

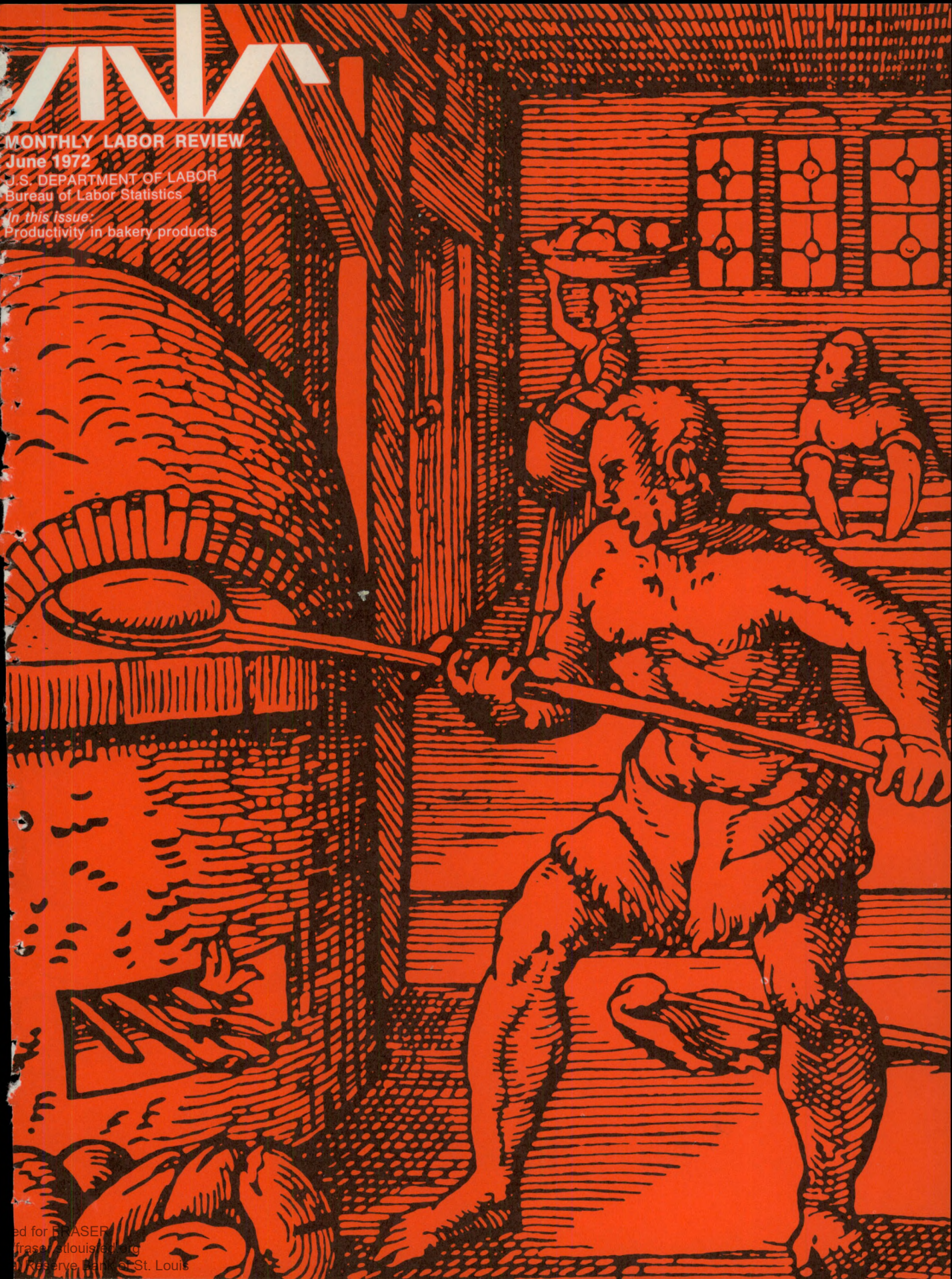


MONTHLY LABOR REVIEW

June 1972

U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics

In this issue:
Productivity in bakery products



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June cover:
The baker shop,
another in the series
of 16th century prints
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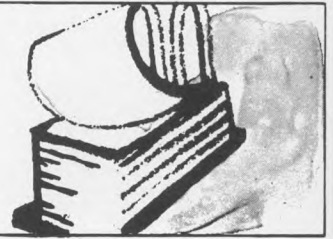
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Labor Month in Review



How WILL public employment be affected by the extension of Federal bans against job discrimination to State and local government employment? Can applicants still be tested? What guidelines do (and will) Federal courts and agencies use in enforcing the Equal Employment Opportunity Act of 1972?

These and similar issues underlay an institute on State and local government jobs under the 1972 EEO amendments, sponsored by the National Civil Service League in Washington, D.C., in May and attended by over 200 representatives of governments. (The league is a private, nonprofit organization with members among government agencies and employees.)

What the law requires. One theme was the change in the concept of what discrimination is. In the early days of State fair employment practices laws, complaining workers had to establish that a public or private employer treated them differently because of racial, sexual, or other prejudice. Thus the charge could be deflected by a showing that the employer treated all applicants the same. Proving motivation was a higher standard of proof than that normally required in civil suits or administrative decisions, according to a paper distributed at the conference.

Fair employment practices statutes generally failed to change employment practices that tended to exclude women and minorities. The advent of Title VII of the 1964 Civil Rights Act spurred a critical shift in focus which climaxed in the Supreme Court's 1971 decision in *Griggs v. Duke Power Co.* Complainants do not have to prove illegal intent; they have only to demonstrate that a uniformly applied practice, standard, or policy has a tendency to exclude disparate numbers of women or minorities. The employer must then show that the practice is an operational necessity or it is unlawful.

Shall we test? Flowing from this, a second theme was that employment tests must be changed to examine people for specific jobs, not their overall intelligence or ability. Dr. Philip Ash, a psycholo-

gist, traced for the conference the history of tests back to the Chinese some 4,000 years ago and showed how tests got away from their original purpose of measuring people for jobs. The difficult, comprehensive tests given by the Chinese, of which modern job tests are direct descendants, measured candidates for jobs as political and social leaders—Mandarins—while many modern, “difficult” tests measure people for quite different jobs. One workshop leader pointed to actual tests in which potential city truckdrivers were questioned about the *Aeneid* and janitorial candidates were asked to solve algebraic problems presented in story form. Some conferees emphasized the venerable use of written tests in pruning candidate lists. Others noted tests proliferated after Title VII passed.

Women and jobs. Since women generally score as well as men on “whole-person” type tests, the conferees pointed to other devices used to screen them from “men’s jobs.” These vary from simply passing over eligibles with a woman’s name to setting up different titles and pay for essentially the same job. Other devices, sometimes protective in original intent, are weight-lifting prohibitions, minimum height requirements, hours and shifts limitations, and distinguishing between “women’s ills” and men’s illnesses. Conferees were urged to voluntarily change such policies to parallel changes already underway in private employment.

Taking the initiative. Changing employment policies and practices voluntarily was one of the most pervasive themes at the conference. To those who understandably wanted hard, fast rules, the conference supplied only general guideposts in references to *Griggs* and other court decisions and to EEOC interpretations of the law. Those who did not know where to start were asked to begin with the results of practices—few women and minorities in certain jobs and agencies—and work back to the practices and policies. □

Case studies
indicate
strengths and limitations
of new manpower program

SAR A. LEVITAN AND ROBERT TAGGART

The Emergency Employment Act: An interim assessment

THE Public Employment Program initiated by the Emergency Employment Act of 1971 represents a major departure in manpower policy. The program is the first large-scale public employment effort since the New Deal. Providing \$1 billion in its first year to State and local governments for the hiring of unemployed workers to help meet growing needs for public services, it will account for 15 percent of all manpower expenditures in its first year, equaling the combined outlays for all other work experience and public employment training efforts, including the Neighborhood Youth Corps, Operation Mainstream, Work Incentive, and Public Service Careers programs.

The program is important in the short run because of its impact on the unemployed as well as on State and local governments, and in the long run because of its implications for public policy.

This evaluation relies heavily on case studies of State and local experience, combined with an analysis of legislative and administrative developments at the national level. The areas studied and the investigators—all experienced manpower researchers—included Champaign, Decatur, Springfield, and the State of Illinois (Roger Bezdek); Chicago (Myron Roomkin); District of Columbia (Robert Taggart); Houston, Laredo, and the State of Texas (Vernon Briggs); Los Angeles (Walter Fogel); Milwaukee (Peter Kobrak); Missouri (David Stevens); New York City (Marilyn Gittell); and Utah (Garth Mangum). Additional studies are now in progress.

Objectives

Persistent high unemployment and claims of unmet public sector needs provided the major impetus for the passage of the Emergency Employment Act. A public employment program is the most direct way to alleviate unemployment. At the same time, it can provide personnel for the delivery of vital public services.

The recession in 1970 and 1971 caused a sharp increase in joblessness. The national unemployment rate rose from 3.6 percent in 1968 to 4.9 percent in 1970, and to 5.9 percent in 1971 (table 1). Moreover, the number of part-time jobholders who would rather work full time increased 1.3 million, so that the total labor force time lost through unemployment or part-time work for economic reasons rose from 4.0 in 1968 to 6.4 percent in 1971.

The impact of rising unemployment was unevenly distributed geographically, but every region was affected. Some cities and States encountered serious problems with falling defense expenditures. The already severe problems of urban ghetto and rural depressed areas were intensified.

Given the grave dimensions of the unemployment problem, a public employment program of \$1 billion could be expected to have a limited impact, creating only 140,000 jobs. If everyone hired under the program had been out of work and would have otherwise remained idle, the number of unemployed would have been reduced by less than 3 percent from the 1971 level, or the aggregate unemployment rate would have fallen by only 0.2 percentage points.

There was a possibility, however, that the program could significantly reduce unemployment of particular groups in the labor force, or in particular areas of high employment. For instance, there are roughly 325,000 unemployed Vietnam-era veterans, 75,000 unemployed scientists and engineers, 250,000 unemployed black teenagers, and a total of 500,000 unemployed persons in the poverty areas of the 100

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largest cities. The 140,000 jobs would have had very significant impact if concentrated on any single group.

Provisions of the law

The Emergency Employment Act designates a number of target groups. To be eligible, a person must be unemployed at least a week, working part time but seeking full-time work, or earning insufficient wages to lift his or her family out of poverty. Vietnam veterans are to be given preference, and priority is also to be given to former participants in manpower programs, young persons entering the labor force, older workers, migrant farmworkers, persons whose native tongue is not English, welfare recipients, aerospace and other displaced workers.

The act states that participants must be chosen on an "equitable basis" from among the unemployed, but it does not specify any priorities among the target groups. This scattershot approach, a result of legislative compromise, diffuses the act's impact.

The act is also designed to serve areas with substantial unemployment. Funds are authorized separately under two titles: Section 5 provides \$750 million for all areas based on the extent and severity of unemployment; Section 6 adds \$250 million to areas with an unemployment rate of 6 percent or more for 3 consecutive months, and having sufficient size and scope to sustain a public employment program. Section 5 funds are "triggered" by the national unemployment rate and are available only so long as it equals or exceeds 4.5 percent; Section 6 or "special employment assistance" monies are available to high unemployment areas, even if overall economic conditions improve and the national unemployment rate falls below 4.5 percent.

Table 1. Unemployment, selected groups, 1968 and 1971

[Percent distribution]

Group	Average annual unemployment rate	
	1968	1971
Total.....	3.6	5.9
Whites.....	3.2	5.4
Blacks.....	6.7	9.9
Men.....	2.9	5.3
Women.....	4.8	6.9
Teenagers.....	12.8	18.1
Vietnam-era veterans.....	(¹)	8.8
Scientists and engineers.....	1.6	2.9

¹ For 1969, the rate was 4.5 percent.

The act is also intended to alleviate the reported growing manpower shortages afflicting State and local governments. However, claims of shortages must be interpreted with caution: aggregate employment figures do not suggest any serious setback in the growth of the public sector. Despite evidence that some cities and counties are being forced to lay off workers, the aggregate statistics belie any massive cutbacks.

All factors considered, the number of readily available, worthwhile jobs in the public sector is probably in the hundreds of thousands rather than in the millions. It is, therefore, a reasonable expectation that the Emergency Employment Act will have an impact upon public employment in the short run.

Trade-offs

The Emergency Employment Act is the product of compromise. In the effort to achieve consensus, a "little something" was offered for everyone. Potentially troublesome issues were sidestepped through open-ended guidelines, and the law is ambiguous and often contradictory in its goals and substance.

On the broadest scale, the act promises to meet vital public service needs while helping the unemployed. The two goals can be, but are not necessarily, compatible. Quite obviously, lower skilled and less educated workers are over-represented among the unemployed while public sector needs are concentrated in the more skilled categories. If elected officials are given free rein to fill the jobs they consider most vital, they will surely cream—hire the most qualified from the unemployed. Limiting Federal contributions to annual salaries to \$12,000 and allowing professionals to constitute no more than one-third of hires presumably constitute safeguards to assure a "balanced" occupational distribution. However, wide loopholes are open because local funds can be used to supplement the law's salary maximum and because teachers are not included among the professionals, making it possible to hire one-third professionals, two-thirds teachers, and no disadvantaged. The real safeguard is that elected officials shun extremes in hiring even when there is a temptation to fill critical public service needs.

The program is supposed to vest States and local governments with considerable authority, but it allows them paltry funds for administration. Public employee unions are to be allowed to comment on any plans (but States and localities can ignore the comments), and no jobs can displace present public

employees. Finally, the Public Employment Program is supposed to open up new careers, yet there is no allowance for advancement within the program, little money for training and education, and no leverage for changing occupational ladders in the public agencies which might not endorse Emergency Employment Act hires in the first place. The act also proscribes the use of its funds for supplies and equipment, effectively limiting the scope of jobs.

Implementing the program

Choosing program agents. Because the Emergency Employment Act is exceptionally vague in determining who will administer the funds and how much they will get, the Department of Labor had to choose program agents and devise a formula for allocation of funds. On August 12, 1971, it apportioned \$600 million of Section 5 funds to 50 States, the District of Columbia, Puerto Rico, the territories, Indian tribes, and all cities or counties with a population over 75,000. A total of \$425 million was "passed through" to cities or counties or allocated by the States to them to fill State and local jobs.

The States allocated "balance-of-State" funds to cities and counties with populations below 75,000 and acted as program agent for them. The States could select smaller towns, cities, counties, and other units of government as subagents. The guidelines left the State governors relatively free to decide what proportion of funds was to be used for State jobs and what proportion was to be passed down to city and county subagents.

The implementation of the act conformed with the pending manpower reform proposals, providing greater decentralization of decisionmaking. Federal funds were distributed to State and local governments, who were to decide within broad guidelines how to spend the money. Whether or not this can be called "revenue sharing," it follows many of the same procedures.

Dividing the pie. Once program agents were selected, the Department of Labor adopted a two-part formula for allocation of funds, giving equal consideration to the total number of unemployed persons in a State and the number of unemployed in excess of 4.5 percent relative to the national totals. This formula favored areas with "excess" unemployment.

The decision was made to operate Section 6 (the grant for areas with severe unemployment) as much as possible within the framework of Section 5 (the

general grant), utilizing the same program agents. Areas with an unemployment rate of 6 percent or more were given responsibility for dividing up funds and selecting jobs within their territory, although the funds were to be concentrated in high unemployment neighborhoods. Funds designated for areas with severe unemployment located within the jurisdiction of Section 5 program agents having less than 6-percent unemployment were administered by the program agent. All persons hired for Section 6 positions were to be drawn from the target areas; as far as possible, the jobs were to be located there. The proportion of Section 6 funds allocated to cities and counties with a population in excess of 75,000 was more than double their share of the total population.

Again, a two-part formula was adopted for the distribution of funds. But these "special employment assistance" allocations were not as "clean" as those under Section 5, since the areas included parts of labor markets without clearly defined boundaries or explicit population cut-offs. The exact selection of target areas and the calculation of their grants depended on the availability of unemployment data. Another \$150 million was reserved to be spent at the Secretary of Labor's discretion, including program administration. The Secretary allocated \$65 million for demonstration projects to test the impact of a more intensive program and \$50 million to assess the feasibility of using public sector jobs to hire welfare recipients.

A sense of urgency

Declaring that "America needs jobs and it needs them now," the President launched the Emergency Employment Act in a spirit of urgency. The Federal bureaucracy, under pressure from Congress and the President, moved with uncommon speed to draw up guidelines, distribute funds, and approve local plans. Interest groups, representing either public employees or potential employees claiming special rights to the new jobs, presented few obstacles. By March 10, 1972, more than 140,000 persons had been hired under the program.

Speed was necessary if the Public Employment Program was to be an effective countercyclical tool. But speed meant sacrifice of civil service reform, training, and other manpower efforts, and allowed little time for coordination with other manpower programs. The opportunity for labor unions, community groups, and governmental units to contribute to the decisionmaking was all but eliminated; few

outside the administrative staffs of the program agents could follow the course of events.

Decentralization

The thrust of the Emergency Employment Act guidelines was to encourage States and localities to design and implement programs best suited to their needs, conditions, and capabilities. Program agents, in turn, were to provide maximum flexibility and choice to political subdivisions. Decentralization was, however, far from complete. Federal officials retained many strings because the law still holds them accountable for the expended funds and Federal officials are required to monitor activities of program agents to assure that Federal objectives are met.

The Department of Labor dealt with program agents through its 10 Regional Manpower Administrators. These offices varied significantly in their involvement with program agents and in their interpretation of guidelines.

Although there was considerable intervention by local Federal manpower officials in Texas, Utah, and Arizona, generally the Regional Manpower Administrators played only a passive role, allowing States and localities maximum flexibility as long as decisions did not violate Federal law. In New York City, many questions might have been raised about paper hires and the requirement of a college degree for more than a third of Section 5 jobs. Yet there was apparently no questioning of decisions. Priority at the regional office was placed on getting people on the jobs as quickly as possible, even if trade-offs had to be made with the other goals. In this case, Federal officials exercised minimal oversight and control.

On balance, there was probably less oversight than prodding. After the President's letter to program agents in mid-November threatening to transfer funds from slow to faster spenders, the Regional Administrators applied pressure to lagging areas.

The relationships between program agents and subagents are more difficult to assess. At the State level, there appeared to be very little oversight or control except where subagents were guilty of flagrant violations. For example, North Carolina rejected a proposal from a planning district which would have paid a higher rate to white policemen than to blacks.

In the larger cities and counties, the school districts, housing authorities, park districts, or Model Cities agencies were selected subagents and usually

given more latitude than city agencies. In Chicago, for instance, the schools chose their own jobs and were responsible for selecting applicants. In such cases, there was usually little pressure to accomplish the secondary goals of the act.

The surprising finding is how little—not how much—confusion actually existed. Dealing with entirely new intergovernmental relations, dividing up a great deal of money, and accomplishing this at a rapid pace could be expected to generate many more problems than have come to light thus far. In most cases balance was struck between decentralization of decisionmaking and oversight and control by the Federal Government and program agents.

The job choice

The selection of jobs was perhaps the most important decision made by program agents. The choice determined not only which public service needs were filled, but also the general characteristics of those hired, the likelihood of their learning useful skills while on the job, and the probability of their moving on to permanent payrolls.

A combination of critical needs, expediency, and concern with Emergency Employment Act goals usually governed the choice of jobs, but States and localities varied markedly in the weight given to each of these factors. The larger cities tended to mix their jobs as follows: first, concentrating resources in areas of critical budget needs (especially where there had been lay-offs); second, distributing large shares of the remaining funds among as many agencies as possible for "regular" jobs; third, including a few jobs to serve specific target populations; fourth, creating a number of social service aides or public works slots for the unskilled; and finally, initiating a few innovative and restructured jobs if funds were left. Washington, D.C. stressed structured jobs for the disadvantaged. Los Angeles and New York were concerned primarily with filling the most critical needs and then spreading the wealth. In Houston, the emphasis was primarily on jobs for the unskilled along with filling the most critical positions. But all cases seem to have had a number of jobs in each category, and the differences are difficult to quantify.

Smaller cities and counties had a lesser choice of jobs. There were rarely any "new-career-type" positions for the disadvantaged, nor enough slots to spread the wealth. The typical pattern was either to hire workers for regular jobs or to create public

works slots for unskilled labor.

At the State level, the jobs were either spread among State agencies according to present employment, as in North Carolina and Missouri, or concentrated in specific fields. California emphasized correctional institutions, while Utah concentrated on law enforcement and public works. Illinois also emphasized public works to create jobs for unskilled welfare recipients. All the above alternatives satisfy the broad aims of the act, but some conclusions about program effectiveness and the choice of jobs can be drawn from the case studies.

First, a mix of jobs sufficient to satisfy the multiple goals in the legislation is appropriate only for large urban areas. Small towns and cities and many States do not deliver extensive social services; to them, hiring the disadvantaged means putting them to work with their hands.

Second, few areas have designed jobs with much thought of moving participants to permanent payrolls.

Third, program agents created a number of entry level, low-wage jobs which provide little skill training—in fact, nothing more than temporary employment. Jobs leading to “new careers” account for only a small proportion of the total. There is a heavy emphasis on public works projects to help the hardest core, but the bulk of the jobs parallel those on the regular payrolls and were intended for the type of workers who would have been hired anyway.

Fourth, there are some indications that program agents had to be given enough money to fill critical needs, to spread a little wealth, and to satisfy vested interests before they would consider more creative uses of their funds. Even if resources are increased, as under demonstration projects, the temptation to carry on business as usual persists. Increased and especially earmarked funds are apparently necessary for more creative use of limited resources.

Participants

The “typical” person hired under the Emergency Employment Act is a white male high school graduate between 22 and 44 years old, who was unemployed for a month or more (table 2). Special efforts were made to enroll veterans and members of racial minority groups.

The Labor Department guidelines state that one-third of all participants should be Vietnam-era or special (having served in Southeast Asia) veterans. Within this broad guideline, individual program agents established their own hiring priorities at the

Table 2. Characteristics of public employment program employees, as of March 21, 1972

Characteristic	Percent distribution ¹
Age.....	100
18 or less.....	1
19-21.....	11
22-44.....	71
45-54.....	11
55-64.....	5
65 and over.....	0
Sex.....	100
Male.....	72
Female.....	28
Group.....	100
White.....	68
Black.....	20
American Indian.....	2
Oriental.....	1
Spanish American.....	7
Other.....	2
Military service status.....	100
Special veteran ²	13
Other Vietnam-era veteran.....	16
Other veteran.....	17
Nonveteran.....	54
Education.....	100
8 years or less.....	8
9th-11th.....	15
12th.....	45
13th-15th.....	18
16th and more.....	15
Weeks unemployed.....	100
4 or less.....	32
5-14.....	27
15 or more.....	40
Occupational group.....	100
Professional.....	6
Teacher.....	4
Other.....	89
Labor force status.....	100
Unemployed.....	90
Underemployed.....	10
OTHER CHARACTERISTICS	
Disadvantaged.....	36
Public assistance recipient.....	11
Previously employed by agent.....	11

¹ Totals may not add to 100 because of rounding.

² Vietnam-era veterans who served in Southeast Asia.

outset, whether or not they were articulated. Milwaukee decided to consider individuals on a first-come-first-served basis within three predetermined priorities: first, Vietnam veterans; second, laid-off city employees; and third, graduates of manpower programs. New York City also emphasized the hiring of Vietnam veterans, with a 50-percent hiring goal. The State of Utah and its program agents and the District of Columbia planned to concentrate on the disadvantaged, with the goal of giving them at least half of all jobs. The State of Illinois assigned priority in the following order: Work Incentive program veterans, veterans on welfare, unemployed veterans,

and welfare recipients. And Boston had the most explicit priorities of all: Vietnam-era veterans got 15 points; the handicapped, 13; Spanish-Americans, Orientals, and Indians, 12; members of poor families, 12; blacks, 5; the aged, 3; youths, 2; and former trainees, 2. All those with more than 12 points were eligible for the program. Overall, 29 percent of hires on March 21, 1972, were Vietnam-era veterans, slightly below the target, although nationally, less than 7 percent of the unemployed in 1971 were from this group.

To the extent that preference was given to male veterans of prime working age, younger and older unemployed persons, women, and the disadvantaged had to be deemphasized. A good argument might be made by any of these groups that they were short-changed. Only 12 percent of all Public Employment Program hires were under age 22 or over 65, although they represented 45 percent of the unemployed in 1971. Only 28 percent were women, but they constituted two-fifths of the unemployed.

Racial minorities, however, seem to be fairly well represented among program participants. Blacks, who accounted for 18 percent of the unemployed in 1971, constituted 19 percent of the Section 5 and 16 percent of the Section 6 hires. Indians and Spanish-Americans also appear to share proportionally.

Most evidence suggests, however, that the program is not reaching the hardest core of the unemployed. The most significant fact about the hiring practices of program agents is that they generally chose the most qualified from the available unemployed. The Labor Department's presumed target was that one-half of all hires be disadvantaged, that is, unemployed or underemployed, living in poverty, and either a veteran, under age 22, or over 45, a member of a minority group, or a woman. However, only a third of participants were disadvantaged. Similarly, one-tenth were previously on welfare. There was also high educational level among participants; only one-fifth had not completed high school, although dropouts were 45 percent of the unemployed in 1971.

The aggregate data yield little evidence of "paper hires," that is, where workers were laid off the State or local payroll in order to be rehired under the Emergency Employment Act. The Regional Manpower Administrators made it clear they would police against paper hires. Only 12 percent of all Section 5 participants had been previously employed by the program agent, and probably half of these were teachers. The data also suggest that only a minority of those hired have left a previous job to find a better

one under the act: only a tenth were underemployed previously, and among those who were unemployed, two-thirds had been idle 5 weeks or more.

In summary, the program is apparently drawing on a broad range of unemployed. The typical participant is neither extremely disadvantaged nor extremely well qualified. Rather, he is an average worker idle in a 6-percent unemployment economy. To a large extent, this focus was dictated by the priority given to veterans. Clearly, teenagers, the elderly, the disadvantaged, public assistance recipients, and, most of all, women would have benefited more if alternative priorities had been chosen.

The other major dimension of impact is the filling of State and local manpower needs. The act authorized jobs in almost all areas of public service, and the jobs which have been created are addressed to all these needs (table 3).

There is no way to judge from these aggregate data whether the jobs fill the most "vital" service needs, or even whether they fill productive functions. The whole question of "needs" is ambiguous, and estimates are at best based on guesses about shortages rather than effective demand or actual priorities determinations made by State, city, and county decisionmakers. But overall, there is a larger concentration of slots in public works and transportation than needs surveys or current distribution of jobs in State and local government would indicate. The ability to phase out a project once Federal funds are withdrawn was apparently more important in choosing jobs under the program than filling needs.

It is fairly clear, however, that Public Employment Program jobs are a step up for most participants. Thirty-three percent of hires earned less than \$2 an hour in their last job; 12 percent earned less than that under the Public Employment Program (table 4). Only 10 percent of the slots are for professionals, well within the one-third limit set by Congress, in-

Table 3. Distribution of Emergency Employment Act jobs, as of January 7, 1972

[Percent distribution]

Job category	Section 5 (all areas)	Section 6 (areas with severe unemployment)
Total.....	100	100
Law enforcement.....	13	10
Education.....	20	26
Public works and transportation.....	22	27
Health and hospitals.....	7	6
Environmental quality.....	5	5
Fire protection.....	3	1
Parks and recreation.....	8	8
Social services.....	5	4
Other.....	17	13

cluding 4 percent for classroom teachers.

Most of the Public Employment Program jobs, then, are above the minimal entry level, but not far

up the job scale. For most of those who were selected, they provided gains in wages and fringe benefits.

The Public Employment Program: tale of three cities

To assess the effect of the Emergency Employment Act on communities of differing sizes and characteristics, the National Manpower Policy Task Force commissioned experienced researchers to report on the administration of the law in nine selected States and localities. Here are summaries of the reports for three of the cities.

Milwaukee, Wis. Community organizations, unions, and political interest groups could have created many problems under the Emergency Employment Act, but difficulties were usually sidestepped, as Peter Kobrak, University of Wisconsin, Milwaukee, found in Milwaukee. When the city received its \$4.3 million grant, there was some fear that political officials would use the jobs as patronage to strengthen their positions. These fears were allayed when the mayor turned the program over to the Civil Service Commission, an agency known for its independence. The Commission handled the choice of jobs and selection of applicants.

Unions were an important consideration in these decisions. Their objections led to elimination of some positions and a focus on project-related jobs outside the civil service and clearly temporary.

Community organizations had uneven impact. A group of inner city veterans, mostly black and many disadvantaged, marched on city hall demanding jobs. The city made a special effort to get their applications processed. Another group representing an older white and Spanish-American neighborhood who protested against "artificial" job requirements was unsuccessful in its efforts to secure jobs for its members.

Milwaukee was able to get a broad mix of workers. Over two-thirds of those hired were Vietnam-era veterans. Only 13 percent were disadvantaged, but 44 percent were black. Moreover, the mix of jobs met an impressive variety of urban needs.

Laredo, Texas. Laredo is apparently typical of many small communities that used most of their limited funds to create low-level jobs in public works. Webb County, whose population is concentrated in Laredo, had an unemployment rate of 13.1 percent last December. Competing with 253 other counties and 1,000 cities for a share of State funds, it received \$405,000 under the general grant and \$358,000 under the grant for areas with severe unemployment. There were complaints that it had been shortchanged, Vernon Briggs, University of Texas at Austin, found.

For one thing, the State of Texas received only \$12

million under the allocation formula for the general grant. It would have received \$22 million had the formula been based only on the number of unemployed, rather than also on the severity of Statewide unemployment. Moreover, Laredo, like many other rural communities, had massive underemployment problems.

Since Laredo was not large enough to be a program agent, it had to work through a council of governments. Administrative difficulties developed between its council and the Regional Manpower Administration. Strict interpretation of the limit on administrative costs meant that the overhead costs of the program were not covered by program funds. An especially ticklish problem was sparked by a directive ruling that jobs could only be created in occupations where the prevailing wage was above the Federal minimum of \$1.60 an hour. All program participants were being paid at least \$1.60 an hour, but 27 percent were paid more than regular employees in comparable jobs. The outcome was a reclassification of program participants in new job categories and some reduction in hours. Ninety-one percent of those hired were Spanish-Americans, and 87 percent worked for less than \$2 an hour.

Decatur, Ill. Decatur, population 90,000, like many medium-sized cities, has a diversified economy with manufacturing as the mainstay. Roger Bezdek, University of Illinois at Urbana-Champaign, reported that unemployment in Decatur had risen as a result of the recession from 3.9 percent in 1969 to 5.8 percent in fall of 1971. In the inner city, where most blacks—8 percent of the population—live, the unemployment rate was 11.7 percent.

Decatur received \$113,000 from the general grant and \$32,000 for the inner city from the grant for areas with severe unemployment problems. The city was also one of the 12 areas earmarked for special grants for more intensive programs. It received \$1.95 million for 252 jobs. Funds were used to create a diversified mix of jobs which promise opportunities for permanent employment. Several opened new opportunities for the disadvantaged.

Decatur filled jobs quickly, tapping a broad spectrum of the unemployed. Blacks represent 21 percent of enrollees, special and Vietnam-era veterans 28 percent, and the disadvantaged 30 percent.

Decatur's success in achieving a diversified mix of jobs and participants demonstrates its awareness of the multiple goals of the program. Its performance with demonstration funds indicates that areas doing a good job initially can probably use increased funds effectively.

Sizing up the program

A review of the employment program 8 months after the passage of the Emergency Employment Act indicates accomplishments and shortcomings. The program was intended as an "emergency" measure to combat rising unemployment, and, to some degree, it fulfilled this purpose. One hundred forty thousand persons were employed under the employment act within 7 months after Congress appropriated funds, and most of these persons would otherwise have been idle. There is little evidence that State and local governments resorted to paper layoffs or of workers quitting other jobs en masse to get on the Emergency Employment Act payroll. The clientele was apparently creamed, but most areas made an effort to spread jobs among claimant groups. For the most part, jobs filled with Emergency Employment Act funds were vacant because of budget stringencies, and in most areas there was a mixture of professional slots, openings for the unskilled, a few new careers opportunities, and a majority of average middle-level jobs. Although the Labor Department and the President had to prod slow-spenders into action, overall, the States and localities which administered local efforts moved quickly, effectively, and sometimes innovatively to meet the prime Federal guidelines.

The Public Employment Program has been less effective in achieving its secondary goals. The designers of the law envisioned that, in addition to providing "transitional employment," the public service program would be combined with "related training and manpower services" to become a useful component of the nation's manpower policy. First, graduates from manpower programs could be placed in Public Employment Program jobs, supplementing their earlier counseling and training with on-the-job experience and preparation for permanent employment. Second, linkages could be established with existing manpower programs so that participants could benefit from the whole range of services avail-

able in the community. Third, training and other services would be provided from Emergency Employment Act funds, although expenditures for such purposes were limited by Congressional appropriations to 6.8 percent of apportionments under the general grant for all areas. And fourth, worthwhile on-the-job training could be provided from the 10-percent cash or in-kind share of the program agents. But coordination with manpower programs has been limited, either because program agents looked on the Public Employment Program as an employment and not a training program, or because manpower funds were already committed. Finally, little civil service reform has been associated with the program.

Undoubtedly, it is hard to achieve such diverse goals as civil service reform, job restructuring, and coordination with manpower projects when implementation proceeds at a breakneck pace and when there are few sticks or carrots used to achieve these ends. It is perhaps unrealistic to think that all these things could have been achieved at once, and program agents concentrated on the primary goals. A retrospective assessment of the Public Employment Program will have to determine whether continued progress was made towards these secondary goals, and whether the binding decisions made so far to get the program off the ground quickly were worth the price of constraining progress in other directions.

Implications for revenue sharing

More than any other recent manpower program, the Emergency Employment Act and its administrative guidelines decentralized decisionmaking authority to the State, county, and city level. The administrative arrangements which were adopted, with direct fund allocations to State and local governments, were adapted from manpower reform legislation intended to decentralize control. The State and local program agents were delegated major responsibility for deciding their own needs, choosing jobs, selecting workers, and determining priorities for the other goals of the program. The Federal Government, operating through its 10 Regional Manpower Administration offices, checked applications to make sure that they adhered in a general way to legislative and administrative intents. The guidelines and the act itself, with their sometimes vague wording and multiple goals, left much leeway to State and local officials. And, finally, the emphasis on speedy implementation placed constraints on the controls that could be exercised by Federal officials, increasing the flexibility of program agents. From the perform-

Table 4. Wages of participants as of March 21, 1972

[Percent distribution]

Hourly wage	Last previous job	Public Employment Program job
Total.....	100	100
Under \$1.60.....	18	2
\$1.60 to \$1.99.....	15	12
\$2 to \$2.99.....	33	46
\$3 to \$3.99.....	19	27
\$4 to \$4.99.....	8	8
\$5 and over.....	7	5

ance of State, county, and city governments, therefore, one might expect some indication of the strengths and weaknesses of decentralized manpower efforts.

Care must be exercised in interpreting the experience of the Public Employment Program and in drawing implications about revenue sharing. For one thing, the program was implemented rapidly, and program agents had hardly enough time to fill out their applications, much less to carry out any thoughtful planning. At best, then, the Public Employment Program suggests what would happen if revenue sharing were implemented at a breakneck pace with no planning or learning period. Obviously, this is not the way revenue sharing should be implemented.

Another problem in trying to draw lessons about revenue sharing from the Public Employment Program is that the program, despite its multiple goals, has a single major thrust—public employment. This is only one component of a comprehensive manpower strategy. The experience with public employment is therefore an inadequate basis for judging whether the same States, counties, and cities can implement all the different manpower components and integrate them into a comprehensive strategy which best serves the needs of their work force.

To complicate matters, administrative flexibility exercised under the Emergency Employment Act varied markedly from area to area. Still, some broad lessons from the Public Employment Program experience are relevant to manpower reform. An important conclusion which emerges from case studies of local experience is that many State, county, and city governments have developed during the past decade the capability to plan and administer manpower programs. The diffusion of competence is notable, and this process will accelerate if money is more flexibly distributed. Another general lesson—which is not likely to surprise anyone—is that decentralized decisionmaking increases adaptability to local conditions, but this is sometimes achieved at cost of national priorities.

In future legislation, funds for public employment will most likely be lumped in with other shared manpower revenues. Based on the experience so far under the Emergency Employment Act, this strategy seems to have many shortcomings. Funds have already been committed without comprehensive manpower planning and they would add little to flexibility. If increased resources are provided for comprehensive manpower programs, the Public Employment Program is likely to absorb most of them even

if unemployment eases. Including the Emergency Employment Act among potential strategies would force State and local decisionmakers into a choice between helping the disadvantaged or filling their most vital needs, when the goals of manpower revenue sharing should be to provide the best mix of services to help those who need them most. It makes sense, therefore, to keep the Emergency Employment Act outside the sphere of shared manpower revenues. Other types of public employment serving particular groups of the manpower clientele and offering intensive manpower services might be included, but the Emergency Employment Act should probably be operated as a separate countercyclical program.

As a rough estimate, it is reasonable to assume that the Public Employment Program could be expanded to two or three times its present size without a significant loss in effectiveness or speed of implementation. But whether or not larger scale public employment programs of other types can be effectively implemented remains to be seen. The experience under the Emergency Employment Act does not prove that work relief programs for the structurally unemployed, depressed area employment efforts, or the new careers approach will (or will not) work. Some welfare recipients have been helped, as have a substantial number of disadvantaged. A few high unemployment areas will receive concentrated assistance and a few restructured career job opportunities have been opened. But these accomplishments have been achieved as part of an overall approach that mostly emphasized quick hiring to fill jobs left vacant because of inadequate funding. Whether States and localities could have done as well with a program geared chiefly to another purpose, which would not offer the incentive of meeting critical needs and which would require much more than merely traditional hiring, remains to be seen.

What has been learned, however, is that unless program agents are operating under strictly enforced guidelines, they are likely to go about business as usual—hiring the most qualified workers for the most vital jobs. If a large-scale program is to be implemented, more attention will have to be paid to these guidelines. The legislation should specify more exactly who is to be served; and it should provide incentives for job redesign, civil service reform, extensive training, and use of funds for the purchase of supplies, if these are desired. Congress must specify the type of public employment program it has in mind, rather than passing open-ended legislation which has something for everyone. □

Recent trends in retirement benefits related to earnings

Combined public and private benefits
will approximate preretirement
living levels for some, but not
for most, because of early retirement
and absence of private pensions

PETER HENLE

PUBLIC AND PRIVATE retirement systems in the United States have matured to the point that taken together they can provide a married couple a level of living close to what they had before retirement. However, most retirees do not find themselves in a position to take advantage of this possibility, either because they are not covered by a private industry pension plan or are forced to apply for public (social security) benefits before they are 65, thus reducing their annuity under the Old Age, Survivors, Disability and Health Insurance system.

These conclusions grow out of an examination of replacement rates for public and private systems over the past 20 years covering retirees under a variety of circumstances. Analysis of replacement rates, which are the percent relationships between retirement benefits and preretirement earnings, can provide insight into the extent to which the retirement program examined is performing the function it was designed to serve. Replacement rates also provide a means for comparing the retirement systems of different countries, different retirement systems in the same country, or the same system at different times.

Despite their analytical advantages, replacement ratios are seldom cited in the continuing public discussions concerning the basic objectives of the social security (OASDHI) system or the numerous amendments considered by Congress.¹ While the calculation of a replacement rate seems simple enough, differences of view exist regarding the appropriate definition of "benefits" and "preretirement earnings." Moreover, determination of replacement rates is not

required as part of any administrative action under the OASDHI program. The individual's retirement benefit, while related to earnings, is not related to earnings immediately prior to retirement, but rather to earnings over a longer period. As a consequence, the calculation of the individual benefit may involve as many as five separate operations in which a different percentage is applied to a portion of the retiree's base earnings. Thus the calculation of replacement rates related to long-term earnings is far removed from the more simple replacement rate which links a person's retirement benefit to his earnings just before retirement.

