	1.8	1.9	2.1	2.3	1.8
1964	2.0	1.6	1.6	1.4	1.4	1.3	2.1	1.4	1.5	1.8	1.7	2.1	1.7
1965	1.6	1.2	1.2	1.3	1.1	1.1	1.8	1.6	1.3	1.4	1.5	1.9	1.4
1966	1.3	1.0	1.0	1.0	.9	1.0	2.0	1.1	1.0	1.1	1.3	1.7	1.2
1967	1.5	1.3	1.5	1.3	1.1	1.1	1.9	1.2	1.2	1.3	1.3	1.6	1.4
1968	1.5	1.2	1.1	1.0	1.0	.9	1.8	1.3	1.1	1.2	1.2	1.4	1.2
1969	1.2	1.0	1.0	.9	.9	1.0	1.6	1.1	1.1	1.3	1.3	1.8	1.2
1970	1.7	1.6	1.6	1.7	1.5	1.5	2.3	1.7	1.7	2.2	^p 2.1		

¹ For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11.

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.

^p=preliminary.

16. Labor turnover rates in manufacturing, by major industry group ¹

[Per 100 employees]

Major industry group	Accession rates						Separation rates								
	Total			New hires			Total			Quits			Layoffs		
	Nov. 1970 ^p	Oct. 1970	Nov. 1969	Nov. 1970 ^p	Oct. 1970	Nov. 1969	Nov. 1970 ^p	Oct. 1970	Nov. 1969	Nov. 1970 ^p	Oct. 1970	Nov. 1969	Nov. 1970 ^p	Oct. 1970	Nov. 1969
MANUFACTURING	3.0	3.8	3.6	1.9	2.7	2.8	4.3	5.3	4.3	1.5	2.1	2.1	2.1	2.2	1.3
Seasonally adjusted ²	3.7	3.6	4.4	2.3	2.4	3.4	4.8	5.0	4.8	1.8	1.9	2.6	2.0	2.2	1.3
Durable goods	2.6	3.2	3.2	1.6	2.2	2.6	4.2	5.3	3.9	1.2	1.7	1.8	2.3	2.5	1.2
Ordnance and accessories.....		1.4	1.3		.7	.7		3.8	4.0		.9	1.2		2.3	2.0
Lumber and wood products.....	3.8	4.7	4.1	3.0	4.0	3.6	5.5	5.8	5.4	2.3	3.3	3.0	2.3	1.5	1.5
Furniture and fixtures.....	3.5	5.3	4.6	2.8	4.4	4.1	4.6	5.9	5.6	2.2	3.2	3.4	1.5	1.6	1.1
Stone, clay, and glass products.....	2.7	3.7	3.6	2.0	2.9	3.0	4.3	5.0	4.4	1.6	2.2	2.2	1.8	1.7	1.3
Primary metal industries.....	2.3	2.4	2.9	.9	1.4	2.2	4.2	6.2	3.0	.8	1.4	1.5	2.6	3.6	.5
Fabricated metal products.....		3.6	4.1		2.9	3.5		5.5	4.6		2.0	2.3		2.4	1.2
Machinery, except electrical.....	2.0	2.2	2.8	1.1	1.3	2.3	3.4	4.2	2.7	.8	1.1	1.3	2.0	2.2	.6
Electrical equipment.....		2.8	3.1		1.8	2.4		5.2	3.6		1.6	1.8		2.5	.9
Transportation equipment.....		3.2	2.8		1.8	1.8		5.9	4.1		1.4	1.3		3.4	1.8
Instruments and related products.....	1.7	2.5	2.6	1.2	1.7	2.1	2.7	4.2	2.7	.8	1.8	1.3	1.1	1.5	.7
Miscellaneous manufacturing.....	3.6	5.8	4.8	2.7	4.6	4.1	6.1	6.2	7.6	2.0	3.0	2.8	3.3	2.0	3.5
Nondurable goods	3.5	4.6	4.1	2.4	3.4	3.1	4.4	5.3	4.7	1.8	2.6	2.4	1.9	1.9	1.6
Food and kindred products.....	4.9	6.8	5.6	3.2	4.9	4.1	6.2	7.8	7.1	2.3	3.4	3.2	3.1	3.5	3.2
Tobacco manufactures.....	4.2	4.0	4.3	2.7	3.5	3.0	5.4	5.1	8.5	1.1	2.2	2.0	3.3	1.9	5.7
Textile mill products.....	3.9	5.2	4.6	3.0	4.0	3.6	4.9	5.7	4.9	2.5	3.5	3.1	1.5	1.1	.9
Apparel and other textile products.....	4.3	5.3	4.2	2.8	3.7	2.9	5.3	5.9	5.2	2.3	2.9	2.5	2.3	2.1	2.0
Paper and allied products.....	2.3	2.9	3.3	1.7	2.4	2.9	3.0	3.8	3.5	1.2	1.9	2.0	1.1	1.0	.7
Printing and publishing.....	2.2	3.2	3.3	1.7	2.6	2.9	2.4	3.5	3.0	1.2	1.9	1.9	.7	1.0	.5
Chemicals and allied products.....	1.5	1.8	1.9	1.1	1.4	1.5	2.1	2.4	2.2	.7	1.0	1.0	.9	.8	.6
Petroleum and coal products.....	1.4	2.2	1.6	1.2	1.9	1.4	1.9	2.5	2.1	.7	.9	1.0	.5	.9	.6
Rubber and plastics products, n.e.c.....	3.4	4.6	4.3	1.9	3.5	3.6	5.4	6.4	5.2	1.7	2.6	2.8	2.8	2.6	1.3
Leather and leather products.....	4.6	5.6	5.5	3.3	4.1	3.9	5.3	6.4	5.4	2.4	3.4	3.2	2.1	2.0	1.3

¹ For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For relationship to employment series see footnote 1, table 15.
² These data have been seasonally adjusted to reflect experience through February 1970. For additional detail, see June 1970 issue of *Employment and Earnings*.

NOTE: For additional detail, see *Employment and Earnings*, table D-2.
^p = preliminary.

Table 17. Job vacancies in manufacturing

INDUSTRY	1970												1969	
	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	
Job vacancies in manufacturing (number, in thousands).....	76	93	118	137	126	123	151	158	165	170	186	185	209	
JOB VACANCY RATES ¹														
Manufacturing.....	.4	.5	.6	0.7	0.6	0.6	0.8	0.8	0.8	0.8	0.9	0.9	1.0	
Durable goods industries.....	.3	.4	.5	.6	.6	.6	.7	.7	.8	.9	1.0	1.0	1.1	
Nondurable goods industries.....	.5	.6	.7	.8	.7	.7	.9	.9	.9	.8	.9	.9	1.0	
Selected durable goods industries:														
Primary metal industries.....	.2	.3	.4	.6	.4	.5	.6	.7	.6	.6	.8	.7	.9	
Machinery, except electrical.....	.4	.4	.5	.6	.5	.6	.8	.9	1.0	1.0	1.2	1.1	1.4	
Electrical equipment and supplies.....	.3	.4	.6	.7	.6	.6	.8	.8	.9	1.1	1.1	1.2	1.2	
Transportation equipment.....	.4	.4	.4	.6	.5	.5	.6	.5	.7	.6	.8	.8	.8	
Instruments and related products.....	.4	.6	.7	.7	.6	.7	1.1	1.4	1.7	1.7	1.6	1.4	1.6	
Selected nondurable goods industries:														
Textile mill products.....	.6	.8	1.0	1.0	.9	.8	1.1	1.1	1.0	.9	.9	.9	1.0	
Apparel and other textile products.....	1.1	1.1	1.4	1.5	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.5	1.6	
Printing and publishing.....	.4	.4	.5	.6	.5	.5	.6	.7	.7	.7	.8	.8	.9	
Chemicals and allied products.....	.4	.4	.6	.6	.6	.7	.8	.8	1.0	.9	.9	.8	.9	

¹ Computed by dividing the total number of job vacancies by the sum of employment plus the total number of job vacancies and multiplying the quotient by 100.

NOTE: For additional detail on this series, see *Employment and Earnings*, tables D-1 D-2, and D-3.

18. Gross hours and earnings of production and nonsupervisory workers ¹ on private nonagricultural payrolls by industry division, 1947 to date

Year	Averages			Averages			Averages			Averages		
	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings
	Total private			Mining			Contract construction			Manufacturing		
1947	\$45.58	40.3	\$1.131	\$59.94	40.8	\$1.469	\$58.87	38.2	\$1.541	\$49.17	40.4	\$1.217
1948	49.00	40.0	1.225	65.56	39.4	1.664	65.27	38.1	1.713	53.12	40.0	1.328
1949	50.24	39.4	1.275	62.33	36.3	1.717	67.56	37.7	1.792	53.88	39.1	1.378
1950	53.13	39.8	1.335	67.16	37.9	1.772	69.68	37.4	1.863	58.32	40.5	1.440
1951	57.86	39.9	1.45	74.11	38.4	1.93	76.96	38.1	2.02	63.34	40.6	1.56
1952	60.65	39.9	1.52	77.59	38.6	2.01	82.86	38.9	2.13	67.16	40.7	1.65
1953	63.76	39.6	1.61	83.03	38.8	2.14	86.41	37.9	2.28	70.47	40.5	1.74
1954	64.52	39.1	1.65	82.60	38.6	2.14	88.91	37.2	2.39	70.49	39.6	1.78
1955	67.72	39.6	1.71	89.54	40.7	2.20	90.90	37.1	2.45	75.70	40.7	1.86
1956	70.74	39.3	1.80	95.06	40.8	2.33	96.38	37.5	2.57	78.78	40.4	1.95
1957	73.33	38.8	1.89	98.65	40.1	2.46	100.27	37.0	2.71	81.59	39.8	2.05
1958	75.08	38.5	1.95	96.08	38.9	2.47	103.78	36.8	2.82	82.71	39.2	2.11
1959 ²	78.78	39.0	2.02	103.68	40.5	2.56	108.41	37.0	2.93	88.26	40.3	2.19
1960	80.67	38.6	2.09	105.44	40.4	2.61	113.04	36.7	3.08	89.72	39.7	2.26
1961	82.60	38.6	2.14	106.92	40.5	2.64	118.08	36.9	3.20	92.34	39.8	2.32
1962	85.91	38.7	2.22	110.43	40.9	2.70	122.47	37.0	3.31	96.56	40.4	2.39
1963	88.46	38.8	2.28	114.40	41.6	2.75	127.19	37.3	3.41	99.63	40.5	2.46
1964	91.33	38.7	2.36	117.74	41.9	2.81	132.06	37.2	3.55	102.97	40.7	2.53
1965	95.06	38.8	2.45	123.52	42.3	2.92	138.38	37.4	3.70	107.53	41.2	2.61
1966	98.82	38.6	2.56	130.24	42.7	3.05	146.26	37.6	3.89	112.34	41.3	2.72
1967	101.84	38.0	2.68	135.89	42.6	3.19	154.95	37.7	4.11	114.90	40.6	2.83
1968	107.73	37.8	2.85	142.71	42.6	3.35	164.93	37.4	4.41	122.51	40.7	3.01
1969	114.61	37.7	3.04	154.80	43.0	3.60	181.16	37.9	4.78	129.51	40.6	3.19
	Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services		
1947				\$38.07	40.5	\$0.940	\$43.21	37.9	\$1.140			
1948				40.80	40.4	1.010	45.48	37.9	1.200			
1949				42.93	40.5	1.060	47.63	37.8	1.260			
1950				44.55	40.5	1.100	50.52	37.7	1.340			
1951				47.79	40.5	1.18	54.67	37.7	1.45			
1952				49.20	40.0	1.23	57.08	37.8	1.51			
1953				51.35	39.5	1.30	59.57	37.7	1.58			
1954				53.33	39.5	1.35	62.04	37.6	1.65			
1955				55.16	39.4	1.40	63.92	37.6	1.70			
1956				57.48	39.1	1.47	65.68	36.9	1.78			
1957				59.60	38.7	1.54	67.53	36.7	1.84			
1958				61.76	38.6	1.60	70.12	37.1	1.89			
1959 ²				64.41	38.8	1.66	72.74	37.3	1.95			
1960				66.01	38.6	1.71	75.14	37.2	2.02			
1961				67.41	38.3	1.76	77.12	36.9	2.09			
1962				69.91	38.2	1.83	80.94	37.3	2.17			
1963				72.01	38.1	1.89	84.38	37.5	2.25			
1964	\$118.37	41.1	\$2.88	74.28	37.9	1.96	85.79	37.3	2.30	\$69.84	36.0	\$1.94
1965	125.14	41.3	3.03	76.53	37.7	2.03	88.91	37.2	2.39	73.60	35.9	2.05
1966	128.13	41.2	3.11	79.02	37.1	2.13	92.13	37.3	2.47	77.04	35.5	2.17
1967	131.22	40.5	3.24	81.76	36.5	2.24	95.46	37.0	2.58	80.38	35.1	2.29
1968	138.85	40.6	3.42	86.40	36.0	2.40	101.75	37.0	2.75	84.32	34.7	2.43
1969	147.74	40.7	3.63	91.14	35.6	2.56	108.33	37.1	2.92	91.26	34.7	2.63

¹ For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11.

Data relate to production workers in mining and manufacturing; to construction workers in contract construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and

services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls.

² Data include Alaska and Hawaii beginning 1959.

NOTE: For additional detail, see *Employment and Earnings*, table C-1.

19. Gross average weekly hours of production or nonsupervisory workers¹ on private nonagricultural payrolls, by industry division and major manufacturing group

Industry division and group	1970												1969	Annual average	
	Dec. ^p	Nov. ^p	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1969	1968
	TOTAL PRIVATE	37.1	36.9	37.0	37.0	37.6	37.6	37.4	37.0	36.9	37.2	37.0	37.1	37.7	37.7
MINING	41.9	42.7	43.0	42.3	42.7	42.9	42.9	42.7	43.1	42.4	42.6	42.3	43.3	43.0	42.6
CONTRACT CONSTRUCTION	37.6	36.2	37.6	36.2	38.5	38.5	38.4	38.1	37.9	37.2	36.8	35.7	37.6	37.9	37.4
MANUFACTURING	40.0	39.7	39.6	39.6	39.8	39.9	40.0	39.8	39.7	40.0	39.8	40.1	41.0	40.6	40.7
Overtime hours.....	2.7	2.8	2.9	3.1	3.0	2.9	3.1	2.9	2.8	3.0	3.0	3.2	3.6	3.6	3.6
Durable Goods	40.5	40.1	40.1	40.1	40.2	40.3	40.6	40.3	40.2	40.6	40.3	40.7	41.7	41.3	41.4
Overtime hours.....	2.7	2.6	2.8	3.0	2.9	2.9	3.2	2.9	2.8	3.1	3.0	3.3	3.8	3.8	3.8
Ordinance and accessories	41.0	40.6	40.2	40.0	40.2	39.8	40.7	40.8	40.8	40.8	40.8	41.0	41.0	40.4	41.5
Lumber and wood products	40.1	39.5	39.6	39.9	40.1	39.7	40.1	40.1	39.8	39.5	39.4	39.1	40.1	40.2	40.6
Furniture and fixtures	40.2	39.7	39.9	38.9	39.5	38.8	39.1	38.5	38.7	39.1	38.7	38.9	40.8	40.4	40.6
Stone, clay, and glass products	41.3	41.1	41.4	4.14	41.5	41.3	41.5	41.5	41.5	41.3	40.9	40.9	42.9	42.0	41.8
Primary metal industries	39.9	39.3	39.5	40.9	40.3	40.6	40.7	40.4	40.4	40.8	40.8	41.3	41.7	41.8	41.6
Fabricated metal products	40.9	40.2	40.4	40.4	40.7	40.9	41.1	40.7	40.6	40.9	40.6	41.0	41.8	41.6	41.7
Machinery, except electrical	41.0	40.6	40.4	40.2	40.4	40.6	41.2	41.1	41.4	42.1	41.9	42.2	43.1	42.5	42.1
Electrical equipment and supplies	40.2	39.9	39.9	39.5	39.8	39.8	39.6	39.6	39.6	40.1	39.7	40.3	40.9	40.4	40.3
Transportation equipment	41.0	40.5	40.5	40.4	40.0	40.7	41.6	40.4	39.2	40.0	39.6	40.1	42.2	41.5	42.2
Instruments and related products	39.9	40.1	40.0	39.6	39.8	39.9	40.3	40.0	40.3	40.7	40.2	40.5	41.3	40.7	40.5
Miscellaneous manufacturing industries	38.8	38.9	38.7	38.3	38.6	38.4	38.7	38.6	38.8	39.0	38.8	38.8	39.5	39.0	39.4
Nondurable goods	39.2	39.1	39.0	38.9	39.3	39.3	39.2	39.0	39.0	39.2	39.1	39.2	40.0	39.7	39.8
Overtime hours.....	2.8	2.9	3.0	3.1	3.1	2.9	3.0	2.9	2.8	3.0	3.0	3.1	3.4	3.4	3.3
Food and kindred products	40.8	40.5	40.6	40.8	41.2	40.7	40.5	40.5	39.9	40.0	40.0	40.5	41.0	40.8	40.8
Tobacco manufactures	37.1	38.8	39.4	37.6	37.7	37.5	38.0	36.8	37.1	36.4	36.9	37.2	36.8	37.4	37.9
Textile mill products	40.1	40.0	39.9	39.1	40.0	39.9	40.3	39.7	39.9	40.1	40.0	40.0	41.3	40.8	41.2
Apparel and other textile products	35.4	35.4	34.9	34.2	35.5	35.4	35.4	35.1	35.4	35.8	35.5	35.2	35.9	35.9	36.1
Paper and allied products	41.9	41.9	41.9	41.8	41.9	41.7	41.7	41.8	41.7	42.0	41.9	42.4	43.2	43.0	42.9
Printing and publishing	38.0	37.5	37.5	37.7	37.8	37.8	37.7	37.6	37.7	38.0	37.8	37.7	39.0	38.4	38.3
Chemicals and allied products	41.5	41.5	41.3	42.0	41.2	41.4	41.5	41.6	41.6	41.8	41.6	41.7	42.9	41.8	41.8
Petroleum and coal products	42.5	43.0	43.4	43.4	43.2	43.4	42.8	42.8	42.2	41.8	41.8	41.9	41.7	42.6	42.5
Rubber and plastics products, nec.	39.8	39.7	40.0	40.5	40.5	40.4	40.4	39.9	40.3	40.4	40.6	40.7	41.5	41.1	41.5
Leather and leather products	37.7	37.3	36.8	36.2	37.0	37.9	38.1	37.5	36.3	37.1	37.4	37.7	38.3	37.2	38.3
TRANSPORTATION AND PUBLIC UTILITIES	40.2	40.6	40.6	40.7	40.9	41.1	40.7	40.4	39.8	40.2	40.5	40.5	40.8	40.7	40.6
WHOLESALE AND RETAIL TRADE	35.3	35.0	35.1	35.3	36.3	36.2	35.6	35.0	34.9	35.0	35.0	35.1	35.7	35.6	36.0
Wholesale trade	40.1	39.7	39.9	39.7	40.1	40.3	40.0	39.9	39.9	40.0	40.0	40.2	40.7	40.2	40.1
Retail trade	33.9	33.5	33.5	33.9	35.0	34.9	34.1	33.5	33.3	33.4	33.3	33.4	34.1	34.2	34.7
FINANCE, INSURANCE, AND REAL ESTATE	36.5	36.8	36.8	36.6	36.9	36.8	36.7	36.7	36.9	37.0	37.0	36.9	37.0	37.1	37.0
SERVICES	34.3	34.3	34.3	34.4	35.0	34.9	34.5	34.3	34.3	34.7	34.3	34.3	34.6	34.7	34.7

¹ For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail, see *Employment and Earnings*, table C-2.

^p = preliminary.

20. Gross average weekly hours of production or nonsupervisory workers¹ on private nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted

Industry division and group	1970											1969	
	Dec. ^p	Nov. ^p	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.
TOTAL PRIVATE	37.0	37.0	36.9	36.8	37.2	37.3	37.2	37.1	37.2	37.4	37.3	37.5	37.6
MINING	41.8	42.9	42.7	42.0	42.2	42.5	42.4	42.6	43.1	43.2	43.4	42.7	43.2
CONTRACT CONSTRUCTION	38.2	37.1	36.9	35.1	37.3	37.4	37.6	38.1	38.3	38.0	38.2	36.7	38.2
MANUFACTURING	39.7	39.6	39.4	39.3	39.8	40.1	39.8	39.8	40.0	40.2	39.9	40.3	40.7
Overtime hours.....	2.6	2.7	2.8	2.8	3.0	3.0	3.1	2.9	3.0	3.2	3.2	3.3	3.5
Durable Goods	40.1	40.0	39.9	39.8	40.3	40.7	40.4	40.3	40.4	40.7	40.5	41.0	41.3
Overtime hours.....	2.6	2.5	2.6	2.7	2.9	3.1	3.2	3.0	3.0	3.2	3.2	3.4	3.6
Ordnance and accessories.....	40.5	40.3	40.1	39.7	40.4	40.3	40.6	40.8	41.1	41.1	41.3	40.6	40.5
Lumber and wood products.....	40.3	39.8	39.2	39.6	39.8	39.8	39.6	39.7	39.8	39.5	40.1	39.6	40.3
Furniture and fixtures.....	39.4	39.4	39.2	38.2	39.0	39.3	38.9	38.8	39.3	39.4	39.3	39.5	40.0
Stone, clay, and glass products.....	41.4	41.0	41.0	40.9	41.0	41.2	41.1	41.3	41.6	41.8	41.7	41.7	42.1
Primary metal industries.....	39.9	39.5	39.9	40.9	40.4	40.7	40.4	40.2	40.1	40.7	40.9	41.2	41.7
Fabricated metal products.....	40.6	40.0	40.1	39.8	40.6	41.3	40.9	40.6	40.9	41.2	41.1	41.4	41.5
Machinery, except electrical.....	40.6	40.6	40.4	40.1	40.9	41.1	41.1	41.1	41.4	41.8	41.9	42.2	42.6
Electrical equipment and supplies.....	39.6	39.5	39.7	39.2	39.9	40.4	39.5	39.7	40.0	40.2	39.7	40.5	40.3
Transportation equipment.....	40.2	39.7	39.8	39.8	40.7	41.2	41.6	40.3	39.7	40.4	40.3	40.2	41.4
Instruments and related products.....	39.5	39.9	39.8	39.4	40.0	40.3	40.2	40.1	40.5	40.7	40.2	40.7	40.9
Miscellaneous manufacturing industries.....	38.6	38.6	38.3	38.1	38.6	39.1	38.6	38.7	39.0	39.0	38.6	39.3	39.3
Nondurable Goods	39.0	38.9	38.9	38.6	39.1	39.3	39.0	39.1	39.4	39.4	39.3	39.6	39.8
Overtime hours.....	2.7	2.8	2.8	2.8	3.0	2.9	3.0	3.0	3.0	3.2	3.2	3.4	3.3
Food and kindred products.....	40.6	40.3	40.5	40.0	40.7	40.2	40.3	40.7	40.6	40.5	40.7	41.0	40.8
Tobacco manufactures.....	36.5	38.7	38.1	36.1	37.4	37.9	37.4	37.1	38.3	37.5	37.3	38.3	36.2
Textile mill products.....	39.7	39.6	39.6	38.8	39.9	40.3	40.0	39.8	40.6	40.2	40.1	40.4	40.9
Apparel and other textile products.....	35.5	35.4	34.9	34.2	35.1	35.5	35.2	35.1	35.5	35.6	35.5	35.6	36.0
Paper and allied products.....	41.5	41.7	41.7	41.4	41.7	41.7	41.6	41.8	42.1	42.2	42.3	42.8	42.8
Printing and publishing.....	37.6	37.5	37.4	37.4	37.6	37.9	37.7	37.7	37.9	38.0	38.0	38.2	38.6
Chemicals and allied products.....	41.3	41.3	41.3	42.0	41.3	41.5	41.5	41.5	41.4	41.8	41.8	42.0	41.8
Petroleum and coal products.....	43.1	42.9	43.2	43.0	43.1	42.6	42.6	42.5	41.9	42.2	42.7	42.5	42.3
Rubber and plastics products, nec.....	39.4	39.4	39.6	40.0	40.4	40.8	40.4	40.0	40.7	40.7	41.0	40.9	41.1
Leather and leather products.....	37.1	37.2	37.0	36.5	36.8	37.6	37.6	37.7	37.4	37.4	37.1	37.5	37.7
TRANSPORTATION AND PUBLIC UTILITIES	40.2	40.4	40.5	40.5	40.6	40.7	40.6	40.6	40.2	40.6	40.7	40.7	40.8
WHOLESALE AND RETAIL TRADE	35.1	35.3	35.3	35.2	35.4	35.4	35.4	35.4	35.3	35.3	35.4	35.4	35.5
Wholesale Trade.....	39.9	39.8	39.9	39.7	39.9	40.0	39.9	40.1	40.1	40.1	40.2	40.3	40.5
Retail trade.....	33.6	33.9	33.8	33.8	33.9	33.9	33.8	33.9	33.7	33.8	33.7	33.8	33.8
FINANCE, INSURANCE, AND REAL ESTATE	36.4	36.8	36.7	36.7	36.9	36.8	36.7	36.8	36.9	37.0	37.0	36.9	36.9
SERVICES	34.3	34.4	34.4	34.5	34.7	34.6	34.4	34.5	34.4	34.7	34.4	34.4	34.6

¹ For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.
^p=preliminary.

NOTE: These data have been seasonally adjusted to reflect experience through February 1970. For additional detail, see June 1970 issue of *Employment and Earnings*.

21. Gross average hourly earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls, by industry division and major manufacturing group

Industry and division group	1970												1969	Annual average	
	Dec. ^p	Nov. ^p	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1969	1968
TOTAL PRIVATE	\$3.30	\$3.29	\$3.28	\$3.29	\$3.25	\$3.23	\$3.21	\$3.20	\$3.18	\$3.17	\$3.15	\$3.13	\$3.12	\$3.04	\$2.85
MINING	3.94	3.95	3.92	3.89	3.84	3.82	3.82	3.80	3.79	3.78	3.77	3.76	3.71	3.60	3.35
CONTRACT CONSTRUCTION	5.42	5.43	5.42	5.36	5.30	5.20	5.13	5.10	5.09	5.06	5.06	5.07	5.03	4.78	4.41
MANUFACTURING	3.46	3.39	3.37	3.42	3.37	3.37	3.36	3.34	3.32	3.31	3.29	3.29	3.29	3.19	3.01
Durable Goods.....	3.68	3.58	3.56	3.63	3.58	3.57	3.57	3.55	3.52	3.51	3.48	3.49	3.49	3.39	3.19
Ordnance and accessories.....	3.77	3.72	3.67	3.65	3.62	3.60	3.59	3.59	3.58	3.57	3.54	3.53	3.51	3.42	3.26
Lumber and wood products.....	3.03	3.05	3.05	3.05	3.05	2.98	2.98	2.92	2.88	2.86	2.84	2.83	2.84	2.74	2.57
Furniture and fixtures.....	2.84	2.81	2.80	2.80	2.81	2.78	2.76	2.75	2.73	2.71	2.70	2.71	2.71	2.62	2.47
Stone, clay, and glass products.....	3.50	3.50	3.47	3.45	3.43	3.42	3.40	3.38	3.35	3.32	3.28	3.28	3.28	3.19	2.99
Primary metal industries.....	4.08	3.99	3.99	4.07	3.99	3.94	3.92	3.90	3.87	3.86	3.85	3.86	3.87	3.79	3.55
Fabricated metal products.....	3.68	3.54	3.53	3.60	3.56	3.54	3.54	3.52	3.50	3.48	3.46	3.45	3.44	3.34	3.16
Machinery, except electrical.....	3.85	3.82	3.81	3.80	3.77	3.77	3.77	3.77	3.75	3.75	3.72	3.70	3.72	3.58	3.36
Electrical equipment and supplies.....	3.40	3.35	3.32	3.33	3.31	3.32	3.30	3.27	3.24	3.24	3.20	3.18	3.17	3.09	2.93
Transportation equipment.....	4.22	4.03	4.01	4.15	4.11	4.08	4.10	4.06	4.00	4.01	3.97	4.02	4.04	3.90	3.69
Instruments and related products.....	3.47	3.41	3.40	3.40	3.36	3.33	3.31	3.30	3.29	3.28	3.27	3.26	3.25	3.15	2.98
Miscellaneous manufacturing industries.....	2.93	2.87	2.85	2.85	2.82	2.82	2.81	2.81	2.80	2.80	2.80	2.79	2.76	2.66	2.50
Nondurable Goods.....	3.17	3.15	3.13	3.14	3.08	3.09	3.06	3.05	3.04	3.03	3.01	3.01	2.99	2.91	2.74
Food and kindred products.....	3.26	3.24	3.20	3.20	3.13	3.16	3.15	3.16	3.12	3.10	3.08	3.08	3.04	2.96	2.80
Tobacco manufactures.....	2.93	2.95	2.83	2.88	2.78	3.03	3.03	2.99	2.98	2.90	2.89	2.86	2.67	2.62	2.48
Textile mill products.....	2.53	2.52	2.50	2.46	2.44	2.43	2.43	2.43	2.42	2.42	2.42	2.42	2.42	2.34	2.21
Apparel and other textile products.....	2.44	2.44	2.42	2.44	2.41	2.39	2.38	2.36	2.37	2.37	2.36	2.36	2.35	2.31	2.21
Paper and allied products.....	3.55	3.53	3.51	3.54	3.49	3.47	3.42	3.40	3.37	3.35	3.35	3.35	3.34	3.24	3.05
Printing and publishing.....	4.06	4.02	4.01	4.01	3.95	3.92	3.90	3.88	3.85	3.84	3.81	3.80	3.81	3.69	3.48
Chemicals and allied products.....	3.80	3.78	3.77	3.78	3.73	3.71	3.68	3.64	3.61	3.60	3.60	3.60	3.58	3.47	3.26
Petroleum and coal products.....	4.34	4.33	4.31	4.32	4.26	4.25	4.23	4.25	4.26	4.23	4.23	4.21	4.10	4.00	3.75
Rubber and plastics products, nec.....	3.31	3.28	3.24	3.26	3.22	3.21	3.15	3.09	3.16	3.15	3.14	3.15	3.14	3.07	2.92
Leather and leather products.....	2.51	2.51	2.50	2.51	2.48	2.48	2.49	2.49	2.48	2.47	2.47	2.46	2.44	2.36	2.23
TRANSPORTATION AND PUBLIC UTILITIES	3.98	3.95	3.94	3.93	3.90	3.87	3.84	3.79	3.75	3.75	3.75	3.73	3.72	3.63	3.42
WHOLESALE AND RETAIL TRADE	2.75	2.77	2.76	2.75	2.72	2.71	2.70	2.70	2.69	2.68	2.68	2.65	2.61	2.56	2.40
Wholesale trade.....	3.53	3.52	3.49	3.47	3.45	3.42	3.42	3.41	3.40	3.40	3.38	3.35	3.34	3.23	3.05
Retail trade.....	2.47	2.49	2.48	2.48	2.44	2.44	2.43	2.43	2.41	2.41	2.40	2.38	2.35	2.30	2.16
FINANCE, INSURANCE, AND REAL ESTATE	3.14	3.14	3.12	3.09	3.08	3.06	3.04	3.04	3.03	3.05	3.04	3.02	2.98	2.92	2.75
SERVICES	2.96	2.94	2.91	2.90	2.85	2.83	2.81	2.80	2.79	2.79	2.77	2.74	2.72	2.63	2.43

¹ For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail, see Employment and Earnings, table C-2.

^p=preliminary.

22. Gross average weekly earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls, by industry division and major manufacturing group

Industry division and group	1970												1969	Annual average	
	Dec. ^p	Nov. ^p	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	1969	1968
TOTAL PRIVATE	\$122.43	\$121.40	\$121.36	\$121.73	\$122.20	\$121.45	\$120.05	\$118.40	\$117.34	\$117.92	\$116.55	\$116.12	\$117.62	\$114.61	\$107.73
MINING	165.09	168.67	168.56	164.55	163.97	163.88	163.88	162.26	163.35	160.27	160.60	159.05	160.64	154.80	142.71
CONTRACT CONSTRUCTION	203.79	196.57	203.79	194.03	204.05	200.20	196.99	194.31	192.91	188.23	186.21	181.00	189.13	181.16	164.93
MANUFACTURING	138.40	134.58	133.45	135.43	134.13	134.46	134.40	132.93	131.80	132.40	130.94	131.93	134.89	129.51	122.51
Durable goods	149.04	143.56	142.76	145.56	143.92	143.87	144.94	143.07	141.50	142.51	140.24	142.04	145.53	140.01	132.07
Ordnance and accessories.....	154.57	151.03	147.53	146.00	145.52	143.28	146.11	146.47	146.06	145.66	144.43	144.73	143.91	138.17	135.29
Lumber and wood products.....	121.50	120.48	120.78	121.70	122.31	118.31	119.50	117.09	114.62	112.97	111.90	110.65	113.88	110.15	104.34
Furniture and fixtures.....	114.17	111.56	111.72	108.92	111.00	107.86	107.92	105.88	105.65	105.96	104.49	105.42	110.57	105.85	100.28
Stone, clay, and glass products.....	144.55	143.85	143.66	142.83	142.35	141.25	141.10	140.27	139.03	137.12	134.15	134.15	137.76	133.98	124.98
Primary metal industries.....	162.79	156.81	157.61	166.46	160.80	159.96	159.54	157.56	156.35	157.49	157.08	159.42	161.38	158.42	147.68
Fabricated metal products.....	150.51	142.31	142.61	145.44	144.89	144.79	145.49	143.26	142.10	142.33	140.48	141.45	143.79	138.94	131.77
Machinery, except electrical.....	157.85	155.09	153.92	152.76	152.31	153.06	155.32	154.95	155.25	157.88	155.87	156.14	160.33	152.15	141.46
Electrical equipment and supplies.....	136.68	133.67	132.47	131.54	131.74	132.14	130.68	129.49	128.30	129.92	127.04	128.15	129.65	124.84	118.08
Transportation equipment.....	173.02	163.22	162.41	167.66	164.40	166.06	170.56	164.02	156.80	160.40	157.21	161.20	170.49	161.85	155.72
Instruments and related products.....	138.45	136.74	136.00	134.64	133.73	132.87	133.39	132.00	132.59	133.50	131.45	132.03	134.23	128.21	120.69
Miscellaneous manufacturing industries.....	113.68	111.64	110.30	109.16	108.85	108.29	108.75	108.47	108.64	109.20	108.64	108.25	109.02	103.74	98.50
Nondurable goods	124.26	123.17	122.07	122.15	121.04	121.44	119.95	118.95	118.56	118.78	117.69	117.99	119.60	115.53	109.05
Food and kindred products.....	133.01	131.22	129.92	130.56	128.96	128.61	127.58	127.98	124.49	124.00	123.20	124.74	124.64	120.77	114.24
Tobacco manufactures.....	108.70	114.46	111.50	108.29	104.81	113.63	115.14	110.03	110.56	105.56	106.64	106.39	98.26	97.99	93.99
Textile mill products.....	101.45	100.80	99.75	96.19	97.60	96.96	97.93	96.47	96.56	97.04	96.80	96.80	99.95	95.47	91.05
Apparel and other textile products.....	86.38	86.38	84.46	83.45	85.56	84.61	84.25	82.84	83.90	84.85	83.78	83.07	84.37	82.93	79.78
Paper and allied products.....	148.75	147.91	147.07	147.97	146.23	144.70	142.61	142.12	140.43	140.70	140.37	142.04	144.29	139.32	130.85
Printing and publishing.....	154.28	150.75	150.38	151.18	149.31	148.18	147.03	145.89	145.15	145.92	144.02	143.26	148.59	141.70	133.28
Chemicals and allied products.....	157.70	156.87	155.70	158.76	153.68	153.59	152.72	151.42	150.18	150.48	149.76	150.12	150.36	145.05	136.27
Petroleum and coal products.....	184.45	186.19	187.05	187.49	184.03	184.45	181.04	181.90	179.77	176.81	176.81	176.40	170.97	170.40	159.38
Rubber and plastics products, nec.....	131.74	130.22	129.60	132.03	130.41	129.68	127.26	123.29	127.35	127.26	127.48	128.21	130.31	126.18	121.18
Leather and leather products.....	94.63	93.62	92.00	90.86	91.76	93.99	94.87	93.38	90.02	91.64	92.38	92.74	93.45	87.79	85.41
TRANSPORTATION AND PUBLIC UTILITIES	160.00	160.37	159.96	159.95	159.51	159.06	156.29	153.12	149.25	150.75	151.88	151.07	151.78	147.74	138.85
WHOLESALE AND RETAIL TRADE	97.08	96.95	96.88	97.08	98.74	98.10	96.12	94.50	93.88	93.80	93.80	93.02	93.18	91.14	86.40
Wholesale trade.....	141.55	139.74	139.25	137.76	138.35	137.83	136.80	136.06	135.66	136.00	135.20	134.67	135.94	129.85	122.31
Retail trade.....	83.73	83.42	83.08	84.07	85.40	85.16	82.86	81.41	80.25	80.49	79.92	79.49	80.14	78.66	74.95
FINANCE, INSURANCE, AND REAL ESTATE	114.61	115.55	114.82	113.09	113.65	112.61	111.57	111.57	111.81	112.85	112.48	111.44	110.26	108.33	101.75
SERVICES	101.53	100.84	99.81	99.76	99.75	98.77	96.95	96.04	95.70	96.81	95.01	93.98	94.11	91.26	84.32

¹ For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail, see Employment and Earnings, table C-2.

^p=preliminary.

23. Gross and spendable average weekly earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls, in current and 1957-59 dollars, 1960 to date

Year and month	Total private						Manufacturing					
	Gross average weekly earnings		Spendable average weekly earnings				Gross average weekly earnings		Spendable average weekly earnings			
			Worker with no dependents		Worker with 3 dependents				Worker with no dependents		Worker with 3 dependents	
	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars	Current dollars	1957-59 dollars
1960	\$80.67	\$78.24	\$65.59	\$63.62	\$72.96	\$70.77	\$89.72	\$87.02	\$72.57	\$70.39	\$80.11	\$77.70
1961	82.60	79.27	67.08	64.38	74.48	71.48	92.34	88.62	74.60	71.59	82.18	78.87
1962	85.91	81.55	69.56	66.00	76.99	73.05	96.56	91.61	77.86	73.87	85.53	81.15
1963	88.46	82.91	71.05	66.59	78.56	73.63	99.63	93.37	79.82	74.81	87.58	82.08
1964	91.33	84.49	75.04	69.42	82.57	76.38	102.97	95.25	84.40	78.68	92.18	85.27
1965	95.06	86.50	78.99	71.87	86.30	78.53	107.53	97.84	89.08	81.06	96.78	88.06
1966	98.82	87.37	81.29	71.87	88.66	78.39	112.34	99.33	91.57	80.96	99.45	87.93
1967	101.84	87.57	83.38	71.69	90.86	78.13	114.90	98.80	93.28	80.21	101.26	87.07
1968	107.73	88.89	86.71	71.54	95.28	78.61	122.51	101.08	97.70	80.61	106.75	88.08
1969	114.61	89.75	90.96	71.23	99.99	78.30	129.51	101.42	101.90	79.80	111.44	87.27
1969:												
December	117.62	89.58	93.17	70.96	102.30	77.91	134.89	102.73	105.85	80.62	115.61	88.05
1970:												
January	116.12	88.10	93.43	70.89	101.97	77.37	131.93	100.10	105.28	79.88	114.48	86.86
February	116.55	87.96	93.76	70.76	102.32	77.22	130.94	98.82	104.53	78.89	113.69	85.80
March	117.92	88.53	94.78	71.16	103.39	77.62	132.40	99.40	105.63	79.30	114.85	86.22
April	117.34	87.57	94.35	70.41	102.95	76.83	131.80	98.36	105.18	78.49	114.37	85.35
May	118.40	87.96	95.14	70.68	103.77	77.10	132.93	98.76	103.02	78.77	115.27	85.64
June	120.05	88.79	96.38	71.29	105.08	77.72	134.40	99.41	107.13	79.24	116.43	86.12
July	121.45	89.50	97.43	71.80	106.18	78.25	134.46	99.09	107.17	78.98	116.48	85.84
August	122.20	89.85	97.99	72.05	106.78	78.51	134.13	98.63	106.92	78.62	116.22	85.46
September	121.73	89.11	97.64	71.48	106.40	77.89	135.43	99.14	107.90	78.99	117.25	85.83
October	121.36	88.33	97.36	70.86	106.11	77.23	133.45	97.13	106.41	77.45	115.68	84.19
November	121.40	88.10	97.39	70.67	106.14	77.02	134.58	97.66	107.26	77.84	116.58	84.60
December	122.43	88.40	98.16	70.87	106.96	77.23	138.40	99.93	110.12	79.51	119.62	86.37

¹ For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17. Spendable average weekly earnings are based on gross average weekly earnings as published in table 21 less the estimated amount of the worker's 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 computed for 2 types of income receivers: (1) A worker with no dependents and (2) a married 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. These series are described in "The Spendable Earnings Series: A Technical Note on its Calculation," in *Employment and Earnings and Monthly Report on the Labor Force*, February 1969, pp. 6-13. NOTE: For additional detail, see *Employment and Earnings*, table C-5. p=preliminary.

24. Consumer and Wholesale Price Indexes, annual averages and changes, 1949 to date¹

Indexes: 1957-59=100

Year	Consumer prices						Wholesale prices					
	All items		Commodities		Services		All commodities		Farm products, processed foods, and feeds		Industrial commodities	
	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change
1949	83.0	-1.0	87.1	-2.6	72.6	4.6	83.5	-5.0	94.3	-11.7	80.0	-2.1
1950	83.8	1.0	87.6	0.6	75.0	3.3	86.8	4.0	98.8	4.8	82.9	3.6
1951	90.5	8.0	95.5	9.0	78.9	5.2	96.7	11.4	112.5	13.9	91.5	10.4
1952	92.5	2.2	96.7	1.3	82.4	4.4	94.0	-2.8	108.0	-4.0	89.4	-2.3
1953	93.2	0.8	96.4	-0.3	86.0	4.4	92.7	-1.4	101.0	-6.5	90.1	.8
1954	93.6	0.4	95.5	-0.9	88.7	3.1	92.9	.2	100.7	-3.3	90.4	.3
1955	93.3	-0.3	94.6	-0.9	90.5	2.0	93.2	.3	95.9	-4.8	92.4	2.2
1956	94.7	1.5	95.5	1.0	92.8	2.5	96.2	3.2	95.3	-0.6	96.5	4.4
1957	98.0	3.5	98.5	3.1	96.6	4.1	99.0	2.9	98.6	3.5	99.2	2.8
1958	100.7	2.8	100.8	2.3	100.3	3.8	100.4	1.4	103.2	4.7	99.5	.3
1959	101.5	.8	100.9	.1	103.2	2.9	100.6	.2	98.4	-4.7	101.3	1.8
1960	103.1	1.6	101.7	.8	106.6	3.3	100.7	.1	98.6	.2	101.3	-----
1961	104.2	1.1	102.3	.6	108.8	2.1	100.3	-0.4	98.6	-----	100.8	-0.5
1962	105.4	1.2	103.2	.9	110.9	1.9	100.6	.3	99.6	1.0	100.8	-----
1963	106.7	1.2	104.1	.9	113.0	1.9	100.3	-0.3	98.7	-0.9	100.7	-0.1
1964	108.1	1.3	105.2	1.1	115.2	1.9	100.5	.2	98.0	-0.7	101.2	.5
1965	109.9	1.7	106.4	1.1	117.8	2.3	102.5	2.0	102.1	4.2	102.5	1.3
1966	113.1	2.9	109.2	2.6	122.3	3.8	105.9	3.3	108.9	6.7	104.7	2.1
1967	116.3	2.8	111.2	1.8	127.7	4.4	106.1	.2	105.2	-3.4	106.3	1.5
1968	121.2	4.2	115.3	3.7	134.3	5.2	108.8	2.5	107.7	c 2.4	109.0	2.5
1969	127.7	5.4	120.5	4.5	143.7	7.0	113.0	c 3.9	113.5	c 5.4	112.7	3.4
1970	135.3	6.0	126.2	4.7	155.3	8.1	117.1	3.6	117.4	3.4	116.9	3.7

¹ Historical price changes are shown in greater detail and for earlier years in the Bureau's *Handbook of Labor Statistics*, 1969 (BLS Bulletin 1630), in tables 108-120. c Corrected.

25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items

[The official name of the index is, "Consumer Price Index for Urban Wage Earners and Clerical Workers." It measures the average change in prices of goods and services purchased by families and single workers. The indexes shown below represent the average of price changes in 56 metropolitan areas, selected to represent all U.S. urban places having populations of more than 2500.]