Replacement rates are recognized as a key instrument for international comparisons of retirement programs, and a recent pioneering methodological study points the way to greater use of such rates in comparing U.S. public and private retirement programs.² This paper builds on this study to develop more complete estimates of replacement ratios over the past 20 years, both for the social security system and for representative private pension plans. The paper is confined to the retirement aspects of these programs for *rank and file* workers who have completed a career of full-time work (40–45 years) in the private economy. Excluded is any discussion of public retirement programs or retirement plans for highly paid professional or managerial employees.

The concept refined

When "replacement rate" is defined as the relation between a person's benefit upon retirement and his preretirement earnings, certain ambiguities remain on both sides of the ratio. With regard to the benefit, what type of work experience should be assumed for the retiring individual? With respect to retirement under a private plan, two situations are utilized: (1) an individual with 20 years of participation under a specific plan prior to retirement, and (2) the same individual with 30 years of participation.

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At what age should retirement take place? Traditionally the retirement age in the United States has been 65. In recent years, an increasing proportion of retirees under social security have been applying for benefits before that age. Even with this trend, 65 remains the most commonly accepted retirement age, and this was utilized in constructing a time series of replacement rates.

Should the replacement rate utilize the benefit for a single male, a single female, or a married couple? Benefits under the three situations will differ, but since they are directly related to each other, only one, the replacement rate for the single male, was utilized in calculating the time series. The more detailed examination of replacement rates for 1972, however, includes rates for both sexes, different retirement ages, and different marital situations.

Moving to the other side of the ratio, a retiree's preretirement earnings could be his career average earnings, his base earnings as defined in the law under which his benefit is calculated, his earnings during a selected number of years (for example, 3 or 5) prior to retirement on which private benefits are frequently based, or earnings more immediately prior to retirement, presumably during the preceding year. In determining a replacement rate which contrasts living standards immediately before and after retirement, the year immediately preceding retirement would seem to be the most logical, although in some cases an individual's earnings during that year may be somewhat below his peak.

One further clarification is necessary: should a retirement system be described by a single replacement rate or a set of such rates? When reference is to the public system, it is convenient to recall its two generally accepted goals: (1) to provide a minimum level of income support for the aged, and (2) to provide a retirement benefit that will prevent a serious decline in income for the nonpoor aged.³ Each goal will influence replacement rates in different ways. The first objective of providing a minimum support level would involve a relatively high replacement rate at the lower levels of income. The second would involve a lower rate at higher levels of income where individuals can be expected to meet more of their retirement needs through their own resources, either private group plans or individual savings.

In the social security program, a complicated benefit formula provides a relatively high rate of benefit for the lowest segment of an individual's wage base with successively lower benefit rates for suc-

ceeding segments. The existence of a ceiling on earnings for tax and benefit purposes also dictates a gradually declining replacement rate as earnings rise above the ceiling.

For private pension plans, replacement rates are a product of the specific benefit formula concerned. In some plans the benefit formula is based solely on career or final earnings; for these plans a single replacement rate would apply. Relatively few plans provide a uniform benefit regardless of earnings, and for these the replacement rate would decline as earnings increased. More frequently, the benefit formula is based on service, or service combined with earnings, often with a minimum benefit, in which case the replacement rate varies with length of service as well as earnings. Many private plans are specifically designed to be integrated with the social security system and provide a higher rate of benefit (and thus replacement rate) for earnings above the social security taxable earnings ceiling.

In view of the many diverse possibilities, it is important to view replacement rates as a set or continuum of rates which vary with several factors, most critically earnings.⁴

In this analysis, it was necessary to construct earnings histories for hypothetical retiring workers against which to compare benefit levels at different periods of time. Statistical series of annual earnings for various categories of workers were utilized as indicating a time series of earnings for a single individual. In order to obtain data covering a broad range of earnings levels, four industries were selected: retail trade, services, manufacturing, and construction. The four series were developed from data on average weekly earnings. Because data for the services industry were not available before 1964, the comparable national income series of annual earnings for full-time equivalent employees was utilized. In addition, the national income series for all employees in private industry was included.

One additional series was specifically developed in light of the general interest in relating earnings of minimum wage workers to retirement benefits. An annual earnings series was developed embodying a 4-percent annual increase culminating with annual earnings in 1971 of \$3,744 (\$1.80 an hour for 2,080 hours). This series approximates changes in the postwar statutory Federal minimum wage while avoiding the more erratic changes that would result from an earnings history tied directly to actual increases in the statutory minimum.

In all, six historical series of annual earnings were

constructed. From them, the primary insurance amount was calculated for a 65-year-old individual newly applying for retirement benefits on January 1 of each year, 1952 to 1972 (table 1). These benefit amounts were related to the previous year's earnings to form a series of replacement rates (table 2).⁵

As expected, replacement rates vary inversely with level of earnings. For an individual retiring on January 1, 1972, replacement rates range from 45 percent for the low earnings model and 42 percent for retail trade down to 24 percent for construction. The 1972 rates are 5 to 12 percentage points higher than those for 1952. In general, the rates show major increases in 1953 and 1955, followed by small fluctuations until the middle 1960's when they fell below earlier rates. Since then, they have climbed steadily to their 1971-72 levels, the highest point for the low earnings model, for retail trade, and for manufacturing. For the higher earnings histories, however,

the current rate is at or slightly below that reached in 1955.⁶

Year-to-year fluctuations in replacement rates generally reflect the composite effect of two forces: (1) changes in the benefit formula, including raising the taxable wage ceiling, most noticeable in the increases in replacement rates for 1953, 1955, 1969, 1970, and 1971 (and to a lesser degree in 1959 and 1965), and (2) the steady rise in actual earnings levels which, unless offset by changes in the benefit formula, produces a roughly comparable erosion in replacement rates. This latter effect is most noticeable in the 1959-64 and 1965-68 periods.

Basic replacement rates have been developed for each year beginning with 1952 for a male retiring at 65. Yet, judging by a survey of retirees in a recent period, less than half of all male retirees claiming benefits were 65 or older. Thus, replacement rates for 1972 were also calculated for a male retiring

Table 1. Annual earnings and monthly social security benefits (OASDI primary insurance amounts)¹ under 6 earnings histories, 1937-72

Year	Low earnings model ²		Retail trade ³		Services ⁴		Manufacturing ³		All private industry ⁴		Construction ³	
	Annual earnings	Monthly benefits	Annual earnings	Monthly benefits	Annual earnings	Monthly benefits	Annual earnings	Monthly benefits	Annual earnings	Monthly benefits	Annual earnings	Monthly benefits
1937	\$986.72		\$1,077.44		\$938.00		\$1,238.64		\$1,240.00		\$1,484.08	
1938	1,026.19		1,082.64		942.00		1,147.64		1,207.00		1,375.40	
1939	1,067.24		1,092.52		952.00		1,229.28		1,250.00		1,472.64	
1940	1,109.93		1,109.68		953.00		1,297.92		1,291.00		1,554.80	
1941	1,154.33		1,152.84		1,020.00		1,532.96		1,454.00		1,935.60	
1942	1,200.50		1,215.24		1,132.00		1,907.36		1,731.00		2,282.80	
1943	1,248.52		1,289.08		1,347.00		2,239.64		2,018.00		2,679.56	
1944	1,298.47		1,392.04		1,538.00		2,376.40		2,192.00		2,844.40	
1945	1,350.41		1,486.68		1,688.00		2,298.40		2,255.00		2,750.80	
1946	1,404.43		1,711.84		1,863.00		2,252.64		2,360.00		2,696.72	
1947	1,460.61		1,756.04		1,996.00		2,556.84		2,591.00		3,061.24	
1948	1,519.03		1,883.44		2,082.00		2,762.24		2,791.00		3,394.04	
1949	1,579.79		1,997.84		2,138.00		2,801.76		2,841.00		3,513.12	
1950	1,642.98		2,064.92		2,183.00		3,032.64		2,988.00		3,623.36	
1951	1,708.70		2,226.64		2,321.00		3,239.68		3,239.00		4,001.92	
1952	1,777.05	\$53.50	2,255.76	\$55.50	2,489.00	\$55.90	3,492.32	\$61.50	3,430.00	\$61.20	4,308.72	\$64.30
1953	1,848.14	61.80	2,358.72	67.90	2,623.00	70.00	3,664.44	82.30	3,624.00	81.60	4,493.32	85.00
1954	1,922.07	62.50	2,446.08	68.80	2,736.00	72.00	3,665.48	84.30	3,704.00	83.80	4,623.32	85.00
1955	1,998.95	69.90	2,535.00	78.50	2,831.00	83.10	3,936.40	98.50	3,882.00	98.50	4,726.80	98.50
1956	2,078.91	71.10	2,609.36	79.90	2,963.00	84.70	4,096.56	101.30	4,089.00	100.70	5,011.76	103.50
1957	2,162.07	72.30	2,714.40	81.30	3,110.00	86.70	4,242.68	105.30	4,269.00	104.90	5,214.04	108.50
1958	2,248.55	73.70	2,813.20	82.70	3,220.00	89.10	4,300.92	107.50	4,385.00	107.50	5,396.56	108.50
1959	2,338.49	80.00	2,919.80	90.00	3,364.00	96.00	4,589.52	115.00	4,615.00	115.00	5,637.32	116.00
1960	2,432.03	80.00	3,003.52	90.00	3,513.00	97.00	4,665.44	117.00	4,759.00	117.00	5,878.08	119.00
1961	2,529.31	81.00	3,050.32	91.00	3,642.00	99.00	4,801.68	119.00	4,889.00	119.00	6,140.16	121.00
1962	2,630.48	82.00	3,169.92	92.00	3,783.00	100.00	5,021.12	120.00	5,081.00	120.00	6,368.44	120.00
1963	2,735.70	83.00	3,258.32	93.00	3,924.00	101.00	5,180.76	121.00	5,252.00	121.00	6,613.88	122.00
1964	2,845.13	84.00	3,367.00	94.00	4,129.00	102.00	5,354.44	122.00	5,504.00	122.00	6,867.12	123.00
1965	2,958.93	91.00	3,463.72	100.60	4,292.00	111.30	5,591.56	130.60	5,706.00	131.70	7,195.76	131.70
1966	3,077.29	91.00	3,565.64	101.70	4,514.00	112.40	5,841.68	131.70	5,974.00	131.70	7,605.52	132.70
1967	3,200.38	93.10	3,689.40	102.80	4,770.00	114.50	5,974.80	133.80	6,231.00	133.80	8,057.40	135.90
1968	3,328.40	93.10	3,897.40	103.80	5,088.00	115.60	6,370.52	135.90	6,641.00	135.90	8,576.36	138.00
1969	3,461.54	106.50	4,090.32	118.60	5,505.00	133.00	6,734.52	156.00	7,071.00	157.10	9,420.32	160.50
1970	3,600.00	125.30	4,288.44	137.80	5,946.00	155.90	6,953.96	182.00	7,462.00	184.60	10,151.96	189.80
1971	3,744.00	139.40	4,494.88	153.20	6,300.00	176.00	7,345.52	203.10	7,850.00	206.10	11,029.72	213.10
1972		141.10		156.20		179.10		207.40		210.40		216.10

¹ Primary insurance amounts calculated by Office of the Actuary, Social Security Administration. It is assumed worker retires January 1.

² Low earnings model constructed by assuming 1971 annual earnings of \$3,744 (\$1.80 an hour for 2,080 hours) and a 4-percent annual increase, 1947-71.

³ Retail trade, manufacturing, and construction histories based on average weekly earnings, taken from *Handbook of Labor Statistics, 1971* (BLS Bulletin 1705, 1971), p. 206, and 1971 figures from BLS, multiplied by 52 weeks. Retail trade figures for

1937 and 1938 estimated by assuming same percent change from 1939 as wholesale trade. Construction data for 1937-46 estimated by assuming same relationship to 1947 figure as manufacturing.

⁴ Services and all private industry data taken from average annual earnings per full-time employee reported in *National Income and Product Accounts* (U.S. Department of Commerce, Social and Economic Statistics Administration), table 6.5, 1971 figures estimated.

Table 2. Social security benefits (primary insurance amounts) as a percent of earnings in year prior to retirement, 6 earnings histories, single man 65 years old, 1952-72

Retirement date (January 1)	Low earnings model	Retail trade	Services	Manufacturing	All private industry	Construction
1952.....	38	30	29	22	23	19
1953.....	42	36	34	28	29	24
1954.....	41	35	33	28	28	23
1955.....	44	39	36	32	32	26
1956.....	43	38	36	31	31	26
1957.....	42	37	35	31	31	26
1958.....	41	37	34	30	30	25
1959.....	43	38	36	32	31	26
1960.....	41	37	35	31	30	25
1961.....	40	36	34	31	30	24
1962.....	39	36	33	30	29	24
1963.....	38	35	32	29	29	23
1964.....	37	35	31	28	28	22
1965.....	38	36	32	29	29	23
1966.....	37	35	31	28	28	22
1967.....	36	35	30	27	27	21
1968.....	35	34	29	27	26	21
1969.....	38	37	31	29	28	22
1970.....	43	40	34	32	31	24
1971.....	46	43	36	35	33	25
1972.....	45	42	34	34	32	24

SOURCE: Office of the Actuary, Social Security Administration.

at 62, for women retiring at 65 and 62, and, since over three-quarters of men claiming benefits are married, for three situation of married couples: husband and wife, both 65 years old; husband and wife, both 62; and husband, 65, and wife, 62 (table 3).

Replacement rates for women run about 1 percentage point higher than for men, reflecting the shorter period of years on which base earnings are computed. Information for both men and women who retire at 62 years old confirm the strong effect of the actuarial reduction for early retirement, with benefits more than 20 percent below those applicable to retirements at 65.

For a retired couple, both 65 years or over, the 50-percent premium for a spouse boosts the replacement rate considerably. However, the premium is reduced actuarially if the wife is under 65. If both husband and wife are 62 years old, the reduction in the replacement rate is such that it is only 3 to 6 percentage points higher than that for a single man retiring at 65.

Replacement rates for married couples assume that only the husband is eligible for retirement benefits. Rates were not calculated for couples in which both partners meet the earnings qualifications for a retirement benefit. When both husband and wife have earnings at retirement, the resulting replacement rates generally are lower than if only the husband has earnings. In such situations, the wife receives

the benefit to which her earnings entitle her; if this falls short of the amount that she, as a wife, would add to her husband's benefit, the shortfall is added to his benefit amount.

Some comparisons

Since the public system is designed to provide an income "floor" in retirement, a useful question is, how do public system replacement rates compare with those that would be necessary to achieve certain minimum levels of retirement living? There is little guidance regarding what constitutes either a "necessary" or "adequate" level of retirement living. There is little agreement concerning the proportion of income for such living that appropriately should be the responsibility of the individual, an employment-related private program, or a public program. However, at lower income levels where resources for individual savings are limited and private pension plans rare, two statistical efforts at determining retirement needs have been made: the low-income (formerly "poverty") threshold based on food costs and originally developed by the Social Security Administration, and the Retired Couple's Budget of the Bureau of Labor Statistics.⁷

Table 3. Social security (OASDHI) benefits as a percent (replacement rate) of 6 earnings histories, retirees in varied circumstances, January 1, 1972

Retirement circumstances	Low earnings model	Retail trade	Services	Manufacturing	All private industry	Construction
Single man, retiring 1/1/72, age 65:						
Monthly benefit.....	\$141.10	\$156.20	\$179.10	\$207.40	\$210.40	\$216.10
Replacement rate.....	45	42	34	34	32	24
Single woman retiring 1/1/72, age 65:						
Monthly benefit.....	\$143.90	\$160.90	\$186.80	\$213.10	\$217.40	\$224.70
Replacement rate.....	46	43	36	35	33	24
Single man retiring 1/1/72, age 62:						
Monthly benefit.....	\$109.10	\$121.30	\$138.60	\$160.20	\$162.50	\$167.10
Replacement rate.....	35	32	26	26	25	18
Single woman retiring 1/1/72, age 62:						
Monthly benefit.....	\$112.90	\$125.00	\$143.30	\$166.00	\$168.40	\$172.90
Replacement rate.....	36	33	27	27	26	19
Married man, retiring 1/1/72, age 65 with spouse age 65:						
Monthly benefit.....	\$211.65	\$234.30	\$268.65	\$311.10	\$315.60	\$324.15
Replacement rate.....	68	63	51	51	48	35
Married man, retiring 1/1/72, age 65, with spouse age 62:						
Monthly benefit.....	\$194.10	\$214.80	\$246.30	\$285.20	\$289.30	\$297.20
Replacement rate.....	62	57	47	47	44	32
Married man, retiring 1/1/72, age 62, with spouse age 62:						
Monthly benefit.....	\$160.30	\$178.20	\$203.60	\$235.30	\$238.70	\$245.40
Replacement rate.....	51	48	39	38	36	27

SOURCE: Office of the Actuary, Social Security Administration.

The 1971 Advisory Council on Social Security recommended that "benefits to low-paid regular workers . . . be high enough so that aged beneficiaries will not be below the poverty level."⁸ As the Council pointed out, this objective has been achieved with respect to a retired couple if the breadwinner retires at 65 years old with a wife of the same age. It does not apply, however, to a single person, nor to a couple if the breadwinner retires before reaching 65 or if his wife is below this age. Moreover, the OASDHI benefits for a retired couple equal about 71 percent of the lower level Retired Couple's Budget. These comparisons are shown in table 4.

Another question raised by replacement rates is how those for the U.S. social security system compare with other countries. A recent study compared public retirement systems in 13 industrialized countries. Relating benefits for both single persons and married couples to earnings in the year prior to retirement, the study showed that the U.S. replacement rate was below those of Austria, France, Italy, Sweden, and West Germany but above those of Canada, Switzerland, and United Kingdom. The U.S. standing is somewhat higher if the comparison is confined to married couples; a few of the countries do not provide as much as the U.S. 50-percent increase in benefits for a married couple over a single person.⁹ If the comparison had been extended to include the effect of private pension plans, the United States undoubtedly would rank higher since a number of the countries ranked above it rely almost completely on their public system for retirement income.

Private pension plans

Replacement rates for private plans exhibit certain characteristics which distinguish them from those of

Table 4. Social security (OASDHI) benefits for low earners compared with low-income threshold and Retired Couple's Budget, 1971

Item	Single person	Married couple
1970 annual earnings, low earnings model.....	\$3,600.00	\$3,600.00
1971 OASDHI retirement benefit, man, age 65, retiring January 1, 1971, low earnings model.....	1,672.80	2,508.20
Replacement rate (percent).....	46.5	69.7
Living standards:		
Low-income threshold, nonfarm, age 65 or older, 1971.....	\$1,920.00	\$2,460.00
Replacement rate (percent) required to meet low-income threshold.....	53.3	68.3
Retired Couple's Budget, lower level, spring 1970 (updated to 1971 by change in Consumer Price Index).....		\$3,250.00
Replacement rate (percent) required to meet Retired Couple's Budget.....		90.3

SOURCE: Social Security Administration and Bureau of Labor Statistics.

Table 5. Distribution of replacement rates for 28 private pension plans, 1953 and 1969¹

Item	Low-earnings worker		Average-earnings worker		High-earnings worker	
	1953	1969	1953	1969	1953	1969
Previous year's earnings...	\$2,400	\$4,200	\$3,600	\$6,600	\$6,600	\$12,000
Number of plans with replacement rates (percent):						
Under 15 percent.....	9	-----	13	3	18	14
15-24 percent.....	8	10	12	19	7	8
25-34 percent.....	7	10	2	5	3	4
35 percent or more...	4	8	1	1	-----	2
Median replacement rates..	19	28	15	21	10	15

¹ Worker retiring January 1, 1953, and January 1, 1969.

NOTE: The following are the key steps in constructing the table (discussed more fully in the source report): (1) Earnings of the average worker for the year prior to retirement reflect the average earnings of full-time workers in private industry. (2) The low-earnings worker is assumed to have earnings equal to two-thirds of the national average; high earnings are set at 80 percent above the national average. (3) Each worker is assumed to have retired after 20 years of increasing earnings, rising at an annual rate of 4 percent for the first 14 years followed by an annual rise of 2 percent for the 5 years immediately prior to retirement.

SOURCE: Walter W. Kolodrubetz and Alfred M. Skolnik, *Pension Benefit Levels: A Methodological Analysis* (Washington, Social Security Administration, HEW Publication No. 72-11851, 1972), p. 39, table F, medians by inspection, table 14.

the public system. Based upon a representative sample of 28 private plans, replacement rates for these plans have increased markedly during 1953-69 (table 5). Plans which had replacement rates below 15 percent in 1953 are well above this figure by 1969, particularly for the worker with low or average earnings. These increases result from several factors, including higher benefit formulas and elimination of provisions which offset OASDHI benefits against private benefits. On the other hand, for a number of plans, especially those with a uniform benefit (for example, the United Mine Workers plan and the two apparel union plans), the replacement rate actually declined over this 16-year period.

As of 1969, the median replacement rate for a worker with average earnings and 20 years of service was 21 percent. Four of the 30 plans investigated replace less than 15 percent of income. Three of these plans (American Telephone and Telegraph, Western Union, and the International Ladies' Garment Workers Union) apply to work forces with high proportions of women workers.

To determine whether the 1969 data were representative of current conditions, more recent replacement rates were calculated for nine plans, all but one of which were included in the 1953-69 study. Benefits under these plans, for each year since 1969, were related to an earnings history tailored insofar as possible to the specific industry concerned (table 6).

The 1969 replacement rates have fluctuated somewhat in the 3 years since then. The rates in five plans are noticeably higher, those in two relatively unchanged, and those in two declined. For the retiree with 20 years service, replacement rates for both 1969 and 1972 ranged between 13 and 25 percent, with a median of 17 percent in 1969 and 21 percent in 1972. For the retiree with 30 years of service, rates were higher but followed the same pattern, with a median of 24 percent in 1969 and 28 percent in 1972. For four plans, the replacement rate was over 30 percent.

Of course, nine plans do not constitute a scientific sample. Omitted, for example, are newer plans whose replacement rates are likely to be relatively low. Moreover, the tabulation cannot reflect many factors that affect the determination of retirement benefits. In many situations, decisions regarding the level of retirement benefits reflect a tradeoff involving other cost elements of a retirement plan such as vesting, disability benefits, and survivors' payments. However, it is worth noting that the low-benefit ILGWU plan in the relatively low-wage apparel

industry, though ranking low among the nine, yields a replacement rate of 17 percent, comparable to the Armour plan.

One caution must be emphasized in connection with any comparison of replacement rates in the public and private systems. Congress has raised OASDHI benefits periodically to at least keep pace with living costs; in fact, this policy may be made explicit in forthcoming (1972) amendments. Thus the purchasing power of the individual's original OASDHI benefit and the maintenance of his replacement rate in real terms has been assured during retirement. On the other hand, with the exception of a large group of collectively bargained plans, most private plans, in revising their benefit formulas periodically, do not extend improvements in benefits to already retired employees. These improvements are directed more to future than to current retirees. Thus, for such plans, the real replacement rate for a private plan will steadily decline during an individual's retirement as consumer prices rise. For example, if over a 10-year period, prices rise (as they did in 1961-71) by 35 percent, the purchasing power of

Table 6. Benefits in selected private pension plans for workers retiring January 1, 1969-72, as a percent of annual earnings in year prior to retirement

Year	Annual ¹ earnings, previous year	Monthly pension benefit		Replacement rate (percent)		Year	Annual ¹ earnings, previous year	Monthly pension benefit		Replacement rate (percent)	
		20-year service	30-year service	20-year service	30-year service			20-year service	30-year service	20-year service	30-year service
Armour & Co.:						New York City Carpenters:					
1969	\$7,642	\$100	\$150	16	24	1969	\$9,600	\$101	\$113	13	14
1970	8,114	100	150	15	22	1970	9,975	203	243	25	29
1971	8,753	120	180	17	25	1971	10,725	248	288	28	32
1972	9,140	130	195	17	26	1972	12,600	293	333	28	32
Detroit Edison:						Southern Bell Telephone:					
1969	8,026	121	172	18	26	1960	6,255	115	146	22	28
1970	8,607	154	218	21	30	1970	6,769	125	152	22	27
1971	9,173	163	234	21	31	1971	6,843	125	159	22	28
1972	9,845	173	253	21	31	1972	7,004	125	162	21	28
Ford Motor Co.:						U.S. Steel Corp.:					
1969	8,984	123	183	16	24	1969	8,016	130	195	19	29
1970	9,063	123	183	16	24	1970	8,634	130	195	18	27
1971	9,065	123	183	16	24	1971	8,653	130	195	18	27
1972	9,220	160	238	21	31	1972	9,224	165	255	21	33
International Ladies Garment workers' Union Plan:						Western Conference of Teamsters:					
1969	4,149	65	65	19	19	1969	7,434	150	188	24	30
1970	4,312	65	65	18	18	1970	7,871	150	188	23	29
1971	4,387	65	65	18	18	1971	8,288	150	188	22	27
1972	4,609	65	65	17	17	1972	9,355	144	180	19	23
International Paper Co.:											
1969	6,804	98	116	17	21						
1970	7,245	99	122	16	20						
1971	7,496	122	156	20	25						
1972	7,987	125	163	19	25						

¹ Data for average weekly earnings for the following industries were multiplied by 52 to yield annual earnings:

- Armour & Co.—Meat products
- Detroit Edison—Electric companies and systems
- Ford Motor Co.—Motor vehicles and equipment
- International Paper—Paper and allied products
- Ladies Garment Union—Apparel and other textile products
- Southern Bell Telephone—Telephone communications

- U.S. Steel—Blast furnace and basic steel products
- Western Conference of Teamsters—Trucking and warehousing

The assumption of 52 weeks of work is clearly an overstatement of employment for the average employee in the industry concerned. However, the data pertain to an employee with 20 or 30 years of service who would normally be less subject to layoff. For New York City Carpenters, the applicable union hourly rate was multiplied by 1,500 hours as the assumed annual hours to produce the annual earnings.

SOURCE: Bureau of Labor Statistics.

Table 7. Calculation of retirement income equivalent to preretirement income for married couples at various income levels, 1972

Item	Levels of income				
	\$4,000	\$6,000	\$8,000	\$10,000	\$15,000
Preretirement total income.....	\$4,000	\$6,000	\$8,000	\$10,000	\$15,000
Federal income tax ¹	170	501	848	1,209	2,128
Federal OASDHI tax ²	208	312	416	468	468
Preretirement income after Federal personal taxes.....	\$3,622	\$5,187	\$6,736	\$8,323	\$12,404
State income tax (12 percent of Federal) ³	20	60	102	145	255
Preretirement income after Federal and State personal taxes.....	\$3,602	\$5,127	\$6,634	\$8,178	\$12,149
Savings resulting from retirement ⁴	\$490	\$697	\$902	\$1,112	\$1,652
Retirement income needed to equal preretirement disposable income:					
Amount.....	\$3,112	\$4,430	\$5,732	\$7,066	\$10,497
Percent of preretirement total income.....	78	74	72	71	70

¹ Calculated in accord with current tax code.

² 5.2 percent of earnings up to \$9,000 (current law).

³ In 1970, State (and local) income tax receipts were 10.9 percent of Federal income tax receipts and the percent has been increasing at roughly 0.5 percent a year. Thus, the average percent is estimated at 12 percent for 1972.

⁴ Savings from retirement are based on Revised Equivalence Scale for Estimating Income or Budget Costs by Family Type (BLS Bulletin 1570-2, 1963). These scales allow calculation of equivalent levels of consumption for families of different composition and were derived from expenditure data in the 1960-61 Survey of Consumer Expenditures. Using the scales, the consumption requirements of a 2-person (husband-wife) family after retirement is 86.4 percent of requirements prior to retirement (age 55-64). Consequently, savings from retirement were estimated at 13.6 percent of preretirement income available for consumption.

In separate calculations (not shown in the table), an attempt was made to estimate savings for individual expense items. These results, which embodied a greater element of judgment, were quite similar to those resulting from applying the 13.6-percent figure.

a 20-percent replacement rate would have fallen to 13.5 percent by the end of the period.

Looking at both systems

When both public and the private retirement systems are considered together, there is wide diversity in the extent to which an individual's retirement benefits replace previous earnings. If he is married, able to work until 65 years old, and in addition has had extended employment under a private plan, he is likely to find that his combined benefits will replace at least 60 percent (and perhaps as much as 75 percent) of his previous earnings. If on the other hand, he is single, applies for OASDHI benefits at 62, and is not entitled to any private benefits, his replacement rate may be as low as 20-25 percent.

How can replacement rates such as 25 or 75 percent be evaluated? Is there an "optimum" rate against which to measure actual performance? It seems unlikely that any scientific method for determining an "optimum" replacement rate can be developed. Any such "optimum" would have to reflect subjective judgments regarding the value of

retirement, and would change as the Nation's standard of living, accepted age for retirement, and other factors changed.

A related question that is more susceptible to measurement is: what replacement rate would be necessary to yield to an individual approximately the same income he had before retirement for the purchase of goods and services?

Some calculations of this type for a married couple at varying levels of income have been prepared (table 7). At the lower income levels, the calculations indicate that a replacement rate of about 80 percent would be necessary if the retiree were to maintain his preretirement command of goods and services. At higher income levels, this rate drops slightly to 70 percent.

These calculations take into account only those reductions in taxes and expenditures becoming effective upon retirement. They do not take into account special circumstances requiring additional income during retirement, particularly for lower-income families with limited savings. On the other hand, the calculations do not consider other possible reductions in living expenses which may occur more gradually as a family ages, such as savings resulting from completing the purchase of a home, or from the completion of educational expenses for children. Such savings, of course, can be very real, but in most instances they take place over a longer period of years before retirement and they are not necessarily available to all families. (Some families at retirement rent rather than own a home, for example.)

These calculations also assume the absence of personal income taxes during retirement. For a couple this would be true if retirement income was solely from nontaxable OASDHI benefits or if taxable income were less than \$4,300 (\$1,500 exemption in 1972 for an individual over 65, plus minimum standard deduction of \$1,300). At higher levels of income, provision for income taxes would be necessary.

The 70- to 80-percent replacement rate for achieving a roughly comparable level of living provides a useful backdrop for examining the benefit structure of the public and private systems in combination. Since half the working population is currently covered by private pension plans, this country already has a combined public-private retirement system. Evaluation of the system as a whole, including the performance of each component, would be more realistic if its joint character were recognized.

For example, an individual whose earnings history has followed the path of the average production

worker in manufacturing would have 1971 annual earnings of about \$7,350. Assuming that he has been employed by the International Paper Co., (its pension plan provides benefits close to the median of the private plans included in this discussion), this individual upon retiring January 1, 1972, at 65 years old would find the replacement rate from his OASDHI benefit to be 34 percent if single and 51 percent if married with his wife at the same age. His benefit from International Paper would replace an additional 19 percent of his preretirement earnings assuming 20 years of service, and 25 percent assuming 30 years of service. Thus, the public-private replacement rate for the single retiree would be 53–59 percent and for the married retiree 70–76 percent. The combined rate should enable a married couple to approximate their preretirement level of living.

Other examples could be developed for other situations. At lower levels of income, the arithmetic would differ because pension plans common to lower-wage industries generally yield a somewhat lower replacement rate. On the other hand, the replacement rate from the OASDHI benefit would be considerably higher. A married retiree with an earnings history approximating the low-earnings model would find his OASDHI benefit equal to 68 percent of his previous year's earnings; the individual whose earnings followed the average for retail trade would have about 63 percent of income replaced.

Conversely, at higher levels of income, the OASDHI replacement rate drops off sharply, but the replacement rate for private pension benefits in higher-paying industries is likely to be much higher. Some of the private plans, for example, Detroit Edison and the New York City Carpenters, provide replacement rates over 30 percent for the individual with 30 years of service. A rough estimate would be that a typical married retiree with \$10,000 earnings in his last year would find his combined public and private benefits replacing 55–65 percent of previous earnings (37–40 percent for OASDHI).

For a single person, replacement rates are 10–20 percentage points below those for married persons with similar working experience. Whether or not such a drop is in line with the reduced retirement needs of single persons is difficult to judge. One close study of this issue concluded that a higher replacement rate for couples was justified, "but the present formula is incorrectly computed in principle and provides a benefit for couples that is much too large."¹⁰

Aside from a person's marital status, two circumstances act to reduce severely an individual's chances

that his retirement benefits can come close to providing his preretirement level of living. These are (1) the absence of any private pension benefit, and (2) a decision to apply for OASDHI benefits before 65, particularly if application is made at the earliest eligible age, 62.

At present a mature private pension plan generally will yield a replacement rate of at least 15–20 percent for the individual with 20 years service and 20–25 percent for 30 years service. But the stubborn fact remains that private pension plans cover only half the nonfarm working population, and an even smaller portion will actually meet the length of service requirements to be eligible for a private retirement benefit. A recent study discloses that only 43 percent of men and 17 percent of women awarded retirement benefits under OASDHI between July 1968 and December 1969 were receiving or expected to receive a private pension benefit from the job they held longest in private employment.¹¹ Because pension coverage is more prevalent among the larger size, higher wage, unionized firms, it is typically the lower-wage employee in a small-size firm who lacks income support from a private pension benefit.

In a similar fashion, current practices regarding age at retirement operates to cut back an individual's replacement rate. According to a recent study, about half the men and over two-thirds of the women awarded OASDHI retirement benefits were subject to actuarial reduction because they applied before 65. Benefits at 62 are more than 20 percent below those applicable to an individual with the same earnings history who retires at 65, equivalent to 6–10 percentage points in the replacement rate.

Why do retirees decide to take the early retirement option? A recent study examined the economic situation in which early retirees find themselves. Only 40 percent are employed and four-fifths consider themselves retired or partly retired. The study concludes: "the reduction in benefit rate because of early retirement . . . appears to be a secondary consideration in the worker's decision to draw benefits. His first consideration is probably the satisfaction of his immediate economic wants."¹²

To the retiree, of course, the value of immediate benefits at 62 to help meet what might be pressing economic needs outweighs the long-term interest in a higher level of benefits beginning 3 years later. This decision to spread total retirement benefits over a longer time period results, however, in some sacrifice in levels of living starting with the 65th birthday

and continuing throughout retirement.¹³

The limited coverage of private pension plans together with the practice of applying for reduced OASDHI benefits make it clear that only 20–25 percent of all retirees receive the maximum benefits of the combined public-private system. For the future, increasing public attention should perhaps be devoted to examining alternative methods for raising

this percentage. Can a feasible method be developed of providing supplementary retirement income to those not entitled to benefits from a private plan? What can be done to enable a greater proportion of the work force to remain employed until normal retirement age? These are critical questions deserving equal priority with the current interest in higher benefit levels. □

— FOOTNOTES —

¹ However, a panel of the 1971 Advisory Council on Social Security specifically called attention to replacement rates in the following: "While past and proposed legislative actions have approximately achieved the goal of maintenance of purchasing power, the replacement rates have shifted over time and between different levels of average wages. There has been insufficient analyses or public discussion of the role of replacement rate in prescribing the benefit formulas." Panel of Actuaries and Economists to the Subcommittee on Cost Estimates and Financial Policy of the 1971 Advisory Council on Social Security, House Document 92–80, April 5, 1971, p. 95–96.

² Walter W. Kolodrubetz and Alfred M. Skolnik, *Pension Benefit Levels: A Methodological Analysis* (Social Security Administration, 1972), Publication No. 72–11851.

³ Joseph A. Pechman, Henry J. Aaron, and Michael K. Taussig, *Social Security: Perspectives for Reform* (Washington, Brookings Institution, 1968), p. 55 ff.

⁴ Ideally, it would be best to have data on previous earnings and benefit levels for all retirees so that replacement rates could be constructed for retirees with varying personal characteristics and worklife earnings. Changes in law or practice and differences among retirement systems could be analyzed in terms of replacement rates for retirees in a wide variety of situations. Although such data may be realized with additional "mining" of the 1 percent sample of social security participants, it is not currently available.

⁵ These tables do not necessarily reflect the earnings history of any single individual. It would be the rare instance where an individual's lifetime earnings followed the average for an industry sector so closely that he would receive the benefit specified in the table. The industry earnings data include part-time along with full-time employees. Generally an individual starts by earning less than his industry's average and ends earning more than the average. In addition, any individual's replacement rate would be affected by the amount of overtime worked, extent of unemployment, employment outside the social security system or on a second job, and so on. Yet utilizing average earnings to represent hypothetical individuals is probably as useful as the alternative of relying on more mechanical formulas, under which earnings are assumed to rise by a fixed percentage annually. Finally, although each earnings history is derived from data for an industrial sector (in one case, all private industry), the resulting earnings record in each case can be viewed as applying to any worker at that earnings level. Thus the earnings record for manufacturing can also be considered

the record of a relatively high-wage worker in the services industry or a relatively low-wage worker in the construction industry.

⁶ Kolodrubetz and Skolnik, op. cit., constructed earnings histories to represent low, average, and high earnings workers. Their calculations yield replacement rates (Pension/Earnings ratios) for 1953 and 1969 showing little change between the 2 years. Table 2 figures confirm this for the histories closest to their low (retail trade) and average (manufacturing) models. Their high earnings model is well above the highest earnings history (construction) in table 2.

⁷ The BLS standard budget program is built to the extent possible on consensus standards of food, housing, and medical care as determined requirements for health, but also incorporates BLS staff judgments based on analyses of spending regarding needs in other expenditure categories. Separate budgets are developed at what are called lower, intermediate, and higher levels of living, but only the lower budget would be relevant to this discussion.

⁸ Report of the 1971 Advisory Council on Social Security, op. cit., p. 13.

⁹ Max Horlick, "Earnings Replacement Rate of Old-Age Beneficiaries: An International Comparison," *Social Security Bulletin*, March 1970, p. 3.

¹⁰ Pechman, Aaron, and Taussig, op. cit., pp. 84–85.

¹¹ Walter Kolodrubetz, *Characteristics of Workers with Pension Coverage on Longest Jobs: Survey of New Beneficiaries*, Report No. 6 (Washington, Social Security Administration, October 1971), tables 3, 4, and 7.

¹² Patience Lauriat and William Rabin, *Men Who Claim Benefits Before Age 65: Findings From the Survey of New Beneficiaries*, 1968, Report No. 1 (Washington, Social Security Administration, November 1970), p. 22, table p. 4.

¹³ In some collectively bargained plans, a "special" early retirement benefit is designed to provide additional income for the retiree until he can apply for normal, unreduced social security benefits. Both the steel and auto industry plans provide this. For example, in the General Motors plan, a worker 55 years or over with 10 years of service or more who retires "at the employer's request or under mutually satisfactory conditions" is eligible for a benefit ranging up to \$500 monthly until age 62 and \$450 monthly from age 62 to 65, with the actual amount dependent on age and years of service. The normal retirement benefit at age 65 is \$7.25–\$7.75 per year of service, depending on the individual's job and pay classification.

Increasing use of escalation clauses
in public and private pension plans
suggests need for research on
differences between the CPI and a
consumer price index for retired persons

JANET L. NORWOOD

Cost-of-living escalation of pensions

THOSE who begin retirement today start off with a larger proportion of their wages or salaries than those who began retirement 10 years ago. More people are eligible for retirement pensions than ever before. Benefits under our social security system, as well as under private and other public pension systems, have been markedly increased.