[1957-59=100 unless otherwise specified]

Item and group	General summary													1969 Dec.	Annual average 1970
	1970														
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.			
All items	138.5	137.8	137.4	136.6	136.0	135.7	135.2	134.6	134.0	133.2	132.5	131.8	131.3	135.3	
All items (1947-49=100)	169.9	169.1	168.5	167.6	166.8	166.5	165.9	165.2	164.4	163.4	162.5	161.7	161.1	166.0	
Food	132.8	132.4	133.0	133.3	133.5	133.4	132.7	132.4	132.0	131.6	131.5	130.7	129.9	132.4	
Food at home	127.3	126.9	127.8	128.2	128.6	128.7	128.0	127.8	127.4	127.4	127.4	126.6	125.8	127.7	
Food away from home	159.2	158.7	158.0	157.4	156.8	156.2	155.3	154.7	154.0	152.4	151.5	150.6	149.9	155.4	
Housing	140.1	139.3	138.5	137.8	137.0	136.2	135.6	135.1	134.4	133.6	132.2	131.1	130.5	135.9	
Rent	126.6	125.7	125.2	124.6	124.2	123.8	123.4	123.0	122.6	122.3	121.8	121.3	121.0	123.7	
Homeownership	160.4	159.3	158.6	157.8	156.2	155.0	154.4	153.3	152.1	150.9	148.5	146.8	145.4	154.4	
Apparel and upkeep	135.9	135.7	134.8	133.6	131.5	131.4	132.2	131.9	131.1	130.6	130.0	129.3	130.8	132.3	
Transportation	135.5	134.4	133.5	131.0	130.6	131.4	130.6	129.9	128.9	127.1	127.3	127.3	126.4	130.6	
Health and recreation	147.4	146.9	146.3	145.7	145.1	144.3	143.7	142.9	142.3	141.4	140.7	140.1	139.6	143.9	
Medical care	169.8	168.7	167.9	167.6	166.8	165.8	164.7	163.6	162.8	161.6	160.1	159.0	158.1	164.9	
Special groups:															
All items less shelter	135.4	134.8	134.4	133.7	133.2	133.0	132.6	132.1	131.5	130.7	130.3	129.8	129.5	132.6	
All items less food	140.4	139.7	138.9	137.8	136.9	136.6	136.1	135.5	134.8	133.8	133.0	132.3	131.9	136.3	
All items less medical care	136.6	136.0	135.6	134.8	134.2	133.9	133.4	132.9	132.2	131.5	130.8	130.1	129.7	133.5	
Commodities	128.5	128.0	127.7	127.0	126.6	126.5	126.2	125.8	125.2	124.5	124.2	123.7	123.6	126.2	
Nondurables	131.8	131.4	131.3	131.0	130.5	130.4	130.0	129.8	129.3	128.7	128.4	127.8	127.7	130.0	
Durables	120.2	119.6	118.8	117.3	117.0	116.9	116.7	115.9	114.8	114.1	113.7	113.7	113.6	116.6	
Services	160.4	159.5	158.5	157.7	156.7	155.8	155.0	154.1	153.4	152.3	150.7	149.6	148.3	155.3	
Commodities less food	126.1	125.7	125.0	123.8	123.0	122.9	122.8	122.3	121.6	120.8	120.4	120.1	120.3	122.9	
Nondurables less food	130.9	130.5	129.9	129.1	127.8	127.8	127.7	127.5	127.0	126.1	125.8	125.2	125.7	127.9	
Apparel commodities	135.2	135.2	134.2	133.0	130.6	130.5	131.4	131.2	130.4	129.9	129.3	128.6	130.3	131.6	
Apparel commodities less foot- wear	132.2	132.3	131.3	129.9	127.2	127.2	128.3	128.0	127.1	126.7	126.2	125.5	127.5	128.5	
Nondurables less food and apparel	128.4	127.8	127.4	126.7	126.2	126.2	125.5	125.3	125.0	123.9	123.7	123.2	123.0	125.8	
Household durables	109.5	109.4	109.0	108.6	108.4	108.3	108.2	108.0	107.8	107.4	106.9	106.6	106.5	108.2	
Housefurnishings	113.8	113.6	113.1	112.7	112.4	112.5	112.4	112.2	112.0	111.7	111.1	110.5	110.6	112.3	
Services less rent	167.8	166.9	165.8	164.9	163.8	162.8	161.9	161.0	160.1	158.9	157.1	155.8	154.3	162.2	
Household services less rent	167.1	166.0	164.9	164.0	162.7	161.6	160.6	160.0	159.1	157.7	155.0	153.2	152.4	161.0	
Transportation services	163.7	162.9	161.6	160.2	158.9	158.6	157.1	156.1	155.5	154.5	154.1	152.9	148.4	158.0	
Medical care services	187.1	185.7	184.5	184.2	183.1	181.8	180.6	179.3	178.4	177.0	175.2	173.8	172.8	180.9	
Other services	157.2	156.6	156.2	155.3	154.5	153.8	153.4	152.3	151.4	150.3	149.8	149.4	148.9	153.3	
	Other index bases	U.S. average for groups, subgroups, and selected items													
FOOD	132.8	132.4	133.0	133.3	133.5	133.4	132.7	132.4	132.0	131.6	131.5	130.7	129.9	132.4	
Food away from home	159.2	158.7	158.0	157.4	156.8	156.2	155.3	154.7	154.0	152.4	151.5	150.6	149.9	155.4	
Restaurant meals	159.2	158.7	158.0	157.4	156.9	156.2	155.4	154.8	154.2	152.5	151.6	150.7	150.2	155.5	
Snacks	139.2	138.6	138.1	137.4	137.0	136.5	135.2	134.6	134.0	132.4	132.0	131.4	129.9	135.5	
Food at home	127.3	126.9	127.8	128.2	128.6	128.7	128.0	127.8	127.4	127.4	127.4	126.6	125.8	127.7	
Cereals and bakery products	132.2	131.8	131.5	130.6	130.1	128.8	128.2	128.0	127.6	127.0	126.3	125.5	124.9	129.0	
Flour	114.0	113.9	113.6	113.8	113.6	113.1	113.3	113.2	114.2	113.1	112.1	111.9	110.9	113.3	
Cracker meal	143.1	142.6	141.3	140.0	139.6	136.7	136.4	135.7	134.3	132.9	130.2	127.8	127.9	136.7	
Corn flakes	139.7	138.5	137.6	135.2	131.8	130.4	130.4	130.5	130.0	130.4	130.2	130.2	130.2	132.9	
Rice	116.3	115.8	115.4	115.0	115.0	114.9	115.1	115.0	114.8	114.4	114.2	113.8	113.4	115.0	
Bread, white	137.2	137.7	138.1	139.8	136.9	135.0	133.4	134.1	133.3	133.4	132.6	132.2	131.1	135.1	
Bread, whole wheat	131.0	129.8	129.1	128.4	127.8	126.1	125.7	125.3	125.7	125.6	125.5	124.4	124.1	127.0	
Cookies	107.8	107.3	107.8	107.4	107.6	107.2	105.7	104.7	103.4	102.4	101.7	101.3	100.9	105.4	
Layer cake	124.8	122.9	122.5	122.2	121.9	121.8	121.8	121.5	121.7	121.3	121.3	119.9	118.0	121.7	
Cinnamon rolls	123.2	123.5	123.0	119.9	120.5	119.6	118.8	118.5	118.2	116.4	116.7	116.3	115.8	119.6	
Meats, poultry, and fish	126.4	127.1	129.1	130.1	131.0	130.8	130.2	130.5	130.9	130.2	129.7	128.8	127.2	129.6	
Meats	129.1	131.0	133.3	134.7	135.8	135.2	134.5	135.0	135.6	134.7	133.9	132.9	131.3	133.8	
Beef and veal	133.9	134.9	136.4	136.8	137.2	136.6	135.3	135.9	136.5	133.6	133.0	132.2	130.6	135.2	
Steak, round	125.4	127.5	128.8	139.0	129.0	128.8	127.6	129.0	131.1	126.9	126.4	126.2	123.2	128.1	
Steak, sirloin	121.5	122.9	126.8	125.7	127.8	128.0	124.3	124.3	124.5	121.8	120.4	121.4	119.0	124.1	
Steak, porterhouse	126.7	128.4	131.9	131.4	133.1	132.8	130.1	129.2	130.5	126.8	126.4	126.6	123.9	129.5	
Rump roast	120.9	122.6	124.0	124.9	124.0	123.4	123.1	124.2	125.1	121.1	120.1	120.7	118.8	122.8	
Rib roast	142.3	142.3	142.9	144.6	144.0	142.5	140.6	142.7	142.8	141.2	141.8	141.6	140.5	142.4	
Chuck roast	123.8	125.3	127.1	128.4	129.1	126.2	125.8	128.0	130.0	126.9	126.7	122.1	123.2	126.6	
Hamburger	141.8	142.0	142.6	142.7	144.0	143.5	142.7	142.8	142.4	140.8	140.5	138.7	137.8	142.0	
Beef liver	120.4	119.8	120.6	122.0	121.0	121.4	121.2	121.8	121.4	120.5	119.9	118.7	118.6	120.7	
Veal cutlets	176.7	176.5	176.5	175.5	175.2	174.2	173.1	171.8	171.1	168.1	166.0	164.0	162.0	172.4	

25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970												1969 Dec.	Annual average 1970
		Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.		
FOOD—Continued															
Meats, poultry, and fish—Continued															
Meats—Continued															
Pork.....		120.7	124.9	129.9	133.7	135.9	134.9	134.4	134.8	135.9	137.9	137.2	135.6	133.3	133.0
Chops.....		119.2	125.3	131.0	137.1	139.9	137.5	135.5	135.1	135.6	139.7	139.5	136.9	135.7	134.4
Loin roast.....	Apr. 60	128.9	134.2	140.2	144.6	146.4	144.3	142.6	143.6	143.5	146.1	146.2	143.7	143.4	142.0
Pork sausage.....	Dec. 63	138.8	143.3	144.3	148.1	149.8	149.5	150.5	150.4	150.6	150.6	148.6	146.7	146.8	147.6
Ham, whole.....		120.1	119.9	120.4	121.3	126.0	125.9	126.5	129.0	133.5	135.3	134.0	136.9	130.7	127.4
Picnics.....	Dec. 63	128.1	131.4	134.1	134.6	135.1	137.2	137.5	138.5	139.9	142.1	139.9	137.7	134.7	136.3
Bacon.....		117.9	122.5	132.4	137.3	138.7	137.4	137.4	137.1	138.2	138.7	138.8	136.7	133.1	134.4
Other meats.....		135.0	135.5	135.9	136.2	137.2	137.2	137.4	137.9	138.0	137.3	136.0	135.3	134.4	136.6
Lamb chops.....	Dec. 63	143.8	142.4	142.5	142.8	142.5	141.9	141.0	141.2	142.0	142.2	140.8	140.9	140.4	142.0
Frankfurters.....		134.7	135.1	135.4	134.2	136.9	137.1	137.1	138.2	137.4	136.1	134.2	134.2	134.6	135.9
Ham, canned.....	Dec. 63	125.7	127.1	129.2	129.3	131.9	132.8	134.4	136.7	138.3	138.3	136.6	134.8	130.4	132.9
Bologna sausage.....	Dec. 63	137.5	139.1	137.9	139.6	139.8	140.5	139.7	139.5	139.7	138.4	137.7	137.2	136.6	138.9
Salami sausage.....	Dec. 63	130.0	130.3	130.6	130.5	131.9	131.5	131.9	132.0	131.8	130.4	128.6	128.0	127.9	130.6
Liverwurst.....	Dec. 63	131.4	132.0	133.0	133.7	133.0	132.5	133.2	132.9	131.9	131.6	131.4	130.1	129.9	132.2
Poultry.....		95.9	91.8	93.7	93.8	95.6	97.5	97.4	97.1	97.1	97.9	99.1	99.5	97.9	96.4
Frying chicken.....		95.2	89.0	91.2	91.8	93.8	96.6	95.9	95.3	95.4	96.7	98.5	99.4	97.9	94.9
Chicken breasts.....	Dec. 63	106.9	104.7	107.5	107.2	108.5	108.0	108.2	109.2	109.4	110.4	110.4	110.1	110.4	108.4
Turkey.....	Dec. 63	112.7	117.2	116.8	115.2	116.8	117.3	119.2	119.5	119.0	116.9	115.9	114.4	110.3	116.7
Fish.....		151.5	149.6	147.9	146.0	144.5	143.4	143.2	142.3	141.1	139.8	138.3	137.0	135.4	143.7
Shrimp, frozen.....	Dec. 63	125.5	125.6	126.4	126.3	126.8	127.4	128.2	128.2	126.8	126.8	127.4	126.2	125.4	126.7
Fish, fresh or frozen.....		164.1	161.4	159.6	158.7	157.5	156.2	154.4	153.0	152.5	150.9	148.1	145.2	143.4	155.1
Tuna, fish, canned.....		137.6	136.0	134.4	131.0	129.0	126.8	126.6	126.0	124.5	123.1	121.6	120.5	117.9	128.1
Sardines, canned.....	Dec. 63	145.5	142.5	138.6	135.7	133.0	131.7	131.9	130.8	129.3	126.9	126.5	126.0	125.4	133.2
Dairy products.....		132.6	132.4	132.0	131.3	130.8	130.6	130.2	129.9	129.5	129.4	128.8	128.4	127.6	130.5
Milk, fresh, grocery.....		128.3	128.4	127.9	127.4	126.6	126.6	126.3	126.6	126.5	126.8	126.2	126.1	125.0	127.0
Milk, fresh, delivered.....		136.9	136.7	136.4	135.4	134.9	134.5	134.2	134.0	133.9	133.5	133.1	132.7	132.3	134.7
Milk, fresh, skim.....	Dec. 63	132.3	132.0	131.7	130.9	129.5	129.4	129.4	129.2	128.3	128.4	127.3	127.4	126.0	129.7
Milk, evaporated.....		135.2	135.4	134.9	134.1	133.3	133.1	131.5	129.7	127.9	127.7	127.4	126.4	125.0	131.4
Ice cream.....		105.0	104.9	104.7	104.8	105.0	104.5	103.8	103.4	102.7	102.7	102.1	102.1	102.0	103.8
Cheese, American process.....		161.4	159.4	158.5	158.0	158.3	157.9	157.4	157.2	157.3	156.4	154.8	153.1	152.4	157.5
Butter.....		122.6	122.4	122.1	121.5	121.6	121.4	121.1	121.0	120.2	119.5	119.5	119.9	119.6	121.1
Fruits and vegetables.....		129.9	128.5	129.3	131.0	135.0	137.5	139.4	136.8	134.7	133.1	132.4	130.9	132.1	133.2
Fresh fruits and vegetables.....		136.0	134.2	136.3	139.8	147.5	152.2	155.9	145.0	148.0	151.5	144.5	141.9	144.1	144.5
Apples.....		136.0	131.6	134.1	171.9	182.1	178.0	166.0	149.7	141.3	139.6	135.8	134.0	129.3	150.0
Bananas.....		81.7	88.6	97.2	92.9	94.5	92.4	102.4	101.6	101.4	101.9	96.5	94.5	93.3	95.5
Oranges.....		138.6	146.0	153.0	142.0	139.7	135.6	129.1	123.7	122.4	125.4	124.5	121.5	125.0	133.5
Orange juice, fresh.....	Dec. 63	89.3	89.9	90.4	89.8	90.6	90.1	89.5	90.1	89.9	90.6	90.7	90.5	91.5	90.1
Grapefruit.....		142.0	148.7	189.7	208.8	213.2	215.4	189.7	160.1	152.4	150.6	151.7	143.7	142.0	172.2
Grapes.....	(1)	(1)	175.3	168.0	152.1	183.4	197.3	(1)	(1)	(1)	(1)	(1)	(1)	(1)	175.2
Strawberries.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	133.2	128.1	134.9	(1)	(1)	(1)	(1)	132.1
Watermelon.....	(1)	(1)	(1)	(1)	123.0	141.0	180.7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	148.2
Potatoes.....		146.1	144.9	146.0	153.7	181.8	194.2	177.2	166.9	159.9	153.3	151.1	144.3	142.0	160.0
Onions.....		129.9	131.4	135.9	147.2	164.4	172.9	173.0	180.0	180.8	171.0	166.9	140.5	136.4	157.8
Asparagus.....	Dec. 63	(1)	(1)	(1)	(1)	(1)	133.5	132.1	138.9	119.3	176.6	(1)	141.6	(1)	140.1
Cabbage.....		149.6	143.5	144.4	145.8	160.6	182.4	194.3	202.1	204.5	211.3	204.5	181.7	173.4	178.9
Carrots.....		116.4	115.2	116.3	115.9	124.8	123.4	121.0	117.3	115.3	122.1	145.3	139.2	146.6	122.7
Celery.....	Dec. 63	125.0	129.5	128.7	119.8	117.8	133.1	175.6	160.5	128.7	136.2	143.6	140.5	132.2	136.6
Cucumbers.....		144.3	120.3	115.7	100.2	106.9	139.4	154.6	214.0	209.1	208.5	203.4	176.5	153.5	
Lettuce.....		143.5	146.3	153.6	178.0	149.5	127.1	126.1	138.9	125.2	123.0	122.7	137.6	189.5	139.3
Peppers, green.....	Dec. 63	167.8	156.6	139.6	136.5	145.3	174.5	244.1	344.4	299.7	265.5	283.9	231.2	217.2	215.8
Spinach.....	Dec. 63	126.1	125.8	123.7	117.5	116.4	117.2	117.3	117.5	119.9	118.3	122.0	120.3	121.8	120.2
Tomatoes.....		160.2	129.7	117.5	98.0	119.7	140.1	154.5	145.2	159.0	136.1	134.8	168.1	177.5	138.6
Processed fruits and vegetables.....		122.5	121.7	120.9	120.1	119.3	119.1	118.6	118.3	118.0	117.3	117.3	117.1	117.1	119.2
Fruit cocktail, canned.....		113.4	112.4	111.6	109.6	106.2	107.9	106.3	106.2	106.2	105.3	104.9	105.3	106.2	108.1
Pears, canned.....	Dec. 63	112.6	111.7	110.3	109.3	106.2	107.4	105.9	105.6	104.9	104.9	105.4	106.0	106.4	107.7
Grapefruit-pineapple juice, canned.....	Dec. 63	106.8	106.7	106.9	106.2	105.2	105.6	105.4	105.5	105.2	104.1	103.7	103.0	102.4	105.4
Orange juice concentrate, frozen.....		89.0	89.5	89.9	91.6	92.2	91.6	92.4	92.4	92.6	93.5	96.5	96.4	97.4	92.3
Lemonade concentrate, frozen.....	Apr. 60	98.4	97.0	96.2	94.3	95.0	94.6	95.4	97.0	96.5	95.9	94.8	95.1	94.7	95.9
Beets, canned.....	Dec. 63	119.8	119.6	119.1	118.5	117.9	117.7	117.2	115.9	116.2	115.0	114.1	113.9	113.6	117.1
Peas, green, canned.....		127.3	127.1	125.2	124.8	122.9	123.0	123.0	122.0	123.1	121.8	122.2	122.4	122.4	123.7
Tomatoes, canned.....		141.7	140.7	140.1	139.2	137.9	136.7	135.1	133.3	130.7	128.0	127.2	126.7	126.6	134.8
Dried beans.....		125.7	123.1	121.9	121.7	121.6	121.1	120.9	121.3	121.5	122.0	123.4	123.1	123.3	122.8
Broccoli, frozen.....	Dec. 63	115.3	115.1	114.2	113.7	113.0	113.5	113.4	112.9	113.0	112.7	111.8	110.8	109.6	113.3
Other food at home.....		118.2	116.9	117.7	118.0	116.1	116.0	113.3	113.7	113.8	116.0	118.1	117.7	116.6	116.3
Eggs.....		105.6	99.1	106.3	112.1	103.2	105.3	91.9	97.7	103.6	122.6	141.0	143.0	140.6	111.0
Fats and oils:															
Margarine.....		117.7	115.5	114.0	112.4	112.1	111.9	112.0	111.4	108.8	106.1	105.6	105.6	105.0	111.1
Salad dressing, Italian.....	Dec. 63	107.0	106.7	106.1	105.3	104.7	104.3	103.6	103.2	102.3	102.2	101.9	102.5	102.6	104.2
Salad or cooking oil.....	Dec. 63	140.8	139.2	138.9	138.0	138.0	137.5	135.4	134.7	131.2	129.1	127.2			