In spite of these improvements, however, effective methods have not been developed for coping with the adjustments in living styles and consumption patterns brought about by the decline in income upon retirement. More important, even after the initial adjustment to retirement income has been made, the problem remains of maintaining purchasing power in an inflationary economy. We have not yet found or adopted effective techniques for maintaining real income after retirement.

One of the possible techniques, whose prevalence is increasing in both public and private retirement plans, is the use of escalator clauses. Most of these clauses rely on the Consumer Price Index as the measure of purchasing power and provide for cost-of-living adjustments based on formulas related to changes in the index. The index is a statistical measure of changes in the prices of a fixed market basket of goods and services purchased by urban wage earners and clerical workers for daily living and is frequently used for implementing collective bargaining or other contractual arrangements guaranteeing the maintenance of purchasing power.

Existing practice

The Civil Service Retirement Act as amended¹ provides for annuities to be increased whenever the

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Consumer Price Index (CPI) has risen 3 percent above the level of the base month and has remained at least 3 percent above the base level for 3 consecutive months. The procedure established in 1965 provides for a pension increase within 2 months after the end of the 3-month period. Thus, the benefit increase² in response to inflationary pressures can take place within a period of 5 months from the base period. The February CPI may trigger the next pension escalation. The February and March indexes were more than 3 percent above the base period; if the index remains at least at its current level during April, the next increase in annuities for Federal Civil Service retirees will become effective in July.

Similar procedures are employed in other public retirement plans, so that nearly 2 million retired and disabled Federal civilian and military personnel covered by pension plans receive increases in their benefits as a result of increases in the Consumer Price Index. A number of private pension plans use variants of the CPI escalation clause. In addition, amendments to the Social Security legislation currently before the Congress provide for the first time for automatic cost-of-living escalation of Social Security pensions. About 27 million persons today are receiving benefits under the Social Security program.

The Consumer Price Index

Since the CPI is used as the basis for almost all of this cost-of-living escalation, it is important to understand exactly what the index measures. The Consumer Price Index is a measure of the change in the prices of a fixed market basket of goods and services purchased by urban wage earner and clerical worker families, including single persons living alone. The change in the index each month is based upon analysis of some 150,000 individual price observations covering about 400 different items. Most of the prices are collected directly by agents of the Bureau of Labor Statistics in 56 urban areas.

The items in the market basket and the relative importance of each item are revised at about 10-year intervals from data obtained in a comprehensive spending survey called the Consumer Expenditure Survey (CES). The current index is based on CES data collected in 1960-61. A new expenditure survey covering the years 1972-73 is now underway in some 200 different areas of the United States to form the basis for a new revision of the Consumer Price Index, currently scheduled for completion toward the end of 1976.

Although the Consumer Price Index is sometimes called a cost-of-living index, the index is in fact not intended to measure changes in the total cost of living. It measures only price changes and does not take account of some important elements of living costs, such as personal income taxes. Moreover, it does not take into account changes in the quantities or qualities of items purchased in response to relative price change. However, since price change is one of the principal determinants of living costs, the Consumer Price Index is frequently used to approximate cost-of-living changes. In any case, it is the only existing indicator to use for this purpose.

In evaluating the applicability of the index to pension escalation, however, a number of other factors must also be considered. Do the items included in the index and the weights attached to them reflect the experience of retired annuitants? Are prices collected in the retail establishments frequented by retirees, and are these outlets located in the areas of the country in which the retired population is clustered?

Index weights and expenditure patterns

The question of whether the relative importance of different types of expenditures made by retired persons differs markedly from that of employed persons is important. It is these proportions that form the basis for derivation of the expenditure weights in the computation of the Consumer Price Index. As explained above, any discussion of expenditure patterns must be based upon 1960-61 data, the latest available, as the current survey covering 1972-73 will take several years to complete.

Studies with 1960-61 data have shown³ that old age, compared with earlier age groups, is generally associated with large decreases in spending for transportation, home furnishings, and apparel and somewhat smaller expenditures for some food and personal care items. Expenditures for housing and util-

ities tend not to be age-related, although, of course, the interest rate and mortgage payment experience of retirees is in general quite different from that for younger, employed persons. Expenditures for medical care tend to increase as age advances, but the exact effect of public and private insurance programs is difficult to quantify.

In general, the decline in income that occurs with retirement is so sharp that it is bound to have a strong effect on expenditures which are elastically responsive to income changes. For purposes of this discussion, however, it is not the dollar value of expenditures that is of interest, but rather the relative importance of the expenditure for each item in the total consumer unit budget.

Table 1 shows that in 1960-61 expenditures for apparel, home furnishings, transportation, personal care, and recreation accounted for a smaller proportion of total expenditures for retired than for wage and clerical worker consumer units. As would be expected, restaurant meal expenditures were less important and food at home somewhat more important for retired than for the CPI family units.

The higher relative importance for retired persons of expenditures on medical care must be interpreted with caution, however, since the Medicare program has considerably reduced medical expenses of those over 65. It is not clear how much effect these differences in expenditure patterns—and, therefore, in weights—would have on the overall movement of the Consumer Price Index.⁴

Data are not available to test these effects. But the Bureau of Labor Statistics has done some work reweighting the data already collected for the Con-

Table 1. Relative importance of expenditures for selected groups of goods and services, by retirees and workers, 1960-61

[Percent distribution]

Item	Retirees (1)	Wage and clerical workers (2)	Difference (percentage points) (1-2)
Food:			
At home.....	22.6	20.1	2.5
Away from home.....	3.8	5.1	-1.3
Housing:			
Shelter.....	16.8	13.2	3.6
Fuel, light, water, etc.....	6.6	6.0	0.6
Household operations.....	6.6	3.8	2.8
House furnishings.....	3.9	5.3	-1.4
Apparel.....	6.8	10.7	-3.9
Transportation.....	11.0	14.7	-3.7
Medical care.....	10.2	6.2	4.0
Reading and recreation:			
Reading.....	1.1	.8	0.3
Recreation.....	2.5	4.0	-1.5
Education.....	.3	.8	-0.5
Other goods and services.....	5.1	5.8	-0.7

SOURCE: Data relate to consumer units and are derived from Survey of Consumer Expenditures, 1960-61 (BLS Report 237-38, 1964).

sumer Price Index at major group levels, to take into account the spending patterns of families with heads 65 years or older.⁵ The differences between the estimated measure and the Consumer Price Index were not significant, especially when adjustments were made for the medical care weight to take into account the effect of Medicare on these expenditures. As the Bureau has indicated, research of this type has several major deficiencies. The calculations were, of necessity, performed at an aggregated level and could have masked important differences in major components of the index. For example, the CPI housing index contains several components (such as mortgage interest costs) that are likely to be considerably less important in the budget for older persons than in the budget for CPI consumer units. Even more important, however, is the fact that Consumer Price Index samples—items, specifications, outlets, collection areas—are related to the wage earner and clerical worker population to which the CPI family definition relates.

A consumer price index for the retired

An index for retired persons should be related entirely to the experience of its own index population. The entire program, not just the index weights, should be constructed so as to reflect the experience of consumer units headed by retired persons. Prices should be collected for the items retirees purchase, in the stores and service establishments in which retired persons shop, and collection should be carried out in the areas of the country in which retired persons tend to live.

At the present time, no data are available in the Bureau of Labor Statistics or elsewhere to evaluate the extent of the differences between the Consumer Price Index and an index specifically constructed to represent the experience of retirees. Work has been done on differences in consumption patterns and, to some extent, on differences in index weighting structure. In addition, the 1960-61 Consumer Expenditure Survey has been used to derive data on the kinds of items retired persons buy. But we do not know what kinds of stores are used by retirees for their purchases, nor do we have much information on the distances from their homes which annuitants travel to make their purchases.

The selection of the areas for price collection and of the population weights for combining the areas into a national sample would be much easier than the selection of the individual stores. Although the

complete results of the 1970 decennial census have not yet been released, the Census Bureau has published information on the age profile of Standard Metropolitan Statistical Areas and smaller urban areas. If these data on the proportion of the population aged 65 and over in each area are considered as a proxy for the proportion of retired persons, the geographical areas that should be considered for inclusion in an index for retired persons (and the population weights for combining all the areas priced into a national index number) can readily be seen.

As table 2 shows, large concentrations of older people exist in particular parts of the country. In general, these are either areas to which retired persons move because of favorable climatic or other living conditions, or areas from which young people emigrate in search of increased economic opportunity. Thus, more than one-sixth of the total population of the State of Florida is 65 or older, and 4 out of the top 10 Standard Metropolitan Statistical Areas on the list are in Florida. On the other hand, such areas as New Bedford, Mass., and Scranton and Wilkes-Barre—Hazleton, Pa., which in recent years

Table 2. Areas with largest proportions of population 65 years and over, 1970 census

State or area	Percent of population age 65 and over
STATE	
Florida.....	14.6
Arkansas.....	12.4
Nebraska.....	12.4
Iowa.....	12.4
South Dakota.....	12.1
Missouri.....	12.0
Kansas.....	11.8
Oklahoma.....	11.7
Maine.....	11.6
Massachusetts.....	11.2
STANDARD METROPOLITAN STATISTICAL AREA	
Tampa-St. Petersburg, Fla.....	20.3
Fort Lauderdale, Hollywood, Fla.....	17.9
West Palm Beach, Fla.....	17.3
Atlantic City, N.J.....	16.2
St. Joseph, Mo.....	14.8
Miami, Fla.....	13.6
Terre Haute, Ind.....	13.5
New Bedford, Mass.....	13.4
Scranton, Pa.....	13.3
Sherman-Denison, Tex.....	13.2
URBAN AREAS	
Miami Beach, Fla.....	48.7
St. Petersburg, Fla.....	30.6
Clearwater, Fla.....	28.7
Town of Brookline, Mass.....	20.1
Hollywood, Fla.....	19.6
West Palm Beach, Fla.....	18.8
Fort Lauderdale, Fla.....	18.5
Irvington, N.J.....	18.0
Santa Barbara, Calif.....	18.0
Pasadena, Calif.....	17.1

SOURCE: U.S. Census of Population, General Population Characteristics, U.S. Summary (Washington, U.S. Bureau of the Census, 1971), PC(1)B1.

have been experiencing reduced economic opportunities, also appear on these lists.

These data point out the need for careful attention in the selection of the areas for price collection for a consumer price index for the retired. In addition, the areas with the largest retired populations should carry the highest weights in the national aggregate measure. It is certain that the area sample for price collection as well as the population weights for combining to the national average for an index for retirees would differ markedly from the present Consumer Price Index structure.

The present index program is based upon price collection in 56 statistical areas of the country; this CPI area sample contains very few areas with a high proportion of elderly persons. Since time series price data are not available for new CPI pricing areas, it is not possible to evaluate the effect of differences in

area sample between the CPI and an index for the retired.

AT PRESENT, the Consumer Price Index is used as the statistical measure for many types of cost-of-living escalation, including the Federal retirement program. Although the CPI is the best available measure to use for this purpose, it is not necessarily the best measure that could be constructed for pension escalation. A Consumer Price Index for Retired Persons should, in concept and practice, relate to the expenditure experience of retirees and should utilize a collection program based upon samples of items, stores, and areas which relate to the experience of retired persons. Data are not now available to determine whether a Consumer Price Index for the retired would differ from present CPI, and, if so, whether the differences would be large enough to affect annuity escalation.

FOOTNOTES

¹ Before 1962, all adjustments to restore purchasing power were made from time to time through legislation, since no systematic escalation mechanism existed. The 1962 amendments incorporated a provision for an automatic annual escalation in annuities based on changes in the CPI. Amendments passed in 1965 provided for escalation on a more timely basis. Amendments in 1969 provided for a supplement to the adjustment to assure maintenance of purchasing power during a period of rapidly increasing prices.

² Amendments to the Civil Service Retirement Program passed in 1969 provided for an additional annuity increase to take account of the lag caused by the 5-month adjustment process. Once the index has risen 3 percent above the base period for 3 months, the amount of the increase in pensions is the increase in the CPI rounded to the nearest tenth plus 1 percent.

³ For example, see *Expenditures of Two-Person Units and Individuals After Age 55* (Washington, U.S. Department of Health, Education, and Welfare, 1971), Social Security Administration, Office of Research and Statistics, Staff Paper No. 9.

⁴ To have much of an effect on the All Items index, a change in weighting pattern must be substantial, the price trends for the items with differing weights must be markedly different, and the price movements must be generally in the same direction.

⁵ Cf. Daniel N. Price and Robert O. Brunner, "Automatic Adjustment of OASDI Cash Benefits," *Social Security Bulletin*, May 1970, and Saul Waldman, "OASDI Benefits, Prices, and Wages, 1966 Experience," *Social Security Bulletin* June 1967.

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.

Per capita demand
falls, but
greater mechanization
leads to modest growth in
output per man-hour

CLYDE E. HUFFSTUTLER
AND MARTHA FARNSWORTH RICHE

Productivity in the bakery products industry

PRODUCTIVITY in the bakery products industry grew more slowly during the postwar period than productivity in manufacturing as a whole. Nevertheless, output per man-hour in bakery products increased 57 percent from 1947 to 1971, primarily reflecting reductions in man-hours. Moreover, productivity accelerated in the last decade.

Productivity trends

Output per man-hour grew 2.3 percent a year for the 25-year period ending in 1971.¹ (See chart 1 and table 1.) This was below the average annual rate of 2.9 percent for manufacturing. Most of the slower growth occurred between 1947 and 1960, when output per man-hour rose only 1.5 percent a year. In the 1960's, productivity grew at an average rate of 3.0 percent, with most of the increase occurring in the earlier half of the decade.

Output and employment

Output grew slowly between 1947 and 1971 but did not keep pace with population growth. Per capita consumption of bakery products declined from its record 1947 level as Americans reduced the carbohydrate content of their diets.² Competition from new products such as prepared mixes and frozen baked goods also affected demand. On the other hand, demand for the industry's products grew as the proportion of young people in the population increased³ and as more and more women worked outside the home.

Employment fell from 303,800 in 1960 to 252,100 in 1971, a decline of 1.7 percent a year. Man-hours

also dropped, with the greatest decline occurring between 1960 and 1965, the years of high productivity growth.

Structure and technology

The bakery products industry is composed of two subindustries: (1) establishments that manufacture bread, cakes, and other "perishable" bakery products that are sold through home delivery or through one or more nonbaking retail outlets; (2) establishments that manufacture cookies, crackers, and similar "dry bakery products." It excludes retail bakeries, as well as frozen baked goods, which are classified in retail trade and with frozen fruits and vegetables, respectively.

Growth in the average size of bakeries was one source of the industry's increased efficiency, as intense competition forced many small, inefficient firms out of business.⁴ The average number of employees per establishment grew from 39 in 1947 to 60 in 1967, while the number of establishments decreased by 40 percent from 7,122 to 4,390. Many of the larger establishments attempted to meet increased labor, materials, and distribution costs through greater mechanization, which was reflected in the rapid increase in the industry's capital investment during the period.

The industry's expenditures for new plant and equipment almost doubled between 1955 (the earliest year for which data are available) and 1969, although part of this increase must be attributed to inflation. Net stocks of plant and equipment in the bakery products industry rose by nearly 180 percent between 1947 and 1966, with the greater share of the increase going to equipment.⁵

Introduction of mechanized equipment, probably the most important factor in the industry's ability to increase output while reducing employment and man-

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hours, affected both materials handling and product preparation.

The industry has adopted several improvements in materials handling.⁶ Bulk pneumatic handling systems permit transfer of flour, sugar, and other dry ingredients in bulk from trucks and railroad cars directly to storage bins, which eliminates the need for handling by crews of laborers. In the same way, ingredients in fluid form such as sugar, reconstituted milk, yeast, and shortening can be pumped into storage tanks directly from trucks and railroad cars.

Adoption of conveyor systems makes possible transport of panned dough through baking, cooling, slicing, wrapping, and labeling operations in a continuous process. Formerly, workers transported the bread in process manually from one stage to another.

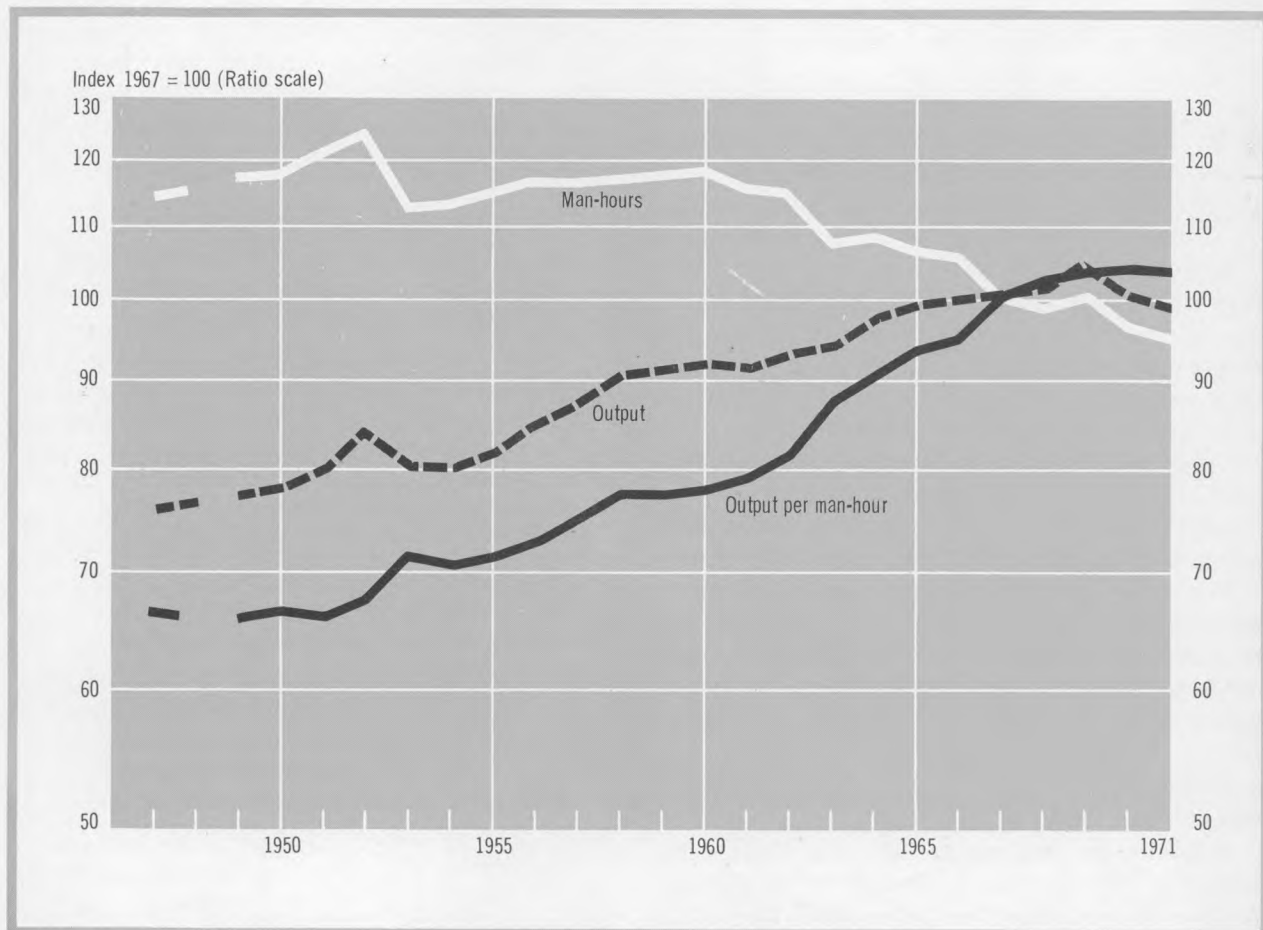
Growing use of mixes eliminates the weighing and

mixing of ingredients and reduces fermentation time, which allows savings in floor space, labor, equipment, and ingredients. Unlike retail bakeries, however, the bakery products industry uses mixes that are prepared by its own employees, so man-hour savings are not complete.

The development of equipment that allows continuous mixing has resulted in a single machine that can perform all steps of dough preparation in a continuous operation. But equipment for continuous mixing, like that for pneumatic bulk handling systems, is restricted to large bakeries because its high cost renders it uneconomical for small ones. Nevertheless, the trend toward larger bakeries has hastened diffusion. Continuous mixing was introduced on an increasing scale beginning in the late fifties and is now used in about half of all bread production.⁷

Chart 1. Output, man-hours, and output per man-hour, bakery products, 1947-71

[Index 1967=100]



NOTE: Where series are not continuous, data are not available.

Table 1. Indexes of output per man-hour,¹ output, employment, and man-hours, bakery products industry, 1947-71

[1967 = 100]

Year	Output per—		Output per—		Related data				
	Employee	Man-hour	Production worker	Production worker man-hour	Output	Employees	Man-hours	Production workers	Production worker man-hours
1947	71.2	66.3	64.0	59.6	75.5	106.1	113.9	118.0	126.6
1948	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1949	69.6	65.8	64.5	61.3	77.1	110.8	117.1	119.5	125.8
1950	69.8	66.4	64.9	62.0	77.8	111.5	117.2	119.8	125.4
1951	68.8	65.8	65.2	62.7	79.9	116.1	121.4	122.5	127.5
1952	70.4	67.6	67.6	65.4	83.9	119.1	124.1	124.1	128.3
1953	73.8	71.3	69.7	67.9	80.1	108.6	112.4	114.9	117.9
1954	72.0	70.5	70.7	70.0	79.7	110.7	113.1	112.8	113.9
1955	72.6	71.1	71.7	71.0	81.5	112.3	114.6	113.7	114.8
1956	73.3	72.5	72.8	73.1	84.7	115.5	116.8	116.4	115.9
1957	75.4	74.7	76.6	77.3	87.0	115.4	116.4	113.6	112.5
1958	78.9	77.3	79.9	79.0	90.3	114.4	116.8	113.0	114.3
1959	78.8	77.2	80.4	79.5	90.9	115.3	117.7	113.1	114.4
1960	79.8	77.7	82.3	79.8	91.8	115.0	118.1	111.6	115.0
1961	80.6	79.0	83.4	81.0	91.0	112.9	115.2	109.1	112.3
1962	82.7	81.1	86.9	84.1	92.9	112.3	114.5	106.9	110.5
1963	88.4	87.3	91.1	89.3	93.7	106.0	107.3	102.8	104.9
1964	93.1	90.1	96.6	91.8	97.4	104.6	108.1	100.8	106.1
1965	94.3	93.5	96.4	95.1	99.1	105.1	106.0	102.8	104.2
1966	96.0	94.6	98.1	95.6	99.7	103.9	105.4	101.6	104.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.6	102.2	103.0	101.5	101.0	97.5	98.8	98.1	99.5
1969	104.1	104.0	102.8	103.1	104.3	100.2	100.3	101.5	101.2
1970	104.0	104.3	101.5	102.2	100.5	96.6	96.4	99.0	98.3
1971 ³	103.9	104.1	101.7	102.5	99.1	95.4	95.2	97.4	96.7
Average annual rates of change									
1947-71	2.1	2.3	2.4	2.6	1.4	-0.7	-0.9	-1.0	-1.2
1947-60	1.1	1.5	2.2	2.6	1.5	0.4	0.0	-0.6	-1.1
1960-71	2.8	3.0	2.1	2.5	1.1	-1.7	-1.9	-1.0	-1.4

¹ All output measures used in this table represent the total production of all employees rather than the specific output of any single group of employees.

² Data are not available.

³ Preliminary.

A development that took place outside the industry may also have had an effect on productivity. Improvements in the interstate highway system permitted wider ranging delivery runs and consequently facilitated the expansion of production facilities for many wholesale bakers.

These technological changes promised to increase productivity growth, but two other factors—product differentiation and the organization of distribution and sales—limited their full potential.

Productivity growth has been inhibited by bread-makers' efforts to differentiate a product that is basically identical.⁸ Bakers have increased the variety of shapes, sizes, and slice thicknesses of white pan bread, which accounts for half of the industry's output. In addition, they have adopted more elaborate packaging which usually requires more time and care in handling.

Rigidities in distribution and sales have also hampered efficiency. Reintroduction of the postwar practice of consignment selling in which the wholesale baker buys back unsold stale goods has helped

cause declining sales per delivery route. In addition, the growing emphasis on nonprice competition has forced salesmen into a time-consuming struggle over prime space on supermarket shelves.⁹ The sales and delivery system was devised by wholesale bakers when small grocery stores were the rule and has not been adjusted in line with the shift to large retail chains.

This problem is not equally severe for both parts of the bakery products industry. Unlike bread and bread-related products, cookies and crackers have a much longer shelf-life and do not require such frequent distribution.

Nevertheless, these rigidities are especially significant because distribution and sales workers make up a large portion of bakery products employees. Nonproduction workers in the industry, the bulk of which are distribution and sales workers, account for 39 percent of all employees, compared with an average of 28 percent for all manufacturing employees. Furthermore, the number of nonproduction workers in the industry increased by 15 percent from

1947 to 1969 as overall industry employment fell.

But there are some indications that the delivery and sales system has become more efficient in the past decade: employment of nonproduction workers declined 2.6 percent a year between 1960 and 1971. This development may partly reflect the decline in home service bakeries, in which sales and distribution are extremely fragmented. Home service bakeries, which accounted for 10 percent of bread business in 1947, made up less than 2 percent in 1967.

Outlook

Overall consumption of bakery products is not expected to increase very much. Any major changes in demand will reflect shifts in demand for individual products, such as the shift that has taken place from

white pan bread to white hearth bread, including French- and Italian-style breads, and to sandwich and brown-and-serve rolls. Because the new technology is now being extended to most bakery products, product shift may not impede productivity growth that might result from wider dissemination of technological innovations.

Introduction of computerized bookkeeping, order filling, and inventory control may also boost productivity in overhead activities. Other developments such as freezing could increase efficiency in distribution by reducing the proportion of stale products—a perennial problem in the industry.

Output per man-hour growth will also occur as new capacity is more fully utilized. Thus, increased demand for bakery products may require little in the way of additional man-hours. □

FOOTNOTES

¹ A technical note describing the methods used to develop the indexes is available on request. The average annual rates of change are based on the linear least squares trend of the logarithms of the index numbers. Extensions of the indexes will appear hereafter in the annual BLS bulletin, *Indexes of Output Per Man-Hour, Selected Industries*.

² *Economic Report of the Baking Industry* (Report of the Federal Trade Commission), November 1967, p. 38.

³ *Baking Industry*, January 1971, p. 22.

⁴ *U.S. Industrial Outlook, 1969* (U.S. Department of Commerce, Business and Defense Services Administration, 1968),

p. 68.

⁵ *Investment, Stock, and Vintage Tabulations*, (Office of Emergency Preparedness 1969), R-75, Vol. 1, p. 63.

⁶ *Technological Trends in Major American Industries* (BLS Bulletin 1474, 1966).

⁷ American Bakers Association.

⁸ Hugh P. Bell, *Consumers' Preferences Among Bakers' White Bread of Different Formulas—A Survey in Rockford, Illinois* (Agricultural Marketing Service, U.S. Department of Agriculture, Report No. 118, May 1956).

⁹ *Economic Report*, op. cit., p. 28.

Unemployment rates in
Canada, the United States
and Great Britain are
highest in decade;
West Germany
has lowest rate

CONSTANCE SORRENTINO

Unemployment in nine industrialized countries

UNEMPLOYMENT RATES rose in 1970 and 1971 in most major industrial countries. Of nine countries studied, the highest levels of unemployment occurred in Canada, the United States, and Great Britain. In both Canada and the United States, the jobless rate in 1971 was the highest since 1961. British unemployment was greater than in any year since 1940.

Although low in comparison with the above nations, unemployment in France and Sweden in 1971 was relatively high for them. France's rate was equaled in the 1960's only in 1968, the year of the nationwide strikes. The Swedish jobless rate was the highest postwar level reached in that country.

In Japan and West Germany, extremely tight labor markets eased somewhat in 1971. Unemployment rates in both countries, although rising somewhat, remained lower than in the other countries studied. In Japan, the so-called "dollar shock" resulted in rising unemployment in the late months of the year. Moreover, companies were withdrawing earlier promises to hire senior and junior high school students in 1972.¹ The ratio between job offers and active applications for work (excluding new school graduates) began to drop in November 1970, after an all-time high of 1.7 in October. By mid-1971, vacancies and registered jobseekers were almost in balance in Japan. In West Germany, job vacancies began a rapid decline in the second quarter of 1970, but unemployment did not begin to increase until 1971.

Italy was the only country studied where unemployment did not increase in 1971 over the 1970 level. The rates in the first 2 years of the 1970's were the lowest since 1964. However, the number of underemployed (persons on shorter hours for

economic reasons) rose to over 300,000 in 1971, from 250,000 in 1970, and the number of persons employed, which had increased by 130,000 in 1970, dropped by 60,000 in 1971. Australian unemployment remained remarkably stable in the 1960's and continued so into the 1970's.

Unemployment rates were higher in the second half of 1971 than in the first half in all countries except the United States, as considerable increases in joblessness occurred in Canada, Great Britain, West Germany, Sweden, and France, and more moderate increases in Italy, Japan, and Australia. In Sweden and Great Britain, unemployment continued rising sharply in early 1972. In contrast, the labor market situation improved in Canada, West Germany, France, and Italy, and unemployment was moving downward in the first few months of this year.

This article—the fifth² in a series of reports on unemployment rates adjusted to U.S. definitions—presents comparative data on labor force and unemployment for the United States and eight foreign countries for the 1959–71 period. Data for Australia are presented here for the first time. Some revisions have been made in the previously published data for France, Great Britain, and Sweden. The nature of these changes is discussed later in an appendix.

Developments in selected countries

The following discussion highlights 1970–71 developments in four countries that showed significant changes in their employment situation. In Canada, Great Britain, and Sweden unemployment became an important political and social issue. In West Germany, changes occurred in labor migration. Table 1 shows 1959–71 unemployment and labor force data for all nine countries, and chart 1 plots comparative unemployment rates for 1968 through 1971.

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Table 1. Labor force and unemployment in 9 countries, 1959-71

[Numbers in thousands; unemployment rates in percent]

Item and year	United States	Australia	Canada	France	West Germany	Great Britain	Italy	Japan	Sweden
Adjusted to U.S. concepts									
Civilian labor force:									
1959	68,369	(¹)	6,242	19,230	25,850	23,110	20,530	43,330	(¹)
1960	69,628	(¹)	6,411	19,250	25,970	23,410	20,340	44,120	(¹)
1961	70,459	(¹)	6,521	19,220	26,180	23,670	20,270	44,610	3,581
1962	70,614	(¹)	6,615	19,240	26,310	24,060	20,100	45,040	3,663
1963	71,833	(¹)	6,748	19,360	26,490	24,240	19,760	45,420	3,731
1964	73,091	4,559	6,933	19,740	26,560	24,270	19,850	46,040	3,687
1965	74,455	4,689	7,141	19,770	26,730	24,430	19,650	46,770	3,711
1966	75,770	4,832	7,420	20,080	26,660	24,570	19,410	47,850	3,760
1967	77,347	4,959	7,694	² 20,230	26,190	24,530	19,560	48,810	3,742
1968	78,737	5,079	7,919	² 20,300	26,080	24,370	19,500	49,690	3,804
1969	80,733	5,232	8,162	² 20,580	26,430	24,360	19,290	50,150	3,832
1970	82,715	5,404	8,374	² 20,910	26,630	24,240	19,360	50,740	3,888
1971	84,113	5,512	8,631	² 20,980	² 26,930	² 24,130	19,300	² 51,040	3,936
Unemployed:									
1959	3,740	(¹)	372	460	440	710	1,170	980	(¹)
1960	3,852	(¹)	446	430	200	540	880	750	(¹)
1961	4,714	(¹)	466	370	120	500	750	660	53
1962	3,911	(¹)	390	360	100	720	640	590	54
1963	4,070	(¹)	374	370	120	910	530	590	63
1964	3,786	63	324	310	90	630	590	540	57
1965	3,366	61	280	360	80	550	780	570	44
1966	2,875	72	267	360	70	600	830	650	59
1967	2,975	79	315	² 460	260	930	740	630	79
1968	2,817	78	382	² 550	300	910	750	590	85
1969	2,831	80	382	² 430	220	890	720	570	73
1970	4,088	75	495	² 450	² 140	960	660	590	59
1971	4,993	88	552	² 560	² 180	1,290	660	640	101
Unemployment rate: ³									
1959	5.5	(¹)	6.0	2.4	1.7	3.1	5.7	2.3	(¹)
1960	5.5	(¹)	7.0	2.2	0.8	2.3	4.3	1.7	(¹)
1961	6.7	(¹)	7.1	1.9	0.5	2.1	3.7	1.5	1.5
1962	5.5	(¹)	5.9	1.9	0.4	3.0	3.2	1.3	1.5
1963	5.7	(¹)	5.5	1.9	0.5	3.8	2.7	1.3	1.7
1964	5.2	1.4	4.7	1.6	0.3	2.6	3.0	1.2	1.5
1965	4.5	1.3	3.9	1.8	0.3	2.3	4.0	1.2	1.2
1966	3.8	1.5	3.6	1.8	0.3	2.4	4.3	1.4	1.6
1967	3.8	1.6	4.1	² 2.3	1.0	3.8	3.8	1.3	2.1
1968	3.6	1.5	4.8	² 2.7	1.2	3.7	3.8	1.2	2.2
1969	3.5	1.5	4.7	² 2.1	0.8	3.7	3.7	1.1	1.9
1970	4.9	1.4	5.9	² 2.2	² 0.5	4.0	3.4	1.2	1.5
1971	5.9	1.6	6.4	² 2.7	² 0.7	² 5.3	3.4	1.3	2.6
As published ⁴									
Unemployment rate: ⁴									
1959	(⁵)	(⁵)	(⁵)	1.3	2.6	2.2	5.2	2.2	(¹)
1960	(⁵)	(⁵)	(⁵)	1.3	1.3	1.6	4.0	1.7	(¹)
1961	(⁵)	(⁵)	(⁵)	1.1	0.8	1.5	3.4	1.4	1.4
1962	(⁵)	(⁵)	(⁵)	1.2	0.7	2.0	3.0	1.3	1.5
1963	(⁵)	(⁵)	(⁵)	1.4	0.8	2.5	2.5	1.3	1.7
1964	(⁵)	(⁵)	(⁵)	1.1	0.8	1.6	2.7	1.1	1.6
1965	(⁵)	(⁵)	(⁵)	1.4	0.7	1.4	3.6	1.2	1.2
1966	(⁵)	(⁵)	(⁵)	1.4	0.7	1.5	3.9	1.3	1.6
1967	(⁵)	(⁵)	(⁵)	1.8	2.1	2.4	3.5	1.3	2.1
1968	(⁵)	(⁵)	(⁵)	2.1	1.5	2.4	3.5	1.2	2.2
1969	(⁵)	(⁵)	(⁵)	1.7	0.9	2.4	3.4	1.1	1.9
1970	(⁵)	(⁵)	(⁵)	1.7	0.7	2.6	3.1	1.1	1.5
1971	(⁵)	(⁵)	(⁵)	² 2.1	0.9	3.5	3.1	1.2	2.5

¹ Not available.² Preliminary estimates based on incomplete data.³ Unemployed as a percent of the civilian labor force.

⁴ For France, annual estimates of unemployment as a percent of the civilian labor force; for Italy, Japan, and Sweden unemployment as recorded by labor force sample surveys as a percent of the civilian labor force plus career military personnel; for Great Britain and Germany, registered unemployed as a percent of employed wage and salary workers plus the unemployed. With the exception of France, which does not publish an unemployment rate, these are the usually published unemployment rates for each country.

⁵ Published and adjusted figures are the same since the usually published figures were not adjusted.

NOTE: Data for the United States relate to the population 16 years of age and over. Published data for Canada, France, Germany, Italy, and Sweden relate to the popula-

tion 14 years of age and over; for Sweden, to the population aged 16 to 74; and for Australia, Great Britain, and Japan, to the population 15 years of age and over. The adjusted statistics, insofar as possible, have been adapted to the age at which compulsory schooling ends in each country. Therefore, adjusted statistics for France and Sweden relate to the population 16 years of age and over; and for Germany, to the population 15 years of age and over. The age limits of adjusted statistics for Great Britain, Italy, and Japan coincide with the age limits of the published statistics. Statistics for Sweden remain at the lower age limit of 16, but have been adjusted to include persons 75 years of age and over. Although schooling is usually required until age 15 or 16 in Canada, the Canadian data remain at the 14-year-old age limit because sufficient data are not available for adjustment purposes.

SOURCE: National sources and statistical publications of the International Labor Office, the Organization for Economic Cooperation and Development, and the Statistical Office of the European Communities. Some data are based partly on estimates.

Canada. In Canada, unemployment climbed sharply in the early 1970's. The 1971 rate of 6.4 percent was considerably above the previous decade's low of 3.6 percent, achieved in 1966. In the second half of 1971, the situation worsened, and unemployment peaked at a seasonally adjusted level of 7.1 percent in September. This jump was related to the effects on Canadian industry of the U.S. 10-percent surcharge on certain dutiable imports. As a stopgap measure, the Canadian Government undertook to pay two-thirds of the surcharge cost to affected firms so that they would not be forced to lay off workers. Tax cuts retroactive to July 1 and job-creating public works projects were also instituted, as the Government came under increasing obligation to combat the high unemployment rate. In the last quarter of 1971, unemployment moved downward and by December was at 6.3 percent.

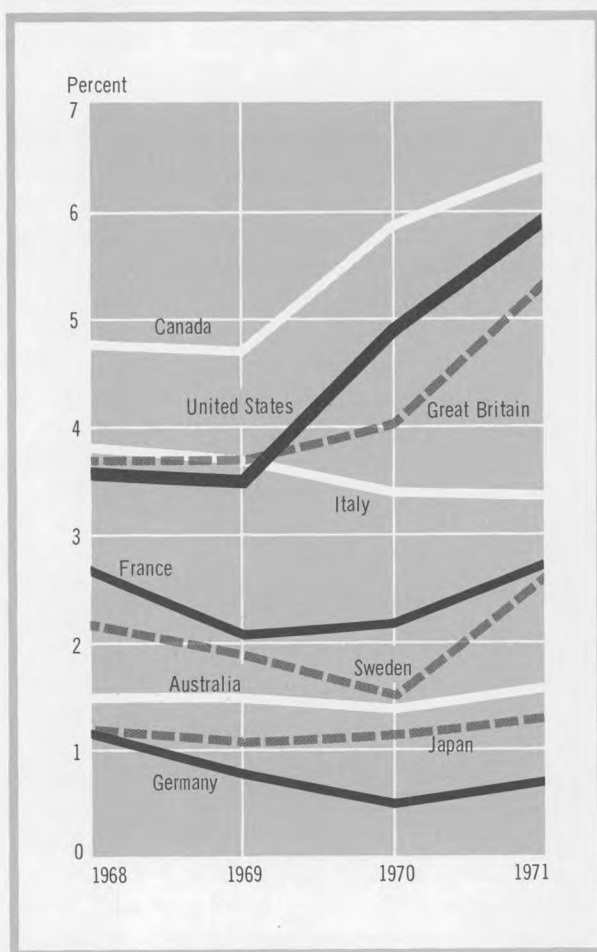
Regional differentials in unemployment stemming from structural problems narrowed somewhat. The Atlantic provinces and Quebec continued to be the hardest hit, with unemployment rates averaging 8.6 and 8.2 percent, respectively, in 1971. In Ontario, the most industrialized province, the rate was considerably lower, at 5.2 percent. The Prairie provinces continued to have the lowest regional rate, 4.5 percent. In 1969, when the overall Canadian unemployment rate was 4.7 percent, unemployment rates in the Atlantic provinces and Quebec were more than twice as high as in Ontario and the Prairies.

In the early 1970's, the growth of the Canadian labor force continued to outpace that of all other countries studied, as was the case in the preceding decade.³ This rapid growth contributes to Canada's relatively high unemployment rate, as expansion of employment opportunities often does not fully absorb the marked increases in the work force.

Great Britain. After the British Government's wage and price freeze in July 1966 and accompanying deflationary measures, unemployment rose to 3.7–4.0 percent in 1967–70. In 1971, the jobless rate jumped to 5.3 percent as British firms engaged in the biggest work force cutbacks since the depression.⁴ The drastic "shake-out" of labor was in response to sharply rising labor costs and slackening demand. Some of the cutbacks were viewed as a delayed reaction to the slow growth in output in the late 1960's.⁵

Unemployment rose throughout 1971 and into early 1972. In February, millions of additional workers were laid off as the coal strike caused the

Chart 1. Adjusted unemployment rates in 9 countries, 1968–71



Government to decree emergency power cuts for factories.

After rising slowly in the 1960's through 1966, the British labor force began to decline. By 1971, it was 440,000 below the 1966 high. However, the drop in employment between 1966 and 1971 was much more severe—over 1 million persons. The sharpest drop occurred in 1971, when employment fell by 450,000. British projections for the period, assuming the demand for labor to remain at the 1964–66 level, had indicated continued slow increases in the labor force. Therefore, the decline apparently reflects withdrawals from or nonappearance in the labor market of persons discouraged by the bleak job situation.

A sharp drop in job vacancies confirmed the severity of the job situation in Britain. Vacancies began a steady decline in the second quarter of 1969 and continued falling through 1971. Toward the end of 1971, there were five or six persons registered as

unemployed for every unfilled job vacancy, compared with two or three in 1966–70. In response to the depressed labor market conditions, unemployment benefit rates were raised by 20 percent in late 1971.

Sweden. The Swedish economy experienced a cyclical downturn in 1971. Unemployment rose to the highest level (2.6 percent) recorded since the Swedish labor force survey was begun in 1961, and probably to the highest level reached since World War II. Swedish unemployment has surpassed 2 percent only three times since 1961.

Job vacancies in Sweden peaked in early 1970, then fell throughout the remainder of the year and continued to decline in 1971. In 1969 and 1970, the number of unfilled vacancies had surpassed the number of persons registered as unemployed; throughout 1971, vacancies were well below the registered unemployed total.

The number of persons in retraining courses for the registered unemployed rose from an average of 12,000 in 1970 to about 17,000 in 1971, the highest annual average ever recorded. In late 1971, the Swedish Labor Market Board, under strong instigation from the Trade Union Confederation, asked the Government for additional funds in order to start extra emergency public works projects in the autumn and winter. An average of about 19,000 persons were employed in public works projects each month in 1971, and in November and December over 25,000 persons were in such projects. If persons in retraining and public works projects were included in Sweden's unemployed count, the unemployment rate in 1971 would have been 3.5 rather than 2.6 percent.

West Germany. The sharp economic upswing which began after the 1967 recession in West Germany lost much of its momentum by 1971. Job vacancies began falling in the second quarter of 1970 and industrial production declined in the second half. Unemployment did not begin to rise until 1971, when the rate went up to 0.7 percent, from 0.5 percent in 1970. The labor market eased somewhat, but two vacancies were still available for every person registered as unemployed in November 1971. A year earlier there had been almost five vacancies for each person registered as unemployed.

The number of foreign workers employed in West Germany reached a new peak of 2.2 million in September 1971—8.2 percent of the civilian

labor force, up from 6.8 percent in 1970. This increase was accompanied by a marked change in nationality structure of the foreign labor force. Yugoslavs are now the single largest foreign nationality group working in West Germany, having overtaken the Italians in 1970. By the end of 1971, the influx of foreign workers had slowed considerably.

Growing unemployment in Great Britain has made the West German labor market attractive for British jobseekers. An agreement was reached in 1971 between British and German authorities to distribute information on vacancies in West Germany to those areas of Britain which have been particularly hard hit by unemployment. There are now about 15,000 British workers in West Germany.

Appendix: Adjustment to U.S. concepts

The basic labor force statistics of the foreign countries studied, with the exceptions of Canada and Australia, reflect varying differences in concept and method and, therefore, require some adjustment to bring them into closer comparability with U.S. data. The methods used by BLS have been described briefly in the previous studies. Full descriptions of these methods will appear soon in a BLS bulletin.

The Bureau has revised some previously published estimates on the basis of new information. Such revisions are necessary if the comparisons are to be kept current, because there is frequently a long time lag between the collection and publication of data. In early 1971, for example, French authorities published for the first time the results of labor force surveys conducted in March 1963, 1965, and 1967, and October 1966. In prior comparisons, only surveys published in October 1960, 1962, and 1964 were available. With the information from the recently published surveys, estimates of French unemployment have been revised, based on adjustment factors prorated by month between October and March of alternate years to obtain annual average factors. For most years, the new estimates of French unemployment rates are somewhat lower than the previously published figures. Data for 1967–71 are still labeled as preliminary, however, since adjustments for these years utilize the prorated 1966 average. It is not yet possible to calculate a final 1967 adjustment, since data are available only through March 1967. Figures for 1967 and subsequent years will possibly require revision when the detailed results of later surveys are released.

British figures for 1959–65 have been revised

upward slightly, based on information that the 1961 British population census undercounted the number of married women who were unemployed. BLS has made estimates to compensate for this underenumeration in the adjustment factors applied to British registered unemployed statistics. Figures for 1966 and later years are not affected, since the 1966 "sample census" of Great Britain involved no undercount of unemployment.

Sweden began conducting a monthly labor force survey in January 1970. Prior to that, the Swedish survey was conducted on a quarterly basis. The quarterly surveys covered the population age 14 and over, while the monthly surveys cover the population age 16 to 74. Data for the earlier years were revised by Swedish statistical authorities to cover the population within the new age limits. Conversion

from a quarterly to a monthly survey introduces a discontinuity into the Swedish data. However, the effect is very small, and an unemployment rate for 1970 computed using only quarterly data is identical to the rate based on the monthly data. □

—FOOTNOTES—

¹ *Japan Labor Bulletin*, October 1971, p. 2.

² See *Monthly Labor Review*, August 1962, pp. 857–864; March 1965, pp. 256–259; April 1967, pp. 18–20; and September 1970, pp. 12–23.

³ See *Monthly Labor Review*, September 1970, chart 2 on p. 15.

⁴ See "Heath Tightening Unemployment," *Washington Post*, Dec. 6, 1971, p. D 12; and "Britain's Jobless: A Rapid Rise," *U.S. News and World Report*, May 24, 1971, pp. 84–85.

⁵ *Economic Trends*, May 1971, p. iii.

Expansion of social services in Germany

Since 1968 the Federal German Government has produced regularly a "Social Budget," which with a "Social Report" contains a detailed analysis of the scope and the costs of publicly provided social services. . . .

From all these sources the German Government calculated that the costs of the social services in 1969 amounted to nearly 109,000 million DM, and estimated that the social services in that year absorbed 18.3 percent—nearly one-fifth—of GNP. . . . [Figures on longer-term postwar trends] reveal unmistakably that the costs of the social services computed on the same basis were already 16,000 million DM in 1960, at the beginning of the Adenauer era, that is, 16 percent of GNP. Although they more than trebled during the following decade, the relative share of the Social Budget dropped to 15.5 percent as GNP rose at an even faster rate. In the middle 1960's, however, the Social Budget increased at a quicker rate than the still strongly expanding economy, surpassing 100,000 million DM in 1968 with 19

percent of GNP. The Social Budget calculates future trends and assumes that social service costs will increase by 1973 by nearly 50 percent in absolute terms. It is, however, expected to stabilize the "Social Quota" around the current proportion of GNP.

The various official documents concerned with the social services also contain useful information permitting a closer analysis of the effects of this welfare expenditure on the economy. Thus the following economic classification is given: 70 percent of total expenditures represent transfer payments (in cash) and 25 percent are expenditures on goods and services. The remaining 5 percent are administrative costs. The administrative staffs of the very decentralized social insurance organization alone comprise more than 150,000 people.

—T. E. CHESTER

"West Germany—A Social Market Economy,"
The Three Banks Review, Edinburgh, December 1971.

Employment in manufacturing during the '69-'71 downturn

Employment and hours
movements are compared
with patterns
in two
preceding recessions

JOHN F. STINSON, JR.

MANUFACTURING INDUSTRIES were hit especially hard by the 1969-70 recession. From the all-time peak of 20.3 million in July 1969, the level of manufacturing employment fell 1.8 million by the end of August 1971, a decline that virtually offset the 2.1 million gain in service-producing industries during the same period. The pattern of decline in employment was similar to those of the 1957-58 and 1960-61 recessions, with one major exception: Almost one-fifth of the decrease occurred in nonproduction (white-collar) activities, which had been largely unaffected in the earlier recessions.

Although they employ only about one-fourth of the total nonagricultural work force, the manufacturing industries play a major role in the U.S. economy, generating about half of the gross national product and accounting for almost 30 percent of total national income. Moreover, the manufacturing sector has occupied a critical position during periods of economic recession. Employment in manufacturing exhibits pronounced cyclical movements, fluctuating sharply in response to changing economic conditions because the sale of manufactures is directly affected by the shifts in consumer purchasing habits and capital goods investments, which, in turn, are extremely sensitive cyclically. In the 1969-70 recession, other forces also were at work in bringing down employment levels in manufacturing, among them the cutbacks in defense and aerospace programs. While the effects of these cutbacks cannot be disentangled from more general cyclical influences, their impact was certainly substantial.¹

This article attempts to analyze manpower developments in the manufacturing industries over the past 3 years and to contrast them with movements of employment and hours of work in these industries during the 1957-58 and 1960-61 recessions.²

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Employment movements

Except for the brief economic slowdown in 1967, manufacturing employment moved almost steadily upward from the end of the 1960-61 recession until mid-1969. Fueled largely by a capital goods boom and the buildup for the war in Vietnam, total manufacturing employment increased by 4.2 million persons, or 26 percent, between February 1961 (the low point of manufacturing employment during the 1960-61 recession) and July 1969, when its growth ended abruptly. Factory jobs then fell nearly continuously to 18.5 million in August 1971 before leveling off in the remainder of that year. (See table 1.)

This drop in manufacturing employment passed through several phases. In the early months of 1969, employment had started to level off as production declined in the defense-related industries. In late 1969 and early 1970, the decline in employment began to spread throughout the manufacturing sector. The General Motors strike in September 1970 caused additional cutbacks—about 700,000,

Table 1. Changes in manufacturing employment in three recessions

(Seasonally adjusted—numbers in thousands)

Recession	Total	Durable goods	Nondurable goods
1957-58			
Level at peak.....	17,411	10,032	7,379
Level at trough.....	15,655	8,600	7,055
Change.....	-1,765	-1,432	-324
Percent change.....	10.1	14.3	4.4
1960-61			
Level at peak.....	17,152	9,775	7,377
Level at trough.....	16,076	8,871	7,205
Change.....	-1,076	-904	-172
Percent change.....	6.3	9.2	2.3
1969-71			
Level at peak.....	20,255	11,962	8,293
Level at trough.....	18,457	10,485	7,972
Change.....	-1,798	-1,477	-321
Percent change.....	8.9	12.3	3.9

NOTE: The peaks and troughs refer to the actual highs and lows of total manufacturing employment during the recessions. In the 1957-58 recession, the high and low points were March 1957 and May 1958, respectively; in 1960-61, the high and low points were February 1960 and February 1961; in 1969-71, the high point was July 1969 but the last point was not reached until August 1971.

including some 325,000 strikers—during October and November. In December, employment rose by less than 300,000, far from enough to bring it back to prestrike level. From this point, the overall trend continued downward until August 1971, when manufacturing employment reached its lowest level in nearly 6 years. It increased slightly during the remainder of 1971, and by yearend was 100,000 above the August low. (See chart 1.)

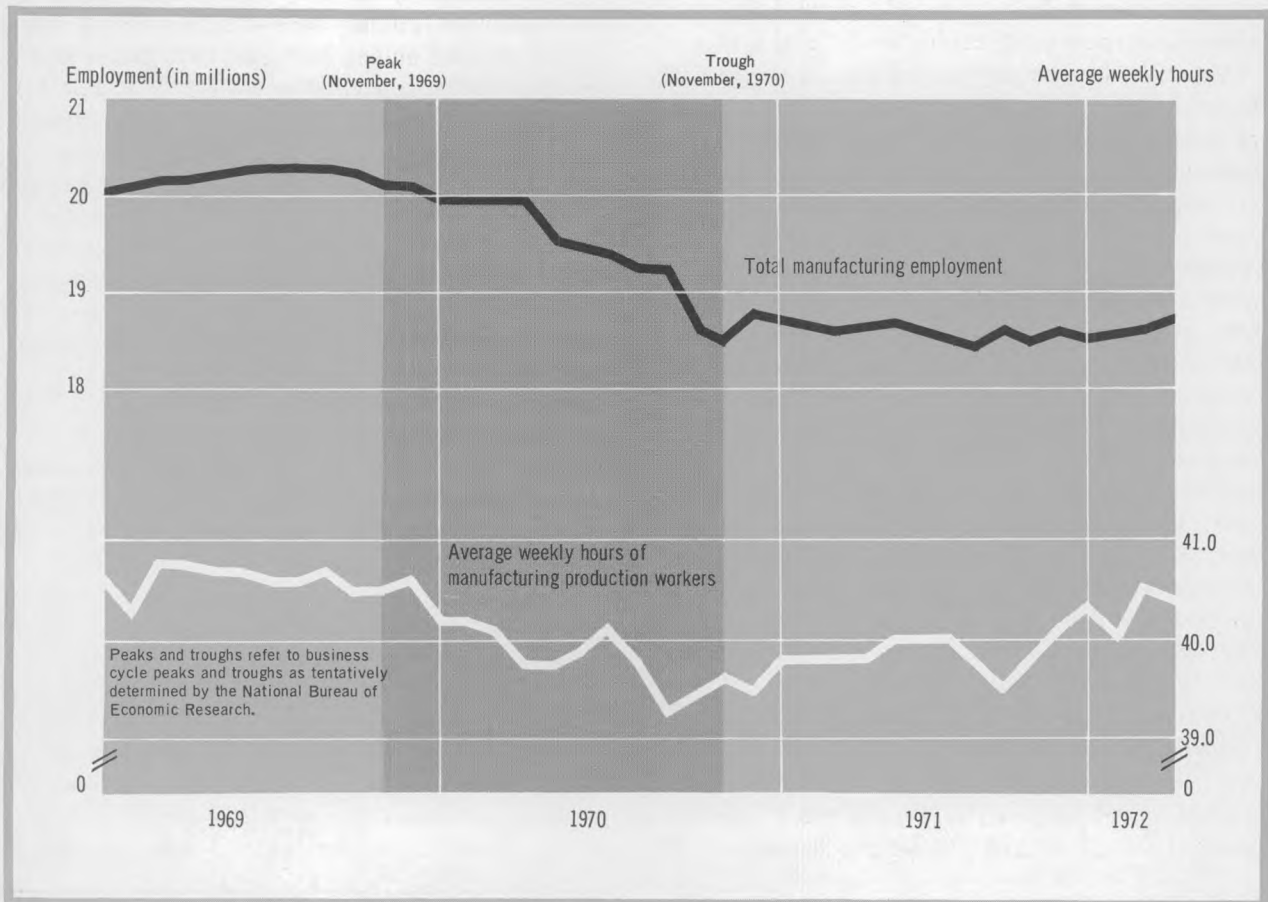
The performance of manufacturing employment since the recessionary trough of late 1970 has been relatively weak. There are several apparent reasons for this lack of sustained recovery, each closely related to the factors initially responsible for the large declines in manufacturing employment during the downturn.

One reason relates to the ending of the large demand for capital goods or, as it has been termed, “the capital goods boom” of the 1960’s. During 1971, as in 1970, business spending for domestically produced machinery and equipment was rather weak. Closely tied to this reluctance of businesses to invest in capital equipment was the decline in consumer confidence. Uncertain economic conditions made consumers hesitant to purchase durable equipment such as automobiles and appliances, and this further hampered recovery in manufacturing employment.

Another reason stems from Government measures taken to wind down the Vietnam war, especially the reduction in aerospace and defense expenditures. As the result of these measures, the aerospace and defense sectors do not play as important a role in the economy as they did during the latter part of the

Chart 1. Total manufacturing employment and average hours of manufacturing production workers, January 1969–March 1972

[Seasonally adjusted]



NOTE: Data for February and March 1972 are preliminary.

1960's. Since the large number of job cuts caused by reduced Government spending in these industries are expected to be of a relatively permanent nature, there is little chance that the persons who lost their jobs will be reemployed in this sector even when overall demand regains momentum.

The final reason for the slackness in manufacturing employment is the increased competition of foreign producers with domestic manufacturers. Largely because of lower labor costs, foreign manufacturers have been able to produce goods economically, thus developing substantial cost advantages over American manufacturers. In recent years these lower-priced foreign goods have made serious inroads into American markets, making a strong recovery in manufacturing employment in this country even more difficult.

Durable goods employment

The cyclical movements observed in total factory employment are even more evident in the durable goods industries, as the demand for the products of this sector has consistently exhibited a high degree of volatility. In each of the three recessionary periods under analysis, the drops in employment in the durable goods industries accounted for more than 80 percent of the total decline in manufacturing employment. More precisely, the bulk of the changes occurred in the five major metals and metal-using industries within the durable goods group—primary metals, fabricated metals, machinery, electrical equipment, and transportation equipment. Due to the extreme fluctuation in demand for the products of these industries and because of the large number of persons they employ, changes in the level of employment in these industries tend to dominate movements in total manufacturing as well as in durable goods employment. These five accounted for nearly 70 percent of the decline in manufacturing employment during all three periods of economic slowdown.

Thus, the pattern of employment decline in durable goods followed closely the movements of total manufacturing employment in all phases. Employment dropped by about 1.5 million (12 percent) between July 1969 and August 1971, a decrease equal to more than 80 percent of the total decline in manufacturing employment. Almost 1.2 million of this drop in the durable goods occurred in the five metals industries. (See table 2.)

Of the five individual metals industries, the trans-

portation equipment industry registered the largest drop in employment during the period. Employment in this industry began turning down in June 1969, 1 month before total manufacturing employment started to fall, and declined by 330,000 (or 16 percent) through August 1971. This industry has usually been one of the hardest hit of the manufacturing industries in times of economic slowdown; employment dropped 20 percent in the 1958 recession and 14 percent in 1960–61. The bulk of job reduction came in the aircraft and parts component. Weakened considerably by a slackness of demand for commercial aircraft and by the cutbacks in defense expenditures, aircraft employment began to fall in mid-1968, with the declines continuing through the end of 1971. Between July 1968 and July 1971, aircraft jobs dropped by slightly more than 300,000, or more than a third.

Motor vehicles and equipment, which is another major component of the industry, suffered a 70,000 decline in employment between December 1969 and December 1970. The drop during 1970 stemmed from a weakness in automobile sales, which in turn, caused gradual employment cutbacks prior to the General Motors strike in the late fall of 1970. During 1971, however, some of the lost jobs were regained as a result of increased demand for automobiles.

Electrical equipment and supplies, an industry that had exhibited steady employment growth during the early 1960's, showed one of the largest employment declines among the manufacturing industries over the 1969–71 period. Its employment dropped by 280,000 between July 1969 and August 1971, a significantly larger decline than in 1957–58 or 1960–61. The greater magnitude of its drop this time reflected the dependence of this industry—especially of the communications equipment and electronic components groups—on the defense as well as research and development activities, which were reduced during the 1969–71 period.

Employment in the primary metals group, which is dominated by the steel industry, fell by 210,000, or 15 percent, in the 1969–71 downturn, a decline of about the same size as in the 1957–58 and 1960–61 recessions. The decline in this group began in late 1969 and continued steadily through most of 1970. Employment gained in late 1970 and early 1971, as other industries built up their steel inventories in anticipation of a midsummer strike in the steel industry. Employment weakened in the second

half of 1971, however, when the anticipated strike failed to materialize and the demand for steel slackened as users began to reduce their accumulated inventories.

In the fabricated metals group, employment declined through August 1971 by 110,000 from the 1.4-million peak of September 1969. This 8-percent drop was 2 percentage points below the cutbacks in 1957-58 and 1960-61. The pattern of the decline in fabricated metals has been similar to the path traced by primary metals during late 1969 and all of 1970. Employment cutbacks were small but continuous from the end of 1969 until late 1970, when employment leveled off and remained reasonably stable throughout 1971.

In the machinery industry, a decline in total employment of 260,000, or 13 percent, from July 1969 to August 1971 was similar in magnitude, though not in numbers, to its 17-percent drop in the recession of 1957-58. The decrease began in early 1970 and continued until it steadied the last 6 months of 1971. The weakness in this industry stemmed largely from depressed capital investment in the economy.

Among the other durable goods industries, ordnance and accessories, which had actually increased its total employment in the other two downturns, exhibited the largest percentage decline in employment of any major manufacturing industry. Between July 1969 and August 1971, its employment dropped by 130,000, or 40 percent, a sharp contrast with the performance between 1965 and 1968, when employment increased by more than half. While showing some sensitivity to the overall economic climate, ordnance is clearly most responsive to national defense requirements. The large growth experience in the 1965-68 period was directly related to the Vietnam buildup during these years. When defense expenditures were cut because of reduction of the war effort in 1969, employment in ordnance halted its growth and began an almost uninterrupted decline that wiped out most of the job gains of the mid-1960's. In the second half of 1971, however, the decline slowed down substantially, and it appeared that employment might stabilize at a level of about 180,000 to 190,000 workers.

In the remainder of the durable goods industries—that is, in lumber and wood products, furniture and fixtures, stone, clay, and glass products, and miscellaneous manufacturing—employment declines in 1969-71 were relatively mild and not significantly

Table 2. Employment changes in the manufacturing industries, 1969-71

[Seasonally adjusted—numbers in thousands]

Industry	July 1969	August 1971	Change	Percent change
Manufacturing.....	20,255	18,457	-1,798	8.9
Durable goods.....	11,962	10,485	-1,477	12.3
Ordnance and accessories.....	320	191	-129	40.3
Lumber and wood products.....	606	583	-23	3.8
Furniture and fixtures.....	486	456	-30	6.2
Stone, clay, and glass products.....	656	627	-29	4.4
Primary metal industries.....	1,362	1,156	-206	15.1
Fabricated metal products.....	1,445	1,331	-114	7.9
Machinery, except electrical.....	2,036	1,775	-261	12.8
Electrical equipment and supplies.....	2,049	1,772	-277	13.5
Transportation equipment.....	2,081	1,754	-327	15.7
Instruments and related products.....	478	430	-48	10.0
Miscellaneous manufacturing industries.....	443	410	-33	7.4
Nondurable goods.....	8,293	7,972	-321	3.9
Food and kindred products.....	1,790	1,748	-42	2.3
Tobacco manufactures.....	82	70	-12	14.6
Textile mill products.....	1,005	959	-46	4.6
Apparel and other textile products.....	1,414	1,351	-63	4.5
Paper and allied products.....	712	681	-31	4.4
Printing and publishing.....	1,094	1,080	-14	1.3
Chemicals and allied products.....	1,065	1,004	-61	5.7
Petroleum and coal products.....	189	188	-1	0.5
Rubber and plastic products.....	599	582	-17	2.8
Leather and leather products.....	343	309	-34	9.9

different from those that occurred in the 1957-58 and 1960-61 recessions.

Nondurable goods

Employment in the nondurable goods industries has tended to be less sensitive to cyclical influences than in durable goods and continued to reflect this trend in the 1969-71 economic slowdown. Total employment in that sector fell by 320,000 from 8.3 million in July 1969 to 8 million in August 1971. This decline affected all the industries in the group, but the curtailments have been relatively small and total nondurable employment decreased during the downturn by only 3.9 percent. The drop was about the same as in the 1957-58 recession, but somewhat larger than in 1960-61.

Among the individual industries, the three largest decreases were registered in textile mill products, apparel and other textile products, and chemical and allied products, which together were responsible for more than half of the total nondurable goods employment decline. The textile and apparel industries are among those in the group most responsive to fluctuations in the economy. They had registered some of the biggest job declines in the nondurable goods sector in both of the earlier economic downturns under study.

Relatively moderate drops in employment were registered among the rest of the nondurable goods

industries, with only the leather, food, and paper industries showing declines in excess of 20,000.

Nonproduction workers

One of the most notable differences between the recent economic slowdown and the previous downturns stems from the relative job declines of production and nonproduction workers. In the past, jobs in the nonproduction area, which are typically professional, administrative, or clerical in nature, normally showed little response to disturbances in the economy. During the recent downturn, however, nonproduction jobs decreased by 330,000 (6.1 percent), constituting nearly 20 percent of the overall drop in manufacturing employment—a significantly larger decline than in either the 1957–58 or 1960–61 recessions.

It had been a well-established relationship that in times of economic contraction, when employers were forced to institute job cutbacks because of slackening demand for their products, the resulting layoffs would fall almost entirely on the shoulders of the production worker. In the 1957–58 recession, for example, layoffs in the production ranks constituted over 98 percent of the 1.8-million decline in manufacturing employment. During 1960–61, the number of nonproduction workers actually increased by almost 50,000, as employment of production workers dropped 1.1 million.

The much larger than normal proportion of nonproduction workers in the total employment drop in

the 1969–71 period derived from the nature of the downturn and its large impact on industries with high concentrations of white-collar employment, such as ordnance and electronics. Cutbacks in defense and research and development expenditures had a substantial impact on white-collar employment, with the largest individual reductions occurring in ordnance and accessories, electrical equipment and supplies, and transportation equipment, industries closely related to the defense effort. Their white-collar force was trimmed by more than 10 percent. Combined, these three industries were responsible for more than 60 percent of the total drop in nonproduction employment, although only about 30 percent of the manufacturing nonproduction workers are employed in them.

The pattern of employment declines among production workers was similar to those in the 1957 and 1961 recessions. As in those downturns, about 80 percent of the decline for production workers came in the durable goods industries. As previously, the five major metals industries, which have the highest proportions of production workers among the manufacturing industries, were responsible for about 70 percent of the drop in production jobs.

Hours of work

The average hours worked by production workers on manufacturing payrolls also has a pronounced cyclical pattern. Average weekly hours are sensitive to changes in the economic climate and are a leading indicator of cyclical developments in the economy in general and the manufacturing sector in particular.³ Employers typically find it easier and more economical in the short run to meet changing demands for their products by varying the number of hours worked than to resort to personnel actions such as hires or layoffs. As changes in product demand become more permanent, however, employers begin to alter their employment levels in order to better adjust to the changes. As a result, variations in the factory workweek normally precede significant alterations in the level of manufacturing employment, turning down prior to major employment cutbacks in the contraction phase of the cycle and moving upward in advance of any substantial additions to the payrolls. This relationship between average hours and employment existed in both the contractionary and expansionary phases of the 1957–58 and 1960–61 recessions; in the current economic

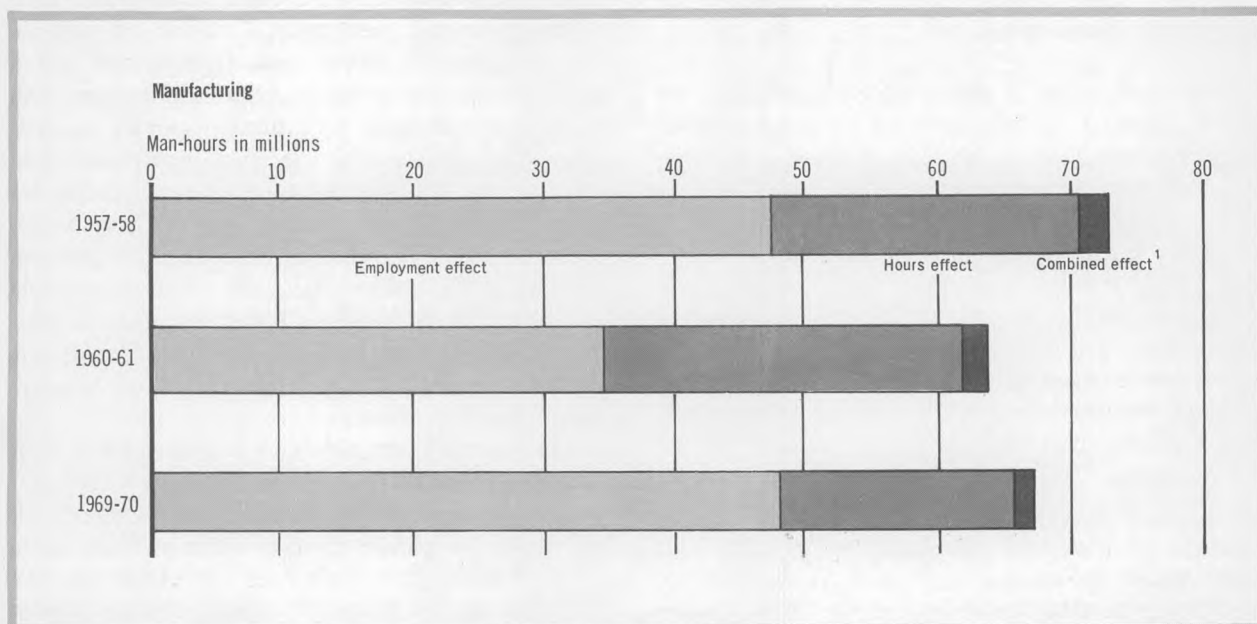
Table 3. Changes in the seasonally adjusted workweek of manufacturing production workers in the three most recent recessions

Recession	Total	Durable goods	Nondurable goods
1957-58			
Level at peak	40.6	41.3	39.4
Level at trough	38.6	38.8	38.3
Change	-2.0	-2.5	-1.1
Percent change	4.9	6.1	2.8
1960-61			
Level at peak	40.5	41.1	39.6
Level at trough	38.3	38.8	37.9
Change	-2.2	-2.3	-1.7
Percent change	5.4	5.6	4.3
1969-70			
Level at peak	40.8	41.5	39.9
Level at trough	39.5	40.0	39.0
Change	-1.3	-1.5	-0.9
Percent change	3.2	4.1	2.3

NOTE: Hours of work at peaks and troughs refer to actual highs and lows recorded during the recession period.

Chart 2. Decline in factory man-hours in three recessions

[Seasonally adjusted]



¹ The "combined effect" is the residual of the total man-hours change and the sum of the individual employment and hours effect. Therefore, it represents a small combination of employment and hours effects that cannot be isolated.

NOTE: The declines in factory man-hours are calculated from the high to the low points of the seasonally adjusted manufacturing workweek during the different recession periods.

slowdown, average weekly hours began to turn down in April 1969, 5 months prior to the actual downturn in manufacturing employment. This was about the same timing as in 1957-58 and 1960-61.

The total drop in the average hours of work of manufacturing production workers from the April 1969 high to the low point in December 1970 was 1.3 hours, or 3.2 percent.⁴ This was the smallest decline in the workweek registered in any of the three economic interruptions under study; it was 2.0 hours in 1957-58 and 2.2 hours in 1960-61 (table 3).

Among the individual industries, the largest declines in hours were registered in the five metals and metal-using industries, although the reductions were, again, less than those in the two previous downturns. The largest decrease showed up in the machinery industry, where average hours dropped by 2.7 hours, about equal to the decline registered in the 1957-58 recession. In primary metals the decrease was 2.3 hours, somewhat less than in previous declines. Among the nondurable goods industries, the largest cutbacks in hours came in the rubber, tobacco, and paper industries.

Factory overtime hours, which reached a low point of 2.7 hours in December 1970, fell by one-third from their pre-slowdown peak level, about the

same as in the 1957 and 1960 recession periods. Because of the smaller decline in the factory workweek, however, the drop in overtime hours was equal to about 75 percent of the total decline in manufacturing hours, whereas it had amounted to only 50 percent of the declines previously.

An explanation for the small decrease in the average workweek over the current downturn seems to be that employers placed greater emphasis upon cutbacks in employment as a means of curtailing production. Employers in the aerospace and defense-related industries, in particular, correctly recognized that the cutbacks in their programs by the Government were likely to be of a more permanent nature than they would be if caused by regular cyclical fluctuations in the economy. In order to adjust to these new lower levels of production, job cutbacks had to be instituted before reductions in the workweeks were made—which, as stated above, is the more usual short-run means of meeting decreased product demand.

This observation is supported by the changes in aggregate man-hours during the 1969-71 slowdown. Of the total decline of just under 70 million man-hours,⁵ slightly more than 70 percent resulted from employment declines, the largest proportion attrib-

utable to the drop in employment in any of the economic declines under study.⁶ (See chart 2.) In the 1957–58 downturn, employment cutbacks were responsible for 64 percent of the drop in man-hours, while during the 1960–61 recession, hours decreases played an even larger role as only 55 percent of the total reduction was caused by employment declines. The large proportion of the total man-hours drop ac-

counted for by employment in 1969–70 was counter to the post-World War II trend where hours reductions have played an increasingly larger role in total man-hours declines. It provides additional support to the assertion that employers were more apt to eliminate jobs rather than shorten the workweek in adjusting their production to the shifts in demand for their products during the 1969–71 downturn. □

— FOOTNOTES —

¹ For an in-depth analysis of the effects of defense expenditures on manufacturing employment, see Richard P. Oliver's articles published in the *Monthly Labor Review* during the past several years: "Employment effects of reduced defense spending," December 1971, pp. 3–11; "Increase in defense-related employment during Vietnam buildup," February 1970, pp. 3–10; and "The employment effects of defense expenditures," September 1967, pp. 9–16.

² For the purpose of this analysis, the high and low points of seasonally adjusted employment are the actual highs and lows that occurred during the economic downturns. In the 1957–58 and 1960–61 recessions, these differed only slightly from the turning points established by the National Bureau of Economic Research (NBER). In the 1969–71 business downturn, the period of analysis begins in July 1969, when the peak manufacturing employment level was reached, and ends with August 1971, the low point. This differs somewhat from the official NBER designation, which set November 1969 as the peak and November 1970 tentatively as the trough.

³ See Hazel M. Willacy, "Changes in factory workweek as an economic indicator," *Monthly Labor Review*, October

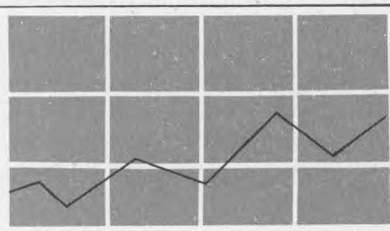
1970, pp. 25–32.

⁴ All declines in hours of work refer to the drop between the high and low points of the individual hours series in the different economic downturns. In the 1969–71 downturn, December 1970 was designated as the low point of all the hours series, due to the fact that average hours were unusually low in the September–November period as a result of two special circumstances—the inclusion of the Labor Day holiday in the September survey week and the effects of the auto strike in October and November of that year.

⁵ The decline in man-hours is calculated from the actual peaks to troughs of average hours in manufacturing during the respective recessions. In the 1969–71 downturn, however, December 1970 was used as the trough for the same reasons described in footnote 4.

⁶ The employment and hours effects are computed by holding one component constant at the trough and multiplying it by the change in the other component. The resulting figure is taken as a percent of the total change in man-hours in order to measure each component's effect upon the total change.

The Anatomy of Price Change



THE FIRST QUARTER, 1972, AND THE ECONOMIC STABILIZATION PROGRAM

TOSHIKO NAKAYAMA

CONSUMER PRICES advanced at a seasonally adjusted annual rate of 3.7 percent from November to March, the first 4 months of the post-freeze period. This compares with a 1.9 rate of advance during the August–November period when most prices were frozen, and a 4.0-percent rate in the 6 months from February to August. The food index accelerated sharply to a rate considerably faster than before the freeze, while rates of increase in indexes for commodities other than food and services during the November–March period were substantially slower than during the prefreeze period. In the 7 months since the Economic Stabilization Program began, the Consumer Price Index advanced at an annual rate of 2.9 percent. (See table 1.)

Wholesale prices rose more rapidly from November to March than in the 6 months before the freeze, in large part because of a steep rise in prices of farm products and processed foods and sharp increases in the prices of some industrial commodities. Comparing the rates of advances in the two periods—the 6 months preceding the freeze and the 4 months following—prices of finished goods other than food (both consumer and capital goods) as well as prices of some crude nonfood materials, particularly hides and skins, raw cotton, and scrap metals, advanced more rapidly since the freeze than before, while price increases for intermediate products—particularly lumber, steel mill products, fuels, and paper—were large but not as large as in the earlier period. Prices of some industrial materials such as non-metallic minerals, chemicals, and rubber declined during the August–March period. From August to

November, wholesale prices of finished goods and many industrial materials declined as a result of the freeze as well as strong competitive pressures.

The rise in wholesale prices and the further expansion in business activity were reflected in the implicit deflator for private Gross National Product which rose at an annual rate of 5.1 percent in the first quarter of 1972. Since the implicit price deflator is an average for each calendar quarter, it is not possible to analyze its behavior during the prefreeze, freeze, and post-freeze periods as precisely as can be done for the Consumer and Wholesale Price Indexes. The freeze began about midway through the third quarter of 1971 and ended about midway through the fourth quarter. Nevertheless, it is clear that the first quarter 1972 increase of 5.1 percent in the implicit price deflator was the largest since the fourth quarter of 1970. Deflators for residential and non-residential construction, producers' durable equipment, and government goods and services (excluding services of government employees) rose at their fastest rate in about a year. The increase in the deflator for personal consumption expenditures, however, was about the same as before the freeze and less than in the fourth quarter of 1970. This behavior was similar to the behavior of the Consumer Price Index on a quarterly basis. (See table 2.)

The 5.1-percent rate of advance in the implicit price deflator for private GNP reflected a 6.2 rate of advance in a unit labor costs and a 3.1 rate of advance in unit nonlabor costs. The increase in unit labor costs was substantially larger than in any quarter of 1971 and about the same as in the fourth quarter of 1970. Compensation per man-hour advanced at a rate of 8.6 percent, considerably more than in the preceding three quarters. The large first-quarter increase reflected the expected bulge following the freeze, as well as retroactive wage payments and the increase in employer contributions to social security. The rise in output per man-hour, however, was less than in the fourth quarter of 1971. Growth in total private output continued but at a slightly slower rate

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Table 1. Changes in Consumer and Wholesale Price Indexes, 1971-72

[Seasonally adjusted, annual rate, compounded (except Services)]

Index and item	Percent change		
	February 1971 to August 1971	August 1971 to November 1971	November 1971 to March 1972
CONSUMER PRICE INDEX			
All Items.....	4.0	1.9	3.7
Food.....	5.4	1.7	7.4
Commodities less food.....	3.5	0	2.3
Services.....	4.5	3.1	3.7
WHOLESALE PRICE INDEX			
All Commodities.....	4.0	-0.2	6.0
Farm products and processed foods and feeds.....	3.0	1.1	12.0
Industrial commodities.....	5.4	-0.5	4.2
Selected State of Processing indexes:			
Crude materials except food.....	3.3	2.3	12.8
Intermediate materials except food.....	7.8	-0.7	3.3
Producers' finished goods.....	3.5	-2.0	5.5
Consumer goods except food.....	1.6	-0.4	3.3
Consumer foods.....	4.6	0.3	7.5

than in the fourth quarter, as farm production declined and total man-hours in the private economy increased more than in the fourth quarter. The increase in man-hours was due to a sizable increase in employment; the average workweek did not change. The labor force also grew considerably. As a result, the unemployment rate remained at about the fourth quarter level.

For the first time in 2 years, the increase in unit labor costs exceeded the rise in the deflator. Consequently, the employee share of private GNP moved up, after declining steadily from the first quarter of 1970 through the fourth quarter of 1971. The increase in the first quarter raised the employee share to a level slightly higher than in the first quarter of 1971 but below the first quarter of 1970.