25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Item or group	Other index bases	1970												1969	Annual average 1970
		Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
FOOD—Continued															
Other food at home—Continued															
Nonalcoholic beverages.....		120.7	120.8	120.3	119.4	118.4	117.7	116.5	115.2	114.0	112.4	110.7	109.1	107.4	116.3
Coffee, can and bag.....		111.0	111.4	110.6	109.9	108.7	107.3	105.4	103.6	102.2	99.7	97.4	94.9	92.3	105.2
Coffee, instant.....	July 61	120.2	119.8	119.5	117.8	116.3	115.7	115.7	114.7	114.1	113.1	111.0	109.6	108.0	115.6
Tea.....		106.9	107.5	107.4	107.0	106.6	106.4	105.9	104.8	103.6	103.1	103.6	103.1	102.9	105.5
Cola drink.....		168.4	167.5	166.8	165.2	165.0	164.8	164.2	163.0	162.0	161.9	160.3	159.3	158.4	164.0
Carbonated fruit drink.....	Dec. 63	133.3	133.2	133.0	132.3	131.4	131.4	130.5	130.0	128.5	127.4	126.0	125.5	124.8	130.2
Prepared and partially prepared foods.....															
Bean soup, canned.....	Dec. 63	111.8	111.6	111.7	111.0	110.6	110.1	110.1	110.1	109.8	109.5	109.0	108.5	108.2	110.3
Chicken soup, canned.....	Dec. 63	112.4	112.3	112.3	111.8	111.5	111.5	111.3	111.1	110.5	110.4	110.9	109.7	108.8	111.3
Spaghetti, canned.....	Dec. 63	102.9	102.6	102.6	102.3	102.1	102.1	102.3	102.3	102.0	101.8	101.1	100.8	100.3	102.1
	Dec. 63	126.8	126.5	126.3	124.9	124.2	124.0	123.4	123.2	122.7	121.8	121.1	120.8	120.4	123.8
Mashed potatoes, instant.....	Dec. 63	110.2	109.6	111.3	111.3	111.1	111.0	110.8	110.7	110.6	110.5	110.3	109.7	109.6	110.6
Potatoes, french fried, frozen.....	Apr. 60	93.0	93.4	93.3	93.2	93.9	93.3	93.4	93.5	93.2	93.2	92.8	92.7	92.5	93.2
Baby foods, canned.....		116.9	116.5	117.0	115.8	114.0	112.7	112.6	112.5	112.9	112.0	112.0	112.1	112.1	113.8
Sweet pickle relish.....	Dec. 63	120.1	120.3	119.4	118.1	117.6	116.4	117.0	117.6	118.0	117.2	116.0	115.6	115.0	117.8
Pretzels.....	Dec. 63	112.6	112.4	111.9	111.4	111.1	110.4	110.3	110.1	110.0	109.1	108.3	107.1	107.5	110.4
HOUSING.....															
Shelter.....															
Rent.....		140.1	139.3	138.5	137.8	137.0	136.2	135.6	135.1	134.4	133.6	132.2	131.1	130.5	135.9
Homeownership.....		150.8	149.8	149.1	148.4	147.2	146.2	145.6	144.7	143.7	142.8	140.9	139.6	138.5	145.7
		126.6	125.7	125.2	124.6	124.2	123.8	123.4	123.0	122.6	122.3	121.8	121.3	121.0	123.7
		160.4	159.3	158.6	157.8	156.2	155.0	154.4	153.3	152.1	150.9	148.5	146.8	145.4	154.4
Mortgage interest rates.....		149.2	149.2	149.6	149.5	149.2	149.1	149.1	149.2	149.1	148.9	143.5	139.9	139.6	147.9
Property taxes.....		145.4	143.2	142.7	142.6	141.4	140.5	139.8	139.4	138.2	134.7	133.6	133.0	132.0	139.5
Property insurance rates.....		157.0	155.7	156.1	155.2	155.6	154.6	153.5	153.2	153.6	153.2	152.8	152.5	153.3	154.4
Maintenance and repairs.....		156.8	156.0	155.2	154.3	153.2	152.4	151.4	149.9	148.8	148.3	146.9	146.4	145.8	151.6
Commodities.....															
Exterior house paint.....	Dec. 63	121.3	121.4	120.7	120.6	120.7	120.3	119.6	118.4	117.8	117.2	116.5	116.1	115.9	119.2
Interior house paint.....	Dec. 63	123.6	122.7	121.8	121.9	122.1	122.3	120.7	119.9	119.9	121.0	119.8	119.3	119.1	121.3
	Dec. 63	117.4	116.8	115.3	115.1	115.5	115.7	115.6	115.0	114.6	114.7	114.8	114.1	114.3	115.4
Services.....															
Repainting living and dining rooms.....	Dec. 63	155.9	154.8	154.0	152.8	151.2	150.4	149.3	147.9	146.7	146.2	144.7	144.1	143.5	149.8
Reshingling roofs.....		208.2	206.6	205.3	203.8	200.1	198.0	196.3	191.7	187.9	186.8	185.4	184.6	183.6	196.2
Residing houses.....	Dec. 63	177.1	175.8	175.0	173.7	170.9	169.8	168.0	167.1	165.6	166.1	165.4	164.9	164.1	169.9
Replacing sinks.....	Dec. 63	142.7	141.8	141.4	140.6	140.0	1 9.2	138.3	137.4	137.1	136.7	135.0	134.6	134.0	138.7
Repairing furnaces.....	Dec. 63	160.1	158.6	156.9	155.2	153.1	152.7	151.6	150.4	149.1	148.2	145.6	145.2	144.5	152.2
	Dec. 63	159.1	157.7	157.4	156.3	155.5	155.2	154.3	153.7	152.9	152.4	151.3	150.0	149.7	154.7
Fuel and utilities.....															
Fuel oil and coal.....		121.3	120.7	119.0	118.2	117.7	117.2	116.2	116.4	116.3	115.6	114.9	114.6	114.6	117.4
Fuel oil, #2.....		128.2	127.1	125.5	124.3	122.9	122.3	121.2	121.0	120.9	120.8	120.6	119.7	119.2	122.9
Gas and electricity.....		123.9	122.7	121.2	120.3	119.2	119.1	118.3	118.0	117.8	117.8	117.5	116.6	116.2	119.4
Gas.....		120.1	119.2	118.0	116.8	116.4	115.7	115.3	115.8	115.7	114.8	114.6	114.1	113.7	116.4
Electricity.....		126.7	125.7	123.7	123.6	123.6	122.3	122.0	123.2	123.1	121.9	121.5	120.5	119.8	123.1
		113.1	112.4	111.8	109.8	109.0	108.7	108.3	108.2	108.0	107.5	107.4	107.0	107.2	109.3
Other utilities.....															
Residential telephone services.....		106.4	106.4	105.6	105.5	105.3	105.2	104.9	104.9	104.8	103.9	102.8	103.0	103.8	104.9
Residential water and sewerage.....		166.5	166.5	158.7	158.7	158.7	158.7	151.0	151.0	151.0	151.0	147.5	147.5	147.5	155.6
Household furnishings and operation.....															
Housefurnishings.....		124.8	124.5	123.9	123.6	123.2	123.0	122.8	122.5	122.0	121.6	120.8	120.1	120.0	122.7
		113.8	113.6	113.1	112.7	112.4	112.5	112.4	112.2	112.0	111.7	111.1	110.5	110.6	112.3
Textiles.....															
Sheets, percale or muslin.....		119.2	119.0	117.4	116.8	116.1	116.7	116.7	116.2	116.7	116.4	115.7	114.2	116.1	116.8
Curtains, tailored, polyester marquisette.....		125.6	125.5	121.6	123.1	119.2	120.8	122.0	121.8	123.6	122.7	120.8	117.3	122.2	122.0
Bedsprings, chiefly cotton, tufted.....		113.6	112.6	111.5	110.4	113.7	113.9	113.1	113.2	113.3	113.7	112.7	111.6	112.3	112.8
Draperies, cotton or rayon/acetate.....		119.4	119.0	118.0	117.6	117.2	117.9	117.5	116.8	117.8	117.1	116.6	115.0	117.6	117.5
Slipcovers, ready made, chiefly cotton.....	Dec. 63	131.0	130.5	130.1	128.0	127.8	127.4	126.6	127.3	127.0	126.5	125.8	125.0	126.6	127.7
	Dec. 63	115.9	115.9	116.2	115.4	115.4	115.2	114.3	112.7	111.8	112.1	112.3	111.0	110.4	114.0
Furniture and bedding.....															
Bedroom furniture chest and dresser.....	Mar. 70	128.3	128.0	127.2	126.9	126.5	126.7	126.7	126.6	126.0	125.4	124.6	124.1	123.9	126.4
Living room suites, good and inexpensive quality.....	Mar. 70	101.7	101.6	101.2	101.6	100.9	100.9	100.6	100.5	100.4					100.9
Lounge chairs, upholstered.....	Dec. 63	129.8	129.4	128.9	129.4	129.0	128.8	128.3	128.1	127.9	127.3	126.1	126.0	126.3	128.2
Dining room chairs.....	Dec. 63	125.5	125.0	124.2	123.6	122.8	122.2	122.1	122.5	121.9	121.0	120.0	120.0	118.8	122.6
Sofas, upholstered.....	Mar. 70	101.8	101.5	100.8	100.5	100.2	100.6	100.6	100.2	100.2					100.6
Sofas, dual purpose.....	Dec. 63	121.8	122.1	120.9	119.3	119.3	121.1	120.0	119.1	118.7	118.0	116.5	116.3	116.5	119.4
Mattresses and box springs.....	June 70	124.6	125.0	124.3	122.5	123.7	122.2	123.9	123.3	122.6	120.6	120.0	120.5	120.0	122.8
Cribs.....	Dec. 63	101.4	101.2	100.5	99.9	99.6	99.5	100.0							100.3
	Dec. 63	125.3	124.5	121.9	121.3	121.5	122.1	121.4	121.4	120.0	120.6	119.9	119.6	119.8	121.6
Floor coverings.....															
Rugs, soft surface.....		107.8	107.5	107.4	107.1	107.3	107.2	107.2	107.4	106.9	106.9	106.9	106.8	107.1	107.2
Rugs, hard surface.....		103.8	103.7	103.7	103.4	103.9	103.7	103.9	104.2	103.8	103.9	104.0	104.0	104.7	103.8
Tile, vinyl.....	Dec. 63	116.4	116.1	115.6	114.8	114.0	114.6	114.0	113.7	113.7	113.7	113.6	113.2	112.5	114.4
	Dec. 63	115.2	114.2	114.1	113.8	113.8	113.5	113.1	113.1	111.8	111.7	111.3	110.3	110.3	113.0
Appliances.....															
Washing machines, electric, automatic.....		87.9	87.8	87.6	87.3	87.3	87.3	87.2	87.1	87.1	86.8	86.6	86.5	86.4	87.2
Vacuum cleaners, canister type.....		93.6	93.4	93.1	92.7	93.1	93.1	93.0	92.9	92.0	92.4	92.3	91.8	91.5	92.9
		81.7	81.4	81.8	81.7	81.4	81.4	81.2	81.5	81.0	81.3	81.5	81.4	81.4	81.5

See footnotes at end of table.

25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970												1969 Dec.	Annual average 1970
		Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.		
HOUSING—Continued															
Household furnishings and operation—Con.															
Appliances—Continued															
Refrigerators or refrigerator-freezers, electric.....		88.6	88.4	88.1	87.7	87.5	87.6	87.5	87.3	87.5	87.2	86.8	86.1	86.0	87.5
Ranges, free standing, gas or electric.....		101.5	101.2	101.6	101.1	101.1	101.0	100.7	100.2	100.7	100.1	99.3	99.0	99.0	100.6
Clothes dryers, electric, automatic.....	Dec. 63	104.0	103.5	103.2	102.7	102.7	102.7	102.6	101.9	102.1	101.8	101.3	100.8	100.6	102.4
Air conditioners, demountable.....	June 64	(1)	(1)	(1)	(1)	101.6	101.6	101.5	101.3	101.3	(2)	(1)	(1)	(1)	101.5
Room heaters, electric, portable.....	Dec. 63	103.2	103.4	102.6	(2)	(1)	(1)	(1)	(1)	(1)	100.5	100.6	100.6	100.4	101.8
Garbage disposal units.....	Dec. 63	109.0	109.1	108.8	108.8	108.7	108.5	108.2	107.4	107.2	106.6	105.9	105.5	105.0	107.8
Other house furnishings:															
Dinnerware, earthenware.....	Dec. 63	142.2	141.9	142.0	140.3	140.5	139.6	139.3	138.3	138.1	138.1	137.1	136.2	135.6	139.5
Flatware, stainless steel.....	Dec. 63	121.7	121.7	121.8	122.0	121.9	121.6	121.0	120.8	120.7	120.4	120.1	119.2	119.0	121.1
Table lamps, with shade.....	Dec. 63	124.3	124.0	123.4	121.9	121.4	120.9	121.6	121.4	121.2	119.9	118.6	118.3	118.7	121.4
Housekeeping supplies:															
Laundry soaps and detergents.....		110.6	110.4	110.6	111.3	111.0	110.3	110.0	110.0	109.8	110.0	108.8	108.1	107.1	110.1
Paper napkins.....		140.7	140.4	140.2	139.8	140.4	140.5	139.5	138.5	136.4	134.7	131.3	129.8	131.0	137.7
Toilet tissue.....		132.6	130.9	129.5	129.9	130.0	129.9	129.7	129.4	127.8	126.8	123.5	121.9	120.3	128.5
Housekeeping services:															
Domestic service, general housework.....	Dec. 63	194.0	193.5	192.5	191.0	189.5	186.8	186.6	185.5	184.8	182.5	182.0	180.5	179.9	187.4
Baby sitter service.....	Dec. 63	146.1	145.5	144.9	143.9	142.7	142.4	141.8	141.5	140.9	140.0	138.6	137.6	137.4	142.2
Postal charges.....		171.2	171.2	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	165.5	166.4
Laundry, flatwork, finished service.....	Dec. 63	156.0	154.9	154.0	153.2	152.3	150.6	150.2	150.0	149.8	149.1	147.9	147.5	146.8	151.3
Licensed day care service, pre-school child.....	Dec. 63	135.9	135.3	135.8	135.1	134.3	133.1	132.7	132.5	132.1	132.0	132.0	132.0	131.8	133.6
Washing machine repairs.....	Dec. 63	148.0	147.8	146.7	146.0	144.5	140.8	140.2	140.4	139.8	139.6	138.3	136.6	135.4	142.4
APPAREL AND UPKEEP															
Men's and boys'															
Men's:															
Topcoats, wool.....		156.2	156.5	153.7	150.6	(1)	(1)	(1)	(1)	(1)	144.1	141.0	143.7	147.4	149.4
Suits, year round weight.....		165.6	166.1	164.5	162.8	159.6	158.6	160.5	160.2	159.8	157.3	153.9	154.2	158.2	160.3
Suits, tropical weight.....	June 64	(1)	(1)	(1)	(1)	(1)	131.8	140.5	138.4	137.4	136.6	(1)	(1)	(1)	136.9
Jackets, lightweight.....	Dec. 63	125.4	125.4	125.2	124.6	124.9	124.8	125.2	125.1	125.3	125.3	(1)	(1)	(1)	125.2
Slacks, wool or wool blend.....		133.8	134.3	133.7	132.7	130.8	130.8	132.8	132.7	131.8	131.0	129.6	130.0	131.2	132.0
Slacks, cotton or manmade blend.....		127.4	126.2	124.4	123.5	123.5	123.4	123.7	123.4	123.0	120.9	119.4	117.6	117.6	123.0
Trousers, work, cotton.....		119.5	119.5	119.7	118.8	118.7	118.4	117.8	117.1	117.2	116.6	116.4	116.0	117.2	118.0
Shirts, work, cotton.....		128.5	128.3	127.9	128.1	127.4	127.0	126.8	126.5	126.4	126.0	124.9	124.4	124.2	126.8
Shirts, business, cotton.....		123.0	126.8	126.7	126.5	125.8	125.1	124.6	124.2	124.1	123.7	123.2	122.5	122.3	124.7
T-shirts, chiefly cotton.....		135.4	135.3	134.2	134.9	134.7	135.0	134.7	134.6	134.1	132.9	133.3	132.4	131.9	134.3
Socks, cotton.....		123.0	123.4	123.4	123.3	122.7	123.3	123.1	122.6	122.6	121.5	121.3	120.9	120.9	122.6
Handkerchiefs, cotton.....	Dec. 63	117.6	116.6	116.4	116.0	115.2	115.5	115.3	115.1	114.4	114.2	113.9	113.8	113.8	115.3
Boys':															
Coats, all purpose, cotton or cotton blend.....	Dec. 63	125.3	124.3	122.6	(1)	(1)	(1)	(1)	(1)	(1)	114.6	114.3	114.2	116.1	119.2
Sport coats, wool or wool blend.....	Dec. 63	131.4	133.4	133.2	130.5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	127.8	130.3	131.3
Dungarees, cotton or cotton blend.....		133.3	132.9	132.6	132.0	130.9	128.0	130.1	130.1	129.5	129.5	129.4	128.9	127.1	130.6
Undershorts, cotton.....		131.4	131.3	131.5	131.6	131.5	131.3	131.5	131.6	130.9	130.5	129.9	130.1	130.3	131.1
Women's and girls'															
Women's:															
Coats, heavyweight, wool or wool blend.....		143.1	147.7	145.6	141.6	(1)	(1)	(1)	(1)	(1)	(1)	(1)	124.9	136.2	140.6
Skirts, wool or wool blend.....	Sept. 61	149.5	151.2	143.5	141.0	(1)	(1)	(1)	(1)	(1)	(1)	(1)	121.0	135.6	144.6
Skirts, cotton or cotton blend.....	Mar. 62	(1)	(1)	(1)	(1)	125.8	130.0	136.3	136.3	135.2	(2)	(1)	(1)	(1)	132.7
Blouses, cotton.....		133.4	132.5	130.8	130.4	130.2	126.2	130.6	129.7	127.1	125.3	124.9	126.9	127.6	129.0
Dresses, street, chiefly manmade fiber.....		161.4	160.1	160.8	159.5	158.6	156.1	155.8	156.5	158.9	158.5	158.7	155.9	158.3	158.4
Dresses, street, wool or wool blend.....		159.9	157.6	154.0	152.4	(1)	(1)	(1)	(1)	(1)	(1)	(1)	144.2	145.7	153.6
Dresses, street, cotton.....		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Housedresses, cotton.....		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	153.5	152.3	153.0
Slips, nylon.....		116.1	115.1	114.7	114.5	114.7	115.2	115.8	115.6	114.7	114.2	114.6	113.4	112.3	114.9
Panties, acetate.....		115.3	115.2	115.2	114.6	114.4	114.5	113.5	113.3	112.7	113.2	112.7	112.0	111.2	113.9
Girdles, manmade blend.....		124.8	122.9	122.9	122.0	121.9	120.4	121.4	121.4	121.3	121.4	120.9	120.5	120.8	121.8
Brassieres, cotton.....	Dec. 63	130.9	130.5	129.7	129.0	129.0	128.2	128.9	129.2	128.4	127.4	125.6	124.4	124.9	128.4
Hose, nylon, seamless.....		99.9	100.0	99.6	99.0	99.3	99.4	98.8	99.1	98.9	99.0	98.3	98.5	99.8	99.1
Anklets, cotton.....	Dec. 63	120.7	120.5	121.0	120.5	119.3	119.7	118.9	120.1	120.1	120.5	122.5	121.0	121.5	120.4
Gloves, fabric, nylon or cotton.....	Dec. 63	112.5	113.2	112.5	112.3	111.8	111.6	111.4	111.2	110.6	110.9	111.0	110.7	110.5	111.6
Handbags, rayon faille or plastic.....	Dec. 63	124.9	124.3	123.5	122.8	120.3	118.7	120.3	119.3	118.8	118.2	118.5	116.4	117.3	120.5
Girls':															
Raincoats, vinyl plastic or chiefly cotton.....	Dec. 63	127.7	128.8	123.7	120.3	(1)	(1)	(1)	(1)	(1)	114.8	118.9	118.1	125.6	121.8
Skirts, wool or wool blend.....		124.1	123.4	124.0	124.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	117.4	123.2	122.6

See footnotes at end of table.

25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970												1969	Annual average 1970
		Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.		
APPAREL AND UPKEEP—Continued															
Women's and girls'—Continued															
Girls'—Continued															
Dresses, cotton		128.5	128.8	132.0	129.6	130.7	131.5	133.2	129.4	135.1	134.0	132.3	129.8	133.6	131.2
Slacks, cotton	Dec. 63	143.8	142.9	136.8	(?)	(?)	(?)	(?)	(?)	(?)	125.5	125.4	128.4	131.8	133.8
Slips, cotton blend	Dec. 63	108.8	109.1	108.9	108.1	107.8	107.9	108.0	107.3	107.5	108.1	107.8	108.0	108.0	108.1
Handbags	Dec. 63	119.3	119.6	119.2	117.2	117.2	117.1	118.3	117.4	115.7	115.1	114.9	113.7	114.2	117.0
Footwear															
Men's:															
Shoes, street, oxford		150.4	149.9	149.4	148.6	147.9	147.5	147.7	147.6	147.2	146.3	145.0	144.4	144.4	147.7
Shoes, work, high		148.8	147.2	146.3	146.1	144.7	145.2	145.6	145.3	144.7	143.8	142.3	141.3	142.6	145.1
		147.0	146.3	145.9	144.9	144.7	143.4	143.4	142.9	142.6	142.1	141.4	140.9	139.8	143.8
Women's:															
Shoes, street, pump		158.5	158.3	158.6	157.2	156.2	155.5	156.8	157.3	157.3	155.5	151.6	151.8	152.7	156.2
Shoes, evening, pump	Dec. 63	129.5	129.6	129.5	128.6	127.7	127.5	126.6	126.7	125.8	125.0	124.8	124.2	123.2	127.1
Shoes, casual, pump	Dec. 63	138.7	139.8	138.5	137.9	137.7	137.2	138.3	138.7	138.3	136.3	135.7	134.2	134.0	137.6
House slippers, scuff	Dec. 63	130.8	130.2	130.5	130.6	129.5	128.2	128.1	127.7	127.7	128.2	127.8	128.0	127.5	128.9
Children's:															
Shoes, oxford		149.8	149.2	148.7	147.9	147.1	147.1	147.2	146.6	146.3	146.6	145.9	144.3	144.3	147.3
Sneakers, boys', oxford type	Dec. 63	124.2	123.2	123.2	122.6	123.1	122.9	123.2	122.6	122.0	120.7	120.0	119.6	119.5	122.3
Dress shoes, girls', strap	Dec. 63	142.3	141.6	139.9	138.0	138.5	138.6	138.3	138.3	137.5	138.0	136.6	136.6	136.4	138.7
Miscellaneous apparel:															
Diapers, cotton gauze		105.6	105.4	105.3	105.3	105.4	105.4	105.0	104.9	104.8	104.9	104.3	104.0	104.0	105.0
Yard goods, cotton		128.3	128.4	128.7	128.0	125.3	125.4	127.1	127.6	126.8	125.9	124.6	123.3	123.5	126.6
Apparel services:															
Drycleaning, men's suits and women's dresses		138.6	137.8	137.2	136.8	136.7	136.4	136.3	136.0	135.7	135.2	134.6	133.8	133.3	136.2
Automatic laundry service	Dec. 63	116.5	116.2	115.1	114.6	114.4	114.3	114.0	113.2	113.1	113.2	112.3	112.0	112.0	114.1
Laundry, men's shirts	Dec. 63	133.3	132.0	131.4	131.1	130.6	130.3	130.0	129.0	128.8	128.5	128.0	126.8	126.7	130.0
Tailoring charges, hem adjustment	Dec. 63	138.6	137.6	137.1	134.6	134.3	133.7	133.3	128.8	128.4	127.7	127.4	127.0	127.4	132.4
Shoe repairs, women's heel lift	Dec. 63	128.6	128.5	128.3	128.0	127.8	126.9	126.8	126.5	126.3	125.5	125.0	124.6	123.7	126.9
TRANSPORTATION															
Private															
Automobiles, new		131.2	130.1	129.2	126.6	126.4	127.2	126.7	125.9	124.9	123.0	123.3	123.3	123.4	126.5
Automobiles, used		111.9	110.4	108.7	103.1	103.5	103.7	103.8	104.1	104.3	104.4	104.6	104.7	104.9	105.6
Gasoline, regular and premium		133.0	132.2	130.3	127.4	129.2	131.8	132.0	127.5	121.1	117.6	117.8	120.7	123.9	126.7
Motor oil, premium		120.0	118.6	119.3	117.8	116.9	118.6	119.7	118.6	119.2	115.3	116.7	116.6	116.9	117.9
		147.1	146.6	145.8	145.4	144.3	143.7	143.0	142.8	142.6	142.3	141.4	140.7	140.2	143.8
Tires, new, tubeless		122.4	121.7	122.2	120.9	119.7	119.0	118.0	118.6	118.6	119.4	118.5	118.2	118.2	119.8
Auto repairs and maintenance		147.5	146.8	146.3	145.6	144.8	144.3	143.5	142.9	142.1	141.5	140.2	139.2	137.3	143.7
Auto insurance rates		189.9	189.6	187.4	186.4	184.0	183.7	181.9	179.5	175.6	176.4	176.0	173.4	171.5	182.2
Auto registration		140.9	140.9	140.9	140.9	140.9	140.9	140.9	140.9	140.9	140.3	140.3	140.3	134.2	140.7
Public															
Local transit fares		176.2	175.0	173.5	173.3	171.0	170.8	167.8	166.6	165.8	165.8	165.4	165.1	153.0	169.7
Taxicab fares	Dec. 63	195.8	195.1	192.6	192.3	191.1	190.9	185.8	185.2	183.9	183.8	183.8	183.3	163.2	188.6
Railroad fares, coach		137.5	136.0	136.0	136.0	135.9	135.9	135.9	131.5	131.5	131.5	131.5	131.5	131.5	134.2
Airplane fares, chiefly coach	Dec. 63	131.5	131.2	131.2	131.2	121.5	121.5	121.5	121.1	121.1	121.1	117.2	117.2	117.2	123.9
Bus fares, intercity	Dec. 63	122.9	122.6	122.6	122.6	117.9	117.9	117.8	117.8	117.8	117.1	117.4	117.4	117.4	119.4
	Dec. 63	142.6	132.5	132.5	132.5	130.1	130.1	130.1	128.6	128.6	128.6	127.9	127.9	127.9	131.0
HEALTH AND RECREATION															
Medical care															
Drugs and prescriptions		169.8	168.9	167.9	167.6	166.8	165.8	164.7	163.6	162.8	161.6	160.1	159.0	158.1	164.9
Over-the-counter items	Dec. 63	120.0	101.8	102.2	102.1	102.2	102.0	101.6	101.4	100.9	100.3	100.0	99.7	99.6	101.3
Multiple vitamin concentrates	Dec. 63	112.4	112.0	111.9	110.8	110.5	110.5	109.7	109.2	108.6	107.8	107.2	107.2	107.1	109.8
Aspirin compounds	Dec. 63	91.5	91.3	92.2	92.2	92.3	92.7	92.6	92.7	92.0	91.7	90.8	92.3	92.8	92.0
	Dec. 63	116.4	115.3	114.2	112.7	112.3	112.0	109.8	109.2	108.1	107.3	107.4	106.2	106.6	110.9
Liquid tonics	Dec. 63	102.6	102.3	102.2	102.1	101.8	101.7	101.8	101.9	101.9	101.5	101.2	101.3	101.3	101.9
Adhesive bandages, package	Dec. 63	127.6	127.2	128.7	124.9	124.4	125.0	122.7	121.4	119.8	119.7	118.2	117.8	117.7	122.9
Cold tablets or capsules	Dec. 63	113.9	113.8	113.4	113.3	113.1	112.7	112.7	112.7	112.6	112.2	111.5	111.0	110.5	112.7
Cough syrup	Dec. 63	119.9	119.9	119.2	118.0	117.7	117.5	117.2	116.4	116.0	113.5	113.0	113.4	112.9	116.9
Prescriptions		89.2	89.3	90.0	90.6	91.0	90.7	90.6	90.5	90.3	89.7	89.7	89.3	89.1	90.1
Anti-infectives	Mar. 60	56.1	56.8	59.3	61.6	63.5	63.3	63.2	63.1	63.0	62.8	63.0	62.8	61.5	61.5
Sedatives and hypnotics	Mar. 60	117.7	117.1	116.8	116.3	115.1	114.5	114.0	114.2	113.7	112.1	112.0	110.6	110.4	114.5
Ataractics	Mar. 60	90.7	90.6	90.7	90.6	90.6	90.7	90.8	90.7	90.7	90.0	90.0	90.0	89.8	90.5
Anti-spasmodics	Mar. 60	104.4	104.0	103.6	103.3	103.2	102.8	102.6	102.4	102.2	101.7	101.6	101.5	101.3	102.8
Cough preparations	Mar. 60	121.5	120.7	120.5	119.4	119.1	118.2	118.1	118.0	118.1	117.1	115.2	112.7	112.0	118.2
Cardiovasculars and antihypertensives	Mar. 60	101.6	101.4	101.3	100.9	100.7	100.4	100.4	100.4	100.0	99.0	98.8	98.3	98.0	100.3
Analgesics, internal	Mar. 67	106.6	106.4	106.3	106.1	105.9	105.4	105.4	105.2	105.3	104.7	105.0	104.3	103.3	105.6
Anti-obesity	Mar. 67	111.5	110.8	109.6	109.5	108.9	108.1	107.2	107.2	106.0	105.8	105.5	104.8	104.3	107.9
Hormones	Mar. 67	94.6	94.5	94.3	95.0	94.9	94.7	94.2	94.2	93.6	93.9	93.6	93.6	94.2	94.2
Professional services:															
Physicians' fees		172.9	171.4	170.0	169.6	168.7	167.8	167.3	165.6	164.3	163.7	161.6	160.7	160.0	167.0
Family doctor, office visits		176.8	174.7	173.9	173.4	171.2	171.3	170.8	168.3	167.3	166.6	164.0	163.1	162.4	170.1
Family doctor, house visits		179.7	177.8	177.2	176.9	176.6	176.0	175.6	173.6	172.5	171.7	169.0	167.9	167.6	174.6
Obstetrical cases		164.9	164.1	163.1	163.1	162.9	162.2	161.8	161.1	159.2	159.0	157.6	155.9	155.0	161.2
Pediatric care, office visits	Dec. 63	156.3	156.1	154.1	153.7	153.8	151.3	151.3	151.4	151.3	148.7	148.5	147.7	146.5	151.6
Psychiatrist, office visits	Dec. 63	138.6	138.3	137.3	137.3	136.8	135.3	135.0	135.0	134.7	134.6	133.7	133.0	132.6	135.8

See footnotes at end of table.