The share of private GNP accounted for by indirect business taxes and interest fell, capital consumption allowances held steady, and profits rose.

Consumer goods and services

Personal consumption expenditures (PCE) increased at a somewhat faster pace in the first quarter than in the fourth quarter. However, the implicit deflator for PCE also increased at a faster pace. As a result, the increase in terms of constant (1958) dollars was about the same in both quarters. The volume of spending improved slightly for services and durable goods, particularly furniture and appliances. The rise in spending for nondurable goods was mostly due to higher prices, especially food.

Food. For the 4 months from November to March, the Consumer Price Index for food, which includes both grocery store food and restaurant meals, rose

Table 2. The anatomy of price change

[Seasonally adjusted, annual rate, compounded]

Item	Percent change from previous quarter					
	1970	1971				1972
	IV	I	II	III	IV	I
Deflator: Private GNP.....	6.2	4.4	4.3	2.5	1.2	5.1
Personal consumption expenditures.....	5.7	4.0	4.0	3.0	1.2	3.7
Private construction.....	6.3	7.5	10.4	8.4	4.5	10.5
Residential.....	2.5	6.2	7.3	3.8	6.0	8.1
Nonresidential.....	10.2	11.1	15.6	17.2	3.2	13.9
Producers' durable equipment.....	6.8	3.6	1.3	0.6	-0.6	4.9
Government purchases of goods and services ¹	7.3	-0.4	4.1	-1.2	2.1	7.5
UNIT COSTS						
Total private, all persons						
Deflator; Private GNP.....	6.2	4.4	4.3	2.5	1.2	5.1
Unit labor costs.....	6.0	2.1	4.1	2.2	1.0	6.2
Compensation per manhour.....	6.1	8.5	6.2	6.2	4.2	8.6
Output per manhour.....	0.2	6.2	1.9	4.0	3.2	2.3
Unit nonlabor costs.....	6.6	8.7	4.6	3.3	1.4	3.1

¹ Excludes services of government employees.

at a seasonally adjusted annual rate of 7.4 percent, in sharp contrast to the 1.7-percent rate of increase during the August–November period and the 5.4 percent rate during the 6 months before the freeze. About 60 percent of the November–March advance was due to a steep rise in the meats, poultry, and fish component of the food index. (See table 3.)

The index for meats, poultry, and fish rose at a seasonally adjusted rate of 19 percent from November to March after increasing at a 7.4-percent rate from August to November. Meat prices advanced sharply from November to February. In February alone, meat prices climbed 5.2 percent—the largest monthly increase since June 1965—reflecting large gains in wholesale meat and livestock prices from October to February. In March, wholesale prices for livestock and meats declined. Retail beef and veal prices continued to increase but less than earlier in the year, and pork prices declined for the first time since October 1971.

Fresh fruit and vegetable prices, which are highly volatile and are exempt from regulation under the Economic Stabilization Program, also advanced sharply from November to February because of adverse weather conditions, smaller winter crops, and reduced imports. In March, fresh vegetable prices dropped sharply and increases in fresh fruit prices were smaller than usual as supplies from late winter and early spring crops reached the market. Egg prices, which are also highly volatile and exempt from controls, showed an opposite trend. After declining from November to February, egg prices rose in March, mostly because of increased demand during the Lenten season.

Prices of cereal and bakery products, which moved down from August to November, increased from November to March at about the same moderate pace as before the start of the program. However, prices of dairy products increased sharply from November to March, particularly in February and March. The acceleration was partly due to the strong demand for cheese, which pushed up wholesale prices of milk used by manufacturers.

Price rises for restaurant meals and snacks away from home slowed markedly from August to November. The rate of advance picked up during the next 4 months, with the March increase about the same as increases before the freeze.

Commodities less food. The Consumer Price Index for nonfood commodities, which held steady from

August to November, increased at a moderate 2.3-percent rate from November to March. In the 6 months before the Economic Stabilization Program began in August, the rate had been 3.5 percent. The Wholesale Price Index for nonfood commodities rose at a 3.3-percent rate from November to March, compared with a modest 1.6-percent rate in the 6 months before the freeze. From August to November, the wholesale index for nonfood commodities declined.

The rise from November to March was slower in the Consumer Price Index than in the Wholesale Price Index, partly because of sharp declines in used car prices, not included in the wholesale index. In addition, gasoline prices declined at retail and rose at wholesale. Footwear prices also rose at a sharper pace at wholesale; these increases were not reflected in retail footwear prices until March.

Footwear prices have been under pressure because of large advances in hides and leather prices, which result from a combination of factors—a quota on exports of hides from Argentina, recent light kills in this country due partly to the high cost of meat, and increased worldwide demand. With controls restricting price increases in the domestic market, sellers have turned to foreign buyers who are willing to pay higher prices for limited supplies.

New car prices advanced sharply from November to March. At retail, higher prices for new cars accounted for about a fourth of the increase in the index for nonfood commodities. In the August–November period, new car prices declined sharply, reflecting repeal of the Federal Excise Tax (which is not included in the wholesale index). Manufacturer-to-dealer prices on new cars were raised from late November through early January.

Winter clearance sales moderated the rise in retail prices of other nonfood commodities such as furniture, apparel, and textile house furnishings. Prices of tobacco products, however, rose sharply, mostly because of increases in State and local cigarette taxes.

Services. The index for consumer services rose at an annual rate of 3.7 percent in the 4 months from November to March, compared with 4.5 percent in the 6 months before the start of the Economic Stabilization Program. From August to November, the index rose 3.1 percent, was due in large part to increases in items exempt from controls—property taxes and mortgage interest rates. Indexes for medi-

Table 3. Changes in wholesale and retail prices for consumer goods and services

[Seasonally adjusted compound annual rates]

Item	Relative Importance December 1971		Index	Percent change			Percent change for 3-months ending				
	CPI	WPI		February 1971 to August 1971	August 1971 to November 1971	November 1971 to March 1972	1971	1972			
							December	January	February	March	April
Consumer Price Index.....				4.0	1.9	3.7	2.6	3.2	4.8	3.6	3.1
Consumer goods.....	100.0	100.0	CPI	4.0	1.4	3.8	2.0	2.4	3.8	3.8	3.4
			WPI	3.2	-1.1	5.1	5.8	5.0	7.6	3.2	1.8
Food.....	35.5	39.2	CPI	5.4	1.7	7.4	5.1	5.1	9.7	7.2	7.2
			WPI	4.6	0.3	7.5	14.4	7.0	14.5	3.8	0.7
Commodities less food.....	64.5	60.8	CPI	3.5	0	2.3	0.7	1.4	2.4	2.4	2.4
			WPI	1.6	-0.4	3.3	1.1	2.9	3.3	2.9	2.9
Nondurables less food.....	37.8	37.2	CPI	3.5	1.4	2.5	1.4	1.4	2.4	2.4	2.4
			WPI	1.6	0.4	1.9	0	1.4	1.1	2.5	2.9
Apparel, less footwear.....	1.9	10.7	CPI	2.4	1.7	2.8	2.0	1.0	2.7	3.0	3.3
			WPI	2.7	-0.7	1.1	1.1	0	1.1	0.7	2.9
Footwear.....	2.5	2.1	CPI	2.3	3.7	1.7	2.3	1.3	1.0	2.0	3.6
			WPI	3.1	-3.0	8.5	0.4	1.4	4.2	10.7	17.8
Gasoline.....	4.7	5.3	CPI	2.2	-0.7	-3.6	-2.9	-4.3	-3.3	-5.8	-5.8
			WPI	-5.1	3.7	2.2	-1.5	10.7	0.5	5.0	-10.4
Durables.....	26.8	23.6	CPI	3.0	-0.3	2.3	0	1.4	2.1	2.8	2.1
			WPI	2.6	-3.9	6.4	2.5	7.4	7.4	2.9	3.2
New cars.....	3.4	12.7	CPI	-4.5	-13.3	10.1	-1.5	12.8	12.4	9.1	1.8
			WPI	3.6	-8.9	12.4	5.8	13.2	14.8	4.3	3.9
Furniture.....	2.2	2.7	CPI	3.6	0.7	1.8	1.3	0.7	-0.7	1.3	2.0
			WPI	3.4	0.3	2.6	0	0.7	2.8	2.8	3.1
Appliances, including radio and TV.....	2.7	3.5	CPI	1.1	-0.8	0.6	-0.8	0	0.8	0.4	-0.8
			WPI	0.6	-1.2	-0.9	-1.9	-2.3	-0.8	-0.8	-0.4
Services ¹	100.0		CPI	4.5	3.1	3.7	3.1	4.7	4.4	3.7	2.8
Rent ¹	13.5		CPI	4.8	2.8	2.8	2.8	2.4	3.1	2.8	3.5
Household less rent.....	41.1		CPI	2.8	5.5	5.9	6.4	8.3	8.9	5.1	1.5
Transportation.....	14.9		CPI	6.4	0.6	0.2	0.3	1.2	0.3	0	-0.6
Medical care.....	14.8		CPI	7.0	1.5	2.9	1.5	3.3	3.6	2.7	2.7
Other services.....	15.7		CPI	3.0	3.6	1.9	2.0	2.0	2.3	1.9	2.6

¹ Total services and rent not seasonally adjusted.
NOTE: Relative importances are for consumer goods portions of CPI and WPI.
For all items in the CPI, consumer goods represent 62.6 percent and services represent

37.4 percent. CPI durables also include home purchases and used cars which are not included in WPI. For WPI, consumer goods represent 33.3 percent of all commodities.

cal care services and transportation services were almost level from August to November.

In the first 4 months of the post-freeze period, charges for household services rose at a 5.9-percent rate, faster than the 2.8-percent rate in the 6 months before the freeze (which includes the period when mortgage interest rates declined sharply). In November, mortgage interest rates started to decline again and continued to move down through March, but not as rapidly as in early 1971. Property taxes, however, continued to advance sharply from November to March. In addition, charges for gas, electricity, and telephone all increased substantially until the Price Commission instituted a new freeze on utility rates from February 10 through March 25. Except for gas, which increased in November, charges for utilities did not change, on balance, during the August–November period.

The index for transportation services was virtually unchanged from August 1971 to March 1972, after rising at an annual rate of 6.4 percent in the months preceding the freeze. During the August–November period, charges for auto-related services

and public transportation rates held steady. After November, charges for auto repairs and parking fees increased; however, auto insurance charges declined due to introduction of dividends in various States as a result of an overall reduction in the amount of claims paid in 1971. Introduction of no-fault insurance contributed to lower rates in some States. Local transit fares were raised in some cities, but a sharp drop occurred in March in Atlanta, where the basic cash fare was reduced from 40 to 15 cents. The reduction is to be subsidized through an increase in sales tax.

The rise in the index for medical care services¹ from November to March was 2.9 percent at an annual rate, compared with 7.0 percent in the 6 months prior to the start of the Economic Stabilization Program. □

—FOOTNOTE—

¹ See "Technical Note: Revision of the Medical Care Services Component of the CPI," February 1972 report on the Consumer Price Index.

Income distribution

The term income distribution is really a misleading one. It suggests that first a total income is created which is then distributed among people by some official body or other. That is, in fact, the procedure in a family, although in that case as well the distributing authority is not so easy to point to. Indeed, much the same thing can happen in small units of production, for instance a kibbutz. But distribution works differently in a country as a whole. There income is created in production; the four factors of production—labor, capital, land, and entrepreneurs—collaborate in a firm to bring about a product. In the course of that process, a large number of things happen simultaneously; one of them is that incomes are paid out. In other words, income is

created and distributed at one go. Income distribution is from the very start the outcome of an intricate economic complex.

It is worth while establishing this simple truth. For this stresses that there is no central office that regulates distribution; after all, production takes place in thousands and thousands of firms, and in nonprofit organizations too, such as government services (a school is also a productive unit). From that decentralized process there emerges a certain pattern of distribution for which no single person, or group, or official body is responsible.

—JAN PEN,

Income Distribution
(New York, Praeger Publishers, 1971).

Research Summaries



URBAN FAMILY BUDGETS UPDATED TO AUTUMN 1971

ELIZABETH RUIZ

THE U.S. DEPARTMENT OF LABOR'S urban family budgets were about 3 percent higher in autumn 1971, at each of three levels, than those issued 18 months earlier, according to the Bureau of Labor Statistics. The latest estimates for the U.S. average budget for the specified urban family of four ranged from \$7,214 a year at a lower level to \$10,971 at an intermediate level and \$15,905 at a higher level. (See table 1.) Income tax reductions offset about half the effect of the rise in consumer prices in the items included in the family budgets.

The family budgets are for a precisely defined urban family of four: a 38-year-old husband employed full time, his nonworking wife, a boy of 13, and a girl of 8. After about 15 years of married life, the family is well established and the husband is an experienced worker. The family has, for each budget level, average inventories of clothing, house furnishings, major durables, and other equipment. The lower level budget is not intended to represent the cost of a minimum or subsistence level of living.

Each of the three budgets illustrates a different level of living and provides for different, specified types and amounts of goods and services. The budgets pertain only to an urban family with the specified characteristics; none is available for rural families.

Consumption budgets

Budgets covering consumption items only—including food, housing, clothing, transportation, medical care, and so forth—came to 81 percent of the total

Table 1. Annual budgets for a 4-person family at 3 levels of living, urban United States, autumn 1971

Item	Lower budget	Intermediate budget	Higher budget
Total budget.....	\$7,214	\$10,971	\$15,905
Total family consumption.....	5,841	8,626	11,935
Food.....	1,964	2,532	3,198
Housing.....	1,516	2,638	3,980
Transportation.....	536	964	1,250
Clothing and personal care.....	848	1,196	1,740
Medical care.....	609	612	638
Other family consumption.....	368	684	1,129
Other items.....	357	560	937
Taxes.....	1,016	1,785	3,033
Social security and disability payments.....	387	419	419
Personal income taxes.....	629	1,366	2,614

budget at the lower level (\$5,841), 79 percent at the intermediate level (\$8,626), and 75 percent at the higher level (\$11,935). Family consumption budgets providing an equivalent level of living for urban families of different size and composition are shown in table 2. The remainder of the total budgets (19, 21, and 25 percent, respectively) covered gifts and contributions, occupational expenses, life insurance, and social security and personal income taxes.

Allocations of the type described here reflect as-

Table 2. Annual consumption budgets for selected family types, urban United States, autumn 1971¹

Family size, type, and age	Lower budget	Intermediate budget	Higher budget
Single person under 35 years.....	\$2,040	\$3,020	\$4,180
Husband and wife under 35 years:			
No children.....	2,860	4,230	5,850
1 child under 6.....	3,620	5,350	7,400
2 children, older under 6.....	4,210	6,210	8,590
Husband and wife, 35-54 years:			
1 child, 6-15 years.....	4,790	7,070	9,790
2 children, older 6-15 years ²	5,841	8,626	11,935
3 children, oldest 6-15 years.....	6,750	10,010	13,840
Husband and wife, 65 years and over ³	3,176	4,484	6,592
Single person, 65 years and over ⁴	1,747	2,466	3,626

¹ For details on estimating procedures, see Revised Equivalence Scale (BLS Bulletin 1570-2).

² Estimates for the BLS 4-person Family Budgets.

³ Estimates for the BLS Retired Couple's Budgets.

⁴ Estimated by applying a ratio of 55 percent to the BLS Retired Couple's Budgets.

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sumptions made about the manner of living at each of the three levels. They do not represent how families of the budget type actually spend their money.¹

For the four-person urban family, the proportion of the consumption budget allocated for food (at home and away from home) was 34 percent at the lower level, 29 percent at the intermediate level, and 27 percent at the higher level. Medical care took 10, 7, and 5 percent, respectively, of the three budgets. In contrast to these two items, housing (which in-

cludes not only shelter, but also house furnishings and household operations) accounted for a rising proportion as the budget level rose: 26, 31, and 33 percent, respectively.

For some items, there was little difference among the budget levels as to the proportion allocated: at all three levels, about 15 percent was marked for clothing and personal care, and there were only small differences between the levels in the proportion devoted to transportation.

Table 3. Comparative indexes based on a lower budget for a 4-person family,¹ autumn 1971

[U.S. urban average=100]

Area	Total budget	Family consumption							Personal income taxes
		Total	Food	Housing ²	Transportation ³	Clothing and personal care	Medical care ⁴	Other family consumption	
Urban United States.....	100	100	100	100	100	100	100	100	100
Metropolitan areas ⁵	102	101	102	102	96	102	103	104	103
Nonmetropolitan areas ⁶	93	94	93	92	120	93	85	81	85
Northeast:									
Boston, Mass.....	108	107	105	117	102	102	98	112	129
Buffalo, N.Y.....	101	101	104	97	102	103	90	106	103
Hartford, Conn.....	110	111	107	124	107	108	97	114	104
Lancaster, Pa.....	98	97	103	94	93	98	89	94	112
New York-Northeastern N.J.....	105	104	112	100	86	101	110	111	111
Philadelphia, Pa.-N.J.....	103	100	107	91	93	100	101	106	133
Pittsburgh, Pa.....	98	96	101	92	97	100	85	99	115
Portland, Maine.....	103	104	103	112	95	99	95	113	96
Nonmetropolitan areas ⁶	98	98	101	94	126	93	90	83	95
North Central:									
Cedar Rapids, Iowa.....	97	97	93	100	86	108	90	102	106
Champaign-Urbana, Ill.....	104	105	98	121	91	105	100	100	108
Chicago, Ill.-Northwestern, Ind.....	104	105	104	105	105	104	105	107	107
Cincinnati, Ohio-Ky.-Ind.....	95	95	99	89	98	99	85	104	93
Cleveland, Ohio.....	100	101	100	98	104	104	105	97	107
Dayton, Ohio.....	96	97	98	95	93	98	90	106	91
Detroit, Mich.....	98	98	102	92	95	102	101	102	96
Green Bay, Wis.....	97	96	94	98	87	108	88	96	114
Indianapolis, Ind.....	100	101	99	103	101	99	101	109	97
Kansas City, Mo.-Kans.....	100	100	101	96	103	106	97	102	104
Milwaukee, Wis.....	101	99	94	105	92	105	94	102	124
Minneapolis-St. Paul, Minn.....	100	99	97	102	95	103	94	103	114
St. Louis, Mo.-Ill.....	100	100	104	96	110	101	92	99	103
Wichita, Kans.....	95	95	96	97	85	98	94	96	87
Nonmetropolitan areas ⁶	96	97	94	102	118	96	83	82	92
South:									
Atlanta, Ga.....	93	94	92	94	91	96	94	107	78
Austin, Tex.....	88	90	90	84	87	96	93	100	68
Baltimore, Md.....	104	102	95	111	99	101	109	104	125
Baton Rouge, La.....	91	93	96	88	92	92	90	102	73
Dallas, Tex.....	94	96	93	92	92	93	116	104	77
Durham, N.C.....	97	97	91	103	86	97	108	102	100
Houston, Tex.....	93	94	94	88	95	94	106	102	75
Nashville, Tenn.....	91	93	90	93	93	100	88	103	73
Orlando, Fla.....	94	96	88	106	89	90	102	103	77
Washington, D.C.-Md.-Va.....	104	103	99	113	101	95	102	106	117
Nonmetropolitan areas ⁶	87	88	88	84	117	88	81	81	70
West:									
Bakersfield, Calif.....	98	98	98	92	98	102	113	94	84
Denver, Colo.....	95	96	96	90	97	102	96	96	85
Los Angeles-Long Beach, Calif.....	106	106	98	112	103	107	122	98	99
San Diego, Calif.....	103	103	98	106	100	103	116	97	92
San Francisco-Oakland, Calif.....	111	110	102	123	103	112	113	103	108
Seattle-Everett, Wash.....	106	107	106	111	97	112	109	104	99
Honolulu, Hawaii.....	125	122	124	142	114	106	105	108	167
Nonmetropolitan areas ⁶	100	99	95	101	123	105	91	79	108
Anchorage, Alaska.....	153	149	124	202	169	119	155	95	227

¹ The family consists of an employed husband, age 38, a wife not employed outside the home, an 8-year-old girl, and a 13-year-old-boy.

² Housing includes shelter, household operations, and housefurnishings. All families with the lower budget are assumed to be renters.

³ Average budgets for automobile owners and nonowners are weighted by the following proportions of families: Boston, Chicago, New York, and Philadelphia, 50 percent for both automobile owners and nonowners; all other metropolitan areas, 65 percent for automobile owners, 35 percent for nonowners; nonmetropolitan areas, 100 percent for automobile owners.

⁴ In total medical care, average budgets for medical insurance were weighted by the following proportions: 30 percent for families paying full cost of insurance; 26 percent for families paying half cost; 44 percent for families covered by noncontributory insurance plans (paid by employer).

⁵ As defined in 1960-61. For a detailed description of current and previous geographical boundaries, see the 1967 edition of *Standard Metropolitan Statistical Areas*, prepared by the Bureau of the Budget.

⁶ Places with population of 2,500 to 50,000.

Differences among urban areas

Area indexes of costs for an equivalent level of living reflect not only differences among the areas in price levels, but also regional variations in consumption patterns and differences in climate, types of transportation facilities, taxes, and so forth. Tables 3, 4, and 5 show the indexes of comparative costs in

44 areas for a lower, intermediate, and higher budget for the four-person budget family in autumn 1971.

The cost of equivalent budgets varied widely among cities and regions, with the lowest in small cities and in the South, and the highest generally in the largest metropolitan areas. The difference in consumption costs between metropolitan and nonmetropolitan areas ranged from 8 percent in the lower

Table 4. Comparative indexes based on an intermediate budget for a 4-person family,¹ autumn 1971

U.S. urban average=100]

Area	Total budget	Family consumption						Personal income taxes	
		Total	Food	Housing ²	Transportation ³	Clothing and personal care	Medical care ⁴		Other family consumption
Urban United States.....	100	100	100	100	100	100	100	100	100
Metropolitan areas ⁵	102	102	102	103	101	102	103	104	104
Nonmetropolitan areas ⁶	89	90	92	86	98	93	85	84	82
Northeast:									
Boston, Mass.....	117	115	108	134	106	102	98	111	141
Buffalo, N.Y.....	106	106	106	109	108	103	91	106	114
Hartford, Conn.....	110	112	110	117	118	109	97	113	98
Lancaster, Pa.....	98	98	105	92	100	99	89	98	102
New York-Northeastern New Jersey.....	115	113	116	124	95	101	109	111	131
Philadelphia, Pa.-N.J.....	104	102	109	98	96	100	101	106	119
Pittsburgh, Pa.....	98	97	103	89	98	101	85	101	103
Portland, Maine.....	102	103	107	101	106	99	95	109	94
Nonmetropolitan areas ⁶	98	98	102	101	101	92	90	89	96
North Central:									
Cedar Rapids, Iowa.....	101	99	91	104	102	108	91	101	111
Champaign-Urbana, Ill.....	102	103	96	109	103	105	100	100	101
Chicago, Ill.-Northwestern Indiana.....	105	105	101	109	106	104	105	104	105
Cincinnati, Ohio-Ky.-Ind.....	96	96	97	94	102	99	85	101	90
Cleveland, Ohio.....	103	105	98	113	103	104	100	105	97
Dayton, Ohio.....	93	94	96	88	98	98	90	104	83
Detroit, Mich.....	98	98	101	93	95	103	101	100	98
Green Bay, Wis.....	100	97	92	100	96	107	88	96	117
Indianapolis, Ind.....	101	102	97	104	110	99	101	107	97
Kansas City, Mo.-Kans.....	100	100	99	96	108	106	97	101	101
Milwaukee, Wis.....	107	103	93	117	98	104	94	102	131
Minneapolis-St. Paul, Minn.....	102	98	96	98	101	103	94	103	127
St. Louis, Mo.-Ill.....	100	100	102	96	109	101	92	98	100
Wichita, Kans.....	93	94	93	93	94	98	94	97	85
Nonmetropolitan areas ⁶	92	92	91	93	99	96	83	84	88
South:									
Atlanta, Ga.....	89	91	93	79	98	96	94	103	77
Austin, Tex.....	86	88	90	75	97	95	93	101	66
Baltimore, Md.....	100	98	98	90	101	102	109	104	119
Baton Rouge, La.....	90	92	98	80	101	93	90	101	77
Dallas, Tex.....	92	94	93	85	100	94	116	102	74
Durham, N.C.....	96	95	92	91	95	97	108	101	100
Houston, Tex.....	90	92	95	81	101	95	106	100	72
Nashville, Tenn.....	91	93	90	89	100	101	88	102	73
Orlando, Fla.....	88	91	89	85	95	91	102	102	70
Washington, D.C.-Md.-Va.....	103	101	101	101	104	97	102	105	115
Nonmetropolitan areas ⁶	84	85	89	75	96	89	82	83	70
West:									
Bakersfield, Calif.....	93	94	94	85	102	98	113	95	80
Denver, Colo.....	97	98	93	95	100	111	97	96	93
Los Angeles-Long Beach, Calif.....	100	101	96	100	101	104	122	97	91
San Diego, Calif.....	97	98	94	96	101	116	97	87	87
San Francisco-Oakland, Calif.....	106	107	100	113	105	110	113	102	101
Seattle-Everett, Wash.....	101	104	104	103	99	109	108	103	87
Honolulu, Hawaii.....	119	116	121	120	120	103	107	107	155
Nonmetropolitan areas ⁶	92	91	91	87	95	104	91	82	94
Anchorage, Alaska.....	136	132	118	158	126	119	155	95	174

¹ The family consists of an employed husband, age 38, a wife not employed outside the home, an 8-year-old girl, and a 13-year-old boy.

² Housing includes shelter, household operations, and housefurnishings. Average budgets for shelter are weighted by the following proportions: 25 percent for renter costs, 75 percent for homeowner costs.

³ Average budgets for automobile owners and nonowners are weighted by the following proportions: Boston, Chicago, New York, and Philadelphia, 80 percent for owners, 20 percent for nonowners; Baltimore, Cleveland, Detroit, Los Angeles, Pittsburgh, San Francisco, St. Louis, and Washington, with 1.4 million of population or more in 1960, 95 percent for owners and 5 percent for nonowners; all other areas

100 percent for automobile owners.

⁴ In total medical care, average budgets for medical insurance were weighted by the following proportions: 30 percent for families paying full cost of insurance; 26 percent for families paying half cost; 44 percent for families covered by noncontributory insurance plans (paid by employer).

⁵ As defined in 1960-61. For a detailed description of current and previous geographical boundaries, see the 1967 edition of *Standard Metropolitan Statistical Areas*, prepared by the Bureau of the Budget.

⁶ Places with population of 2,500 to 50,000.

budget to 14 percent in the intermediate and 18 percent in the higher. When Honolulu and Anchorage were excluded, the interarea differences in cost tended to be smallest in the case of the lower budget and to widen as the level rose.

All indexes relate to budgets for established families in the area. They do not measure cost differences associated with moving from one area to another or living costs of families newly arrived in a given community.

Changes in living costs, 1970-71

The three family budgets were last published in spring 1970. Over the 18-month period between spring 1970 and autumn 1971, when the Consumer Price Index rose by 5.3 percent, the consumption budget at each level rose by 5 percent and the total budget at each level by about 3 percent. The smaller increase in the overall budgets than in the consumption components resulted from a reduction of per-

Table 5. Comparative indexes based on a higher budget for a 4-person family,¹ autumn 1971

[U.S. urban average=100]

Area	Total budget	Family consumption							Personal income taxes
		Total	Food	Housing ²	Transportation ³	Clothing and personal care	Medical care ⁴	Other family consumption	
Urban United States.....	100	100	100	100	100	100	100	100	100
Metropolitan areas ⁵	103	103	102	104	102	101	103	104	105
Nonmetropolitan areas ⁶	86	87	89	82	92	93	85	83	77
Northeast:									
Boston, Mass.....	120	117	107	136	115	103	98	110	142
Buffalo, N.Y.....	105	103	104	105	99	104	91	107	115
Hartford, Conn.....	106	109	106	114	108	109	97	112	93
Lancaster, Pa.....	96	97	104	90	94	100	89	102	93
New York-Northeastern New Jersey.....	121	117	117	127	110	103	110	111	147
Philadelphia, Pa.-N.J.....	104	103	108	99	105	100	100	108	112
Pittsburgh, Pa.....	97	97	102	92	95	102	85	104	96
Portland, Maine.....	98	100	105	95	98	100	94	106	87
Nonmetropolitan areas ⁶	94	94	98	94	96	93	90	87	88
North Central:									
Cedar Rapids, Iowa.....	101	99	92	104	96	107	90	101	109
Champaign-Urbana, Ill.....	102	103	97	110	98	105	100	101	99
Chicago, Ill.-Northwestern Indiana.....	104	105	102	104	114	104	104	104	101
Cincinnati, Ohio-Ky.-Ind.....	92	94	97	89	94	98	85	99	82
Cleveland, Ohio.....	101	103	99	108	98	103	100	104	91
Dayton, Ohio.....	93	95	97	93	94	98	90	103	80
Detroit, Mich.....	98	99	101	96	92	102	102	102	97
Green Bay, Wis.....	101	97	92	101	91	106	88	97	121
Indianapolis, Ind.....	99	101	98	104	101	99	101	104	92
Kansas City, Mo.-Kans.....	101	101	98	98	104	106	96	101	103
Milwaukee, Wis.....	106	102	95	110	91	104	94	101	131
Minneapolis-St. Paul, Minn.....	102	98	96	96	94	102	95	102	125
St. Louis, Mo.-Ill.....	99	99	105	92	108	100	92	98	99
Wichita, Kans.....	92	94	93	92	92	98	94	96	84
Nonmetropolitan areas ⁶	89	90	89	90	91	98	84	82	83
South:									
Atlanta, Ga.....	87	90	94	78	95	97	94	100	71
Austin, Tex.....	86	89	92	78	94	96	94	103	65
Baltimore, Md.....	101	98	101	89	98	104	109	104	118
Baton Rouge, La.....	92	94	99	87	98	93	90	102	79
Dallas, Tex.....	92	95	94	91	97	95	116	103	73
Durham, N.C.....	94	93	92	87	93	98	107	100	98
Houston, Tex.....	89	93	96	83	98	96	106	101	70
Nashville, Tenn.....	90	94	89	91	99	103	87	101	70
Orlando, Fla.....	88	91	88	88	94	92	101	101	67
Washington, D.C.-Md.-Va.....	103	101	101	98	105	99	102	104	115
Nonmetropolitan areas ⁶	80	82	86	73	92	90	82	81	65
West:									
Bakersfield, Calif.....	91	92	96	84	98	96	113	96	79
Denver, Colo.....	97	97	94	94	94	108	96	99	95
Los Angeles-Long Beach, Calif.....	102	103	100	104	103	102	122	99	96
San Diego, Calif.....	98	99	95	101	93	97	117	99	89
San Francisco-Oakland Calif.....	106	107	103	110	104	107	114	103	104
Seattle-Everett, Wash.....	99	103	104	102	92	105	108	104	83
Honolulu, Hawaii.....	124	117	123	123	123	100	105	109	162
Nonmetropolitan areas ⁶	89	88	87	85	88	101	91	84	88
Anchorage, Alaska.....	130	126	115	146	115	115	153	97	154

¹ The family consists of an employed husband, age 38, a wife not employed outside the home, an 8-year-old girl, and a 13-year-old boy.

² Housing includes shelter, household operations, housefurnishings and lodging out of home city. Average budgets for shelter are weighted by the following proportions: 15 percent for renter costs, 85 percent for homeowner costs.

³ All families are assumed to be automobile owners.

⁴ In total medical care, average budgets for medical insurance were weighted by the

following proportions: 30 percent for families paying full cost of insurance; 26 percent for families paying half cost; 44 percent for families covered by noncontributory insurance plans (paid by employer).

⁵ As defined in 1960-61. For a detailed description of current and previous geographical boundaries, see the 1967 edition of *Standard Metropolitan Statistical Areas*, prepared by the Bureau of the Budget.

⁶ Places with populations of 2,500 to 50,000.

Table 6. Percent composition of 4-person family budgets, spring 1970 and autumn 1971

Budget level	Total budget	Consumption	Other items ¹	Taxes ²
Lower:				
1970.....	100	80	5	15
1971.....	100	81	5	14
Intermediate:				
1970.....	100	77	5	18
1971.....	100	79	5	16
Higher:				
1970.....	100	73	6	21
1971.....	100	75	6	19

¹ Includes gifts and contributions, life insurance, and occupational expenses.

² Social security and disability payments, plus Federal, State, and local personal income taxes. The 1970 taxes were computed at 1969 rates; the 1971 taxes at 1971 rates.

sonal income taxes at all levels of government: 13, 11, and 9 percent, respectively, in the lower, intermediate, and higher level budgets. However, the progressive effect of the income tax adjustments was partly offset by an increase in social security rates in 1971. As a result, the distribution of income between consumption and taxes changed somewhat for the illustrative four-person budget family. (See table 6.)

Method of calculation

The 1971 consumption budgets were derived by applying price changes between spring 1970 and autumn 1971, reported in the Consumer Price Index for individual areas, to the appropriate spring 1970 final budget for each main class of goods and services.² Other items were also updated to autumn 1971, and personal income taxes and social security were computed from the tax rates in effect for 1971.

Sources of data, method of calculation, and quantities of goods and services for each budget level, with spring 1967 costs, are described in detail in *Three Standards of Living for an Urban Family of Four Persons* (BLS Bulletin 1570-5), available for \$1 from any of the regional offices listed on the inside front cover or from the Superintendent of Documents, Washington, D.C. 20402. A supplement giving budgets for spring 1969-70 is also available free of charge. □

FOOTNOTES

¹ New information on actual spending patterns will be available upon completion of the 1972-73 Survey of Consumer Expenditures, now in process.

² This method of updating is approximate, because the Consumer Price Index reflects spending patterns and prices

paid for commodities and services purchased by wage earners and clerical workers generally, without regard to their family type and level of living.

WORK INJURIES IN ATOMIC ENERGY ESTABLISHMENTS

IN RELEASING the fifth in a series of annual reports prepared for the Atomic Energy Commission, the Bureau of Labor Statistics noted that the injury frequency rate for 1970 in privately owned and operated establishments in the atomic energy field—at 6.2 per million employee-hours worked—was well below the national average of 15.2 for manufacturing establishments. However, the 6.2 rate was the highest recorded since studies of such establishments were begun (in 1965) and considerably higher than the 1969 rate of 4.0. Since the rate for matched establishments (those included in both the 1969 and 1970 surveys) showed virtually no change—4.9 in 1969 and 5.0 in 1970—the increase may be attributed largely to changes in the establishments included in the survey.

Although one-half of the establishments had injury-frequency rates below 2.2, a considerable number had markedly high rates; one-tenth had rates of 22.8 or higher. The highest (28.2) was reported among establishments engaged in the production of special materials for use in reactors, an experience documented in past surveys. None of the establishments reported injuries resulting from exposure to ionizing radiations, considered a work injury if clinically evident biological damage results.

The incidence of injury for atomic energy employees was unchanged from the 1969 rate of 5.2. However, the rate for all employees in the establishments rose considerably, so that—for the first time since these surveys were begun—the injury rate for all employees was markedly higher than the rate for atomic energy employees.

Full details of the survey will be published in a BLS Bulletin later this year. This is the last survey in this series. Under the Williams-Steiger Occupational Safety and Health Act of 1970 (OSHA), the Bureau has instituted a new mandatory recordkeeping system which requires virtually every employer in the private sector of the economy to maintain records of work-related injuries and illnesses and to submit this information upon request. Data will no longer be collected on the basis of the Standard Method of Re-

coding and Measuring Work Injury Experience (Z16.1).

The new OSHA system involves major conceptual changes from the Z16.1 standard. Instead of restricting recordable cases of occupational injury to disabling injuries only, the OSHA definition includes all work-related deaths, illnesses, and injuries, other than those requiring only first-aid treatment. Specifically included as recordable cases are those involving medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job or termination of employment. The former concept that no time was lost, and hence no recordable injury sustained, as long as the employee could carry out an established job which was open and available to him has been eliminated. The OSHA system considers as recordable any change in occupation caused by a work-related injury or illness.

The more inclusive definition of recordable injuries and illnesses under the OSHA system and the extended coverage in the new national survey has necessitated a reevaluation of the importance of a separate atomic energy survey. As a result, the Atomic Energy Commission has decided to discontinue temporarily the BLS-AEC survey.

A complete description of the new recording and reporting system, *Recordkeeping Requirements under the Williams-Steiger Occupational Safety and Health Act of 1970*, is available from the Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20212, or from any of the regional offices listed on the inside front cover. □

MEDICAL CARE PRICES SINCE MEDICARE

IN THE 5-year period following the inception of Medicare in 1967, prices of medical care increased at twice the rate reported in the earlier part of the 1960's—6.6 percent annually in 1967 to 1971, compared to 3.2 percent a year in 1960–67. However, the gap between the rate of increase in prices for all consumer items and for medical care actually

decreased, as inflationary pressures pushed prices for all items to an annual average increase of 4.8 percent in 1967–71, triple the 1.6 percent yearly average of 1960–67. These findings are reported by Loucele A. Horowitz in a recent issue of the *Social Security Bulletin*.

Hospital daily service charges—the amount charged an adult inpatient for routine nursing care, semiprivate room, board, and minor medical and surgical care—almost doubled from June 1966 to June 1971. Operating room charges increased by 77 percent. Contributing to this rise in hospital prices were increased demand, rising costs of labor and supplies, and technological changes which required more expensive equipment and more highly skilled workers.

Overall, physicians' fees increased by almost two-fifths in the 5-year period ending in June 1971. The increases ranged from 31 percent for adult herniorrhaphy, psychiatrist office visits, tonsillectomy and adenoidectomy to 40 to 43 percent for general physician office and house visits, obstetrical care, and pediatric office visits. Medicare and Medicaid played a significant role in this price escalation, according to the author, since both programs expanded effective demand without increasing the already short supply of physicians.

In general, prices for other medical care goods and services, except prescriptions, followed the upward trend reported for hospital and physicians' services. Dentists' fees increased by one-third; charges for examination, prescription, and dispensing eyeglasses, more than one-fourth; routine laboratory tests, one-fifth. Prices of over-the-counter drugs increased by nearly 12 percent, but decreases in prescription charges were reported for 4 of the 5 years between June 1966 and June 1971. Whether the index for drugs reflects all actual retail prescription purchases is questionable.

"Medical Care Price Changes in Medicare's First Five Years" appears in the *Social Security Bulletin*, March 1972, which is available for 35 cents from the Superintendent of Documents, Washington, D.C. 20402. □

Foreign Labor Briefs



TURKISH LABOR AND THE EEC

TURKEY has reached the middle range of its three-stage path to full membership in the European Economic Community. About a year ago the Turkish Parliament approved the Government's decision to enter the present phase of the gradual transition without additional preparation, and now the ultimate admission of Turkey to the Common Market depends on individual actions of the organization's members. In the meantime the country is stirred by a controversy over the merits of such membership, particularly as regards the employment opportunities it offers to Turkish labor in the industrialized countries of the West.

The Ankara Treaty of September 12, 1963, making Turkey an associate member of the European Economic Community marked the beginning of a large-scale migration of Turkish workers to industrialized countries of Western Europe. Some emigration to West Germany, the main market for Turkish labor, had started after a bilateral agreement was signed in October 1961. An important step in Turkey's economic and political life, the treaty, often called the Association Agreement, provided for three consecutive phases: a 5-year preparatory stage, effective 1964, in which the EEC countries accorded unilateral commercial and financial concessions to Turkey but did not require reciprocal obligations on Turkey's part; a transitional stage of mutual and "balance obligations,"¹ designed to benefit both parties without impairing Turkey's economic development and to bring about a customs union for industrial products; and the final stage, which should result in Turkey's complete participation in the community. The integration policy for agricultural products is to be determined after 22 years from the conclusion of the treaty. All three stages must be com-

pleted before Turkey can become a full member of the organization.