25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

Index or group	Other index bases	1970												1969	Annual average 1970
		Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
HEALTH AND RECREATION—Continued															
Medical care—Continued															
Professional services—Continued															
Physicians' fees—Continued															
Herniorrhaphy, adult.....	Dec. 63	137.0	136.6	133.0	132.9	132.4	130.7	130.6	129.6	128.7	127.5	126.7	126.3	125.4	131.0
Tonsillectomy and adenoidectomy.....		162.4	162.0	160.9	159.7	159.3	157.5	156.7	156.1	154.2	153.8	152.6	152.3	151.6	157.3
Dentists' fees.....		155.8	155.6	155.2	154.3	153.4	152.8	151.9	151.2	150.7	148.7	148.4	148.0	147.6	152.2
Fillings, adult, amalgam, one surface.....		157.5	157.3	156.8	156.4	155.5	154.9	154.1	153.3	152.5	150.6	150.3	149.8	148.7	154.1
Extractions, adult.....		154.9	154.7	154.3	152.4	151.4	150.1	149.7	148.9	148.9	146.1	145.9	146.0	147.0	150.3
Dentures, full upper.....	Dec. 63	136.8	136.7	136.6	135.9	135.0	134.8	133.6	133.2	132.7	131.7	131.3	130.6	130.2	134.1
Other professional services:															
Examination, prescription, and dispensing of eyeglasses.....		142.0	141.6	140.1	139.8	139.2	138.2	137.8	136.9	136.7	136.3	135.7	134.6	133.9	138.2
Routine laboratory tests.....	Dec. 63	123.6	123.2	120.2	121.8	121.7	121.9	121.7	121.3	121.2	120.8	119.8	119.6	119.5	121.6
Hospital service charges:															
Daily service charges.....		304.2	300.7	297.8	295.1	292.5	289.1	284.4	283.1	282.3	279.0	275.6	271.6	267.9	287.9
Semiprivate rooms.....		301.1	297.5	294.7	292.1	289.3	285.9	281.1	279.8	279.1	275.6	271.9	268.0	264.1	284.7
Private rooms.....		291.8	288.7	286.0	283.1	281.0	277.9	273.5	272.3	271.4	268.7	265.9	261.8	258.7	276.8
Operating room charges.....	Dec. 63	191.7	188.9	188.6	186.4	185.9	183.6	181.7	180.9	180.3	177.7	175.4	172.8	170.9	182.8
X-ray, diagnostic series, upper G.I.....	Dec. 63	135.0	134.4	133.5	132.8	132.8	131.4	131.4	129.4	128.1	127.7	125.4	124.7	124.7	130.5
Personal care:															
Toilet goods.....		132.8	132.3	132.1	131.7	131.3	130.6	130.2	130.3	129.8	129.6	129.0	128.5	128.1	130.7
Toothpaste, standard dentifrice.....		115.1	114.5	114.6	114.1	114.0	113.5	113.3	113.3	113.0	112.9	112.4	112.0	111.6	113.6
Toilet soap, hard milled.....		114.6	114.4	115.4	115.1	114.4	113.9	114.4	114.4	114.7	113.9	114.3	114.1	114.6	114.5
Hand lotions, liquid.....	Dec. 63	131.6	131.0	130.6	129.9	129.1	128.3	127.0	126.2	124.3	125.6	124.3	123.0	123.4	127.6
Shaving cream, aerosol.....		111.6	110.8	110.1	109.6	109.3	109.5	111.2	111.5	117.3	110.5	110.0	109.2	109.1	110.4
Face powder, pressed.....		104.3	103.9	103.9	102.5	102.2	102.0	101.3	102.1	102.3	102.2	102.1	102.1	101.9	102.6
Deodorants, cream or roll-on.....	Dec. 63	135.3	134.6	134.3	134.2	133.8	131.9	131.4	131.6	131.0	130.8	129.1	128.1	127.6	132.2
Cleansing tissues.....		96.0	95.2	97.0	96.6	97.0	96.4	95.9	95.8	95.9	96.1	96.1	96.0	94.5	96.2
Home permanent refills.....		118.2	116.6	116.5	116.6	117.4	117.0	116.4	116.4	116.0	115.5	114.4	113.8	112.5	116.2
Personal care services.....		98.8	99.1	98.8	98.3	98.7	98.8	98.3	98.4	98.3	98.6	98.6	98.6	98.7	98.6
Men's haircuts.....		154.8	154.4	153.9	153.4	152.7	151.9	151.2	151.3	150.5	150.1	149.5	148.9	148.5	151.9
Beauty shop services.....		165.2	164.9	164.6	164.1	163.6	162.5	161.0	161.0	159.7	159.1	158.7	158.0	157.8	161.9
Women's haircuts.....	Dec. 63	144.2	143.8	143.1	142.6	141.8	141.2	141.0	141.2	140.9	140.6	140.0	139.2	138.8	141.6
Shampoo and wave sets, plain.....		129.8	129.5	129.0	128.7	128.6	125.8	125.4	126.4	126.3	126.1	125.4	125.3	125.2	127.0
Permanent waves, cold.....		162.8	162.2	161.2	160.6	160.0	159.2	159.0	159.0	158.6	158.3	157.5	156.8	156.3	159.6
Reading and recreation.....		110.9	110.5	110.3	109.8	109.8	109.8	110.0	109.6	109.4	109.0	108.9	107.5	107.2	109.6
Recreational goods.....	Dec. 63	139.6	139.3	138.4	137.7	137.1	136.6	136.1	135.2	134.4	133.6	133.2	133.1	132.7	136.2
TV sets, portable and console.....		100.9	100.9	100.7	100.5	100.2	100.1	100.0	99.9	99.6	99.4	99.2	99.1	99.1	100.0
TV replacement tubes.....	Dec. 63	80.7	80.7	80.4	80.1	80.0	79.9	80.1	80.1	80.0	79.9	79.9	80.0	80.2	80.1
Radios, portable and table model.....		124.0	124.1	123.8	123.1	122.0	120.6	119.3	118.3	117.5	117.3	116.6	116.3	116.3	120.3
Tape recorders, portable.....		76.5	76.5	76.4	76.4	76.6	76.6	76.6	76.6	76.5	76.0	76.1	76.4	76.5	76.4
Phonograph records, stereophonic.....	Dec. 63	91.2	91.1	90.7	89.7	89.2	89.8	89.9	90.4	90.3	90.2	90.2	90.0	90.1	90.2
Movie cameras, Super 8, zoom lens.....	Dec. 63	97.6	97.6	97.8	97.8	97.6	98.1	98.2	98.3	97.8	98.1	97.9	98.0	98.0	97.9
Film, 35mm, color.....	Dec. 63	80.6	81.1	81.2	81.9	82.0	82.2	82.3	82.0	81.4	81.3	81.6	82.1	82.3	81.7
Bicycle, boys'.....	Dec. 63	100.6	100.5	100.3	100.3	100.1	100.1	100.1	100.0	99.7	99.7	99.7	99.1	99.1	100.0
Tricycles.....	Dec. 63	110.3	111.9	111.8	111.7	111.1	110.7	110.4	110.5	110.8	111.4	111.2	110.7	110.4	111.0
Recreational services.....	Dec. 63	113.5	113.9	113.9	113.8	113.3	113.6	113.7	113.1	111.6	111.2	112.0	112.0	111.6	113.0
Indoor movie admissions.....		140.6	140.3	140.1	139.4	138.0	137.1	136.9	135.9	135.0	134.1	133.7	133.9	133.2	137.1
Adult.....		226.7	225.9	226.9	226.7	223.6	221.4	220.0	217.9	215.4	212.0	210.5	211.7	210.3	219.9
Children's.....		221.4	220.7	221.5	222.2	218.5	216.8	215.6	212.8	210.9	207.7	206.1	207.3	205.4	215.1
Drive-in movie admissions, adult.....	Dec. 63	244.5	243.3	245.1	244.2	240.7	237.0	235.0	234.8	230.6	226.7	225.4	226.9	227.1	236.0
Bowling fees, evening.....	Dec. 63	180.6	180.1	180.4	178.4	176.2	172.3	171.6	168.9	168.1	167.5	167.0	165.6	165.5	173.0
Golf greens fees.....	Dec. 63	117.5	117.8	116.4	114.8	114.3	114.6	115.7	115.2	115.2	114.8	115.0	115.3	113.7	115.5
TV repairs, picture tube replacement.....		(¹)	145.6	145.8	145.4	145.8	145.5	145.1	141.5	139.3	(²)	(²)	(²)	(²)	143.9
Film developing, black and white.....	Dec. 63	97.6	97.8	97.5	97.7	97.6	97.7	97.6	98.6	98.7	98.9	99.5	100.2	100.2	98.3
Reading and education:		121.6	121.0	120.5	119.8	118.4	116.7	116.4	117.7	117.6	117.3	117.7	117.4	117.7	118.5
Newspapers, street sale and delivery.....	Dec. 63	175.1	173.9	171.3	168.4	167.6	166.8	163.9	161.5	160.4	160.4	159.8	160.2	158.2	165.8
Piano lessons, beginner.....		131.8	131.6	131.8	130.9	129.3	129.0	128.4	128.2	128.2	127.8	127.7	127.6	127.3	129.3
Other goods and services:															
Tobacco products.....		140.1	139.8	139.5	138.8	138.1	137.3	136.7	136.1	135.6	134.8	134.3	133.9	133.5	137.1
Cigarettes, nonfilter tip, regular size.....		162.2	162.1	161.9	161.7	160.9	159.7	158.1	156.7	156.4	155.0	154.9	154.1	153.8	158.6
Cigarettes, filter tip, king size.....	Mar. 59	171.0	170.8	170.6	170.4	169.2	167.9	166.0	164.4	164.1	162.8	162.7	161.8	161.4	166.8
Cigarettes, domestic, regular size.....		162.5	162.3	162.2	162.0	161.3	160.2	158.5	157.2	156.8	154.9	154.8	154.0	153.5	158.9
Alcoholic beverages.....		109.1	109.1	108.9	109.0	109.0	108.6	108.6	108.6	108.6	108.7	108.7	109.0	110.0	108.8
Beer.....		125.7	125.5	125.1	124.5	123.9	123.2	123.2	123.1	122.5	122.0	121.4	121.0	120.6	123.4
Whiskey, spirit blended and straight bourbon.....		120.5	120.3	119.8	119.5	119.1	118.2	118.3	118.5	118.2	117.7	116.9	116.5	116.5	118.6
Wine, dessert and table.....	Dec. 63	113.4	113.3	113.1	113.4	113.3	113.1	112.7	112.5	111.8	111.6	111.3	111.2	111.5	112.5
Beer, away from home.....	Dec. 63	120.4	120.4	120.1	120.0	120.0	119.8	119.6	119.4	118.9	117.4	116.8	116.5	115.2	119.1
Financial and miscellaneous personal expenses:		134.1	133.7	133.3	131.7	130.3	129.5	129.6	129.3	128.4	128.0	127.6	127.1	125.9	130.2
Funeral services, adult.....	Dec. 63	121.7	121.5	121.2	120.7	120.3	119.9	119.6	119.3	119.0	118.6	118.1	117.7	117.4	119.8
Bank service charges, checking accounts.....	Dec. 63	115.4	115.6	115.6	110.4	110.2	110.2	110.3	110.0	110.0	110.1	110.0	110.2	110.3	111.5
Legal services, short form will.....	Dec. 63	158.1	155.2	154.6	149.9	149.9	149.2	149.0	146.1	145.6	145.1	142.7	142.3	141.2	149.0

¹ Priced only in season.

² Not available.

³ This item is a replacement for bedroom suites, good or inexpensive quality, which was discontinued after March 1970.

⁴ This item is a replacement for dining room suites, which was discontinued after March 1970.

⁵ Item discontinued.

⁶ This item is a replacement for box springs, which was discontinued after April 1970.

26. Consumer Price Index¹—U.S. city average, and selected areas

[1957-59=100 unless otherwise specified]

Area ²	1970												1969	Annual avg.
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
	All items													
U.S. city average ³	138.5	137.8	137.4	136.6	136.0	135.7	135.2	134.6	134.0	133.2	132.5	131.8	131.3	127.7
Atlanta, Ga.	137.1	(4)	(4)	134.9	(4)	(4)	133.6	(4)	(4)	131.9	(4)	(4)	129.9	126.7
Baltimore, Md.	140.1	(4)	(4)	137.2	(4)	(4)	135.2	(4)	(4)	133.5	(4)	(4)	131.9	128.3
Boston, Mass.	(4)	(4)	142.3	(4)	(4)	139.5	(4)	(4)	137.9	(4)	(4)	136.1	(4)	131.8
Buffalo, N.Y. (Nov. 1963=100)	(4)	130.5	(4)	(4)	127.9	(4)	(4)	127.0	(4)	(4)	125.3	(4)	(4)	120.5
Chicago, Ill.—Northwestern Ind.	135.4	134.8	134.5	133.8	133.1	132.3	131.5	131.1	130.2	129.9	129.3	129.1	128.3	124.9
Cincinnati, Ohio—Kentucky	134.5	(4)	(4)	132.6	(4)	(4)	131.2	(4)	(4)	129.2	(4)	(4)	(4)	127.7
Cleveland, Ohio	(4)	137.0	(4)	(4)	135.6	(4)	(4)	134.3	(4)	(4)	132.3	(4)	(4)	126.3
Dallas, Tex. (Nov. 1963=100)	(4)	128.5	(4)	(4)	128.3	(4)	(4)	127.1	(4)	(4)	125.6	(4)	(4)	120.3
Detroit, Mich.	137.3	137.8	137.1	136.0	135.3	135.5	135.2	134.9	133.8	133.1	132.2	131.1	130.8	127.1
Honolulu, Hawaii (Dec. 1963=100)	124.7	(4)	(4)	123.9	(4)	(4)	123.3	(4)	(4)	122.0	(4)	(4)	(4)	117.0
Houston, Tex.	(4)	(4)	134.9	(4)	(4)	133.7	(4)	(4)	132.9	(4)	(4)	(4)	130.9	127.0
Kansas City, Mo.—Kansas	141.3	(4)	(4)	138.5	(4)	(4)	137.9	(4)	(4)	134.6	(4)	(4)	(4)	130.1
Los Angeles—Long Beach, Calif.	137.4	136.7	136.6	136.2	134.3	135.1	133.9	133.8	133.5	132.2	131.6	131.2	131.1	128.0
Milwaukee, Wis.	(4)	133.0	(4)	(4)	131.2	(4)	(4)	130.0	(4)	(4)	128.5	(4)	(4)	123.6
Minneapolis—St. Paul, Minn.	(4)	(4)	138.2	(4)	(4)	136.7	(4)	(4)	135.1	(4)	(4)	(4)	(4)	127.4
New York, N.Y.—Northeastern N.J.	145.7	144.6	144.2	143.4	142.6	142.1	141.6	140.7	140.1	139.1	138.1	137.0	136.0	131.8
Philadelphia, Pa.—N.J.	141.7	141.4	140.8	139.8	137.9	137.4	137.0	136.5	135.7	135.4	134.1	132.9	132.2	128.9
Pittsburgh, Pa.	(4)	(4)	136.7	(4)	(4)	134.6	(4)	(4)	132.4	(4)	(4)	(4)	(4)	127.0
Portland, Oreg.—Wash. ⁵	(4)	(4)	135.3	(4)	(4)	134.1	(4)	(4)	133.4	(4)	(4)	(4)	(4)	128.4
St. Louis, Mo.—Ill.	137.3	(4)	(4)	136.2	(4)	(4)	134.1	(4)	(4)	132.4	(4)	(4)	130.7	127.5
San Diego, Calif. (Feb. 1965=100)	(4)	123.7	(4)	(4)	121.8	(4)	(4)	120.9	(4)	(4)	118.6	(4)	(4)	115.1
San Francisco—Oakland, Calif.	141.0	(4)	(4)	138.9	(4)	(4)	137.5	(4)	(4)	136.1	(4)	(4)	134.5	131.1
Scranton, Pa. ⁴	(4)	139.7	(4)	(4)	137.9	(4)	(4)	136.9	(4)	(4)	134.4	(4)	(4)	129.2
Seattle, Wash.	(4)	135.0	(4)	(4)	134.6	(4)	(4)	133.9	(4)	(4)	132.2	(4)	(4)	128.3
Washington, D.C.—Md.—Va.	(4)	139.0	(4)	(4)	137.8	(4)	(4)	136.7	(4)	(4)	134.6	(4)	(4)	129.5
	Food													
U.S. city average ³	132.8	132.4	133.0	133.3	133.5	133.4	132.7	132.4	132.0	131.6	131.5	130.7	129.9	125.5
Atlanta, Ga.	132.4	131.4	132.2	131.7	131.7	131.4	131.1	130.0	130.6	130.5	130.7	129.0	128.4	123.8
Baltimore, Md.	136.6	135.8	137.4	137.7	137.8	137.6	136.7	136.5	135.9	136.2	135.4	134.9	134.1	128.8
Boston, Mass.	139.4	138.7	138.6	138.5	139.1	138.1	137.0	136.6	135.9	135.4	135.0	134.3	133.1	129.3
Buffalo, N.Y. (Nov. 1963=100)	128.2	127.4	127.6	127.9	128.4	129.5	128.6	128.1	128.4	127.3	127.0	125.4	125.1	120.6
Chicago, Ill.—Northwestern Ind.	132.9	131.9	133.3	133.4	135.0	133.8	133.6	133.1	132.6	133.0	133.2	132.8	131.3	127.2
Cincinnati, Ohio—Kentucky	130.0	130.2	130.1	130.1	130.1	130.5	129.7	129.1	128.6	127.9	127.8	127.2	126.6	122.1
Cleveland, Ohio	132.8	132.4	131.0	131.8	131.9	132.1	131.2	130.8	129.7	129.3	128.4	129.0	128.5	123.2
Dallas, Tex. (Nov. 1963=100)	125.3	125.1	126.4	127.3	127.4	125.9	125.8	126.0	125.5	125.5	125.9	125.0	124.2	119.8
Detroit, Mich.	130.8	130.4	131.1	133.1	133.3	133.3	132.2	132.1	131.2	130.9	130.2	129.8	129.3	124.3
Honolulu, Hawaii (Dec. 1963=100)	123.6	123.6	123.4	124.8	124.3	123.5	123.8	123.2	123.4	123.4	122.9	123.0	120.8	117.4
Houston, Tex.	134.3	133.8	134.5	134.4	134.7	134.3	133.3	133.4	133.8	132.7	133.3	132.3	131.2	126.9
Kansas City, Mo.—Kansas	136.7	136.7	137.6	138.4	138.4	138.3	136.9	136.8	136.4	135.9	135.8	135.1	134.4	129.4
Los Angeles—Long Beach, Calif.	128.9	128.5	128.9	128.8	128.3	128.9	127.8	128.1	127.4	126.7	127.2	126.2	125.8	122.6
Milwaukee, Wis.	128.7	128.6	129.2	129.2	130.0	130.0	129.4	129.4	129.3	130.2	130.1	129.5	128.4	125.2
Minneapolis—St. Paul, Minn.	132.1	132.0	132.3	132.5	132.4	132.3	131.4	131.3	131.2	131.2	130.6	129.5	128.2	123.7
New York, N.Y.—Northeastern N.J.	137.6	137.2	137.4	137.3	137.5	137.9	136.8	136.0	135.7	135.1	134.7	133.8	132.9	127.1
Philadelphia, Pa.—N.J.	133.2	133.3	134.0	133.3	133.0	133.1	132.4	132.3	131.5	132.0	132.0	130.7	129.7	125.5
Pittsburgh, Pa.	128.9	128.0	128.9	128.7	128.7	129.6	128.7	128.8	128.3	128.2	128.0	127.5	127.1	122.4
Portland, Oreg.—Wash. ⁵			128.0			127.9				128.5				124.0
St. Louis, Mo.—Ill.	137.3	137.1	138.1	139.0	137.9	137.7	136.7	136.3	136.5	136.6	137.4	136.6	135.5	129.5
San Diego, Calif. (Feb. 1965=100)	123.3	122.9	122.7	123.0	122.8	123.0	122.0	122.3	121.3	120.8	121.3	120.6	120.0	117.0
San Francisco—Oakland, Calif.	130.3	128.8	128.4	128.8	129.7	130.5	129.1	129.0	128.8	128.2	128.7	128.2	127.2	123.8
Scranton, Pa.		131.4			132.0			131.3			131.3			125.0
Seattle, Wash.	130.6	130.0	130.6	131.0	131.3	130.6	130.3	130.6	130.1	128.5	129.2	127.8	127.6	124.5
Washington, D.C.—Md.—Va.	134.8	134.1	135.4	136.1	136.1	137.6	137.1	136.2	136.6	135.7	136.2	134.8	133.5	129.5

¹ See table 23. 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 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.