The preparatory stage has been completed, but the passage into the transitional stage is not automatic. The treaty contains an option for extending the preparatory stage another 5 years; whether Turkey should take this option has long been a topic of controversy in the country. The Government has opted to enter the transitional stage; the Annex Protocol it signed for this purpose in November 1970 was ratified by the Turkish Parliament in July 1971 but still awaits ratification by the member states of the organization.

The Annex Protocol initiates a free flow of labor and capital between Turkey and the Common Market, establishes a customs union, and outlines import and export tariff policies for a 22-year period. The free movement of labor is to be achieved gradually between the end of the 12th and 22d years of the Association Agreement—that is, between 1976 and 1986. At the present time, EEC-member states may deny work permits to Turkish workers, but by the time the transitional stage is completed the workers will be guaranteed work permits. Turkish workers in the community countries then will be employed under the same working conditions and remuneration as the workers of the member countries. Both the EEC and Turkey are pledged to improve their policies toward work opportunities and free settlement of workers within the community countries.

Various views have been expressed in the private and public sectors of Turkey on the benefits that will accrue to the Turkish economy from the transitional stage. Management in the private sector, as represented by the Koç Holding Co., Inc., Turkey's largest single business enterprise, considers that Turkish industry's high production costs, increased by labor costs, will negatively affect its competitiveness within the European Economic Community. It recommends, therefore, that during the period of a collective bargaining contract, a system should be adopted to ensure wage increases geared to the cost of living. The

¹"Turkish labor and the EEC" was prepared by Joan Clarke, Chief of the Near East South Asia Branch, Division of Foreign Labor Conditions, Bureau of Labor Statistics.

company further recommends that wage levels be determined according to individual industrial categories by tripartite bodies of labor, management, and government representatives meeting every 2 or 3 years.

In the public sector, the Industrial Development Bank² and the Ministry of Foreign Affairs argue for a free flow of labor and capital as stipulated in the Annex Protocol. They emphasize the reduction of unemployment in Turkey and increased workers' remittances from abroad; the latter will add to foreign exchange earnings and will contribute to increased domestic investments. Also, they cite the benefits to the economy from the training Turkish workers receive abroad, and the application of these skills upon subsequent employment in Turkey. The Ministry sees a socioeconomic gain for Turkey from the free circulation of workers, most of whom return home after a few years of work abroad. Most are unskilled when they leave. The skills they acquire abroad are urgently needed in the Turkish economy. This presupposes that existing skills in the Turkish labor force are not lost by the exit of Turkish workers. Job openings abroad are mostly for unskilled and semiskilled workers.

On the other hand, the Economic Development Foundation,³ a private organization, points to the danger of losing skilled workers as a result of migration and calls for measures to prevent this trend. The foundation says that the EEC should be asked to train Turkish workers in Turkey before employing them abroad and proposes establishment of training centers. In this way, the foundation points out, unskilled workers could be trained and skilled ones would not be removed from the Turkish industries where they are needed.

A lack of adequate information on skill levels of Turkish workers before, during, and after their work abroad appears to account largely for the above differing opinions. While a rather large literature exists on various aspects of the movement of Turkish workers abroad, no complete picture emerges. Statistical data are thin and are contradictory and piecemeal. Even on the basic question of how many workers are in West Germany, for example, Turkish and West German statistics differ widely. □

REGIONAL DEVELOPMENT OF JAPAN

Japan's rapid economic expansion, combined with the limited habitable area, constitutes a problem of

major proportions that urgently calls for solution.⁴ It seems to demand nothing less than industrial and demographic restructuring of the country. The Japanese have approached the problem in terms of balanced regional development, and the New Comprehensive Development Plan currently being implemented is intended to achieve this balance by about 1985.

The heart of Japan's trouble and the cause of its economic imbalance is the exceptionally high degree of industrial development and overcongestion in the so-called Pacific Coast Belt in relation to the rest of the country, particularly the rural areas. In the next 15 years, the development plan is designed to stimulate economic growth of other regions through the development of nationwide transport and communication networks. The scheme is to connect Tokyo with major industrial centers—Sapporo, Sendai, Nagoya, Osaka, Hiroshima, and Fukuoka—into a centrally controlled complex of economic activity, which in turn would be connected with key cities in the various regions. This network is expected to extend the potential for economic growth from the center to the rest of the country.

The question is, however, how to reach that goal of balanced growth without reproducing the old or giving rise to new forms of social and economic blight? In reporting on its on-the-spot study of the Japanese regional development policy, a working party of the Industry Committee of the Organization for Economic Co-operation and Development has sized up the results of Japan's present economic imbalance as follows:

. . . Japan's regional problem has two main facets: first, the disutilities of concentration, namely air and water pollution, housing shortages, constantly rising land prices, water supply difficulties, transport problems, etc., aggravated by insufficient investment in social capital; . . . secondly, the attraction of the already overpopulated area for the younger and more dynamic section of the rural population. The latter results in economic stagnation in the countryside, where it is economically difficult to maintain community equipment and public services at an adequate standard for the population which stays behind.⁵

Thus, environmental questions and quality of life seem to be the predominant considerations of the Japanese regional planning. In reflecting the OECD group's opinion, the *OECD Observer* said: "Industrialization and rising standards of living are likely to lead to a demand for better housing conditions, more attractive cities, the conservation of natural sites and a better environment, and all this will

necessitate greater attention to physical and regional planning; thus the basic problem for Japan in the coming 15 years is to reconcile economic growth with the needs of regional and environmental planning."

Considering the speed as well as the scope of Japan's economic growth, which exceeds that of any other advanced country, the OECD working party concluded that "further intensification of the efforts already underway would be required over many years, if a sound regional balance of the economy was to be achieved and if economic growth was not to be accompanied by worsening of the environment." In this respect, the party sounded an encouraging note that "these plans do not remain mere pieces of paper, but are implemented with energy and efficiency."

The report, entitled "Salient Features of Regional Development Policies in Japan," is obtainable on request from the OECD Industry Committee Secretariat or from the OECD Publications Center, Suite 1207, 1750 Pennsylvania Avenue, N.W., Washington, D.C. 20006. □

LABOR UNION MEMBERSHIP IN CANADA, 1971

RELATIVELY LITTLE CHANGE occurred in the structure of labor organizations in Canada during the period 1970-71, according to *Labor Organizations in Canada, 1971*, issued by the Canada Department of Labor.⁶ At the beginning of 1971, labor unions reported a total of 2,210,554 members, an increase of 1.7 percent over the 1970 figure. Canadian Labor Congress affiliates accounted for 74.8 percent of

the total union membership, most of it affiliated with the AFL-CIO:

Canadian Labor Congress affiliates	1,654,117
With AFL-CIO affiliation	1,147,441
Without AFL-CIO affiliation	506,706

Another 9.6 percent belonged to federations affiliated with the Quebec-based Confederation of National Trade Unions, and 15.6 percent were in various unaffiliated international and national unions and independent local organizations.

Nine unions reported 50,000 members or more:

United Steelworkers of America (AFL-CIO/CLC)	156,000
Canadian Union of Public Employees (CLC) ..	138,088
Public Service Alliance of Canada (CLC)	121,571
International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (CLC)	111,219
United Brotherhood of Carpenters and Joiners of America (AFL-CIO/CLC)	74,645
International Brotherhood of Teamsters, Chauffeurs, Warehousemen, and Helpers of America (Ind.)	58,918
International Brotherhood of Electrical Workers (AFL-CIO/CLC)	55,000
Fédération Nationale de Services, Inc. (CSN) ..	52,307
International Association of Machinists and Aerospace Workers (AFL-CIO/CLC)	51,136

Two international unions ceased operations in Canada, the International Alliance of Bill Posters, Billers and Distributors of the United States and Canada (AFL-CIO) and the Coopers' International Union of North America (AFL-CIO/CLC), which had reported 11 and 200 members, respectively, in Canada at the time of the 1970 survey. □

FOOTNOTES

¹ The term "balanced obligations" is not clearly defined, but it requires that the "mutual concessions be in accordance with the economic potentials of the parties concerned." (As stated by Emine Olgun in his paper, "Public and Private Sector Views on Turkey's Entry into the Transitional Stage of its Association with the European Economic Community," USAID, Ankara, Economic Planning Division, March 1971.)

² Established in 1950 by the Turkish Government, the World Bank group, and Turkish private industries, with financial assistance coming from the founders and from the European Investment Bank, USAID, and other bodies.

³ The Economic Development Foundation was established

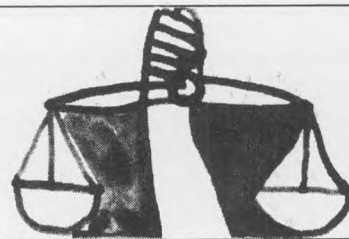
by the Istanbul Chamber of Industry and Chamber of Commerce in 1965, to conduct research related to Turkey and the EEC. Seventeen other chambers have since joined the foundation.

⁴ Currently, Japan's population density reaches 1,400 persons per square kilometer, and its rate of economic expansion was 10.9 in 1970, compared with 11.9 percent in 1969.

⁵ *OECD Observer*, February 1972, p. 34.

⁶ Available from Information Canada, Ottawa. For a summary of the report, see "Labor organizations in Canada, 1971," *Labor Gazette*, Canada Department of Labor, March 1972, pp. 140-141.

Significant Decisions in Labor Cases



The ultimate principal

LABOR LITIGATION occasionally brings a reminder that the ultimate principal in the employer-employee relationship established through collective bargaining is the employee, not his union. Unions may come and go, but the final authority on the labor side remains with the worker; a union exercises that authority on his behalf as long as it represents him. In recent months, this simple truth of union democracy posed a barrier to a union's attempt to decide the fate of an employee pension fund, even though the employees had rejected the union at the polls as their exclusive representative. The attempt was frustrated by the ruling of a Federal district court. (*Stegmaier Brewing Co.*¹)

As bargaining representative of employees of several breweries, a local of the Brewery Workers negotiated a contract providing for a jointly administered pension plan that could be terminated only upon mutual consent of "the companies and the union" (court's language), and only if its continuation were impossible. When the next representation election in the unit brought victory to another labor organization, a local of the Teamsters, the latter agreed with the employers to continue the old contract until its expiration date and to retain, until that time, the Brewery Workers' representatives on the joint committee administering the fund. After the conclusion of a new contract, which retained the pension plan with minor modifications, the displaced local of the Brewery Workers demanded that the union representation on the joint committee of the fund consist exclusively of its own men. It also proposed that the fund be discontinued and assets distributed among the employees, and ordered the bank to stop payments to retirees. When its demands were rejected, the displaced union asked that the question of fund termination be submitted to arbitration under

the provisions of the plan. The companies and the successor Teamster union refused, denying the Brewery Workers a standing to demand arbitration. The old union then brought the dispute before the district court under the provisions of sections 301 and 302 of the Labor Management Relations Act.²

The district judge ruled:

It is my opinion that this pension agreement is not automatically terminated by virtue of one union being displaced by another. . . . The pension plan and trust agreement contain no provision for termination or continuation in the event of a change in the certified bargaining agent, nor did they provide for termination without the consent of the employers. Under these circumstances the successor union is entitled to be substituted for the displaced union as a party to the pension plan. The displaced union has no right to interfere with the decision of the successor union or the representatives of the latter, nor with the administration of the pension plan after the decertification. *The necessary effect of decertification is to terminate the right of the displaced union to administer the contract and the pension plan on behalf of the employees in the bargaining unit.* The new collective bargaining agent should succeed to the position of the prior union with respect to these matters. [Emphasis added.]

The court's affirmative relief included a declaration that the new union was "the successor to the [displaced] union under the plan and trust agreement and [was] entitled to all of the rights and subject to all the obligations under the plan and trust;" and the release of the fund's assets to the newly appointed trustees.

Replaced striker as a voter

Judicial opinion has made it clear that a permanently replaced economic striker retains his employee status while waiting to be rehired or until he obtains "substantially equivalent" employment elsewhere. The U.S. Supreme Court ruled so in *Fleetwood Trailer Co.*³ in 1967, and the NLRB repeated and elaborated upon this ruling in *Laidlaw*⁴ a year later. But in another area of his statutory rights, the re-

¹"Significant Decisions in Labor Cases" is written by Eugene Skotzko, Office of Publications, Bureau of Labor Statistics.

placed ex-striker does not fare equally well: his right to vote in a representation election of his unit does not reach beyond 1 year from the beginning of the strike. On this point, the Board ruled recently in *Wahl Clipper Corp.*,⁵ the law is specific and its language means exactly what it says: "Employees engaged in an economic strike who are not entitled to reinstatement shall be eligible to vote under such regulations as the Board shall find are consistent with the purposes and provisions of the act in any election conducted within 12 months after the commencement of the strike." (Provision of section 9(c)(3) of the LMRA.) The Board's decision did not resolve the inconsistency that appears to exist between the replaced striker's legal status as an employee and that as a voter.

More than a year after the settlement of a strike, an NLRB regional director ordered a representation election in the unit, with participation of the permanently replaced strikers still on preferential hiring list. The regional director's reasoning seemed clear-cut and logical:

The replaced strikers had a "reasonable expectation" of reinstatement since, under the *Laidlaw* doctrine, they remained employees until the time of suitable employment elsewhere. As such they were eligible to vote, for even the NLRB had ruled—in *Pioneer Flour Mills*⁶—that replaced economic strikers must be allowed to participate in an election held for the purpose of choosing a bargaining representative of employees. The statutory 12-month limitation on voting rights of replaced strikers applies—as the law specifically says—to those "who are not entitled to reinstatement." In this case, the employees were entitled to and were waiting for reinstatement. Also, as in *Pioneer Flour Mills*, the strike in this case did not last 12 months.

The Board did not accept this reasoning. "Eligibility of replaced economic strikers to vote in a Board-conducted election is governed by section 9(c)(3), as amended in 1959," it said. The legislative history of the amendment, "while not definitive," does support the view that the 12-month limitation was the intent of Congress. Not only does the law set the limit on voting eligibility of replaced economic strikers, it also empowers the Board to limit the right further, through regulations consistent with the purposes of the act.

As for the contention that the limitation applies only to those who are "not entitled to reinstatement" whereas the ex-strikers in this case *were* so entitled, the Board said that, as the legislative history reveals,

the term was merely descriptive, intended to distinguish the economic from unfair-labor-practice strikers. At the time of the 1959 amendment, the Board said, Congress was under the impression that a striker, once legally replaced, had no entitlement to reinstatement. Hence, at that time the term "not entitled to reinstatement" did not have the meaning it acquired later, through the rulings of the Supreme Court and the NLRB (in *Fleetwood* and *Laidlaw*, respectively), that replaced strikers continue in the employee status until they obtain suitable employment elsewhere.

Apart from the legislative history, there is "the factual and practical question of the extent of the genuine interest of replaced economic strikers in the issues which will be determined in the election," the Board observed. It cited an inquiry on the floor of the Senate during the preenactment discussion: ". . . [W]hat [would] the situation . . . be when the economic strikers had been away from their work, let us say, for a year and had been replaced by new workers? How could the question ever be resolved with regard to who should be the bargaining agent for the workers? . . . and how long would the economic striker be vested with the right to vote on an equal basis with the worker?"⁷ And the Board added, "It was . . . a recognition of the speculative nature of such interests which led the Congress in the first instance to adopt the 12-month statutory limitation." The Board concluded: ". . . [I]t seems to us the most reasonable course, as well as the most reasonable interpretation of the statutory language, is to hold that replaced strikers are not eligible to vote in an election held more than 12 months after the commencement of an economic strike."

Member Fanning dissented. He argued that permanently replaced economic strikers are not different with respect to voting rights from laid-off workers—both are "employees" under the law, and both are subject to recall "within the foreseeable future." "To dismiss the *Fleetwood* and *Laidlaw* rights of economic strikers [as employees] under the guise of reasonableness is, in my opinion, tantamount to the Board's acting in an irresponsible manner," he said.

The Board's majority rejected this comparison as "not entirely apt." It pointed out that the replaced worker's chance for reinstatement depends "not merely [on] an improvement in the business of the employer but also [on] the termination of employment of his replacement—an event the timing of which is highly speculative. . . ."

Reward for nonstrikers

When a strike ended, the employer granted \$100-bonus awards to the employees who had not joined the strike and had continued to work. The contemplated bonus had not been announced during the strike; after it was granted, the employer refused to furnish the union with any information pertaining to it. The union considered the bonus an interference with the employees' statutory right to strike, and the denial of information a refusal to bargain, violations of section 8(a)(1) and (5).

The employer replied that the bonus was intended merely to compensate the nonstrikers for the risks they took in crossing the picket lines to work; and that it did not interfere with the employees' rights to strike since it was not even announced during the strike and was granted after the settlement. Nor could it have any effect on the employees' rights to strike in the future, the company said. The NLRB disagreed. (*Aero-Motive Manufacturing Co.*⁸)

"... [T]he issue posed here," said the Board, "is whether the payment of special cash bonus to employees who chose to refrain from protected, concerted activity . . . tends to interfere with free exercise of statutory right of the employees . . . to engage in strike action." And it went on to answer: "It is by now axiomatic that employers violate our act if they grant special benefits to employees who refrain from engaging in concerted activity. . . ." The bonus awards, among other things, "clearly demonstrated for the future the special rewards which lie in store for employees who choose to refrain from protected strike activity." And no matter what the employer's motive was, the bonus' "impact on employees is plain for all to see—that nonstrikers did, and presumably will in the future, receive special benefits which strikers will not receive. Employer actions which have this impact are violative of section 8(a)(1)"—that is, constitute coercion.

The company was ordered to pay the \$100 bonus also to the employees who had been on strike, with interest from the date of the grant to the nonstrikers. Previous decisions in two similar cases—*Association of Motion Picture Producers, Inc.*, and *Columbia Pictures Corp.*⁹—were overruled to the extent they implied that bonus awards not announced during a strike were legal.

Overtime and protected activity

A team of six employees in a plastics plant were

expected to do some overtime work. They were not represented by a union. Their work was very heavy, and the conditions in the plant—such as shortage of personnel and bad ventilation—were poor. Under these conditions, the employees in question considered the steadily growing overtime assignments to be burdensome. One day a member of the team did not report for work, and the others decided not to stay overtime that night because they were all tired. The employer suspended the five from work for the next 2 days. He maintained that their joint refusal was not a legally protected concerted activity. (*Polytech, Inc.*¹⁰)

Relying on the Supreme Court decision in *Washington Aluminum Co.*,¹¹ the NLRB ruled that the five workers' decision not to work beyond the regular hours was, indeed, a protected concerted activity. As in *Washington Aluminum*, the employees were unrepresented, the plant conditions were bad, and there was no established procedure to air the employees' grievances.

There was, however, one important consideration with which the Board was particularly concerned—whether the employees had not habitually resorted to the stratagem of "concerted activity" as a means short of a strike to obtain from the employer a desired concession. The Board referred to its own decision in *John S. Swift Co.*,¹² where a similar concerted refusal to work overtime was found not to have been protected by law: the employees there had repeatedly engaged in work stoppages for only a portion of the working day as a means of pressure upon the employer during bargaining. Such workers, the Board now repeated, "are plainly unwilling to assume the status of strikers—a status contemplating a risk of replacement and a loss of pay." The Board went on, "The principle of [such] cases is that employees cannot properly seek to maintain the benefits of remaining in a paid employee status while refusing, nonetheless, to perform all of the work they were hired to do."

In the present case, the Board noted, the suspended employees had no history of such short-of-strike stoppages. Theirs was a bona fide one-time concerted decision not to do overtime work because of bad working conditions.

Polling eligible voters

An employer asked the NLRB to set aside a representation election won by a union that had polled the prospective voters on how they were going

to vote. The company relied on a previous Board decision (in *Offner Electronics, Inc.*¹³) that no secret polling is allowed after the election order.

The Board said the polling in the present case did not warrant invalidation of the election. The union's poll was noncoercive, it said, and the *Offner* ruling "was not intended to be applicable to noncoercive polling by a union." *Offner* was overruled to the

extent of its contrary implication.

In concurring, Chairman Miller expressed the view that a poll of prospective voters should not invalidate an election unless it involved "a violation of employee rights as, for example, [if it was] used as an instrument of illegal employer interference such as unlawful interrogation, or of union restraint or coercion." (*Springfield Discount*.¹⁴) □

—FOOTNOTES—

¹ *Brewery Workers and its Local 163 v. Stegmaier Brewing Co.*, No. 70-556, Feb. 29, 1972.

² Title III of the LMRA provides for suits by and against labor organizations (section 301), and imposes restrictions on payments to employee representatives (section 302).

³ 389 U.S. 375 (1967).

⁴ 171 NLRB No. 175 (1968)—see *Monthly Labor Review*, September 1968, pp. 59-60; enf. 414 F.2d 99 (C.A. 7, 1969); cert. denied 397 U.S. 920 (1970). In *Laidlaw*, the Board established a rule (the "*Laidlaw* doctrine") by holding unanimously that ". . . economic strikers who unconditionally apply for reinstatement at the time when their positions are filled by permanent replacements: (1) remain employees; (2) are entitled to full reinstatement upon the departure of replacements unless they have in the meantime acquired regular and substantially equivalent employment, or the employer can sustain his burden of proof that the failure to offer full reinstatement was for legitimate and substantial business reasons. . . ." On reinstatement of strikers, see also the discussion of *United Aircraft Corp.* (192 NLRB No. 62, 1971) in *Monthly Labor Review*, November 1971, pp. 62-64.

⁵ *Wahl Clipper Corp. and Employees of Wahl Clipper Corp. and Machinists Local 1988*, 195 NLRB No. 104, Feb. 29, 1972.

⁶ 174 NLRB 1202 (1969).

⁷ Senator Frank J. Lausche, 105 *Congressional Record*, Apr. 21, 1959, p. 5731.

⁸ *Aero-Motive Manufacturing Co. and District Lodge 117, Machinists*, 195 NLRB No. 133, Mar. 9, 1972.

⁹ *Association*: 79 NLRB 466 (1948); *Columbia*: 82 NLRB 568 (1949).

¹⁰ *Polytech, Inc. and Ronald Lawrence*, 195 NLRB No. 126, Mar. 2, 1972.

¹¹ 370 U.S. 9 (1962)—see *Monthly Labor Review*, July 1962, pp. 794-795.

¹² 124 NLRB 394 (1959); enf. 277 F.2d 641 (C.A. 7, 1960).

¹³ 127 NLRB 991 (1960).

¹⁴ *Springfield Discount, Inc. and Retail Clerks Local 1696*, 195 NLRB No. 157, Mar. 16, 1972.

Major Agreements Expiring Next Month



This list of collective bargaining agreements expiring in July 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
Association of Private Hospitals, Inc. (New York, N.Y.)	Hospitals	Service Employees	6,000
Associated General Contractors of America, Inc., Nashville Chapter (Nashville, Tenn.)	Construction	Carpenters	1,500
Associated General Contractors of St. Louis, and two other associations (St. Louis, Mo.)	do	Iron Workers	1,650
Bedding Industry Agreement (Los Angeles, Calif.) ²	Furniture	Upholsterers	1,000
Beech Aircraft Corp. (Kansas and Colorado)	Transportation equipment	Machinists	6,450
Bell Aerospace Corp., Bell Helicopter Co. Division (Tarrant and Dallas Counties, Tex.)	do	Auto Workers (Ind.)	1,200
Bethlehem Steel Corp., Shipbuilding Department (Interstate)	do	Marine and Shipbuilding Workers	5,800
Brown Shoe Co., two agreements (Interstate)	Leather	Boot and Shoe Workers	6,450
	do	United Shoe Workers	4,650
Carborundum Co., Electro Minerals Division (New York)	Stone, clay and glass products	Oil, Chemical and Atomic Workers	2,700
Eastern Airlines, Inc., Stewardesses (Interstate) ²	Air transportation	Transport Workers	3,700
Electrical Contractors Association of Greater Boston, Inc., Boston Chapter (Boston, Mass.)	Construction	Electrical Workers (IBEW)	2,350
Fisher Controls Co. (Marshalltown, Iowa)	Fabricated metal products	Auto Workers (Ind.)	1,500
Food Fair Stores, Inc. (Tampa, Fla.)	Retail trade	Retail Clerks	1,000
Graphic Arts Association of Michigan, Inc. (Detroit, Mich.)	Printing and publishing	Bookbinders	1,200
Gulf States Utilities Company (Interstate)	Utilities	Electrical Workers (IBEW)	2,200
Hamilton-Cosco Co., Household Products Division (Columbus, Ind.)	Furniture	Carpenters; and Teamsters (Ind.)	1,000
Hammermill Paper Co., Thilmann Pulp and Paper Division (Kaukauna, Wis.)	Paper	Papermakers and Paperworkers; and Pulp, Sulphite Workers	1,350
Heavy Constructors Association of The Greater Kansas City Area, two agreements (Kansas and Missouri)	Construction	Laborers	1,500
Hoover Ball and Bearing Co., Stubnitz Spring Division (Michigan, Indiana, and Pennsylvania)	do	Operating Engineers	1,200
	Transportation equipment	Auto Workers (Ind.)	2,000
International Harvester Co., Solar Division (San Diego, Calif.)	Transportation equipment	Machinists	2,000
Joseph E. Seagram and Sons, Inc., and Huntington Creek Corp. (Interstate)	Food products	Distillery Workers	3,000
Mirro Aluminum Co. (Manitowac and Two Rivers, Wis.)	Fabricated metal products	Steelworkers	1,900
Monsanto Co. (Springfield, Mass.)	Chemicals	Electrical Workers (IUE)	1,300
Niagara Frontier Transit System, Inc. (Buffalo, N.Y.)	Transit	Amalgamated Transit Union	1,000
Olin Corp. (New Haven, Conn.)	Ordnance	Machinists	2,000
Sears, Roebuck and Co., Seattle Catalog Order Plant, (Seattle, Wash.)	Retail trade	Teamsters (Ind.)	1,500
St. Regis Paper Co., Forest Products Group, Manufactured Products Division (Montana)	Lumber	Carpenters	1,200
Television Videotape Agreement, Syndication (Interstate) ²	Amusements	Musicians	8,000
Trans World Airlines, Inc., Stewardesses (Interstate) ³	Air transportation	Transport Workers	4,800
True Temper Corp. (Ohio, New York, and West Virginia)	Fabricated metal products	Steelworkers	1,550
Westvaco, H & D Container Division (Interstate)	Paper	Papermakers and Paperworkers	1,100

¹ Union affiliated with AFL-CIO except where noted as independent (Ind.).

² Industry area (group of companies signing same contract).

³ Information is from newspaper.

Developments in Industrial Relations



Phase 2 pay penalty set

The Government's first suit charging violation of Phase 2 wage regulations was upheld April 19 by Federal Judge C. Stanley Blair. The suit, filed on February 24, had charged the Great Atlantic and Pacific Tea Co. and Local 117 of the Amalgamated Meat Cutters and Butcher Workmen with violating Phase 2 guidelines by implementing a 16-month contract providing for wage increases of 15 to 22 percent. The contract, signed in November 1971, covered 77 meat cutters in Baltimore (*Monthly Labor Review*, May 1972, p. 64). Judge Blair said he would sign an injunction preventing A&P from paying, or the union from receiving, the wage increase. He fined both parties \$2,500. The company and union announced they had not yet decided whether to appeal the decision. The local was already awaiting the outcome of its appeal of a Pay Board order to roll back the increase to 7 percent.

Meanwhile, Pay Board Chairman George Boldt, testifying before Congress' Joint Economic Committee, said 89 percent of the cases approved by the Board since its inception provided for wage or salary raises of 5.5 percent or less; 2 percent provided for increases of over 10 percent; and 5 percent provided for increases between 7.1 and 9.9 percent. An additional 4 percent fell in the 5.6- to 7-percent bracket, but Judge Boldt said, "The profile of pending cases suggests that proportionally more exceptions up to 7 percent may be granted in the near future." He also said the average annual increase approved by the Board was 4.3 percent, based on 1,328 cases covering 6 million workers. An additional 1,300 cases were awaiting action.

Longshoremen sue Pay Board

The International Longshoremen and Warehousemen's Union filed suit against the Pay Board on April 15, seeking to reverse a ruling that the disallowed portion of the first-year wage and benefit gains

in the union's February settlement could not be placed in escrow. After the Board had cut the settlement (*Monthly Labor Review*, May 1972, pp. 63-64), the union asked the Pacific Maritime Association to place the disputed portion in escrow for payment when the full amount is approved or economic controls are terminated. The Association refused, after the Board had ruled that this would be contrary to the purposes of the stabilization program.

Published provisions of the union's pension settlement with the Pacific Maritime Association show that the pension maximum is not a simple \$500 per month, as reported in the *Monthly Labor Review* for April 1972 (p. 56). The pension settlement provides that normal retirement benefits for a man at age 62 (instead of age 63 as before) with 25 years of service shall be \$350 per month, supplemented by an additional \$150 per month until he reaches age 65. Any man with 25 years service retiring between the ages 62 and 65 receives this \$150 "bridge" benefit. It is discontinued at age 65. Men who wait to retire until mandatory retirement at age 65 (formerly 68) will *not* receive the bridge.

Boyle convicted

Mine Workers President W. A. (Tony) Boyle was convicted of conspiracy and of making illegal political contributions from union funds. Mr. Boyle was found guilty on all 13 counts and faced a maximum of 32 years in prison and fines up to \$120,000. The verdict was handed down by a Federal district court jury in Washington, D.C. This was the latest chapter in the 67-year-old labor leader's legal difficulties.¹ The Government charged him with violations of the Corrupt Practices Act, the Landrum-Griffin Act, and the Taft-Hartley Act. Under Taft-Hartley, unions

¹"Developments in Industrial Relations" is prepared by Leon Bornstein and other members of the staff of the Division of Trends in Employee Compensation, Bureau of Labor Statistics, and is largely based on information from secondary sources.

are permitted to aid candidates but the money must come from voluntary contributions from the membership. The Government asserted that Mr. Boyle had violated this provision by diverting money from the treasury to Labor's Nonpartisan League, the union's legislative arm, which, in turn, distributed the money to candidates. Secretary-treasurer John Owens and chief lobbyist James Kmetz were acquitted. An appeal by Mr. Boyle was pending.

New York teachers plan to merge

Ending their intense rivalry, New York's two Statewide teachers' organizations announced plans to merge. The agreement was subject to ratification by the 90,000 members of the United Teachers of New York, an affiliate of the American Federation of Teachers (AFT), and the 105,000 members of the New York State Teachers Association, an affiliate of the National Education Association (NEA). Albert Shanker and Thomas Y. Hobart, Jr., presidents of the two State organizations, said, "The AFT and NEA will initiate discussions leading to a single nationwide organization capable of speaking for all of America's 2.5 million teachers." Earlier in April, a merger agreement was reached between AFT and NEA units representing the instructional staff of the City University of New York.

Rural Manpower Service scored

A Department of Labor study indicates the Department's Rural Manpower Service failed to reduce abuses against farm workers. It found that the Service was, in many instances, helping to institutionalize racial discrimination against farm workers and substandard housing, health, and sanitary facilities, as well as neglecting enforcement of minimum-wage and child-labor laws. Further, the study, begun last year, indicated the service often represented grower, rather than worker, interests.

The Rural Manpower Service, formerly called the Farm Labor Service, is part of the federally supported but State-administered U.S. Employment Service. It was established to match jobs and workers on farms and had, in recent years, been given wider authority to deal with migrant labor and other rural problems.

Commenting on the study, Secretary of Labor J. D. Hodgson said the Rural Manpower Service would continue to function but that steps would be taken to

make it more effective, including consolidation with the Department's Employment Service, immediate action "to correct any civil-rights violations found during the review," and enforcement of child labor and minimum wage laws.

Philadelphia Plan exceeds goals

Assistant Secretary of Labor Richard J. Grunewald announced that contractors on federally assisted construction projects in the Philadelphia area exceeded their 1971 minority-hiring goals under the Philadelphia Plan. Minorities worked 13.4 percent of the total man-hours, exceeding the minimum average goal of 9.8 percent.² Mr. Grunewald added, "The Philadelphia Plan's success proves that contractors, unions, the minority community, and local and Federal officials working together can attain realistic goals which have been set for widening minority employment."

Job bias rules tightened

The Equal Employment Opportunities Commission (EEOC) tightened its rules barring job discrimination against women. The new guidelines, not

Hourly Earnings Index

The Hourly Earnings Index rose 0.9 in April to 136.4. The Index measures earnings of production or nonsupervisory workers in the private nonfarm economy. It is adjusted to exclude (1) the effects of inter-industry employment shifts, (2) overtime premium pay in manufacturing, and (3) seasonal variations. Data for periods prior to April are also shown in the accompanying tabulation (1967=100).

	1969	1970	1971	1972
January	110.0	117.4	126.0	134.5
February	110.8	118.0	126.7	134.7
March	111.4	118.8	127.3	¹ 135.5
April	112.0	119.3	128.1	¹ 136.4
May	112.7	120.0	129.1	....
June	113.3	120.6	129.3	....
July	113.9	121.4	130.0	....
August	114.4	122.5	130.9	....
September	115.1	123.2	131.3	....
October	115.8	123.4	131.4	....
November	116.5	124.1	131.6	....
December	117.0	125.0	133.5	....

¹ Preliminary.

legally binding, are designed to assist the courts, employers, and unions on how the EEOC interprets Title VII of the 1964 Civil Rights Act, which bars sex discrimination. The guidelines specify that women may not be denied jobs because of pregnancy. Further, health and insurance benefits must be extended to female employees absent because of pregnancy, miscarriage, abortion, or childbirth.

Also covered were "medical, hospital, accident, life insurance and retirement benefits, profit-sharing and bonus plans, leave," and other conditions of employment by making it "an unlawful practice to discriminate between men and women." Attention was focused on "head of household" or "principal wage earner" distinctions which provided greater benefits for men, and pension or retirement plans that have sex differentials.

In a related development, the Communications Workers charged the American Telephone and Telegraph Co. with violation of the EEOC's new guidelines. The 360,000-member union claimed that AT&T and its affiliates discriminated against women in maternity-leave policies. The EEOC itself had a suit pending against AT&T and the Bell System alleging discrimination against women, blacks, and Spanish-surnamed Americans (*Monthly Labor Review*, February 1972, pp. 77-78).

Meanwhile, Southern Bell Telephone and Telegraph Co., an AT&T affiliate, announced an out-of-court settlement with seven women who had filed a suit charging the company with sex discrimination in pay and promotions. An attorney for the women estimated that the settlement could cost the company \$40,000 in back wages, about \$60,000 in pay raises between the settlement date and the workers' retirement, and a possible \$20,000 in retroactive pension gains. A spokesman for Southern Bell called the settlement part of a "continuing affirmative action program" and denied that the company practiced sex discrimination.

In March, seven women employees of a General Electric Plant in Salem, Va., had filed a suit charging the company with sex discrimination because of its pay policies on absences due to pregnancies and childbirths (*Monthly Labor Review*, May 1972, pp. 67-68).

No balls, one strike

The first general strike in the history of modern baseball curtailed spring training and delayed the

start of the regular season. The walkout began April 1, 4 days before the scheduled start of the season, and ended April 13, although play did not begin until April 15. A compromise broke the deadlock on the main issue, the owners' contribution to the players' pension fund. The players had demanded that the owners increase their contributions by \$1.1 million, enough to permit raising pensions by 17 percent, to match the rise in the cost of living since the last pension agreement was signed in 1969. The owners, who were contributing \$5.45 million annually, refused but offered to pay \$490,000 for medical benefits provided by the plan.

The players agreed to the medical financing, but demanded that the owners use \$600,000 a year of the fund surplus (resulting from increased investment income) for pension increases. The owners said this would jeopardize the fund but later offered to use \$400,000, leading to a compromise of \$500,000 a year.

Under the prior agreement, retired players and coaches with 4 years of major league experience were eligible for a yearly pension of \$2,092 at age 45 and \$7,416 at 65, and those with 20 years of experience were eligible for \$6,988 at 45 and \$23,340 at 65.

After the agreement on the pension issue, a final settlement was delayed over the question of whether players would be paid for games canceled by the strike. The decision was that the missed games would not be made up, and the players would lose a proportionate part of their season's salary.

New York employees strike

A weekend strike by members of the Civil Service Employees Association against New York State ended on April 2 following agreement on a 1-year contract. The contract provided for an immediate 4-percent wage increase and lump sum "productivity bonuses" on April 1, 1973, equal to 1½ percent of each employee's annual salary. A \$200-a-year differential was also established for workers in high-cost-of-living areas. Although the contract covered 140,000 of the State's 180,000 employees, the impact of the strike was minimized because only 7,000 of the 14,000 workers scheduled to work on the weekend participated. Governor Nelson A. Rockefeller announced that the State would enforce the Taylor Act, which requires penalties for employees who strike. He said the \$60-million cost of the pay increase

would be met by borrowing or by obtaining additional Federal aid and the \$22-million cost of the bonus would be met by savings from increased productivity.

Call for increased productivity

Delegates to the Washington, D.C., convention of the International Union of Operating Engineers were told there had been insufficient gains in productivity to match the large pay increases in the construction industry in recent years. Hunter P. Wharton, union president, warned that, as a result, the unionized sector of the building trades industry was losing work to nonunion contractors. He added that "had productivity increased as wages began to rise, we wouldn't be faced with [some of] our present-day problems." In addition to the growth of nonunionized construction, he asserted, "owners, bankers, government agencies, and employer associations [have] all formed alliances to counteract the activities of the construction trades." The leader of the 400,000-member union said that, in addition to improving productivity, "Labor must rededicate itself to pride of workmanship—a fair day's work for a fair day's pay."

New contract, same pay

Iron Workers in a 13-county area of Florida approved a 1-year contract that does not provide for an increase in their current \$7.55-an-hour pay rate. A spokesman for Local 397 said the union agreed to the terms to maintain the competitive position of member firms of the Florida East Coast Chapter of the Associated General Contractors of America. About 600 workers were covered by the settlement.

In Wichita, Kans., construction workers voted to delay for 12 months a \$1-an-hour wage increase scheduled under 3-year contracts negotiated in 1970. Union representatives explained, "Our members would rather be employed at a lower rate of pay than unemployed at a higher rate." One of the representatives said the action was taken to encourage new industry to locate in the area. Affected were 1,000–1,500 brick masons, carpenters, cement masons, iron workers, laborers, and teamsters.

Hard-coal miners settle

The United Mine Workers and the Anthracite Coal Mine Operators of Northeastern Pennsylvania

reached a 3-year agreement on April 16 that would raise the average daily wage of 4,800 hard-coal miners to \$29 a day in 1974. A union spokesman said the agreement, subject to Pay Board approval, provides for a \$5-a-day increase retroactive to April 1, 1972, and \$1.50 increases effective April 1, 1973, and April 1, 1974. Vacation pay for 2 weeks was increased to \$250, from \$215. The employers' royalty payment to the Anthracite Health and Welfare Fund was raised from 70 cents to 80 cents a ton effective September 1, 1972, and to 90 cents on April 1, 1973. The agreement ended a 2-week strike by 2,500 of the miners, who were protesting the union's handling of the negotiations.

Prison walkout averted

A tentative 2-year settlement between New York State and Council 82 of the American Federation of State, County and Municipal Employees averted a strike by 7,000 guards and other State prison employees. The contract, reached on April 7, and subject to ratification and Pay Board approval, provided for a 4-percent wage increase and \$4 a week compensation for "line up" time prior to going on shift. In addition, the Department of Civil Service agreed to upgrade correction officers' classifications, resulting in annual increases of \$508 to \$580. Guards were given the option of cash payments for holiday time lost during the Attica prison uprising, instead of compensatory time off. The agreement also provided for reopening in 1973 on salaries and retirement, health insurance, and other benefits.

Maritime contracts renewed

The National Maritime Union reached 3-year agreements with the Maritime Service Committee, Inc., and the Tanker Service Committee, Inc. The settlement, subject to membership ratification and Pay Board approval, provided for 5-percent increases in base pay for unlicensed seamen effective June 16 of 1972, 1973, and 1974. Seamen on automated vessels would receive an additional 10 percent in base pay (5 percent on June 16 of 1972 and 1973). Twenty thousand union members on the Atlantic and Gulf Coast were affected by the early renewal of contracts, scheduled to expire June 15, 1972. Other terms included increased supplementary vacation pay and the adoption of a minimum-age requirement for pension eligibility. Previously, an able-bodied seaman could retire after 20 years of

service at any age with a \$250-a-month pension. Now he must be age 55 with 20 years of service, but he receives a pension of \$300 a month.

Northern textile settlements

Six agreements³ covering 8,000 workers in the northern cotton-synthetic division of the textile industry were negotiated in mid-April by the Textile Workers Union of America. The 3-year contracts reportedly called for a total of 50 cents in wages and benefits and were expected to set a pattern for 75 other companies in New England and the Mid-Atlantic States. The agreements were subject to Pay Board approval.

Trade adjustment assistance

The Department of Labor announced that 23,000 workers in 56 cases had received assistance under the Trade Expansion Act since its passage in 1962. Twenty-eight thousand workers were denied certification in 80 cases, and 32 cases involving 30,000 workers were being processed. The act was passed to provide relief for workers who lose their jobs because of increased imports resulting from trade concessions. Provisions include cash readjustment allowances, retraining, relocation, and other benefits. The

cash allowances are equal to 65 percent of the worker's earnings, with a ceiling of 65 percent of the average pay in the manufacturing sector. The current maximum payment is \$93 a week for 52 weeks, payable for an additional 26 weeks if needed to complete a training course. The workers declared eligible were in nine industries—steel, electronics, nonrubber footwear, rubber-soled footwear, pianos, glass, automotive products, household flatware, and cotton textiles. □

— FOOTNOTES —

¹ In a pending suit, the Department of Labor was seeking to set aside his 1969 reelection as president of the union; in 1971, a Federal district court ordered him to step down as a trustee of the union's Welfare and Retirement Fund, and the union and the fund were held jointly liable for money damages to retired coal miners and miners' widows.

² Five of the six crafts covered by the Plan exceeded the minimum goals. They were Ironworkers, Electricians, Sheet Metal Workers, Plumbers, and Elevator Constructors. The Steamfitters had minority employment of 9.8 percent and a goal of 11 percent.

³ The firms were American Thread Co. in Willimantic, Conn.; Bates Manufacturing Co. in Lewiston and Augusta, Me.; West Point Pepperell, Inc., and Biddeford Textiles in Biddeford, Me.; Berkshire Hathaway, Inc., in New Bedford, Mass.; and the weaving and dyeing plants of the Waumbec Co. in Manchester, N. H.

Elements of meaningful work

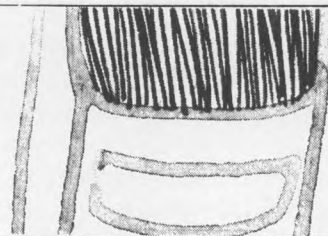
Few—very few—jobs these days are whole. Nor do many allow for a sense of craftsmanship, a "good job, well done." . . . Yet craftsmanship is the nearest most of us will ever come to true creativity. And it need not be particularly esoteric or contrived. The stock clerk who once took charge of an entire portion of a firm's stock, kept all records pertaining thereto, did the ordering, the shipping, and receiving, and all related tasks must have felt a considerable measure of pride in his work—in the orderliness of his shelves, the neatness and completeness of his records, and so on. He had crafted his job well. It is likely the same person today would only be part of a process, and it is very hard to feel any real sense of pride in a well-punched computer card or in

asking for information that data processing, not you, needs in order to complete a task efficiently.

It is far too easy to get hung-up on the catch-ideas of the day: that work is made more meaningful by unfettering the individual from administrative or bureaucratic restrictions and or by improved "communications." It doesn't matter, of course, if the individual is freed if it is only to perform meaningless tasks, or if there is first-rate communication between management and employees when all there is to communicate is frustration and a feeling of futility on both sides.

—"As You Were Saying,"
Personnel Journal, March 1972.

Book Reviews and Notes



Toward an existential economics

Alienation and Economics. By Walter A. Weisskopf. New York, E. P. Dutton & Co., Inc., 1971. 202 pp., bibliography. \$7.95.

This is a timely, important, and provocative book. It should interest all those within academic walls as well as those beyond. Professor Weisskopf (also the author of *The Psychology of Economics*) is one of the few economists concerned with the process of economic theorizing and the relation of its main formulations with their respective wider intellectual context, that is, the broad general patterns of philosophical, moral, psychological, and political thought.

The value of his latest work lies in the development of a well-thought-out analytical model that unites modern economics with what economics neglects: the implicit assumption of economic thought about basic motivations, goals, aspirations, and ultimate values and meanings of existence. The model is an existential one with a dialectical process. In other words, economics and noneconomics are interdependent polarities, that is, one cannot exist without the other. Repression of noneconomics or the normative dimensions of social existence leads to alienation from the normative aspects of human existence.

The central thesis advanced by Weisskopf is this: The current problems generated by the main institutions of Western society—science, technology, and the economy—are not ones of externalities but rather are ones caused by an entire way of life and thought. They cannot be cured without a profound change in thought and in values. In support of this thesis, he traces from Adam Smith to Marx through to Galbraith changes in economic reasoning as simultaneously determined by and determinant of the prevalent social values and norms of the period.

The author shows how the classical school combined, for the purpose of capital formation, a free market model and laissez-faire philosophy with an ethos of impulse control and rational discipline oriented toward hard work in production and thrift.

Viewed in this perspective, the labor theory of value becomes a translation of the puritan ethic into classical economic thought. More important for the author's thesis, this body of economic thought contained some central belief and a substantial normative value system.

In contrast, the neoclassical system and its assumption of maximization reflects a noneconomic content of hedonistic utilitarianism: that is, full uncontrolled gratification of subjective desires and impulses. According to the existential model, neoclassical economics has eliminated normative concepts and therefore become value-empty. There logically follows a fetish for economic growth and consumerism—the unrestricted pursuit of “pleasure” through the acquisition and the use of an ever-increasing volume and variety of goods and services.

Current discussions about managerial responsibility externalities and goals of economic growth are

Books reviewed in this issue

- Walter A. Weisskopf, *Alienation and Economics*. Reviewed by Vernon J. Dixon.
- Twentieth Century Fund Task Force, *The Job Crisis for Black Youth*. Reviewed by Flournoy A. Coles.
- Edward H. Jones, *Blacks in Business*. Reviewed by Alan R. Andreasen.
- Steven B. Withey, *A Degree and What Else? Correlates and Consequences of a College Education*. Reviewed by Franklyn N. Arnhoff.
- George de Menil, *Bargaining: Monopoly Power versus Union Power*. Reviewed by M. Bronfenbrenner.
- Raymond Vernon, *Sovereignty at Bay: The Multi-national Spread of U.S. Enterprises*. Reviewed by Thomas V. Greer.
- The editors of Ramparts, with Frank Browning, *In the Marketplace: Consumerism in America*. Reviewed by Rom J. Markin.
- Theodore Berland, *The Fight for Quiet*. Reviewed by Sheldon W. Samuels.
- Harry Caudill, *My Land is Dying*. Reviewed by Gilbert L. Rutman.

therefore attempts to reintroduce repressed noneconomic context, namely, moral values, into economic thinking. Thus, the Weisskopf model offers a logical explanation for the emergence of and direction in the current thinking of the Galbraiths, Bouldings, Berles, and others concerned with introducing the "quality of life" into formal economic reasoning. The decision rule of this new body of economic thought suggested by the model is that equalization at the margin requires not one-dimensional growth but multidimensional balance. In this way, economic scarcity and allocation, which are concerned with material needs and wants satisfied by organized production, are united with existential allocation and scarcity, which are concerned with nonmaterial, noneconomic needs and wants. Accordingly, the continuing acquisition of money and goods cannot take place at the expense of all the other goals of human life.

This reader concurs fully with John Kenneth Galbraith's appraisal of the book as "fascinating and indispensable for anyone who wants to see economics in relation to the discontents of our time." It indicates scholarship of the highest level, and its existential model allows one logically to make consistent and rich interpretations of economic and noneconomic thought and reality that previously had been considered as unrelated. It may well become the seminal book for the direction in which economics of the 21st Century must go.

—VERNON J. DIXON
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Strategies for black employment

The Job Crisis for Black Youth. Report of the Twentieth Century Fund Task Force on Employment Problems of Black Youth, with a Background Paper by Sar A. Levitan and Robert Taggart III. New York, Praeger Publishers, Inc., 1971. 135 pp. \$3.95.

The Task Force has admirably fulfilled its objectives of examining the conditions which have caused the employment problem of black youth in the United States and of developing proposals for its solution.

The reader familiar with the problem—including incidences, causes, and consequences—will not be surprised at the disheartening statistics contained in the report. For the uninformed, these statistics

should be valuable in proving or disproving prior conceptions, hunches, theories, and conclusions relating to the many facets of this increasingly complicated and explosive-prone socioeconomic problem. For both types of readers, a very significant contribution has been made by bringing together, in a single, short, and extremely readable report, information which hitherto has been scattered (and sometimes obscured) in a miscellany of publications. For this, even if there were no other reasons, we should all be grateful to the Task Force for its efforts in preparing the report, and to the Twentieth Century Fund for publishing it.

For the serious student of the problem—and, we can hope, for the policymakers—that which undoubtedly will be of most interest is the discussion of "alternative strategies" for solving the problem, to be found at the very end of the report. The strategies discussed fall under two headings—that is, (1) *macroeconomic approaches* (including monetary and fiscal policies to increase aggregate demand and thus overall employment, so that more jobs will be available for black youth; modifications in minimum wage legislation designed to increase employment opportunities for black youth; and revisions in child labor laws to permit the hiring by employers of out-of-school and out-of-work black youth less than eighteen years old), and (2) *microeconomic approaches* (including the cessation of racial discrimination in employment and advancement; subsidies to the private sector for hiring and training black youth; improved preparation of black youth for the world of work; remedial training; and increased public employment of black youth).

A five-element strategy to improve the situation is proposed. This strategy includes monetary and fiscal policies to achieve a 3.5 percent unemployment rate nationally, strengthened and more vigorously implemented measures to combat racial discrimination, special efforts "to alleviate the plight of young black women," programs designed to increase the demand of young workers (including "a dual minimum wage and revision of child labor laws"), and expanded public employment programs.

The Task Force realizes that this strategy—even if implemented—would leave unsolved many of the major problems of employment confronting black youth. Assuming the will to allocate necessary resources, a more effective and comprehensive strategy is proposed, designed to improve the quality of

ghetto life in general. It would include the expansion of central-city education, relocation subsidies to permit blacks to move to the suburbs (closer to available, more rewarding employment), improved housing, increased crime control and improved handling of youthful offenders, and income subsidies for all but with "strong incentives to reward those who work"—all commendable goals.

As admitted by the Task Force, the most important solution to the problem is creating employment to achieve a more acceptable level of unemployment—a rate of 3.5 percent being its objective. There is cause to question the achievability of this rate of unemployment since the rate has remained at 5 percent or more since 1965, since more and more economists are despairing of reducing the rate even to the "full employment" level of 4 percent, and since recent "Phillips curve" relationships tend to equate a 3.5-percent unemployment rate with an approximate 5 percent price rise, which is significantly in excess of what has been considered to be a tolerable rate of inflation.

—FLOURNOY A. COLES, JR.

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A spark for future growth

Blacks in Business. By Edward H. Jones. New York, Grosset & Dunlap, 1971. 214 pp. \$5.95.

The urgency that propelled many corporations, public agencies, black development groups, and individual businessmen into crash programs of black business development has now abated. This is partly because the trauma of the last decade's urban riots has receded in time, partly because many ambitious early ventures into "black capitalism" have not proved to be dramatic successes, partly because some militant black groups and New Left activists have questioned vigorously the entire concept of "black capitalism," and, as a result, partly because the issue has lost a good share of its political clout.

Edward Jones' carefully written, conventionally organized overview is, therefore, a timely basis for a reassessment of the performance and prospects of blacks in business. The book is highly useful for this purpose for three reasons.

First, the book is very well balanced. The author presents a hardheaded and in the end optimistic portrayal of blacks in business. His cataloging of the

external and internal problems of black business is unsparing of both blacks and whites. His solutions for various key groups—government, white business, black businessmen, and the public—are in the main pragmatic and viable. He is, I think, realistic in his restrained optimism about the motivating power of "social responsibility" for white businessmen. He is particularly courageous in proposing integrated business ownership as a highly useful vehicle for the development of *black* businesses and businessmen, a proposition that runs decidedly contrary to the current stance of the more militant blacks and many white liberals.

The second positive feature of the book is the author's emphasis on tracing the historical roots of black business and its now generally well-known problems. This both broadens and deepens insights. It broadens because he provides multiple explanatory links to present phenomena, as when he shows how black reluctance to maintain sound business records is often a reaction to (a) whitey's past use of the black man's records to harass him; (b) the present use of the information to support a tax system which the black man feels has historically taken more from him than it has given; and finally (c) past experiences with exploitative outside bookkeepers. It deepens our insight because Jones shows that (a) black business development is not a new phenomenon; some blacks were highly successful entrepreneurs in 1780, and there was a considerable black business boom from 1913 to 1929, and (b) the most basic causes of slow black business development (lack of skills and motivation by black entrepreneurs on the one hand, and, on the other, conscious discrimination by whites in allowing access to critical money, training, advice, and markets) have roots that run very deep and thus cannot be overcome overnight.

The third positive feature of the book is that it is written from the perspective of an insider. Now Executive Director of the New York Interracial Council for Business Opportunity, the author previously worked for the Internal Revenue Service, a major New York bank, and a regional office of the Small Business Administration. This experience not only makes his insights into the problems keener, but, perhaps more important, permits him to suggest a broad range of often highly creative solutions. His experience as a commercial loan officer for the SBA has provided a particularly rich set of personal anecdotes to flesh out what might otherwise be a reason-

bly dry cataloging of generally acknowledged difficulties. We are treated to examples of how ambitious young blacks make it despite important handicaps, to examples of how creative loan officers can untangle or even avoid the clutching web of Federal red tape, to a knowledgeable critique of many key government programs, and finally, to amusing and illustrative inside jokes such as how some SBA staffers defined the acronym in Project OWN.

The book is not without its flaws. The author has a penchant for presenting detailed lists that contribute marginally to his purposes. For instance, in an otherwise excellent historical chapter, about one-half of the space is taken up with lists such as of the 24 black-owned and operated building and loan associations in 1943, or of the 44 members of the National Insurance Association in 1970, which could well have been placed in appendices. On the other hand, almost no use is made of the growing and highly informative statistical data on blacks in business available in various cities and regions.

But these are not major faults. The book, on balance, is one that ought to be read by those concerned with increasing the numbers of blacks in business, as well as those merely interested in a perceptive review and analysis of the problems by a black business generalist. The author concludes that one should be optimistic about the current prospects for blacks in business; that a "new breed" of young black entrepreneurs with sound backgrounds and very ambitious goals is now entering the ranks. Their arrival is both a signal of how far black business has come and a spark for future growth. With perhaps a degree less optimism, it is a view this writer shares.

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The bridge to higher status

A Degree and What Else? Correlates and Consequences of a College Education. By Steven B. Withey. New York, McGraw-Hill, 1971. 147 pp., bibliography. \$5.95.

Undertaken at the request of the Carnegie Commission on Higher Education, this book reviews the research literature on the measurable changes and benefits that result from going to college. Chapter organization and discussions were dictated primarily

by the benefit variables that have been used to assess impact and change: changes in values and attitudes, particularly with respect to liberalization of political attitudes; political involvement and interest; psychological adjustment and well-being; use of mass media, and so forth. One chapter is devoted to a review of the studies of higher education and economic behavior.

Although the various chapters were written by different authors, stylistic differences have been minimized so that overall it is a well-written, comprehensive presentation of the existing literature. The first chapter, although superficial in depth, is comprehensive in scope and depicts the methodological, conceptual, and interpretive difficulties involved in attempting to assess educational impact over a period of time spanning from about 1870 to the present. The reader is cautioned against "leaping from simple statistical associations to judgments of significant economic, social, or political developments." If this caveat appears simple (or simple-minded) to some, one need only to read on to realize that some of the underlying methodological problems are often subtle enough to be overlooked; for example, comparability of data (reporting) from well-educated and less well-educated respondents just might not mean the same thing. For readers not too familiar with survey research and/or the psychological and sociological variables often used in such studies, this chapter will prove helpful. Throughout each chapter, care has been taken to detail the extreme and often formidable methodological issues involved as they relate to the specific variables under discussion. Naturally, this results in a generally quite cautious interpretative stance which may prove irritating to the casual or nontechnical reader. The authors are correct, however, in this detailed inclusion since the vast and massive shifts in our society during the period of the studies prevent facile conclusions divorced from this conceptual base.

Some of the basic demographic facts presented are interesting in and of themselves; for the past 50 years or so the proportion of high school graduates who go to college has been fairly constant at about 50 percent, with some indications that this may now be starting to increase; the total number of college graduates in the United States in 1940 was less than the approximately 7.5 million students now enrolled. The meaning of college has also changed during this time period, as has the number and variety of col-

leges (colleges and universities have tripled in number in the last three decades), with education increasingly appearing as *the* bridge to better status. While task and job skill requirements often have not changed, the educational requirements usually have, resulting in a general upward shift of the entire educational scale (that is, college degree now required for jobs previously requiring only high school, and so on).

The chapter analyzing education and economics illustrates the difficulties involved in attempting to relate cause and effect. The authors report how their initial attempts to deal with the economic consequences of college education as a cause-effect relationship was replaced (fortunately) with the more modest and realistic chapter entitled "Higher Education and Economic Behavior." Education in America is a means to purchase social advancement, a way of life "that is all but synonymous with modern, urban, upper-middle class living." The often-quoted figure of \$100,000 as the value of a college education seems demolished by the available studies, but since economists cannot agree upon the discount to be applied, the net value depends upon which study one likes. On balance, the data does not support exaggerated notions about the profitability in dollar terms of a college education as an investment. Other human, social, and psychological values do appear relevant.

Some cautious conclusions seem warranted, with the caveat that the meaning of "benefit" is associated with specific points in time and with specific groups of individuals. A college education's associated benefits are: greater job satisfaction, jobs that are more highly paid and less subject to unemployment, more liberal attitudes, more deliberation in consumer expenditures, greater use of mass media, and so forth. Surprisingly, the data indicate that while colleges differ greatly, the general impact of college matters more than the specific type of college. On the debit side (and a few emerge), the gulf between those who attend and those who do not appears ever greater.

This is a worthwhile and careful survey of existing research on a major social and economic issue, with clear discussions of both the need for continued study of education impact and the methodological and conceptual improvements to be incorporated.

—FRANKLYN N. ARNHOF

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A fixed pie

Bargaining: Monopoly Power versus Union Power.
By George de Menil. Cambridge, Mass., M.I.T. Press, 1971. 123 pp. \$8.95.

This short, but tightly written and frankly technical, monograph is a reworking and updating of Professor de Menil's 1967 doctoral dissertation at M.I.T. It makes few concessions to "general readers" or "interested laymen." To savor it properly, the student needs background in game theory and in the economics of bilateral monopoly, along with both the institutional and the formal theories of collective bargaining. (Your reviewer, no game theorist, is to that extent underequipped for his role.)

Of the several game-theoretic models of intergroup bargaining, de Menil is attracted particularly by that of John Nash, for reasons which may be primarily esthetic and are not made completely clear. As de Menil applies the Nash model, collective bargaining appears as a zero-sum game. That is to say, the employer has a predetermined (maximized) amount of monopoly or oligopoly profit; of this, the union is out to gain for the work force as much as it can. Collective bargaining, in this view, is much like a corporate income or profit tax in its incidence, and indeed de Menil makes the comparison explicitly in his chapter 4. (De Menil also speaks favorably of the Fellner model of oligopoly, in which the maximand is the total profits of all oligopolists taken together, a sum then divided somehow among the oligopolists.) In consequence of de Menil's highly specialized assumptions, the union's maximand, called B, is the cardinal utility of $(WE - W^aE)$, where W is a wage rate, E an employment level, and the superscript a refers to hypothetical nonunion conditions. When W exceeds W^a , there is no room in de Menil's clay-clay (or all-or-none-bargaining?) model for capital to be substituted for labor, or for any E^a to exceed E.

From this concept of monopoly profit as a fixed pie shared by capital and labor comes, without any need for involved mathematics or econometrics, the important policy implication that collective bargaining (unlike firm oligopoly) cannot be an inflationary force. Also, apart from short-term inconvenience during strikes, the consumer has no direct interest in the outcome of a labor dispute. Furthermore, de Menil's model has no place for collusive bargaining, where the *quid pro quo* for wage gouging may be assistance in policing the industry, keeping chisellers

under control, and raising prices.

De Menil carries his analysis, in the current fashion, well beyond the derivation and formulation of mathematical models. He forces it into the empirical form of wage equations, using such devices as " $(ax + by)/cz = k$ " when (x,y,z) have economic meanings but k has none. These turn out to be the alternatives to, or at least modifications of, micro-economic Phillips curves for particular industries, in this case eight American oligopolistic industries (by quarters, for a 10-year period beginning in 1956-II). De Menil uses layoff rates rather than the unemployment rates of the Phillips curves, and he uses a variable called "gross output per man-hour at full capacity" to fill a gap in the standard Phillips analysis. Horrendous problems are overcome, for example as to the computation of this hypothetical-average-product variable, the elimination of overtime work, and the specification of W^a , the hypothetical nonunion wage, which is in practice "the average going wage in the low-wage predominantly non-unionized sectors of the private economy." The fits are reported as good (with some plausible massaging of lag structures) in some abstract sense (high values of R^2). They are not, however, compared to the results of other models, such as those used by H. M. Levinson at Michigan or H. G. Lewis at Chicago. This reviewer's first impression is that de Menil has *not* made their work obsolete; one might even suspect that Levinson, Lewis, or one of their better disciples might, if a review assignment caught them in a bad mood, reduce the present volume to "pretentious nonsense upon stilts."

We close upon a gentler note. A uniquely useful service of de Menil's monograph to empirical labor economists is the provision of a "data appendix" which includes both methods and data themselves, carrying the latter to 1969-II.

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Creeping capitalism

Sovereignty at Bay: The Multinational Spread of U.S. Enterprises. By Raymond Vernon. New York, Basic Books, Inc., 1971. 326 pp. \$8.50.

Sovereignty at Bay is a result of the Multinational Enterprise Project launched at Harvard in 1965 and

will be followed soon by four more books. The author of this work is also general coordinator of the project. Financial support came mainly from the Ford Foundation.

This volume deals with U.S.-controlled multinational firms, chiefly in manufacturing and extraction. It develops the theme that sovereignty of nations and national economic strength are severely threatened by changes in the world, changes brought about to a great extent by the growth of the role of the multinational company. Governments are concerned with formulating policies that will bring out the good from this institution but avoid the bad. There is very little doubt that this type of institution creates and markets goods and services effectively. The questionable aspect is its "linking the assets and activities of different national jurisdictions with an intimacy that seems to threaten the concept of the nation as an integral unit." Countless observers ask if these institutions are not to a great extent an instrument of the United States and its government to control the economies of other countries.

Does the multinational company deprive American labor of jobs? The pattern is "to locate production of relatively young sophisticated products in the United States and to move the production abroad as the U.S. oligopoly position is impaired." According to Vernon, this pattern is optimal for U.S. labor "because the consequences have to be compared with locking such labor into occupations and into industries in which innovation was declining and competition mounting." Vernon contends that perhaps the heart of U.S. labor leaders' concern is management's flexibility, that is, the number of options management holds in the multinational firm.

The author states that a basic "asymmetry" between multinational enterprise and national governments can be tolerated only up to a point. When that undefined point is reached, a set of responses will ensue that will surely include some aspects of the world corporation concept. It will include accountability to some international body charged with measuring activities against social yardsticks that are multinational in scope.

This work is a lucidly written and comprehensive account, with notes that will be helpful to the motivated reader. Moreover, the work is cautious and avoids overgeneralizing. One of its strengths lies in not trying to explain tension in economic terms alone. Rather it includes, without apology, the ri-

valry among national elites, the clash of cultures, and the clash of ideologies and handles them briefly but well.

One finds in this book—rather than the glib answers offered by so many writers—a provocative and comprehensive analysis of several fundamental issues and a clear warning where data are lacking, incomplete, or possibly biased. *Sovereignty at Bay* is excellent reading for the executive, labor leader, government official, academician, and advanced student.

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Caveat emptor

In the Marketplace: Consumerism in America. By the editors of Ramparts, with Frank Browning. New York, Harper & Row, Publishers, Inc., 1972, 245 pp. \$2.95, Canfield Press, San Francisco.

The identified and, one would presume, the major editor of this collection of readings, Frank Browning, states that, "This book is designed to explore the structure of the economic system which breeds consumer rot." Within such a perspective and point of view, fifteen articles from a rather diverse number of sources are presented. The articles are organized into three major parts. Part I, which deals with products and merchandising deficiencies, is intended to "describe the consumer's daily experience in a lethal marketplace." Part II, which treats service and regulation, argues that "American government is a saleable commodity, owned by those who control the marketplace and operated for their benefit." Part III is intended to treat the role of the mass media, the function of which, according to the editor of this collection, ". . . is to meet the insatiable demands of a malignant corporate state whose life-in-death is made possible only by continuous growth and continuous production of new material. . . ."

This is a shrill, caustic, and acetous book. The point of view of the editor is that American Society is sick and growing sicker and that our marketing institutions in particular, as well as other institutions of government, are contributing to the malady by way of rapacious greed, malevolent and insidious deception and deceit. The editor's contempt for American marketing is near hysterical. For example, he states,

. . . we have come to expect shoddiness and the possibility of serious injury from everything that we, as consumers, are urged by all kinds of advertising techniques to buy. In a decade of magnificent atrocities, this daily consumer barrage has seemed minor compared to Vietnam . . . but as we have gradually learned that events like My Lai are the result of currents of power beyond individual control, we have become even more aware of the daily assault by bad goods and dishonest services.

While some few of the articles are rather well reasoned and balanced in tone and argument, the vast majority have been chosen not for their dispassionate logic but in terms of how well they bolster and reinforce the editor's magnificent obsession with selective perception. He sees the marketing and economic system as insidious and corrupt. Serious scholars of the marketing and economic system of America would, in wholesale fashion, reject the blatant distortion and emotionality of the editor's preface as well as most of the supporting articles included in his book.

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Sh-h-h-h-h . . .

The Fight for Quiet. By Theodore Berland. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1971. 305 pp. \$2.95, paper.

Mr. Berland has demonstrated again his knack for producing very readable, fairly accurate popularizations of scientific and medical problems that have broad social impact.

In *The Fight for Quiet*, he has chosen to climb aboard the increasingly crowded bandwagon, "Environment." And he should, since never can enough information and attention be given a problem whose elusive solutions challenge our ability to provide a viable workplace and community.

Like much bandwagon literature, however, this book is distinguished by its ability to raise anxieties without really coming to grips with meaningful remedies. This may be due in large part to the limitations of library research and the often lower market value of books with a sense of historicity and in-depth perspective.

We are never told that environmental issues were

focused on the conservation of game, flora, and open spaces until the conditions of the workplace and the plant community overflowed into the suburbs and countryside. We do read and hear said—though thankfully not in Berland's volume—that environmental hazards are somehow made more acceptable by hazard pay and compensation awards, as if these partial returns on the workers' involuntary subsidies of the cost of production are more than partial repayments for destroyed or disabled lives.

But we do read in Berland and in others about all kinds of quick and easy solutions, some of which are laudable. Some are not.

The prospect of tucking ear protectors in our back pockets each morning, along with a fresh handkerchief, as implied by Berland, is not only abhorrent but it will not happen. A sounder choice, which the author also discusses, is to make those changes in design and process that would reduce noise. In fact, it is the only choice.

Mr. Berland apparently is unaware that wearing ear protectors—plugs or muffs—often creates other hazards and, when worn for long periods of time, discomfort. For safe operation, machinery and work practices often require the ability to hear subtle changes in the sound of the machinery and warnings on the shop floor. It is well documented that lack of this ability to hear may lead to death and injury. Finally, in addition to the discomfort of wearing muffs for long periods of time, many workplaces are hot enough so that there may be adverse interference with the enclosed area's ability to "breathe."

Because of this apparent unawareness, we can understand why Berland leaves out of his hearing conservation program for industry the requirement that employers take engineering and administrative measures to reduce noise before protective equipment is mandated. In fact, this is a requirement of the current noise standard promulgated under the Occupational Safety and Health Act of 1970. The standard was carried over from the Walsh-Healey Act, with little more to commend it than good industrial hygiene practice.

The new act, however, specifically makes the provision of a safe workplace the duty of the employer. Protective equipment, in the context of the act, cannot be required until after all other feasible measures have been taken by the employer to reduce noise to the lowest possible level.

The author leaves out of his suggested hearing

conservation program another key element: use of hearing test data. It isn't enough just to measure; the measurements must be used. Each worker must have access to the results of any testing in order to seek the assistance of his own physician. This will be required of any new standard set under the act. Finally, there is a question as to whether the employer should have access to this or any other part of the medical record of an employee.

Perhaps the most important criticism of *The Fight for Quiet* is its failure to carry to a logical conclusion the discussion of design—most notably architectural design—in noise control.

Existing urban design—especially the design of industrial structures—is plagued by age. Many structures built in the last 30 years lack sufficient mass or other noise-reducing components. Thousands of older buildings, despite their mass, are no more nor less than echo chambers. Even new buildings often reflect the architect's general avoidance of the problem. Some are using the 90 dbA noise level as an acceptable design criterion, oblivious to the fact that this may result in new buildings made obsolete by the inevitable tightening of this inadequate standard.

Mr. Berland must be given credit for a sincere approach to fighting "the growing menace of noise pollution." But the result is nothing to shout about.

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Who owns the land?

My Land is Dying. By Harry Caudill. New York, E. P. Dutton and Co., Inc., 1971. 144 pp. \$6.50.

Harry Caudill's study has focused attention upon the negative aspects of strip mining in the United States. The author vividly records the deterioration of our land resource by this form of mining:

The impact of rain on strip-mined land is immediate and catastrophic. Without leaves or branches to impede its fall, each drop strikes like a whiplash. Enormous gullies are cut into the slopes, and sheets of soil are carried away from nearly level surfaces. Streams that had run clear for thousands of years are now mud, 'too thin to plow and too thick to drink.'

Caudill deserves an expression of our gratitude for pointing out dramatically the large costs imposed

upon society by the continual search of private interests for supplies of cheap fuel.

The underlying question he raises may be even more important. Mr. Caudill claims that land deterioration results from a disproportionate emphasis upon technological competency combined with an unchecked profit motive. He states, "But the same forces that are bringing ruin to Appalachia are now a threat wherever technological competence is yoked with human avarice and folly. Wherever the profit motive is still exalted as a virtue, the urge to acquire and to consume becomes a frenzy," and "In such burbling phrases the litany goes on, exalting almost to the condition of deity what is in fact a national disease: the use of technology as a thing somehow unquestionably good, regardless of the consequences. How else are we to account for a disruption so callous that even the dead are no longer permitted to be in peace?"

If I interpret the author correctly, the problem lies in the changing market structure of the fuel industry, coupled with an inadequate definition of property rights. Price rivalry among the coal producers has become more intense because of the monopsonistic position of large buyers, such as TVA, and increased competition from other types of fuel. Survival is dependent upon finding cheaper methods of extracting coal. In chapter IV the author offers a fine illustration of the impact of the large coal purchasers on coal suppliers and recognizes this impact when he strongly condemns TVA for its role in this land deterioration process. Under such conditions, it should come as no surprise to anyone that the coal owners try to share the costs of their operations with society. What is surprising is that we have permitted the resulting divergence between private and social costs to persist. On pages 140 and 141, the author suggests three measures which would eliminate these divergences. The culprit, then—rather than technological advance and the profit motive—is the failure of our property structure to protect society or to insure that the coal industry bears the full costs.

The serious limitation of the work is its one-sidedness. While there is no doubt that the financial power of the coal industry has increased its ability to prevent government regulation of mine-stripping, the coal industry is no Cosa Nostra or foreign power exploiting the United States. The health of the industry is vital to all of us, and most especially to the people of Appalachia. Methods must be found to

insure adequate supplies of coal without ruining our land. Harry Caudill's contribution remains his provocative treatment of this problem, calling for societal solutions.

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Other recent publications

Economic growth and development

- Brenner, Y. S., *Agriculture and the Economic Development of Low Income Countries*. The Hague, Mouton, 1971, 254 pp. \$5, paper, Humanities Press, Inc., New York.
- Brubaker, Sterling, *To Live on Earth: Man and His Environment in Perspective*. Baltimore, Md., Johns Hopkins Press, 1972, 202 pp. Published for Resources for the Future, Inc. \$6.95.
- Caldwell, Lynton K., "Environmental Quality as an Administrative Problem," *Annals of the American Academy of Political and Social Science*, March 1972, pp. 103-115.
- Clawson, Marion, *America's Land and Its Uses*. Baltimore, Md., Johns Hopkins Press, 1972, 166 pp. Published for Resources for the Future, Inc. \$8.50, cloth; \$2.45, paper.
- Estall, Robert, *A Modern Geography of the United States: Aspects of Life and Economy*. Chicago, Quadrangle Books, Inc., 1972, 401 pp. \$10.
- Farvar, M. Taghi and John P. Milton, *The Careless Technology: Ecology and International Development*. New York, Natural History Press, 1972, 1030 pp. \$25.
- Harbison, Frederick H., *Human Resources as the Wealth of Nations*. Princeton, N.J., Inter-University Study of Labor Problems in Economic Development, 1971, 6 pp. (Reprinted for private circulation from the Proceedings of the American Philosophical Society, December 1971.)
- International Labor Office, *Technology for Freedom: Man in His Environment—The ILO Contribution*. (International Labor Conference, Fifty-seventh Session, Geneva 1972, Report of the Director-General, Part I.) Geneva, International Labor Office, 1972, 58 pp.
- Kain, John F. and John R. Meyer, editors, *Essays in Regional Economics*. Cambridge, Mass., Harvard University Press, 1971, 412 pp. \$15.
- Urban, G. R., editor, in collaboration with Michael Glenny, *Can We Survive Our Future?* [Edited versions of interviews originally broadcast in 1970-71 over Radio

Free Europe.] New York, St. Martin's Press, 1971, 400 pp. \$10.

Economic statistics

Quigley, John Michael, "An Economic Model of Swedish Emigration," *Quarterly Journal of Economics*, February 1972, pp. 111-126.

Telser, Lester G., *Competition, Collusion, and Game Theory*. Chicago, Aldine Atherton, Inc., 1972, 380 pp.

Education

Davis, Walter G., "The Elusive Goal of Quality Education," *American Federationist*, March 1972, pp. 1-8.

Furth, Dorothea, "Innovation in Higher Education: Short-Cycle Courses," *OECD Observer*, February 1972, pp. 27-30.

Shanker, Albert, "The Meaning of Accountability," *Journal of Collective Negotiations in the Public Sector*, February 1972, pp. 21-40.

Striner, Herbert E., *Continuing Education as a National Capital Investment*. Kalamazoo, Mich., W. E. Upjohn Institute for Employment Research, 1972, 118 pp. \$1.25.

Viser, Festus Justin, editor, *The University in Transition*. Memphis, Tenn., Memphis State University Press, 1971, 68 pp. \$3.50.

Industrial health and safety

Conaway, Orrin B., Jr., "Coal Mining: New Efforts in an Old Field," *Annals of the American Academy of Political and Social Science*, March 1972, pp. 95-102.

U.S. Occupational Safety and Health Administration, "Plowing under agricultural hazards," *Safety Standards*, March-April 1972, pp. 7-11.

Industrial relations

Blum, Albert A., "Strikes, Salaries, and the Search for Solutions: An Interpretative Analysis of the Irish Industrial Relations System," *British Journal of Industrial Relations*, March 1972, pp. 62-83.

Brown, R. K. et al., "The Contours of Solidarity: Social Stratification and Industrial Relations in Shipbuilding," *British Journal of Industrial Relations*, March 1972, pp. 12-41.

Donoian, Harry A., "Recent Changes in Federal Service Labor-Management Relations," *Labor Law Journal*, March 1972, pp. 131-139.

Gershenfeld, Walter J., "Compulsory Arbitration is Ready When You Are," *Labor Law Journal*, March 1972, pp. 153-166.

Gilroy, Thomas P., editor, *Dispute Settlement in the Public Sector*. Iowa City, University of Iowa, Center for Labor and Management, 1972, 59 pp. \$3.

Helsby, Robert, "Impact of the Taylor Law on Public Schools, 1968-1970," *Journal of Collective Negotiations in the Public Sector*, February 1972, pp. 3-20.

Journal of Collective Negotiations in the Public Sector. Farmingdale, N.Y., Baywood Publishing Co., Inc. Vol. I, No. I, February 1972. (Published quarterly.) Vol. I, \$25, \$2 additional foreign.

Loewenberg, J. Joseph and Michael H. Moskow, *Collective Bargaining in Government: Readings and Cases*. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1972, 362 pp. \$6.95, paper.

Menard, Arthur P., "The National Labor Relations Board—No Longer a Threat to the Arbitral Process?" *Labor Law Journal*, March 1972, pp. 140-152.

Organization for Economic Co-operation and Development, *Recent Trends in Collective Bargaining*, International Management Seminar, Castelfusano, September 21-24, 1971, Supplement to the Final Report. Paris, OECD, 1972, 167 pp. (International Seminars 1971-1.)

Oswald, Rudy and Phillip Ray, "Collective Bargaining: New Outlook in 1972," *American Federationist*, March 1972, pp. 12-19.

Rowan, Richard L., *Readings in Labor Economics and Labor Relations*. Homewood, Ill., Richard D. Irwin, Inc., 1972, 625 pp. (Rev. ed.) \$10.60.

Rubenstein, Benjamin, "The Bugaboo of Compulsory Arbitration," *Labor Law Journal*, March 1972, pp. 167-186.

Yaney, Joseph P., "Validating the Arbitration Process," *Personnel Journal*, March 1972, pp. 179-182.

Labor and economic history and thought

Edwards, Richard C., Michael Reich, Thomas E. Weisskopf, *The Capitalist System: A Radical Analysis of American Society*. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1972, 543 pp.

Green, Archie, *Only a Miner: Studies in Recorded Coal Mining Songs*. Urbana, University of Illinois Press, 1972, 504 pp. \$12.50.

Hartwell, R. M., *The Industrial Revolution and Economic Growth*. London, Methuen & Co., Ltd., 1971, 423 pp., Barnes & Noble, Inc., New York.

Hession, Charles H., *John Kenneth Galbraith & His Critics*. New York, New American Library, 1972, 239 pp. \$6.95.

Landauer, Carl, "Toward a Unified Social Science," *Political Science Quarterly*, December 1971, pp. 563-585.