³ Average of 56 "cities" (metropolitan areas and nonmetropolitan urban places beginning January 1966).

⁴ All items indexes are computed monthly for 5 areas and once every 3 months on a rotating cycle for other areas.

⁵ Old series.

27. Wholesale price indexes,¹ by group and subgroup of commodities

[1957-59=100 unless otherwise specified] ²

Code	Commodity Group	1970												1969 Dec.	Annual average 1969
		Dec	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.		
	ALL COMMODITIES	117.8	117.7	117.8	117.8	117.2	117.7	117.0	116.8	116.6	116.6	116.4	116.0	115.1	113.0
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS	115.0	115.6	116.0	118.5	117.0	119.3	117.5	117.0	117.6	118.8	118.7	118.2	116.4	113.5
	INDUSTRIAL COMMODITIES	118.7	118.3	118.3	117.4	117.1	116.9	116.7	116.6	116.2	115.8	115.5	115.1	114.6	112.7
	FARM PRODUCTS, AND PROCESSED FOODS AND FEEDS														
01	Farm products.....	106.8	106.7	107.5	111.8	108.2	113.1	111.3	111.0	111.3	114.3	113.7	112.5	111.7	108.5
01-1	Fresh and dried fruits and vegetables.....	113.1	109.4	102.4	113.4	99.6	112.6	122.2	123.5	112.7	118.2	117.2	116.6	112.4	111.0
01-2	Grains.....	99.6	96.1	96.0	100.5	89.2	89.2	89.2	88.4	87.8	85.5	85.9	85.9	82.9	83.3
01-3	Livestock.....	100.6	102.3	111.8	114.9	118.6	126.2	123.0	122.2	124.8	129.6	124.9	117.3	120.2	118.3
01-4	Live poultry.....	65.9	78.0	76.5	81.7	77.5	81.9	77.9	83.7	82.8	90.8	87.1	94.8	86.9	89.8
01-5	Plant and animal fibers.....	62.5	63.4	64.1	64.9	66.2	66.1	65.7	65.6	65.4	64.9	65.4	65.3	65.7	67.1
01-6	Fluid milk.....	143.4	142.2	140.6	140.3	139.5	139.7	139.6	139.5	141.1	139.7	140.8	140.5	138.3	134.8
01-7	Eggs.....	107.3	99.3	88.2	117.6	89.6	111.2	85.3	79.7	94.9	120.1	136.9	152.2	155.8	112.9
01-8	Hay, haysseeds, and oilseeds.....	123.2	124.7	123.0	118.3	116.6	116.8	112.6	111.1	109.8	106.3	106.3	107.7	105.1	109.2
01-9	Other farm products.....	119.5	120.9	117.1	118.7	118.3	116.5	114.9	115.0	114.7	114.8	115.2	116.3	113.1	109.1
02	Processed foods and feeds.....	123.6	124.8	124.9	126.2	126.1	126.6	124.8	124.1	124.9	124.9	125.2	125.1	122.6	119.8
02-1	Cereal and bakery products.....	129.9	129.5	128.7	127.9	126.5	125.8	124.6	124.6	124.6	123.7	123.3	122.3	122.0	120.2
02-2	Meats, poultry, and fish.....	109.5	114.2	116.4	120.9	122.5	126.3	123.7	122.5	124.9	127.1	124.9	125.8	121.9	119.5
02-3	Dairy products.....	137.5	136.8	136.5	135.8	136.2	135.7	135.4	135.4	135.1	133.1	134.1	133.9	133.9	131.9
02-4	Processed fruits and vegetables.....	119.0	119.6	119.1	120.1	119.6	118.9	118.5	118.1	117.5	116.5	117.3	116.9	116.4	115.7
02-5	Sugar and confectionery.....	133.1	133.5	134.0	133.6	132.4	132.3	130.4	129.4	128.7	127.4	127.7	129.1	127.1	123.6
02-6	Beverages and beverage materials.....	121.7	122.2	121.9	121.5	121.1	120.4	120.3	120.3	118.8	118.4	118.3	117.4	116.1	112.9
02-7	Animal fats and oils.....	107.6	124.2	117.8	118.0	118.5	111.3	111.5	116.8	118.8	133.7	115.7	111.0	115.6	100.3
02-72	Crude vegetable oils.....	117.3	126.7	117.6	104.2	109.9	103.0	105.3	106.6	114.7	110.7	99.5	86.4	86.1	83.5
02-73	Refined vegetable oils.....	122.6	123.6	114.4	104.8	107.5	103.8	102.8	106.4	107.7	111.9	99.8	97.8	97.9	90.3
02-74	Vegetable oil end products.....	119.9	121.4	117.5	114.5	114.5	113.2	113.2	113.6	112.4	112.4	107.5	107.5	108.0	103.5
02-8	Miscellaneous processed foods.....	126.7	127.6	128.6	129.7	128.6	128.2	126.7	124.1	125.8	127.1	127.4	126.5	126.4	121.5
02-9	Manufactured animal feeds.....	133.9	129.3	127.7	131.2	128.1	127.4	120.8	119.4	121.4	119.0	131.3	131.7	121.8	118.2
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel.....	108.8	109.2	109.4	109.6	109.5	109.2	109.3	109.3	109.3	109.5	109.4	109.5	109.2	108.0
03-1	Cotton products.....	107.6	106.9	106.7	106.4	106.3	105.8	105.9	105.8	105.8	105.8	106.1	106.1	106.1	105.2
03-2	Wool products.....	100.0	100.9	100.9	102.0	102.4	102.6	102.8	103.8	104.0	104.4	104.3	104.3	104.3	104.6
03-3	Manmade fiber textile products.....	84.3	84.8	85.7	87.1	88.0	88.4	89.0	89.5	89.9	90.4	91.0	91.5	91.1	92.2
03-4	Silk yarns.....	191.3	190.1	193.4	193.2	201.0	201.0	199.5	204.8	201.3	194.2	196.3	193.5	191.1	169.7
03-5	Apparel.....	119.5	120.0	119.9	119.6	119.0	118.4	118.4	118.0	117.9	117.9	117.5	117.2	116.9	114.5
03-6	Textile housefurnishings.....	109.5	111.2	111.2	111.3	110.5	109.8	109.7	108.7	108.6	108.6	109.0	109.1	108.1	106.7
03-7	Miscellaneous textile products.....	126.8	125.2	125.4	128.4	128.2	125.5	124.3	125.6	121.4	126.5	124.3	129.0	127.8	122.8
04	Hides, skins, leather, and related products.....	127.9	128.4	127.9	127.3	127.1	127.1	127.3	127.9	128.5	126.8	126.7	126.6	126.5	125.8
04-1	Hides and skins.....	96.0	102.9	97.2	93.8	92.8	90.8	93.8	101.8	106.6	99.4	101.1	102.8	108.9	116.9
04-2	Leather.....	118.3	118.4	118.1	116.8	118.9	119.8	119.8	120.4	120.4	118.2	117.3	119.6	119.7	119.9
04-3	Footwear.....	139.1	139.0	139.0	136.8	137.9	137.9	137.9	137.8	138.4	136.9	136.9	135.9	135.0	133.2
04-4	Other leather and related products.....	121.0	121.1	121.0	121.0	121.1	121.0	120.9	120.4	120.0	119.9	119.8	119.2	118.5	116.9
05	Fuels and related products and power.....	116.9	113.7	112.6	111.0	109.6	108.9	108.6	109.1	107.5	106.3	106.4	105.6	106.1	104.6
05-1	Coal.....	181.6	181.6	181.0	165.3	157.8	155.5	152.8	146.9	145.9	133.4	131.7	125.4	124.6	116.2
05-2	Coke.....	163.4	163.4	163.4	141.0	141.0	141.0	139.6	139.6	139.6	126.9	126.9	126.9	126.9	122.0
05-3	Gas fuels (Jan. 1958=100).....	143.7	142.4	143.0	142.9	137.2	137.0	136.3	136.1	136.2	135.0	135.2	132.4	131.8	124.5
05-4	Electric power (Jan. 1958=100).....	109.5	109.0	108.0	106.1	105.5	104.8	104.3	104.2	103.7	103.6	103.6	103.4	103.4	102.7
05-6	Crude petroleum.....	111.6	103.3	103.3	103.3	103.3	103.3	104.5	104.5	104.5	104.5	104.5	104.5	104.5	103.7
05-7	Petroleum products, refined.....	109.9	105.4	103.8	103.8	103.1	102.4	102.2	104.2	101.3	100.8	101.2	101.0	102.2	101.8
06	Chemicals and allied products.....	101.6	101.6	101.4	100.9	101.1	100.9	100.5	100.6	100.4	100.0	99.5	99.1	98.8	98.3
06-1	Industrial chemicals.....	98.8	98.9	98.9	98.7	98.6	98.8	98.0	98.2	97.9	97.3	97.7	97.9	97.8	97.7
06-2	Prepared paint.....	123.3	123.2	123.2	122.8	122.8	122.8	122.8	122.8	122.8	122.8	122.0	121.7	120.3	119.2
06-22	Paint materials.....	92.7	92.6	91.0	91.1	91.6	91.5	91.8	93.2	92.6	92.6	92.8	93.4	93.4	92.8
06-3	Drugs and pharmaceuticals.....	95.7	95.5	95.1	94.8	95.5	95.0	94.8	94.7	94.7	95.0	94.6	94.5	94.6	93.8
06-4	Fats and oils, inedible.....	122.7	123.2	117.4	104.0	112.0	107.7	108.1	106.8	107.6	102.2	94.3	95.0	92.8	88.7
06-5	Agricultural chemicals and chem. products.....	92.6	92.7	92.7	92.2	91.6	91.0	91.8	91.7	92.4	92.0	91.4	87.6	86.7	89.8
06-6	Plastic resins and materials.....	80.6	80.5	81.3	81.1	80.6	80.8	80.2	80.6	81.1	81.2	80.3	80.0	80.1	80.7
06-7	Other chemicals and allied products.....	118.6	118.5	118.4	118.5	118.5	118.4	117.8	117.7	116.8	116.5	115.7	115.5	115.1	112.9
07	Rubber and plastic products.....	106.0	105.7	106.1	106.0	106.3	105.6	104.1	104.2	104.2	104.4	104.6	104.7	104.5	102.1
07-11	Crude rubber.....	85.2	84.8	84.9	85.5	85.7	86.0	86.8	87.1	87.5	87.6	89.4	89.3	88.1	89.4
07-12	Tires and tubes.....	107.5	107.5	107.5	107.5	107.5	107.5	107.5	107.7	107.7	107.7	107.7	107.7	107.7	98.2
07-13	Miscellaneous rubber products.....	120.0	120.0	120.2	119.6	118.7	116.5	115.7	115.7	114.3	114.3	114.3	114.0	113.4	110.8
07-21	Plastic construction products (Dec. 1969=100).....	95.2	94.7	95.5	95.5	97.0	96.8	97.4	97.6	98.7	99.1	99.1	99.8	100.0	-----
08	Lumber and wood products.....	117.1	117.9	119.2	120.4	120.2	119.6	120.2	121.0	120.1	104.4	120.2	121.6	122.5	132.0
08-1	Lumber.....	120.4	121.6	123.4	124.1	123.0	121.8	123.0	124.3	123.5	123.3	124.1	126.9	128.2	142.6
08-2	Millwork.....	127.9	128.0	128.3	129.7	131.0	131.1	131.1	131.1	130.8	130.7	130.7	131.5	131.7	132.2
08-3	Plywood.....	93.3	94.3	96.3	98.9	99.0	98.5	98.5	99.5	97.2	94.5	96.3	95.5	96.9	109.3
08-4	Other wood products (Dec. 1966=100).....	119.9	119.2	119.2	119.2	119.4	119.4	119.3	119.3	119.3	119.5	119.5	119.5	118.4	114.8

See footnotes at end of table.

27. Wholesale price index,¹ by group and subgroup of commodities—Continued[1957-59=100 unless otherwise specified]²

Code	Commodity Group	1970												1969 Dec.	Annual average 1969
		Dec	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.		
INDUSTRIAL COMMODITIES—Continued															
09	Pulp, paper, and allied products.....	112.6	112.8	113.0	112.4	112.3	112.5	112.2	112.3	112.5	112.1	111.8	111.1	109.5	108.2
09-1	Pulp, paper, and products, excluding build- ing paper and board.....	113.4	113.5	113.8	113.2	113.1	113.3	113.0	113.0	113.2	112.9	112.5	111.8	110.1	108.6
09-11	Woodpulp.....	109.6	109.6	109.6	109.6	109.6	109.6	105.0	105.0	105.0	104.7	104.7	103.7	98.0	98.0
09-12	Wastepaper.....	84.7	85.6	86.8	90.0	92.6	95.3	99.0	104.2	108.5	108.5	108.2	107.5	106.7	108.3
09-13	Paper.....	123.3	123.3	123.1	122.6	122.5	121.9	121.7	121.6	121.6	121.6	121.5	120.3	117.4	116.6
09-14	Paperboard.....	94.5	94.5	97.2	95.9	95.5	95.5	95.5	96.7	97.0	97.0	97.1	96.0	96.0	94.4
09-15	Converted paper and paperboard products.....	113.9	114.1	114.0	113.3	113.2	113.7	113.6	113.4	113.5	112.9	112.2	111.9	110.7	108.8
09-2	Building paper and board.....	92.2	92.7	92.7	92.8	93.1	93.2	93.3	93.3	93.4	92.9	93.0	93.4	93.9	97.1
10	Metals and metal products.....	127.4	128.0	129.0	128.7	128.8	129.0	129.1	128.7	127.8	127.0	126.1	124.9	123.8	118.9
10-1	Iron and steel.....	120.7	120.7	121.6	120.9	120.3	120.4	120.2	118.9	117.3	117.7	117.0	114.6	113.9	111.0
10-13	Steel mill products.....	123.5	123.4	123.5	122.8	122.8	122.8	122.0	120.5	118.7	118.4	117.7	115.5	116.4	113.7
10-2	Nonferrous metals.....	141.1	144.3	147.5	148.4	151.1	152.6	155.0	157.2	157.1	153.4	152.8	152.8	150.1	137.4
10-3	Metal containers.....	129.6	129.6	129.7	126.1	126.1	126.1	125.0	125.0	125.0	125.0	125.0	120.6	120.6	119.7
10-4	Hardware.....	130.6	130.3	128.4	128.0	127.0	126.3	125.9	125.4	125.2	124.9	124.7	124.2	123.0	120.5
10-5	Plumbing fixtures and brass fittings.....	125.1	124.4	125.0	127.0	124.8	125.1	124.7	124.0	123.2	122.8	122.8	122.8	122.8	118.7
10-6	Heating equipment.....	104.5	104.6	104.6	103.8	103.4	103.3	102.4	101.7	101.3	100.5	99.9	99.7	99.7	97.6
10-7	Fabricated structural metal products.....	120.3	119.9	120.1	119.6	119.4	119.1	118.1	117.3	116.4	116.0	114.6	114.0	113.7	111.5
10-8	Miscellaneous metal products.....	134.0	134.0	133.5	133.1	131.6	131.2	130.4	128.3	127.5	127.1	125.2	124.9	124.5	122.0
11	Machinery and equipment.....	127.2	126.5	126.0	125.3	124.8	124.7	124.1	123.7	123.4	123.1	122.8	122.5	121.9	119.0
11-1	Agricultural machinery and equipment.....	142.4	141.0	139.5	138.4	137.6	137.4	137.1	137.4	137.3	137.1	137.2	136.7	136.4	132.8
11-2	Construction machinery and equipment.....	147.3	146.5	145.0	142.2	141.6	141.2	141.0	140.9	140.8	140.6	140.3	140.2	139.8	135.5
11-3	Metalworking machinery and equipment.....	142.5	142.0	141.9	141.5	141.5	142.2	141.7	141.3	140.3	139.8	139.3	138.6	138.0	133.4
11-4	General purpose machinery and equipment.....	132.9	132.0	131.7	130.6	130.1	129.8	128.2	127.9	127.6	126.5	126.5	126.1	124.8	121.4
11-6	Special industry machinery and equipment (Jan. 1961=100).....	138.6	137.1	137.0	135.8	135.4	135.1	134.3	134.0	133.6	133.6	133.4	133.3	132.8	128.7
11-7	Electrical machinery and equipment.....	110.1	109.8	109.5	109.8	108.8	108.6	108.2	107.5	107.3	107.2	106.9	106.8	106.2	104.8
11-9	Miscellaneous machinery.....	126.4	125.3	124.5	124.0	123.2	123.0	123.1	122.9	122.8	122.3	121.7	121.5	121.0	118.1
12	Furniture and household durables.....	109.9	109.6	109.2	109.0	108.9	108.8	108.6	108.3	108.3	108.1	107.9	107.5	107.2	106.1
12-1	Household furniture.....	127.2	126.9	126.6	126.5	126.6	126.3	126.0	125.9	125.6	125.3	125.1	124.3	123.6	122.3
12-2	Commercial furniture.....	130.5	130.2	128.7	128.4	128.4	127.6	127.6	125.1	125.1	124.9	124.5	124.4	124.1	120.0
12-3	Floor coverings.....	93.2	93.0	92.9	92.7	92.7	92.7	92.6	92.8	93.1	93.4	93.5	93.5	93.1	94.1
12-4	Household appliances.....	96.0	95.7	95.5	95.0	95.1	94.9	94.9	94.9	94.8	94.7	94.4	94.4	93.6	93.0
12-5	Home electronic equipment.....	77.8	77.8	77.4	77.2	77.2	77.2	77.0	77.0	77.0	77.2	77.2	77.2	77.8	78.2
12-6	Other household durable goods.....	137.5	136.8	136.6	136.5	135.8	135.8	135.5	135.3	135.6	134.6	134.8	133.0	133.3	130.6
13	Nonmetallic mineral products.....	120.0	119.5	119.1	118.7	118.5	118.1	117.9	117.9	117.8	117.3	116.9	116.5	114.5	112.8
13-11	Flat glass.....	122.3	122.1	122.1	122.1	122.1	122.1	121.6	121.1	121.5	119.9	119.0	118.4	117.8	114.6
13-2	Concrete ingredients.....	119.3	119.5	122.7	122.6	122.4	122.4	122.3	122.1	121.9	120.8	120.6	120.1	116.7	115.6
13-3	Concrete products.....	120.7	120.1	119.8	119.7	118.9	118.3	118.1	117.4	117.2	117.0	116.4	115.9	114.2	112.2
13-4	Structural clay products exc. refractories.....	122.9	122.4	122.2	122.0	121.3	121.3	121.2	121.2	120.9	119.8	119.4	119.4	118.5	117.0
13-5	Refractories.....	132.7	132.7	125.7	125.7	125.7	125.7	125.8	126.1	125.9	125.4	125.1	123.5	120.9	115.1
13-6	Asphalt roofing.....	100.6	99.5	96.2	95.3	93.6	92.0	92.7	95.1	95.1	97.8	100.8	101.8	101.2	98.3
13-7	Gypsum products.....	97.8	98.7	99.8	99.2	104.7	100.7	100.7	104.0	105.6	107.0	108.3	107.3	104.3	106.4
13-8	Glass containers.....	125.7	125.7	120.9	120.9	120.9	120.9	120.9	120.9	120.9	120.9	120.9	120.9	116.1	116.1
13-9	Other nonmetallic minerals.....	119.7	117.3	116.9	114.8	114.6	113.9	113.7	113.7	113.5	112.4	111.0	110.6	110.6	109.1
14	Transportation equipment (Dec. 1968=100).....	108.9	108.5	108.2	103.6	103.3	103.2	103.3	103.2	103.1	103.2	102.9	102.9	102.7	100.7
14-1	Motor vehicles and equipment.....	115.9	115.3	115.0	109.7	109.5	109.4	109.5	109.4	109.3	109.4	109.1	109.1	109.0	107.0
14-4	Railroad equipment (Jan. 1961=100).....	121.0	120.4	120.2	119.5	119.3	119.3	119.3	119.0	118.8	118.7	117.7	117.4	115.7	112.4
15	Miscellaneous products.....	122.3	122.2	122.0	121.9	121.5	121.4	121.0	118.2	117.8	117.8	117.5	117.4	117.0	114.7
15-1	Toys, sporting goods, small arms, ammuni- tion.....	116.9	116.8	117.0	116.4	116.2	115.9	115.8	115.1	115.0	115.3	114.2	114.1	112.7	111.3
15-2	Tobacco products.....	132.1	132.1	132.1	131.8	131.8	131.7	132.3	124.1	124.1	124.1	124.0	124.0	124.0	120.8
15-3	Notions.....	110.8	110.4	110.4	110.4	109.8	109.8	109.4	109.0	109.0	109.0	109.0	107.2	107.2	103.6
15-4	Photographic equipment and supplies.....	117.5	117.5	117.3	117.5	117.2	117.0	116.1	116.2	116.2	115.9	115.8	115.7	115.3	113.0
15-9	Other miscellaneous products.....	119.8	119.4	118.8	118.8	118.3	118.2	116.8	116.6	115.0	114.8	114.8	115.1	114.9	113.1

¹ As of January 1967, the indexes incorporated a revised weighting structure reflecting 1963 values of shipments. Changes also were made in the classification structure, and titles and composition of some indexes were changed. Titles and indexes in this table conform with the revised classification structure, and may differ from data previously published. See Wholesale Prices and Price Indexes, January 1967 (final) and February 1967 (final) for a description of the changes.

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.

NOTE: For a description of the general method of computing the monthly Wholesale Price Index, see BLS Handbook of Methods for Surveys and Studies (BLS Bulletin 1458, 1966), Chapter 11.

28. Wholesale price index for special commodity groupings¹[1957-59=100, unless otherwise specified]²

Commodity group	1970												1969	Annual average 1969
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
All commodities—less farm products.....	119.0	118.9	118.9	118.4	118.1	118.1	117.6	117.4	117.2	116.8	116.6	116.3	115.4	113.4
All foods.....	120.8	122.0	121.3	124.3	122.3	124.9	123.5	122.8	123.2	124.9	124.5	125.0	123.3	119.0
Processed foods.....	122.0	124.1	124.5	125.6	125.9	126.7	125.2	124.6	125.4	125.7	124.6	124.5	122.8	119.9
Textile products, excluding hard and bast fiber products.....	97.9	98.2	98.6	99.2	99.6	99.6	99.9	100.2	100.4	100.6	101.0	101.3	101.0	101.0
Hosiery.....	87.7	91.7	91.7	92.1	92.2	92.2	92.2	92.3	92.3	92.4	92.8	92.8	92.7	92.7
Underwear and nightwear.....	117.1	117.3	117.3	117.0	117.0	117.0	116.9	116.7	116.7	116.4	116.4	116.2	115.9	115.0
Refined petroleum products.....	109.9	105.4	103.8	103.8	103.1	102.4	102.2	104.2	101.3	100.8	101.2	101.0	102.2	101.8
East Coast.....	117.7	120.3	118.1	118.1	116.7	115.0	113.2	110.2	103.6	103.4	103.4	103.4	103.4	103.4
Mid-Continent.....	113.9	104.9	104.8	105.5	106.3	104.7	101.4	111.7	98.5	99.2	102.2	101.2	103.9	102.0
Gulf Coast.....	106.8	99.5	98.1	98.5	98.9	97.8	97.5	99.6	98.6	99.3	99.3	98.4	100.7	100.7
Pacific Coast.....	100.0	98.7	95.0	95.0	92.3	92.3	94.8	94.8	94.0	92.2	91.2	92.5	92.5	93.0
Midwest (Jan. 1961=100).....	107.9	105.1	103.6	102.3	101.3	101.3	100.9	101.8	99.3	96.8	98.0	98.0	99.1	97.5
Pharmaceutical preparations.....	97.7	97.5	97.0	96.8	97.7	97.1	96.9	96.9	96.8	97.4	97.0	97.0	97.1	96.3
Lumber and wood products excluding millwork and other wood products ³	114.0	115.1	117.0	118.2	117.5	116.5	117.4	118.6	117.3	116.4	117.5	119.3	120.6	134.6
Special metals and metal products ⁴	124.7	124.9	125.3	123.3	123.2	123.3	123.4	123.1	122.5	122.0	121.4	120.6	119.9	116.0
Machinery and motive products.....	123.8	123.2	122.8	120.4	120.0	119.8	119.5	119.3	119.0	118.9	118.6	118.4	117.9	115.3
Machinery and equipment, except electrical.....	138.1	137.1	136.5	135.5	135.0	134.9	134.3	134.1	133.7	133.3	132.9	132.6	131.9	128.1
Agricultural machinery, including tractors.....	144.9	143.4	141.7	140.5	139.8	139.6	139.4	139.8	139.7	139.6	139.7	139.3	139.1	135.2
Metalworking machinery.....	151.6	151.1	151.1	151.0	149.7	149.7	149.0	148.3	147.1	146.6	146.0	145.2	144.6	140.5
Total tractors.....	149.8	148.4	146.3	143.5	142.9	142.6	142.6	142.8	142.8	142.9	143.0	142.8	142.5	138.1
Industrial valves.....	134.5	134.5	134.5	134.3	134.3	133.7	131.8	131.2	130.1	130.0	129.4	128.5	127.3	124.2
Industrial fittings.....	127.7	127.7	127.7	127.3	127.3	127.7	124.2	124.2	124.2	124.2	124.2	123.2	119.4	115.9
Abrasive grinding wheels.....	111.5	111.5	111.5	109.7	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	103.3
Construction materials.....	118.1	118.3	118.8	118.9	119.2	118.8	118.6	118.5	118.0	117.5	117.4	117.4	116.9	117.7

¹ See footnote 1, table 27.² See footnote 2, table 27.³ Formerly titled "Lumber and wood products, excluding millwork."⁴ Metals and metal products, agricultural machinery and equipment, and motor vehicles and equipment.

29. Wholesale price index,¹ by stage of processing[1957-59=100]²

Commodity group	1970												1969	Annual average 1969
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
ALL COMMODITIES	117.8	117.7	117.8	117.8	117.2	117.7	117.0	116.8	116.6	116.6	116.4	116.0	115.1	113.0
CRUDE MATERIALS FOR FURTHER PROCESSING	108.2	108.3	110.9	112.5	110.9	113.8	113.0	112.8	113.4	114.2	113.0	110.7	109.9	107.9
Foodstuffs and feedstuffs.....	107.6	108.2	111.4	114.4	112.4	116.6	114.8	114.4	115.3	117.3	115.5	112.9	112.2	110.4
Nonfood materials except fuel.....	102.9	101.9	103.6	103.9	103.6	104.4	105.9	106.9	107.0	106.6	106.9	105.3	104.2	102.0
Manufacturing.....	101.2	100.1	102.0	102.4	102.0	102.9	104.6	105.6	105.8	105.6	105.9	104.3	103.2	101.0
Construction.....	121.5	121.5	121.5	121.3	121.0	121.0	120.7	120.3	120.2	118.0	117.5	116.4	115.3	114.0
Crude fuel.....	146.8	145.9	146.2	139.7	136.9	135.9	134.4	131.8	131.5	125.2	124.7	122.2	121.5	117.6
Manufacturing industries.....	136.8	135.6	136.1	131.7	130.0	129.3	128.1	126.2	126.0	121.5	121.2	119.6	118.8	116.0
Nonmanufacturing industries.....	160.3	159.6	159.8	150.3	146.1	144.8	143.0	139.2	138.8	130.3	129.4	125.8	125.0	119.8
INTERMEDIATE MATERIALS, SUPPLIES AND COMPONENTS	117.2	117.1	117.1	116.8	116.6	116.4	115.9	115.7	115.3	114.8	114.7	114.4	113.5	111.8
Materials and Components for Manufacturing.....	115.5	115.8	116.0	115.7	115.8	115.7	115.4	115.3	115.0	114.4	113.9	113.6	112.9	110.8
Materials for food manufacturing.....	122.9	125.0	124.5	124.0	124.2	124.3	123.0	122.5	123.4	122.9	121.5	121.1	119.9	116.8
Materials for nondurable manufacturing.....	102.6	102.5	102.7	102.5	102.8	102.6	102.4	102.8	102.7	102.4	102.3	102.3	101.6	101.2
Materials for durable manufacturing.....	123.6	124.3	125.0	124.8	125.3	125.5	125.6	125.4	124.5	123.4	122.7	122.1	121.4	118.1
Components for manufacturing.....	122.4	122.0	122.0	121.6	120.8	120.3	119.7	119.0	118.7	118.3	118.0	117.7	117.0	114.0
Materials and Components for Construction.....	119.2	119.2	119.7	119.7	119.6	119.1	118.9	118.6	118.2	117.7	117.3	117.3	116.8	116.9
Processed fuels and lubricants.....	113.6	112.0	110.4	108.7	106.4	105.5	104.8	105.1	103.6	103.0	103.0	102.4	102.7	100.9
Manufacturing industries.....	115.5	115.0	113.7	111.3	109.0	108.2	107.6	107.3	106.7	106.1	106.0	105.3	105.1	103.1
Nonmanufacturing industries.....	110.6	107.2	105.3	104.6	102.3	101.3	100.4	101.6	98.8	98.3	98.3	97.8	99.0	97.4
Containers.....	120.5	120.8	119.9	118.7	118.7	119.1	118.7	118.5	118.5	118.1	117.6	116.2	114.8	113.3
Supplies.....	123.3	122.0	121.2	121.7	120.8	120.7	118.9	118.3	118.5	117.6	120.1	119.7	116.9	114.4
Manufacturing industries.....	123.3	122.8	122.1	121.7	121.9	122.3	122.1	121.9	121.7	121.1	120.9	120.5	119.4	117.0
Nonmanufacturing industries.....	122.5	120.9	120.0	121.0	119.5	119.2	116.8	116.0	116.4	115.4	119.1	118.6	115.1	112.5
Manufactured animal feeds.....	126.3	121.7	120.2	123.6	120.2	119.4	112.9	111.4	113.2	110.7	122.8	123.7	114.1	110.6
Other supplies.....	116.6	116.6	116.0	115.7	115.3	115.2	114.8	114.5	114.2	113.9	113.4	112.3	111.8	109.8
FINISHED GOODS (Including Raw Foods and Fuels)	120.6	120.5	120.0	119.9	119.1	119.7	119.0	118.7	118.6	119.0	118.8	118.8	118.0	115.3
Consumer Goods.....	118.2	118.2	117.8	118.1	117.2	118.0	117.3	117.0	116.8	117.4	117.3	117.3	116.5	114.0
Foods.....	121.5	122.6	121.9	125.1	123.3	125.9	124.2	123.6	124.1	126.0	125.9	126.4	124.5	120.3
Crude.....	120.1	116.0	108.1	120.7	107.6	118.3	115.4	115.0	114.3	123.3	128.0	131.6	129.5	117.5
Processed.....	121.7	123.8	124.5	125.9	126.2	127.3	125.8	125.2	125.9	126.4	125.4	125.3	123.5	120.7
Other nondurable goods.....	118.3	117.4	117.1	116.8	116.4	116.0	115.9	115.6	114.9	114.7	114.6	114.2	114.1	112.3
Durable goods.....	111.8	111.8	111.6	108.4	108.3	108.3	108.1	108.0	107.8	107.8	107.6	107.4	107.2	105.8
Producer Finished Goods.....	128.3	127.5	127.0	125.3	124.9	124.6	124.2	124.0	123.7	123.5	123.1	122.9	122.3	119.3
Manufacturing industries.....	133.6	132.7	132.4	131.3	130.9	130.6	129.9	129.5	129.1	128.9	128.4	128.0	127.5	124.1
Nonmanufacturing industries.....	123.4	122.5	121.9	119.8	119.4	119.2	119.0	118.8	118.7	118.5	118.2	118.0	117.4	114.7
SPECIAL GROUPINGS														
Crude materials for further processing, excluding crude foodstuffs and feedstuffs, plant and animal fibers, oilseeds and leaf tobacco.....	119.8	118.2	120.6	118.7	117.2	118.0	119.5	120.0	120.3	118.5	118.5	116.0	114.5	110.5
Intermediate materials supplies and components, excluding intermediate materials for food mfg., and mfr.'d animal feeds.....	116.3	116.3	116.3	116.0	115.8	115.6	115.4	115.2	114.7	114.2	113.9	113.5	112.9	111.3
Consumer finished goods, excluding consumer foods.....	115.9	115.3	115.1	113.6	113.3	113.1	112.9	112.7	112.2	112.1	111.9	111.7	111.5	109.9

¹ See footnote 1, table 27.² See footnote 2, table 27.

NOTE: For description of the series by stage of processing, see Wholesale Prices and Price Indexes, January 1967 (final) and February 1967 (final).

30. Wholesale price index,¹ by durability of product[1957-59=100]²

Commodity group	1970												1969	Annual average 1969
	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
All commodities.....	117.8	117.7	117.8	117.8	117.2	117.7	117.0	116.8	116.6	116.6	116.4	116.0	115.1	113.0
Total durable goods.....	123.0	122.9	123.0	121.9	121.7	121.6	121.5	121.3	120.9	120.5	120.0	119.6	119.0	116.6
Total nondurable goods.....	114.0	113.9	114.0	114.8	113.9	114.8	113.8	113.6	113.6	113.9	113.9	113.4	112.4	110.3
Total manufactures.....	118.7	118.7	118.6	118.2	118.0	118.0	117.4	117.1	116.9	116.6	116.4	116.1	115.3	113.3
Durable.....	123.2	123.0	123.0	121.8	121.6	121.5	121.3	121.0	120.5	120.1	119.7	119.4	118.8	116.6
Nondurable.....	114.3	114.4	114.4	114.6	114.4	114.5	113.6	113.4	113.4	113.2	113.2	113.0	111.9	110.1
Total raw or slightly processed goods.....	112.7	112.2	113.0	115.4	112.6	115.7	114.7	114.5	114.7	116.3	116.0	114.8	113.9	110.9
Durable.....	112.7	113.9	121.5	122.8	121.2	124.4	128.9	131.9	131.9	134.0	133.8	128.9	125.3	115.8
Nondurable.....	112.8	112.2	112.6	115.0	112.1	115.2	113.9	113.6	113.8	115.3	115.1	114.1	113.3	110.7

¹ See footnote 1, table 27.² See footnote 2, table 27.

NOTE: For description of the series by durability of product and data beginning with 1947, see "Wholesale Price and Price Indexes, 1957" (BLS Bulletin 1235, 1958).

31. Industry-sector price index for the output of selected industries¹

[1957-59=100 unless otherwise indicated]

1963 SIC Code	Industry	Other bases	1970												1969	Annual average 1969
			Dec.	Nov.	Oct.	Sept.	Aug. ²	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	
MINING																
1111	Anthracite.....		134.8	134.8	126.8	124.0	118.4	118.4	116.8	116.8	119.3	119.3	119.3	119.3	118.4	109.0
1211	Bituminous coal.....		185.8	185.8	185.8	168.9	161.3	158.8	155.9	149.6	148.2	134.6	132.7	125.9	124.9	116.7
1311	Crude petroleum and natural gas.....		117.6	110.3	110.5	110.4	110.5	110.4	111.2	111.2	111.2	111.0	111.0	111.0	110.9	110.0
1421	Crushed and broken stone.....		120.3	120.3	120.3	120.1	120.1	120.0	120.0	119.5	119.4	116.6	116.3	115.1	114.5	113.4
1442	Construction sand and gravel.....		130.0	130.1	130.0	129.8	129.0	129.0	128.4	128.3	128.0	126.7	125.8	124.7	123.0	121.4
1475	Phosphate rock.....		117.6	117.6	117.6	117.6	117.6	117.6	147.4	147.4	147.4	147.4	147.4	147.4	147.4	147.4
1476	Rock salt.....		113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	107.0	107.0	107.0	107.0	105.5
1477	Sulfur.....		83.5	83.5	91.8	91.8	91.8	91.8	91.8	96.0	93.9	100.1	104.2	115.8	115.8	154.4
MANUFACTURING																
2011	Meat slaughtering plants.....	12/66	102.3	107.8	110.3	114.6	117.2	120.6	117.9	115.9	118.5	120.1	116.8	117.5	114.0	112.8
2013	Meat processing plants.....	12/66	103.6	106.4	110.5	112.1	115.0	117.5	117.7	119.3	121.2	124.4	123.3	119.7	121.3	113.1
2015	Poultry dressing plants.....		86.4	96.9	95.8	101.3	97.0	100.9	96.2	101.3	100.9	107.5	105.0	111.4	105.7	101.7
2021	Creamery butter.....	12/66	112.6	111.0	111.0	111.3	110.7	110.6	110.7	110.8	110.6	105.1	104.9	104.7	106.3	104.7
2033	Canned fruits and vegetables.....	12/66	112.9	113.3	113.2	114.0	113.2	111.8	111.4	110.6	109.9	110.0	109.6	110.9	109.8	108.4
2036	Fresh or frozen packaged fish.....		165.3	152.8	144.7	148.4	150.9	150.9	150.7	145.6	147.4	147.9	155.9	155.3	150.8	144.0
2044	Rice milling.....		96.0	96.0	94.2	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	94.0	93.6
2052	Biscuits, crackers and cookies.....	12/66	117.2	116.4	116.4	115.5	115.5	115.5	115.5	115.5	115.5	112.4	110.5	109.7	109.7	105.8
2061	Raw cane sugar.....	12/66	113.8	112.4	114.5	114.4	115.3	114.6	115.5	114.5	111.0	111.0	112.2	113.9	107.0	108.5
2062	Cane sugar refining.....	12/66	114.8	114.6	114.8	114.8	113.6	113.5	113.6	110.7	110.3	110.3	110.5	110.8	108.9	106.9
2063	Beet sugar.....	12/66	114.8	114.6	114.9	114.4	112.5	112.4	112.5	110.2	109.3	109.3	108.0	108.0	106.1	105.1
2073	Chewing gum.....		120.4	120.3	120.3	120.2	120.1	117.1	106.3	106.2	106.2	106.2	106.2	106.2	106.2	106.1
2082	Malt liquors.....		112.2	111.2	110.7	110.5	109.6	109.4	109.1	109.2	108.2	107.4	107.3	107.4	107.3	106.3
2083	Malt.....	12/66	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	96.8	96.8	96.8
2084	Wines and brandy.....		123.7	121.7	121.7	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.3	116.3
2091	Cottonseed oil mills.....		115.0	114.1	109.3	113.1	117.7	115.9	111.3	108.9	108.4	105.0	108.4	109.0	99.4	95.1
2092	Soybean oil mills.....	12/66	107.2	106.1	103.3	102.7	101.5	99.4	93.9	92.2	98.6	93.6	101.6	95.9	88.6	86.5
2094	Animal and marine fats and oils.....	12/66	117.5	117.7	111.4	105.5	114.9	110.5	110.5	110.9	113.3	109.6	111.5	105.2	96.4	94.5
2096	Shortening and cooking oils.....		120.7	122.5	118.6	115.3	115.5	114.1	114.1	114.1	114.7	113.7	108.6	108.3	108.8	103.8
2098	Macaroni and noodle products.....	12/66	106.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	104.6	101.9	101.9	101.5
2111	Cigarettes.....		134.0	134.0	134.0	134.0	133.9	134.0	134.7	125.1	125.1	125.1	125.1	125.1	125.1	121.9
2121	Cigars.....		107.5	107.5	107.5	107.4	107.2	107.1	107.3	107.3	107.2	107.2	107.2	106.8	107.3	104.3
2131	Chewing and smoking tobacco.....		155.1	155.1	155.1	155.1	151.4	146.3	146.4	142.3	142.3	142.3	141.4	141.4	141.4	137.2
2254	Knit underwear mills.....	12/66	108.6	108.7	108.7	108.6	108.7	108.9	108.8	108.5	108.5	108.4	108.4	108.2	107.8	107.0
2272	Tufted carpets and rugs.....	12/66	94.3	94.0	94.1	94.1	94.1	94.2	93.9	94.1	94.5	94.9	95.1	95.1	95.6	96.0
2311	Men's and boys' suits and coats.....		149.5	149.3	148.6	147.0	146.1	145.7	145.4	143.9	143.9	143.7	143.6	142.7	142.7	137.3
2321	Men's dress shirts and nightwear.....		124.4	124.2	123.9	123.7	123.6	123.6	123.6	123.3	123.0	123.1	122.6	122.6	122.1	119.6
2322	Men's and boys' underwear.....	12/66	111.9	111.8	111.8	110.4	110.4	109.8	109.8	109.6	109.6	109.5	109.4	109.4	109.1	107.7
2327	Men's and boys' separate trousers.....	12/66	111.0	108.2	108.2	108.0	107.8	105.7	107.9	107.7	107.5	107.5	107.4	107.3	106.9	105.8
2328	Work clothing.....		125.3	125.0	124.9	123.5	123.1	122.9	123.1	121.6	121.2	120.9	120.1	119.8	119.1	117.6
2381	Fabric dress and work gloves.....		136.9	136.4	136.4	138.2	137.3	137.3	137.3	137.3	137.3	137.3	137.3	136.2	137.1	132.8
2426	Hardwood dimension and flooring.....	12/66	109.6	111.8	113.5	113.7	113.7	113.2	114.4	114.4	113.1	113.8	115.2	116.8	116.5	118.2
2442	Wirebound boxes and crates.....	12/67	116.5	114.8	114.8	114.8	114.8	114.4	114.4	113.6	113.6	113.4	113.4	113.0	110.7	108.2
2515	Mattresses and bedsprings.....	12/66	109.2	109.2	109.2	109.1	109.2	109.0	108.9	108.9	108.9	108.8	108.8	108.8	108.8	108.2
2521	Wood office furniture.....		143.3	142.2	140.9	140.6	140.6	140.6	140.6	140.5	140.5	140.5	140.1	139.8	139.2	134.6
2647	Sanitary paper products.....	12/66	121.1	121.2	121.2	118.7	117.9	118.0	118.3	118.0	117.9	117.5	117.0	116.9	115.3	112.2
2654	Sanitary food containers.....	12/66	104.7	103.5	103.2	102.8	102.5	102.5	102.4	102.5	102.5	102.5	102.4	101.6	101.3	100.7

See footnotes at end of table.

31. Industry-sector price index for the output of selected industries 1—Continued

1963 SIC Code	Industry	Other bases	1970												1969 Dec.	Annual average 1969
			Dec.	Nov.	Oct.	Sept.	Aug. 2	July	June	May	Apr.	Mar.	Feb.	Jan.		
MANUFACTURING—Continued																
2822	Synthetic rubber.....		96.0	96.0	96.0	96.1	96.1	96.2	96.2	96.2	96.2	96.0	95.9	96.0	96.0	95.7
2823	Cellulosic man-made fibers.....		95.4	95.4	95.4	95.5	95.7	95.7	95.9	95.9	95.9	95.8	95.8	95.7	95.7	95.6
2824	Organic fibers, noncellulosic.....	12/66	95.3	95.3	95.6	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
2871	Fertilizers.....	12/66	91.0	91.1	91.1	90.8	89.1	88.2	88.3	88.2	88.3	88.2	88.3	86.6	85.0	93.1
2872	Fertilizers, mixing only.....	12/66	98.2	98.5	98.5	97.9	97.1	95.1	95.2	95.1	95.1	95.1	94.4	90.7	90.6	92.7
2892	Explosives.....		119.4	119.0	119.0	118.6	118.6	118.6	118.6	118.6	118.6	118.5	118.4	117.8	117.1	116.4
2911	Petroleum refining.....		104.6	100.5	99.1	99.0	98.5	97.9	97.6	99.4	96.8	96.3	96.7	96.6	97.8	97.4
3111	Leather tanning and finishing.....		119.2	119.3	119.0	117.7	119.8	120.7	120.7	121.3	121.2	119.0	118.2	120.4	120.4	120.4
3121	Industrial leather belting.....	12/66	122.7	122.9	122.6	122.5	122.8	122.5	121.6	120.8	120.7	120.5	121.1	117.6	118.3	114.9
3221	Glass containers.....		125.7	125.7	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	116.1	116.1
3241	Cement, hydraulic.....		114.0	114.3	120.5	120.5	120.5	120.5	120.5	120.5	120.3	120.3	120.3	120.4	114.9	114.0
3251	Brick and structural clay tile.....		131.9	130.9	130.7	130.2	128.7	128.7	128.7	128.7	128.3	127.3	126.4	126.4	125.1	123.3
3255	Clay refractories.....		138.4	138.4	131.5	131.5	131.5	131.5	131.6	132.0	131.7	131.2	130.9	129.0	126.2	119.7
3259	Structural clay products, nec.....		120.5	120.3	120.3	120.3	120.4	120.4	120.0	120.0	119.6	117.2	117.1	117.2	116.4	115.3
3261	Vitreous plumbing fixtures.....		102.8	101.9	101.9	105.4	105.3	105.3	104.7	104.7	104.6	104.6	104.6	104.6	104.6	101.7
3262	Vitreous china food utensils.....		152.3	152.3	149.4	149.4	149.4	149.4	149.4	149.4	149.4	146.2	146.2	143.7	143.7	138.4
3263	Fine earthenware food utensils.....		135.7	133.1	133.0	133.0	133.0	133.0	133.0	133.0	133.0	132.8	132.8	131.2	131.2	128.1
3271	Concrete block and brick.....		121.6	121.6	121.2	121.2	120.4	120.5	120.8	120.7	120.4	118.7	118.1	117.6	115.4	114.3
3273	Ready mixed concrete.....	1958	122.6	122.1	121.8	121.5	120.8	120.0	119.6	119.0	118.7	118.7	118.0	117.3	115.7	113.3
3275	Gypsum products.....		98.4	99.3	100.4	99.7	105.1	101.2	101.2	104.5	106.0	107.4	108.7	107.7	104.7	106.7
3312	Blast furnace and steel mills.....		123.4	123.4	123.2	122.2	121.7	121.7	121.0	119.4	117.8	117.2	116.4	114.6	115.3	112.6
3315	Steel wire drawing, etc.....	12/66	114.4	114.1	114.0	113.8	113.4	113.0	112.5	112.5	110.5	109.8	110.1	109.3	108.6	106.5
3316	Cold finishing of steel shapes.....	12/66	119.4	119.3	119.4	119.4	119.4	119.3	118.6	116.3	114.8	114.7	114.7	112.1	113.6	110.1
3317	Steel pipe and tube.....	12/66	115.3	115.5	115.5	115.5	115.5	115.3	115.2	116.3	114.8	110.7	110.6	110.6	110.5	107.8
3321	Gray iron foundries.....	12/68	111.8	111.7	111.1	108.4	108.1	107.8	106.9	106.9	106.3	105.5	103.9	103.6	101.8	101.7
3333	Primary zinc.....	12/66	104.3	104.3	105.1	105.6	109.2	109.4	109.5	109.5	109.6	109.6	107.9	108.1	107.7	101.6
3334	Primary aluminum.....	12/66	118.0	118.0	118.0	118.0	118.0	118.0	118.0	118.0	114.0	114.0	114.0	114.0	114.0	110.3
3339	Primary nonferrous metals, nec.....	12/66	128.4	132.7	139.3	146.0	149.6	150.0	151.2	153.7	157.2	156.7	140.2	144.3	134.8	125.5
3351	Copper rolling and drawing.....		155.8	162.7	162.5	163.4	173.0	174.2	177.7	177.8	176.2	172.0	175.8	176.7	171.4	155.6
3352	Aluminum rolling and drawing.....	12/68	108.6	108.8	109.3	109.0	109.0	109.0	109.0	108.9	108.3	107.4	107.4	107.4	107.8	104.6
3411	Metal cans.....	12/66	117.6	117.7	117.8	113.9	113.9	113.9	113.9	113.9	113.9	113.9	113.8	109.0	109.0	108.7
3423	Hand and edge tools.....	12/67	117.6	117.4	116.8	116.4	115.7	114.6	113.7	113.5	113.4	113.3	112.6	111.4	110.8	107.8
3431	Metal plumbing fixtures.....		100.7	99.7	99.8	102.9	102.5	102.6	102.2	101.3	101.2	100.5	100.4	100.4	100.4	97.8
3493	Steel springs.....	12/66	110.7	110.7	110.5	109.9	109.8	109.3	108.8	108.5	108.0	107.4	107.4	107.4	107.2	106.5
3496	Collapsible tubes.....	1958	109.5	109.5	109.8	106.1	106.5	106.5	106.6	106.6	106.6	106.4	104.4	104.4	103.8	103.4
3498	Fabricated pipe and fittings.....		142.0	137.5	137.5	137.5	134.3	132.9	132.3	132.3	132.2	132.2	132.2	132.2	130.9	128.5
3519	Internal combustion engines.....	12/66	117.0	116.4	115.6	114.1	113.6	113.2	112.5	112.7	112.7	112.6	112.1	111.9	110.9	108.7
3533	Oil field machinery.....		132.0	131.1	130.8	130.1	129.1	129.3	128.8	127.4	126.9	126.4	125.9	125.4	125.1	121.4
3534	Elevators and moving stairways.....	12/66	118.5	118.5	118.5	116.8	116.8	116.8	115.6	115.6	115.6	114.7	114.7	114.7	110.5	106.2
3537	Industrial trucks and tractors.....		139.1	138.3	137.8	137.7	137.7	137.7	135.4	135.4	135.3	134.3	134.3	134.0	134.0	130.8
3552	Textile machinery.....	12/69	105.4	104.4	104.1	103.3	103.1	103.0	102.7	102.2	101.8	101.4	101.0	100.9	100.0	99.9
3562	Ball and roller bearings.....	12/66	113.2	110.7	110.6	108.9	107.6	107.6	107.5	107.5	107.5	107.4	107.3	107.2	105.7	102.7
3572	Typewriters.....	12/66	103.6	103.6	104.0	104.4	104.5	104.5	104.6	104.6	104.6	104.1	103.9	103.9	103.9	102.0
3576	Scales and balances.....		135.5	135.4	135.4	135.4	135.1	135.1	135.0	135.0	135.8	134.7	134.7	133.3	133.4	129.6
3612	Transformers.....	12/66	104.0	104.3	104.3	103.2	103.2	103.1	103.0	102.7	102.8	102.9	100.9	100.9	100.3	101.3
3613	Switchgear and switchboards.....	12/66	114.2	114.4	114.0	113.9	112.8	111.4	109.9	109.1	108.6	108.0	107.5	107.1	107.1	105.0
3624	Carbon and graphite products.....	12/67	112.0	111.7	111.5	111.5	105.4	105.2	105.2	105.2	105.2	105.2	105.2	105.2	104.8	102.9
3635	Household vacuum cleaners.....	12/66	100.2	100.2	100.2	100.2	100.2	100.2	100.1	100.1	100.1	100.1	100.1	99.9	99.9	99.8
3641	Electric lamps.....	12/66	110.5	106.6	106.6	106.4	106.6	106.4	106.0	106.1	105.8	104.6	101.9	101.7	98.4	101.4
3652	Phonograph records.....		124.1	124.1	124.1	124.1	123.5	123.5	123.5	123.5	123.5	123.5	123.5	123.5	123.5	122.7
3671	Electron tubes, receiving type.....	12/66	133.5	134.0	133.8	133.8	132.4	127.4	127.4	121.4	121.4	121.4	121.4	121.3	121.2	117.3
3672	Cathode ray picture tubes.....	12/66	90.2	89.1	88.5	88.4	88.5	88.1	88.2	88.1	87.5	87.5	87.5	87.5	87.5	89.7
3673	Electron tubes, transmitting.....	12/66	108.7	108.2	104.0	103.9	104.0	103.5	104.3	104.2	103.8	103.7	103.8	103.4	103.2	102.6
3674	Semiconductors.....	12/66	91.1	91.3	91.2	91.4	91.4	91.4	91.6	91.4	92.2	92.7	92.7	92.8	92.7	92.6
3692	Primary batteries, dry and wet.....		117.9	117.9	117.9	117.9	117.9	117.5	117.2	116.9	116.5	116.4	116.1	115.4	115.4	114.9
3693	X-ray apparatus and tubes.....	12/67	122.8	122.8	121.2	121.2	121.2	121.6	121.0	121.5	119.3	119.1	118.8	119.1	117.4	113.1
3941	Games and toys.....	12/66	117.0	117.0	117.0	117.0	117.0	117.0	117.0	115.7	115.7	115.6	113.8	112.5	112.1	111.3

1 For a description of the series, see BLS Handbook of Methods for Surveys and Studies (BLS Bulletin 1458), Chapter 12. See also, "Industry and Sector Price Indexes," in Monthly Labor Review, August 1965, pp. 974-982.

2 Current monthly industry-sector price indexes are not available for this issue. At the beginning of each calendar year, changes in the sample for some indexes must be

made and necessary internal reweighting accomplished; this has caused the delay.

NOTE. Beginning in January 1967, index weights and classifications are based on the 1963 Censuses of Manufactures and Minerals. They were formerly based on the 1958 Industrial Censuses.

32. 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 (thousands)	In effect during month (thousands)	Number (thousands)	Percent of estimated working time
1945	4,750	-----	3,470	-----	38,000	0.31
1946	4,985	-----	4,600	-----	116,000	1.04
1947	3,693	-----	2,170	-----	34,600	.30
1948	3,419	-----	1,960	-----	34,100	.28
1949	3,606	-----	3,030	-----	50,500	.44
1950	4,843	-----	2,410	-----	38,800	.33
1951	4,737	-----	2,220	-----	22,900	.18
1952	5,117	-----	3,540	-----	59,100	.48
1953	5,091	-----	2,400	-----	28,300	.22
1954	3,468	-----	1,530	-----	22,600	.18
1955	4,320	-----	2,650	-----	28,200	.22
1956	3,825	-----	1,900	-----	33,100	.24
1957	3,673	-----	1,390	-----	16,500	.12
1958	3,694	-----	2,060	-----	23,900	.18
1959	3,708	-----	1,880	-----	69,000	.50
1960	3,333	-----	1,320	-----	19,100	.14
1961	3,367	-----	1,450	-----	16,300	.11
1962	3,614	-----	1,230	-----	18,600	.13
1963	3,362	-----	941	-----	16,100	.11
1964	3,655	-----	1,640	-----	22,900	.15
1965	3,963	-----	1,550	-----	23,300	.15
1966	4,405	-----	1,960	-----	25,400	.15
1967	4,595	-----	2,870	-----	42,100	.25
1968	5,045	-----	2,649	-----	49,018	.28
1969	5,700	-----	2,481	-----	42,869	.24
1970 p	5,600	-----	3,300	-----	62,000	.34
1968: January	314	483	187.8	275.7	2,668.5	.18
February	357	569	275.0	451.3	4,104.1	.29
March	381	618	174.5	368.7	3,682.0	.26
April	505	748	537.2	656.7	5,677.4	.38
May	610	930	307.3	736.2	7,452.2	.49
June	500	810	168.5	399.9	5,576.8	.40
July	520	880	202.0	465.1	4,611.9	.30
August	466	821	153.8	359.6	4,048.9	.26
September	448	738	169.8	349.0	3,081.1	.22
October	434	741	279.0	414.5	3,991.7	.25
November	327	617	129.9	306.1	2,430.5	.17
December	183	408	64.1	189.2	1,692.5	.11
1969: January	342	511	184.9	264.3	3,173.3	.21
February	385	578	177.1	389.9	2,565.8	.18
March	436	651	158.1	386.3	2,412.5	.16
April	578	831	309.7	462.3	3,755.0	.24
May	723	1,054	286.3	507.7	4,744.7	.32
June	565	911	214.6	500.0	4,722.7	.31
July	528	883	255.0	461.5	4,311.0	.27
August	538	915	191.2	394.8	3,634.3	.24
September	554	904	185.6	274.5	2,193.4	.15
October	531	850	337.0	420.9	3,167.5	.19
November	324	611	131.0	367.6	4,307.6	.31
December	196	446	50.8	276.0	3,881.8	.24
1970: January p	260	420	55	233	3,730	.25
February p	290	460	106	296	1,820	.13
March p	390	570	294	364	2,230	.14
April p	600	810	319	385	4,181	.26
May p	750	960	309	470	7,516	.52
June p	600	840	212	428	5,040	.31
July p	490	750	192	354	4,378	.28
August p	420	700	135	202	2,800	.18
September p	550	810	539	655	7,625	.50
October p	410	650	159	608	10,056	.65
November p	270	510	72	469	6,458	.45
December p	160	370	449	527	2,438	.15

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. p=Preliminary.

33. Output per man-hour, hourly compensation, unit costs, and prices, private economy, seasonally adjusted

[Indexes 1957-59=100]

Year and quarter	Output		Man-hours		Output per man-hour		Compensation per man-hour ¹		Real compensation per man-hour ²		Unit labor costs		Unit nonlabor payments ³		Implicit price deflator ⁴	
	Private	Private non-farm	Private	Private non-farm	Private	Private non-farm	Private	Private non-farm	Private	Private non-farm	Private	Private non-farm	Private	Private non-farm	Private	Private non-farm
1967: 1st qtr.....	146.4	148.2	110.6	115.5	132.4	128.4	147.6	143.3	128.7	125.0	111.5	111.7	117.7	117.9	113.8	114.0
2d qtr.....	147.5	149.1	109.5	114.9	134.7	129.8	150.4	145.6	130.3	126.0	111.7	112.1	118.8	118.8	114.3	114.6
3d qtr.....	149.1	150.9	110.3	115.3	135.2	130.9	152.4	147.8	130.6	126.6	112.8	113.0	119.9	120.3	115.5	115.6
4th qtr.....	150.1	152.0	111.0	116.1	135.3	130.9	154.3	149.7	131.1	127.2	114.1	114.4	120.6	120.8	116.5	116.7
Ann. Avg.....	148.3	150.1	110.3	115.4	134.4	130.0	151.2	146.6	130.1	126.2	112.5	112.8	119.2	119.4	115.1	115.2
1968: 1st qtr.....	152.4	154.3	111.3	116.5	136.9	132.4	158.5	153.6	133.3	129.2	115.8	116.0	120.4	120.8	117.5	117.8
2d qtr.....	155.1	157.4	112.3	117.7	138.1	133.7	160.8	155.7	133.7	129.5	116.5	116.5	122.3	122.7	118.7	118.8
3d qtr.....	156.7	159.0	112.9	118.5	138.8	134.2	164.1	158.4	134.7	130.1	118.2	118.1	122.0	122.6	119.6	119.7
4th qtr.....	157.9	160.1	113.2	118.9	139.5	134.6	167.5	161.7	135.9	131.3	120.1	120.2	122.3	122.7	120.9	121.1
Ann. Avg.....	155.5	157.7	112.4	117.9	138.3	133.7	162.8	157.4	134.4	130.0	117.7	117.7	121.7	122.1	119.2	119.3
1969: 1st qtr.....	159.0	161.1	114.2	120.1	139.3	134.1	170.0	163.9	136.3	131.5	122.1	122.2	122.8	123.0	122.4	122.5
2d qtr.....	159.8	162.4	115.1	121.2	138.9	134.0	172.4	166.2	136.0	131.1	124.2	124.1	123.2	123.0	123.8	123.7
3d qtr.....	160.9	163.4	115.3	121.7	139.5	134.2	175.9	169.2	136.8	131.6	126.1	126.1	123.6	123.5	125.2	125.1
4th qtr.....	160.4	163.1	114.8	121.4	139.7	134.3	179.6	172.4	137.8	132.2	128.6	128.4	123.3	123.2	126.6	126.4
Ann. Avg.....	160.0	162.5	114.9	121.1	139.3	134.2	174.5	167.9	136.8	131.6	125.3	125.2	123.2	123.2	124.5	124.5
1970: 1st qtr.....	159.2	161.9	114.7	121.4	138.9	133.3	182.6	175.1	138.0	132.3	131.5	131.4	122.7	122.0	128.3	127.9
2d qtr.....	159.5	162.1	113.8	120.4	140.1	134.6	185.0	177.7	137.6	132.1	132.0	132.0	125.3	124.9	129.5	129.4
3d qtr.....	160.1	162.8	113.1	119.6	141.6	136.1	188.5	181.0	138.6	133.1	133.1	133.0	127.5	127.4	131.0	131.0
Percent change over previous quarter at annual rate ⁵																
1967: 1st qtr.....	-1.3	-2.2	0.0	-0.3	-1.3	-1.8	3.1	4.3	2.4	3.6	4.4	6.2	-1.0	-1.6	2.3	3.2
2d qtr.....	3.0	2.5	-3.8	-2.1	7.0	4.6	7.8	6.3	4.8	3.4	0.7	1.6	3.8	2.9	1.9	2.1
3d qtr.....	4.3	4.8	2.9	1.6	1.4	3.2	5.4	6.3	1.2	2.0	4.0	3.1	3.9	5.2	4.0	3.9
4th qtr.....	2.9	2.9	2.5	2.7	0.3	0.3	5.1	5.4	1.6	1.9	4.7	5.1	2.3	1.8	3.8	3.9
1968: 1st qtr.....	6.1	6.2	1.1	1.5	4.9	4.6	11.2	10.6	6.7	6.2	6.0	5.7	-0.8	0.0	3.3	3.5
2d qtr.....	7.2	8.2	3.7	4.2	3.4	3.9	6.1	5.7	1.2	0.9	2.6	1.8	6.6	6.4	4.1	3.5
3d qtr.....	4.3	4.2	2.0	2.8	2.2	1.4	8.4	7.0	3.1	1.9	6.0	5.5	-1.0	-0.4	3.3	3.2
4th qtr.....	3.1	2.8	1.2	1.3	1.8	1.4	8.5	8.7	3.6	3.8	6.5	7.2	1.1	0.4	4.4	4.6
1969: 1st qtr.....	2.8	2.6	3.4	4.2	-0.5	-1.5	6.2	5.5	1.2	0.5	6.7	7.1	1.4	1.1	4.7	4.8
2d qtr.....	2.1	3.1	3.3	3.6	-1.1	-0.4	5.9	5.8	-1.0	-1.0	7.1	6.3	1.5	0.0	4.9	3.9
3d qtr.....	2.5	2.5	0.9	1.9	1.6	0.6	8.2	7.3	2.3	1.4	6.5	6.6	1.1	1.5	4.5	4.7
4th qtr.....	-1.0	-0.6	-1.8	-1.0	0.8	0.3	8.8	7.7	3.0	1.9	7.9	7.3	-0.8	-1.0	4.7	4.3
1970: 1st qtr.....	-3.0	-2.9	-0.5	-0.1	-2.5	-2.9	6.8	6.6	0.5	0.3	9.6	9.8	-2.0	-3.8	5.3	4.8
2d qtr.....	0.7	0.4	-3.0	-3.3	3.7	3.9	5.3	5.9	-1.1	-0.6	1.5	1.9	8.6	9.8	4.1	4.6
3d qtr.....	1.6	1.7	-2.6	-2.7	4.3	4.5	7.7	7.9	3.1	3.2	3.3	3.2	7.3	8.5	4.7	5.0
Percent change over previous year ⁶																
1969: 1st qtr.....	4.3	4.4	2.6	3.1	1.7	1.3	7.3	6.7	2.3	1.8	5.4	5.4	2.0	1.8	4.1	4.0
2d qtr.....	3.1	3.2	2.5	3.0	0.6	0.2	7.2	6.7	1.7	1.3	6.6	6.5	0.8	0.2	4.3	4.1
3d qtr.....	2.7	2.8	2.2	2.7	0.4	0.0	7.2	6.8	1.5	1.2	6.7	6.8	1.3	0.7	4.6	4.5
4th qtr.....	1.6	1.9	1.4	2.1	0.2	-0.2	7.3	6.6	1.4	0.7	7.1	6.8	0.8	0.4	4.7	4.4
1970: 1st qtr.....	0.2	0.5	0.5	1.1	-0.3	-0.6	7.4	6.8	1.2	0.6	7.8	7.5	0.0	-0.8	4.8	4.4
2d qtr.....	-0.2	-0.2	-1.1	-0.6	0.9	0.5	7.3	6.9	1.2	0.8	6.3	6.4	1.7	1.5	4.6	4.6
3d qtr.....	-0.4	-0.4	-2.0	-1.8	1.6	1.4	7.2	7.0	1.4	1.2	5.5	5.5	3.2	3.2	4.7	4.7

¹ Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Also includes an estimate of wages, salaries, and supplementary payments for the self-employed.

² Compensation per man-hour adjusted for changes in the consumer price index.

³ Nonlabor payments include profits, depreciation, interest, rental income and indirect taxes.

⁴ Current dollar gross product divided by constant dollar gross product.

⁵ Percent change computed from original data.

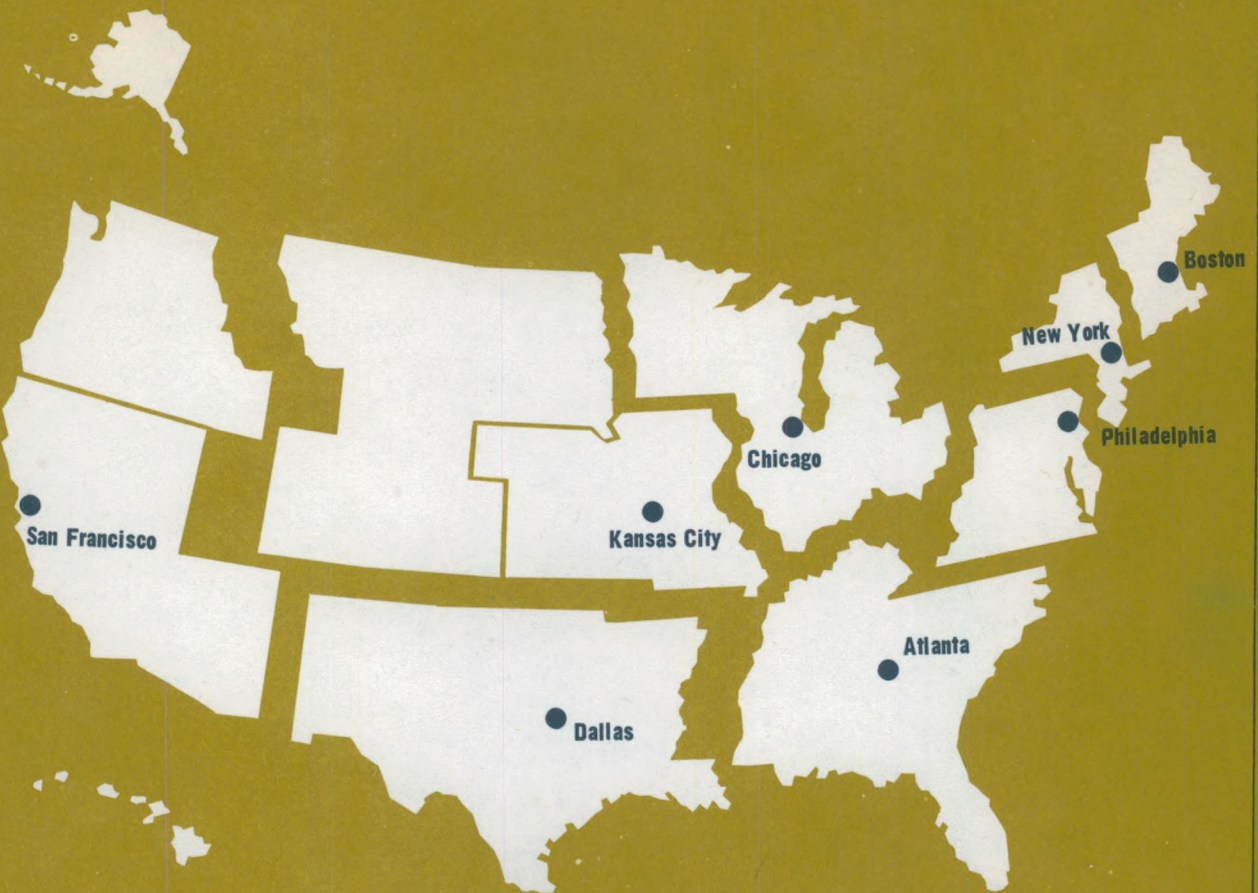
⁶ Current quarter divided by comparable quarter a year ago.

NOTE: Data for 1967, 1968, 1969, and the first quarter of 1970 have been adjusted to new benchmarks and are not comparable to those published in the Monthly Labor Review prior to September 1970.

SOURCE: Output data from the Office of Business Economics, U.S. Department of Commerce. Man-hours and compensation of all persons from the Bureau of Labor Statistics.

Scheduled release dates for major BLS statistical series, March 1971

Title	Date of release	Period covered	MLR table numbers
Employment situation.....	March 5	February	1-14
Wholesale Price Index, final.....	March 5	February	27-31
Consumer Price Index.....	March 19	February	25-26
Wholesale Price Index, Preliminary.....	March 24	March	27-31
Work stoppages.....	March 29	February	32
Factory labor turnover.....	March	February	15-16



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