- Rothschild, K. W., editor, *Power in Economics: Selected Readings*. Baltimore, Md., Penguin Books, Inc., 1971, 366 pp. \$2.95, paper.
- Sherman, Howard, *Radical Political Economy: Capitalism and Socialism From a Marxist-Humanist Perspective*. New York, Basic Books, Inc., Publishers, 1972, 431 pp. \$12.50.
- Spengler, Joseph J., "Social Science and the Collectivization of Hubris," *Political Science Quarterly*, March 1972, pp. 1-21.
- Labor force**
- Aun, Emil Michael, "PEPing Up Local Employment and Services," *Manpower*, April 1972, pp. 3-8.
- Bachman, Jerald G., "AntiDropout Campaign and Other Misanthropies," *Society*, March 1972, pp. 4-6, 60.
- Blumrosen, Alfred W., *Black Employment and the Law*. New Brunswick, N.J., Rutgers University Press, 1971, 416 pp. \$15.
- Brimmer, Andrew F., "Economic Situation of Blacks in the United States," Statement before the Joint Economic Committee of the Congress, February 23, 1972, *Federal Reserve Bulletin*, March 1972, pp. 257-269.
- Burns, Leland S., *The Location of Real Estate and Related Services*. [Determinants influencing the role of selected occupations associated with real estate markets in urban areas of the United States.] Los Angeles, University of California at Los Angeles, Graduate School of Management, 1971, 24 pp. (Special Report No. 4.) \$2.
- Feldman, Harold and Margaret Feldman, *A Study of the Effects on the Family Due to Employment of the Welfare Mother*. (Prepared for the Manpower Administration, U.S. Department of Labor, by College of Human Ecology, Cornell University, Ithaca, N.Y.) Vol. I, Findings and Implications, 291 pp. Vol. II, Appendix, 435 pp. Vol. III, (1) Janet M. Fitchen, The People of Road Junction: The Participant Observer's Study of a Rural Poverty Area in Northern Appalachia, with Particular Reference to the Problems of Employment of Low Income Women; (2) Barbara Francis and Janice Daugherty, Intensive Case Studies of Four Work Types of Low Income Women and Their Families, 488 pp. Multilithed. Available from National Technical Information Service, Springfield, Va. 22151.
- Howard, Bill, "Blacks and Professional Schools," *Change*, February 1972, pp. 13-16.
- Killiam, Ray A., *The Working Woman: A Male Manager's View*. New York, American Management Association, 1971, 214 pp. \$14.50.
- Lessard, Suzannah, "What Do People Do All Day," *Washington Monthly*, March 1972, pp. 41-50.
- Levitan, Sar A., Garth L. Mangum, Ray Marshall, *Human Resources and Labor Markets: Labor and Manpower in the American Economy*. New York, Harper & Row, Publishers, 1972, 619 pp. \$19.95.
- Mouly, Jean, "Some Remarks on the Concepts of Employment, Underemployment, and Unemployment," *International Labor Review*, February 1972, pp. 155-160.
- Nagi, Saad Z., William H. McBroom, John Collette, "Work, Employment, and the Disabled," *American Journal of Economics and Society*, January 1972, pp. 21-34.
- Nelkin, Dorothy, "Invisible Migrant Workers," *Society*, April 1972, pp. 36-41.
- Norquest, Carrol, *Rio Grande Wetbacks: Mexican Migrant Workers*. Albuquerque, University of New Mexico Press, 1972, 159 pp. \$4.95.
- Perry, George L., "Labor Force Structure, Potential Output, and Productivity," *Brookings Papers on Economic Activities*, 3, 1971, pp. 533-578.
- Poole, William, "Alternative Paths to a Stable Full Employment Economy," *Brookings Papers on Economic Activities*, 3, 1971, pp. 579-614.
- Raymond, Richmond, "Determinants of Non-White Migration During the 1950's: Their Regional Significance and Long-Run Implications," *American Journal of Economics and Society*, January 1972, pp. 9-20.
- Reinhardt, U., "A Production Function for Physician Services," *Review of Economics and Statistics*, February 1972, pp. 55-66.
- Uhler, Russell S. and Roslyn Kunin, "A Theory of Labor Force Participation," *Industrial Relations*, February 1972, pp. 107-114.
- U.S. Bureau of Labor Statistics, *Black Americans: A Decade of Occupational Change*. Washington, 1972, 22 pp. (BLS Bulletin 1731.) 40 cents, Superintendent of Documents, Washington.
- U.S. Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment, 1971*. Washington, 1972, 24 pp. (BLS Report 402.)
- U.S. Bureau of Labor Statistics, *Occupational Outlook Handbook, 1972-73 Edition*. Washington, 1972, 879 pp. (Bulletin 1700) \$6.25, Superintendent of Documents, Washington.
- U.S. Bureau of Labor Statistics, *Tomorrow's Manpower Needs: Volume IV, Revised 1971—The National Industry-Occupational Matrix and Other Manpower Data*. Washington, 1972, 198 pp. (Bulletin 1737.) \$1.50, Superintendent of Documents, Washington.
- U.S. Bureau of Labor Statistics, *Work Attitudes of Disadvantaged Black Men*. Washington, 1972, 28 pp.
- U.S. Manpower Administration, "Labor Market Experi-

ences of Young Men," *Manpower*, March 1972, pp. 20-24.

U.S. Manpower Administration, *Negro Employment in the South—Vol. 2: The Memphis Labor Market*. Washington, 1971, 57 pp. (Manpower Research Monograph 23.) 65 cents, Superintendent of Documents, Washington.

Verway, David I., "Advance to the Rear for Women," *MSU Business Topics*, Michigan State University, Winter 1972, pp. 53-62.

Labor organizations

Herling, John, *Right to Challenge: People and Power in the Steelworkers Union*. New York, Harper & Row, Publishers, 1972, 415 pp. \$12.50.

Kearney, Robert N., *Trade Unions and Politics in Ceylon*. Berkeley, University of California Press, 1971, 195 pp. \$10.

Levenstein, Harvey A., *Labor Organizations in the United States and Mexico: A History of Their Relations*. Westport, Conn., Greenwood Publishing Co., 1971, 258 pp. \$10.

Rossillion, Claude, "Racial Discrimination and the ILO," *Panorama*, International Labor Organization, Third Quarter, 1971, pp. 6-13.

Manpower training and development

Great Britain, Department of Employment, "Major Reorganization Plan for Industrial Training," *Department of Employment Gazette*, February 1972, pp. 131-134.

Bakke, E. Wight, *Manpower Policy for Scientists and Engineers*. Washington, National Manpower Policy Task Force, 1972, 22 pp. (Printed by the Bureau of Economic and Business Research, University of Utah.)

Marshall, Ray, "Manpower Policies and Rural America," *Manpower*, April 1972, pp. 14-19.

Munger, Paul F. et al., *Employability Team Interaction Analysis: An Exploratory Study, Stage III*. Bloomington, Indiana University Foundation, 1971. Final Report, 525 pp.; Appendix, 435 pp., bibliography. (Prepared for the Manpower Administration, U.S. Department of Labor.) Available from the National Technical Information Service, Springfield, Va. 22151.

Rothbau, Melvin and Walter Franke, *Development of a Model University Human Resources Program*. Urbana-Champaign, University of Illinois, Institute of Labor and Industrial Relations, 1971, 183 pp. (Prepared for the Manpower Administration, U.S. Department of Labor.) \$3, National Technical Information Service, Springfield, Va. 22151.

U.S. Manpower Administration, *Manpower Report of the*

President: Including A Report on Manpower Requirements, Resources, Utilization, and Training by the U.S. Department of Labor. (Transmitted to the Congress March 1972.) Washington, 1972, 284 pp. \$2.25, Superintendent of Documents, Washington.

Monetary and fiscal policy

Federal Reserve System, "Ways to Moderate Fluctuations in the Construction of Housing," *Federal Reserve Bulletin*, March 1972, pp. 215-225.

Lintner, John, *Finance and Capital Markets*. New York, National Bureau of Economic Research, 1972, 66 pp. (Economic Research: Retrospect and Prospect—Fiftieth Anniversary Colloquium of the National Bureau of Economic Research, II.) Distributed by Columbia University Press, New York. \$5, cloth; \$1.50, paper.

Productivity and technological change

Lessing, Lawrence, "Why the U.S. Lags in Technology," *Fortune*, April 1972, pp. 68-73, 146-150.

Mansfield, Edwin et al., *Research and Innovation in the Modern Corporation*. New York, W. W. Norton & Co., 1971, 239 pp. \$10.

U.S. National Commission on Productivity, *First Annual Report, July 1970 Through February 1972*. Washington, 1972, 60 pp. Multilithed.

Urban affairs

Fisher, Jack C., "International Programs for Urban Planning," *Looking Ahead*, National Planning Association, January 1972, pp. 3-7.

Goggin, Terrence P. and John M. Seidl, *Politics American Style: Race, Environment, and Central Cities*. Englewood Cliffs, N.J., Prentice-Hall, Inc., 1972, 404 pp. \$4.95, paper.

Wages and compensation

Bolton, J. Harvey, *Flexible Working Hours*. Wembley, England, Anbar Publications Ltd., 1971, 55 pp. £2.

Great Britain, Department of Employment, "New Earnings Survey, 1971: Part 4—Overtime earnings and hours," *Department of Employment Gazette*, February 1972, pp. 135-145.

Hancock, Keith and Kathryn Moore, "The Occupational Wage Structure in Australia Since 1914," *British Journal of Industrial Relations*, March 1972, pp. 107-122.

Parlett, Joseph M., Jr., "Teachers' Salaries on the Escalator," *Journal of Collective Bargaining in the Public Sector*, February 1972, pp. 59-65.

- Thurrow, Lester C. and Robert E. B. Lucas, *The American Distribution of Income: A Structural Problem*. A Study prepared for the Use of the Joint Economic Committee, 92d Cong., 2d Sess., 1972, 50 pp. 25 cents, Superintendent of Documents, Washington.
- U.S. Bureau of Labor Statistics, *Area Wage Survey: The Chicago, Illinois, Metropolitan Area, June 1971*. Washington, 1972, 70 pp. (Bulletin 1685-90.) 70 cents, Superintendent of Documents, Washington.
- U.S. Bureau of Labor Statistics, *Area Wage Survey: The Miami, Florida, Metropolitan Area, November 1971*. Washington, 1972, 20 pp. (Bulletin 1725-28.) 30 cents, Superintendent of Documents, Washington. Other recent bulletins in this series include the metropolitan areas of Louisville, Ky.-Ind.; Sioux Falls, S. Dak.; and Tampa-St. Petersburg, Fla. (Bulletins 1725-29 to 31.) Various pagings and prices.
- U.S. Bureau of Labor Statistics, *Industry Wage Survey: Scheduled Airlines, August 1970*. Washington, 1972, 34 pp. (Bulletin 1734.) 45 cents, Superintendent of Documents, Washington.
- U.S. Bureau of Labor Statistics, *Wage Chronology: International Shoe Co., 1945-74*. Washington, 1972, 16 pp. (Bulletin 1718.) 30 cents, Superintendent of Documents, Washington.
- U.S. Railroad Retirement Board, "Service and Compensation of Railroad Employees in 1970," *RRB Quarterly Review*, October-December 1971, pp. 24-31.
- Welfare programs and social insurance**
- Andriamaromanana Ranivo, Roger, "Study of Some Problems Relating to Persons Entitled to Family Allowances," *International Social Security Review*, No. 4, 1971, pp. 538-556.
- Barde, Renaud, "Study of Some Problems Relating to the Payment of Family Allowances: Payments Periods and Control—Suspension and Withholding of Payments," *International Social Security Review*, No. 4, 1971, pp. 500-537.
- Cook, Fred J., "The Case of the Disappearing Pension," *New York Times Magazine*, March 19, 1972, pp. 30-31 et seq.
- Field, Minna, *The Aged, the Family, and the Community*. New York, Columbia University Press, 1972, 257 pp. \$10.
- Gilder, George F., "Thinking Aloud: The Case Against Universal Day Care," *New Leader*, April 3, 1972, pp. 9-13.
- Larson, Arthur, "Conflicts Between Seamen's Remedies and Workmen's Compensation Acts," *Fordham Law Review*, March 1972, pp. 473-528.
- Manion, U. Vincent, "Why Employees Retire Early," *Personnel Journal*, March 1972, pp. 183-187, 207.
- Reno, Virginia P., "Compulsory Retirement Among Newly Entitled Workers: Survey of New Beneficiaries," *Social Security Bulletin*, March 1972, pp. 3-15.
- Somers, Anne R., "Regulation of Hospitals," *Annals of the American Academy of Political and Social Science*, March 1972, pp. 69-81.
- U.S. Chamber of Commerce, *Analysis of Workmen's Compensation Laws*. Washington, Chamber of Commerce of the United States, 1972, 48 pp. \$1.50.
- U.S. Railroad Retirement Board, "Benefits Payable Under RRA and SSA to Families of Retired Railroad Workers," *RRB Quarterly Review*, October-December 1971, pp. 6-12.
- U.S. Railroad Retirement Board, "Twenty Years of Wives' Annuities Under the RRA," *RRB Quarterly Review*, October-December 1971, pp. 19-23.
- U.S. Railroad Retirement Board, "Unemployment Beneficiaries Under the RUIA," *RRB Quarterly Review*, October-December 1971, pp. 13-18.
- Vergeiner, V., "The Relationship Between the Risks of 'Old-Age' and 'Invalidity,'" *International Social Security Review*, No. 4, 1971, pp. 463-500.

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Title	Date of release	Period covered	MLR table number
Employment Situation	July 7	June	1-14
Wholesale Price Index	July 7	June	27-31
Consumer Price Index	July 21	June	25-26
Productivity and Costs	July 27	2d quarter	33
Work Stoppages	July 28	June	32
Major Collective Bargaining Settlements	July 28	2d quarter	.....

1. Employment status of the noninstitutional population, 16 years and over, 1947-71

[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
1971	142,596	86,929	61.0	84,113	79,120	3,387	75,732	4,993	5.9	55,666

2. Employment status, by color, sex and age, seasonally adjusted,¹ quarterly averages

[In thousands]

Characteristic	Annual average		1969				1970				1971				1972
	1970	1971	1st	2d	3d	4th	1st	2d	3d	4th	1st	2d	3d	4th	1st
WHITE															
Civilian labor force.....	73,518	74,790	71,204	71,508	72,019	72,417	73,174	73,324	73,604	74,210	74,317	74,422	74,843	75,673	76,417
Men, 20 years and over....	42,464	43,088	41,681	41,646	41,863	41,936	42,267	42,473	42,514	42,712	42,709	43,050	43,250	43,362	43,618
Women, 20 years and over..	24,616	25,030	23,528	23,737	23,970	24,121	24,500	24,459	24,687	24,916	24,930	24,777	24,980	25,434	25,584
Both sexes, 16-19 years....	6,440	6,672	5,995	6,125	6,186	6,360	6,457	6,392	6,403	6,582	6,678	6,595	6,613	6,877	7,215
Employed.....	70,182	70,716	69,061	69,307	69,667	70,052	70,389	70,134	70,070	70,220	70,237	70,328	70,762	71,572	72,402
Men, 20 years and over....	41,093	41,347	40,940	40,884	41,023	41,078	41,180	41,158	41,013	41,035	40,983	41,268	41,484	41,665	41,959
Women, 20 years and over..	23,521	23,707	22,757	22,945	23,144	23,289	23,524	23,425	23,536	23,622	23,617	23,458	23,662	24,081	24,370
Both sexes, 16-19 years....	5,569	5,662	5,364	5,478	5,500	5,685	5,685	5,551	5,521	5,563	5,637	5,602	5,616	5,826	6,073
Unemployed.....	3,337	4,074	2,143	2,201	2,352	2,365	2,785	3,190	3,534	3,990	4,080	4,094	4,081	4,101	4,014
Men, 20 years and over....	1,371	1,741	741	762	840	858	1,087	1,315	1,501	1,677	1,726	1,782	1,766	1,697	1,659
Women, 20 years and over..	1,095	1,324	771	792	826	832	926	1,034	1,151	1,294	1,313	1,319	1,318	1,353	1,214
Both sexes, 16-19 years....	871	1,010	631	647	686	675	772	841	882	1,019	1,041	993	997	1,051	1,141
Unemployment rate.....	4.5	5.4	3.0	3.1	3.3	3.3	3.8	4.4	4.8	5.4	5.5	5.5	5.5	5.4	5.3
Men, 20 years and over....	3.2	4.0	1.8	1.8	2.0	2.0	2.6	3.1	3.5	3.9	4.0	4.1	4.1	3.9	3.8
Women, 20 years and over..	4.4	5.3	3.3	3.3	3.4	3.4	3.8	4.2	4.7	5.2	5.3	5.3	5.3	5.3	4.7
Both sexes, 16-19 years....	13.5	15.1	10.5	10.6	11.1	10.6	12.0	13.2	13.8	15.5	15.6	15.1	15.1	15.3	15.8
NEGRO AND OTHER															
Civilian labor force.....	9,197	9,322	8,890	8,870	8,978	9,073	9,188	9,225	9,208	9,188	9,270	9,272	9,388	9,372	9,506
Men, 20 years and over....	4,461	4,773	4,552	4,550	4,583	4,631	4,697	4,703	4,765	4,755	4,748	4,752	4,792	4,805	4,767
Women, 20 years and over..	4,726	3,769	3,535	3,539	3,597	3,620	3,656	3,695	3,656	3,649	3,741	3,748	3,797	3,791	3,897
Both sexes, 16-19 years....	808	781	803	781	798	822	835	827	787	784	781	772	799	776	842
Employed.....	8,445	8,403	8,340	8,286	8,395	8,510	8,552	8,466	8,429	8,342	8,386	8,351	8,442	8,427	8,503
Men, 20 years and over....	4,461	4,428	4,391	4,385	4,409	4,454	4,490	4,436	4,478	4,437	4,426	4,424	4,431	4,427	4,435
Women, 20 years and over..	3,412	3,442	3,334	3,320	3,375	3,428	3,439	3,434	3,399	3,375	3,428	3,405	3,461	3,473	3,545
Both sexes, 16-19 years....	573	533	615	518	611	628	623	596	552	530	532	522	550	527	523
Unemployed.....	752	919	550	584	583	563	636	759	779	846	884	921	946	945	1,003
Men, 20 years and over....	265	345	161	165	174	177	207	267	287	318	322	328	361	378	332
Women, 20 years and over..	252	326	201	219	222	192	217	261	257	274	313	343	336	318	352
Both sexes, 16-19 years....	235	248	188	200	187	194	212	231	235	254	249	250	249	249	319
Unemployment rate.....	8.2	9.9	6.2	6.6	6.5	6.2	6.9	8.2	8.5	9.2	9.5	9.9	10.1	10.1	10.6
Men, 20 years and over....	5.9	7.2	3.5	3.6	3.8	3.8	4.4	5.7	6.0	6.7	6.8	6.9	7.5	7.9	7.0
Women, 20 years and over..	5.3	8.7	5.7	6.2	6.2	5.3	5.9	7.1	7.0	7.5	8.4	9.2	8.8	8.4	9.0
Both sexes, 16-19 years....	29.1	31.7	23.4	25.6	23.4	23.6	25.4	27.9	29.9	32.4	31.9	32.4	31.2	32.1	37.9

¹ These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of *Employment and Earnings*.

3. Full-time and part-time status¹ of the civilian labor force, seasonally adjusted²

[Numbers in thousands]

Employment status	1971										1972			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ³	Feb.	Mar.	Apr.	
FULL TIME														
Total, 16 years and over:														
Civilian labor force.....	71,803	72,162	71,427	71,995	72,218	72,341	72,550	73,021	73,169	73,261	72,997	73,714	73,691	
Employed.....	67,868	68,051	67,616	68,128	68,209	68,284	68,643	68,890	69,022	69,279	69,123	69,734	69,725	
Unemployed.....	3,935	4,111	3,811	3,867	4,009	4,057	3,907	4,131	4,147	3,982	3,874	3,980	3,966	
Unemployment rate.....	5.5	5.7	5.3	5.4	5.6	5.6	5.4	5.7	5.7	5.4	5.3	5.4	5.4	
PART TIME														
Total, 16 years and over:														
Civilian labor force.....	11,881	11,819	12,064	11,954	12,211	12,293	12,190	12,125	12,083	12,595	12,540	12,596	12,466	
Employed.....	10,794	10,743	11,100	10,918	11,086	11,280	11,158	11,094	11,072	11,476	11,482	11,497	11,369	
Unemployed.....	1,087	1,076	964	1,036	1,125	1,013	1,032	1,031	1,011	1,119	1,058	1,099	1,097	
Unemployment rate.....	9.1	9.1	8.0	8.7	9.2	8.2	8.5	8.5	8.4	8.9	8.4	8.7	8.8	

¹ Persons on part-time schedules for economic reasons are included in the full-time employed category; unemployed persons are allocated by whether seeking full-time or part-time work.

² These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of *Employment and Earnings*.

³ Figures for periods prior to January 1972 in the tables are not strictly comparable with current data because of the introduction of 1970 Census data into the estimation procedures. For example, the civilian labor force and employment totals for January 1972 were raised by more than 300,000 in the census adjustment. An explanation of the changes and an indication of the differences appears in "Revisions in the Current Population Survey" in the February 1972 issue of *Employment and Earnings*.

4. Employment and unemployment, by age and sex, seasonally adjusted¹

[In thousands]

Employment status	Annual average		1971									1972			
	1970	1971	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ²	Feb.	Mar.	Apr.
TOTAL															
Total labor force.....	85,903	86,929	86,670	86,836	86,217	86,727	87,088	87,240	87,467	87,812	87,883	88,301	88,075	88,817	88,747
Civilian labor force.....	82,715	84,113	83,788	83,986	83,401	83,930	84,313	84,491	84,750	85,116	85,225	85,707	85,535	86,313	86,284
Employed.....	78,627	79,120	78,732	78,830	78,600	79,014	79,199	79,451	79,832	80,020	80,098	80,636	80,623	81,241	81,205
Agriculture.....	3,462	3,378	3,540	3,412	3,301	3,374	3,407	3,363	3,416	3,419	3,400	3,393	3,357	3,482	3,324
Nonagriculture.....	75,165	75,732	75,192	75,418	75,299	75,640	75,792	76,088	76,416	76,601	76,698	77,243	77,266	77,759	77,781
Unemployed.....	4,088	4,993	5,056	5,156	4,801	4,916	5,114	5,040	4,918	5,096	5,127	5,071	4,912	5,072	5,079
MEN, 20 YEARS AND OVER															
Total labor force.....	49,948	50,308	50,234	50,368	50,256	50,369	50,458	50,492	50,530	50,527	50,463	50,498	50,373	50,714	50,711
Civilian labor force.....	47,189	47,861	47,707	47,869	47,820	47,949	48,057	48,113	48,179	48,200	48,169	48,259	48,181	48,582	48,614
Employed.....	45,553	45,775	45,618	45,725	45,762	45,879	45,893	45,969	46,124	46,066	46,080	46,247	46,255	46,569	46,541
Agriculture.....	2,527	2,446	2,469	2,448	2,423	2,449	2,462	2,435	2,494	2,503	2,439	2,442	2,394	2,400	2,370
Nonagriculture.....	43,026	43,329	43,149	43,277	43,339	43,430	43,431	43,534	43,630	43,563	43,641	43,805	43,861	44,169	44,171
Unemployed.....	1,636	2,086	2,089	2,144	2,058	2,070	2,164	2,144	2,055	2,134	2,089	2,012	1,926	2,013	2,073
WOMEN, 20 YEARS AND OVER															
Civilian labor force.....	28,279	28,799	28,555	28,545	28,531	28,594	28,826	28,960	29,082	29,254	29,284	29,424	29,358	29,574	29,508
Employed.....	26,932	27,149	26,871	26,851	26,928	26,964	27,144	27,319	27,471	27,571	27,592	27,794	27,878	27,972	27,913
Agriculture.....	549	537	585	533	513	529	548	530	528	547	547	564	575	620	563
Nonagriculture.....	26,384	26,612	26,286	26,318	26,415	26,435	26,601	26,771	26,941	27,043	27,045	27,230	27,303	27,352	27,350
Unemployed.....	1,347	1,650	1,684	1,694	1,603	1,630	1,682	1,641	1,611	1,683	1,692	1,630	1,480	1,602	1,595
BOTH SEXES, 16-19 YEARS															
Civilian labor force.....	7,246	7,453	7,526	7,572	7,050	7,387	7,430	7,418	7,489	7,662	7,772	8,024	7,996	8,157	8,162
Employed.....	6,141	6,195	6,243	6,254	5,910	6,171	6,162	6,163	6,237	6,383	6,426	6,595	6,490	6,700	6,751
Agriculture.....	386	404	486	431	365	396	402	380	392	388	414	387	388	462	391
Nonagriculture.....	5,755	5,791	5,757	5,823	5,545	5,775	5,760	5,783	5,845	5,995	6,012	6,208	6,102	6,238	6,360
Unemployed.....	1,105	1,257	1,283	1,318	1,140	1,216	1,268	1,255	1,252	1,279	1,346	1,429	1,506	1,457	1,411

¹ These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of *Employment and Earnings*.

² See footnote 3, table 3, regarding the introduction of 1970 census population controls.

5. Employment totals, by occupation, with unemployment rates, seasonally adjusted,¹ quarterly averages

Characteristic	Annual average		1969				1970				1971				1972
	1970	1971	1st	2d	3d	4th	1st	2d	3d	4th	1st	2d	3d	4th	1st
EMPLOYMENT (in thousands)	78,627	79,120	77,344	77,575	78,126	78,577	78,875	78,610	78,531	78,550	78,546	78,723	79,221	79,984	80,833
White-collar workers.....	37,997	38,252	36,266	36,699	36,961	37,445	37,940	38,004	37,970	38,074	37,938	38,004	38,456	38,612	38,710
Professional and technical.....	11,140	11,070	10,659	10,750	10,742	10,918	11,055	11,139	11,226	11,143	10,872	11,081	11,139	11,192	11,232
Managers and administrators, except farm.....	8,289	8,765	7,844	7,998	7,983	8,122	8,220	8,295	8,259	8,381	8,646	8,642	8,799	8,612	7,988
Sales workers.....	4,854	5,066	4,609	4,660	4,714	4,777	4,787	4,813	4,877	4,934	5,074	5,018	5,037	5,133	5,300
Clerical workers.....	13,714	13,440	13,154	13,291	13,522	13,628	13,878	13,757	13,608	13,616	13,346	13,263	13,481	13,675	14,190
Blue-collar workers.....	27,791	27,184	28,181	28,006	28,428	28,332	28,203	27,768	27,653	27,566	27,071	27,051	27,090	27,524	28,295
Craftsmen and kindred workers.....	10,158	10,178	10,283	10,054	10,200	10,235	10,235	10,135	10,124	10,149	10,106	10,119	10,111	10,373	10,910
Operatives.....	13,909	12,983	14,288	14,260	14,570	14,369	14,196	13,957	13,793	13,696	12,912	12,958	12,946	13,116	13,346
Nonfarm laborers.....	3,724	4,022	3,610	3,692	3,658	3,728	3,772	3,676	3,736	3,721	4,053	3,974	4,033	4,035	4,039
Service workers.....	9,712	10,676	9,509	9,494	9,509	9,594	9,610	9,620	9,814	9,804	10,627	10,607	10,715	10,751	10,852
Farm workers.....	3,126	3,008	3,431	3,393	3,229	3,121	3,141	3,206	3,108	3,033	2,988	3,033	2,992	3,023	3,030
UNEMPLOYMENT RATE	4.9	5.9	3.4	3.5	3.6	3.6	4.2	4.8	5.2	5.8	6.0	6.0	6.0	5.9	5.8
White-collar workers.....	2.8	3.5	2.0	2.0	2.2	2.1	2.4	2.7	2.9	3.4	3.6	3.5	3.5	3.5	3.5
Professional and technical.....	2.0	2.9	1.1	1.3	1.4	1.5	1.8	1.9	2.0	2.4	3.2	2.9	2.9	3.0	2.7
Managers and administrators, except farm.....	1.3	1.6	1.0	.9	.9	1.0	1.1	1.3	1.4	1.6	1.6	1.6	1.5	1.8	1.8
Sales workers.....	3.9	4.3	3.0	2.9	3.0	2.8	3.3	3.9	3.9	4.6	4.2	4.5	4.4	3.9	4.2
Clerical workers.....	4.0	4.8	2.9	2.8	3.2	3.1	3.4	3.9	4.1	4.8	4.9	4.8	4.9	4.8	4.8
Blue-collar workers.....	6.2	7.4	3.7	3.8	3.9	4.3	5.0	6.0	6.8	7.5	7.5	7.4	7.5	7.4	7.0
Craftsmen and kindred workers.....	3.8	4.7	2.2	2.1	2.1	2.3	2.7	3.9	4.5	4.6	4.7	4.3	5.3	4.7	4.2
Operatives.....	7.1	8.3	4.1	4.3	4.4	4.9	5.8	6.6	7.5	8.6	8.5	8.5	8.2	8.1	7.7
Nonfarm laborers.....	9.5	10.8	6.5	6.4	7.0	7.1	7.9	9.2	10.3	10.8	10.6	10.9	10.3	11.4	11.7
Service workers.....	5.3	6.3	4.0	4.4	4.5	4.0	4.7	5.0	5.5	6.0	6.1	6.3	6.5	6.4	6.2
Farm workers.....	2.6	2.6	1.6	1.9	2.1	1.9	2.1	2.6	2.9	3.0	2.8	2.1	2.7	2.8	2.4

¹ These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of *Employment and Earnings*.

NOTE: Comparisons with data prior to 1971 are affected by the reclassification of census occupations, introduced in January 1971. For an explanation of the changes, see "Revisions in Occupational Classifications for 1971" in the February 1971 issue of *Employment and Earnings*.

6. Unemployed persons by reason for unemployment, seasonally adjusted ¹

[Numbers in thousands]

Reason for unemployment	1971										1972			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
NUMBER OF UNEMPLOYED														
Lost last job.....	2,300	2,321	2,342	2,280	2,460	2,369	2,206	2,360	2,365	2,169	2,077	2,118	2,040	
Left last job.....	602	611	501	510	572	583	541	629	666	564	603	674	611	
Reentered labor force.....	1,459	1,513	1,371	1,534	1,509	1,536	1,486	1,493	1,432	1,652	1,503	1,542	1,557	
Never worked before.....	666	705	558	570	651	603	663	651	736	742	713	737	917	
PERCENT DISTRIBUTION														
Total unemployed.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Lost last job.....	45.8	45.1	49.1	46.6	47.4	46.5	45.1	46.0	45.5	42.3	42.4	41.8	39.8	
Left last job.....	12.0	11.9	10.5	10.4	11.0	11.5	11.0	12.3	12.8	11.0	12.3	13.3	11.9	
Reentered labor force.....	29.0	29.4	28.7	31.3	29.1	30.2	30.4	29.1	27.5	32.2	30.7	30.4	30.4	
Never worked before.....	13.2	13.7	11.7	11.6	12.5	11.8	13.5	12.7	14.2	14.5	14.6	14.5	17.9	
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE														
Lost last job.....	2.7	2.8	2.8	2.7	2.9	2.8	2.6	2.8	2.8	2.5	2.4	2.5	2.4	
Left last job.....	.7	.7	.6	.6	.7	.7	.6	.7	.8	.7	.7	.8	.7	
Reentered labor force.....	1.7	1.8	1.6	1.8	1.8	1.8	1.8	1.8	1.7	1.9	1.8	1.8	1.8	
Never worked before.....	.8	.8	.7	.7	.8	.7	.8	.8	.9	.9	.8	.9	1.1	

¹ Seasonally adjusted data for unemployed persons who never worked before have been changed as a result of a revision in the seasonal adjustment procedures affecting this series.

NOTE: For additional detail or for data unadjusted for seasonal factors (formerly carried in this space), see **Employment and Earnings**.

7. Unemployment rates, by age and sex, seasonally adjusted ¹

Age and sex	Annual average		1971										1972			
	1970	1971	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
Total, 16 years and over.....	4.9	5.9	6.0	6.1	5.8	5.9	6.1	6.0	5.8	6.0	6.0	5.9	5.7	5.9	5.9	
16 to 19 years.....	15.3	16.9	17.0	17.4	16.2	16.5	17.1	16.9	16.7	16.7	17.3	17.8	18.8	17.9	17.3	
16 and 17 years.....	17.1	18.7	18.2	19.0	18.7	18.3	19.5	18.4	19.9	18.3	18.8	19.1	22.0	20.7	19.1	
18 and 19 years.....	13.8	15.5	15.7	17.1	14.3	15.0	15.0	15.8	14.5	15.4	16.3	16.8	16.7	15.8	15.5	
20 to 24 years.....	8.2	10.0	10.2	10.8	10.1	9.8	10.0	9.6	9.2	10.4	10.1	10.1	8.8	9.9	10.0	
25 years and over.....	3.3	4.0	4.0	4.0	3.9	4.0	4.1	4.0	4.0	4.0	4.1	3.7	3.6	3.7	3.8	
25 to 54 years.....	3.4	4.2	4.2	4.1	4.1	4.2	4.2	4.3	4.3	4.2	4.3	3.9	3.7	3.9	3.8	
55 years and over.....	2.8	3.4	3.5	3.5	3.3	3.2	3.5	3.2	3.0	3.4	3.4	3.1	3.1	3.3	3.6	
Male, 16 years and over.....	4.4	5.3	5.4	5.5	5.2	5.2	5.5	5.4	5.3	5.4	5.4	5.3	5.3	5.3	5.3	
16 to 19 years.....	15.0	16.6	16.5	17.6	16.1	15.8	17.2	16.3	16.5	16.2	17.3	17.3	19.6	17.8	16.7	
16 and 17 years.....	16.9	18.6	18.7	17.8	18.4	18.4	19.4	18.6	20.3	18.1	19.0	18.7	21.8	21.4	19.3	
18 and 19 years.....	13.4	15.0	14.8	18.3	14.3	13.7	15.0	14.6	13.7	14.7	16.0	16.1	17.6	15.1	14.8	
20 to 24 years.....	8.4	10.3	10.3	10.7	10.1	10.2	10.5	10.2	9.7	10.7	10.5	10.4	9.2	10.4	10.7	
25 years and over.....	2.8	3.5	3.5	3.5	3.4	3.4	3.6	3.5	3.5	3.5	3.5	3.2	3.2	3.2	3.3	
25 to 54 years.....	2.6	3.5	3.4	3.5	3.5	3.5	3.6	3.7	3.7	3.7	3.6	3.3	3.2	3.1	3.2	
55 years and over.....	2.9	3.4	3.6	3.5	3.3	3.1	3.3	3.0	2.9	3.2	3.0	3.0	3.2	3.4	3.5	
Female, 16 years and over.....	5.9	6.9	7.1	7.1	6.7	6.9	7.0	6.9	6.7	6.9	7.0	6.9	6.4	6.8	6.8	
16 to 19 years.....	15.6	17.2	17.7	17.1	16.3	17.2	16.9	17.6	17.0	17.3	17.3	18.4	17.9	17.9	18.0	
16 and 17 years.....	17.4	18.7	17.7	20.5	19.3	18.3	19.5	18.0	19.2	18.7	18.5	19.6	22.3	19.8	19.0	
18 and 19 years.....	14.4	16.2	16.7	15.7	14.4	16.4	15.1	17.3	15.6	16.2	16.7	17.7	15.6	16.8	16.4	
20 to 24 years.....	7.9	9.6	10.1	10.8	10.1	9.4	9.4	8.9	8.6	10.0	9.6	9.6	8.4	9.2	9.0	
25 years and over.....	4.1	4.9	5.0	4.8	4.7	4.9	5.0	4.9	4.9	4.8	5.0	4.6	4.3	4.7	4.6	
25 to 54 years.....	4.5	5.3	5.5	5.2	5.2	5.4	5.4	5.3	5.3	5.2	5.4	4.9	4.7	5.1	4.9	
55 years and over.....	2.8	3.4	3.3	3.4	3.5	3.3	3.8	3.4	3.0	3.7	3.9	3.3	2.9	3.1	3.6	

¹ These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1972 issue of **Employment and Earnings**.

8. Unemployment indicators, seasonally adjusted ¹

[In percent]

Selected categories	Annual average		1971									1972			
	1970	1971	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Total (all civilian workers)	4.9	5.9	6.0	6.1	5.8	5.9	6.1	6.0	5.8	6.0	6.0	5.9	5.7	5.9	5.9
Men, 20 years and over.....	3.5	4.4	4.4	4.5	4.3	4.3	4.5	4.5	4.3	4.4	4.3	4.2	4.0	4.1	4.3
Women, 20 years and over.....	4.8	5.7	5.9	5.9	5.6	5.7	5.8	5.7	5.5	5.8	5.8	5.5	5.0	5.4	5.4
Both sexes 16-19 years.....	15.3	16.9	17.0	17.4	16.2	16.5	17.1	16.9	16.7	16.7	17.3	17.8	18.8	17.9	17.3
White.....	4.5	5.4	5.6	5.6	5.3	5.4	5.6	5.4	5.3	5.6	5.4	5.3	5.1	5.3	5.4
Negro and other.....	8.2	9.9	9.8	10.5	9.4	10.0	9.9	10.4	10.4	9.4	10.4	10.6	10.5	10.5	9.6
Married men.....	2.6	3.2	3.2	3.2	3.1	3.1	3.2	3.3	3.0	3.3	3.2	3.0	2.8	2.8	2.9
Vietnam Era veterans,² men:															
20 to 29 years.....	6.9	8.8	9.1	9.3	8.9	8.6	9.3	9.8	8.0	8.5	8.4	8.5	7.4	8.6	8.6
20 to 24 years.....	9.3	12.2	13.2	13.2	13.5	11.2	13.4	12.3	9.7	12.0	12.6	12.3	9.7	12.3	12.7
25 to 29 years.....	4.3	5.7	5.4	5.8	4.7	6.3	5.7	7.6	6.5	5.6	5.1	5.6	5.4	5.6	5.4
Nonveterans, men:															
20 to 29 years.....	6.0	7.3	7.0	7.4	6.9	7.2	8.0	6.7	7.3	8.1	7.7	7.5	7.0	7.5	7.6
20 to 24 years.....	8.0	9.5	9.2	9.9	9.3	9.2	10.5	8.6	9.3	10.3	9.6	9.8	9.0	10.1	10.0
25 to 29 years.....	3.8	4.7	4.4	4.4	4.1	4.7	4.9	4.4	4.9	5.5	5.2	4.5	4.4	4.1	4.6
Full-time workers	4.5	5.5	5.5	5.7	5.3	5.4	5.6	5.6	5.4	5.7	5.7	5.4	5.3	5.4	5.4
Unemployed:															
15 weeks and over ³.....	.8	1.4	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.4	1.3
State insured ⁴	3.6	4.4	4.0	4.2	4.2	4.0	4.2	4.3	4.4	4.1	4.1	3.4	3.5	3.5	3.6
Labor force time lost ⁵	5.4	6.4	6.5	6.6	5.6	6.3	6.5	6.3	6.5	6.4	6.4	6.4	6.1	6.3	6.3
OCCUPATION															
White-collar workers	2.8	3.5	3.7	3.6	3.2	3.5	3.5	3.4	3.4	3.4	3.6	3.6	3.3	3.5	3.4
Professional and managerial.....	1.7	2.9	2.5	2.5	2.0	2.3	2.3	2.2	2.4	2.5	2.5	2.6	2.2	2.3	2.1
Sales workers.....	3.9	4.3	4.4	5.1	4.1	4.6	4.4	4.1	3.9	3.9	4.0	4.0	4.0	4.1	3.7
Clerical workers.....	4.0	4.8	5.0	4.8	4.7	4.9	4.9	4.8	4.7	4.6	4.9	4.7	4.7	4.9	4.9
Blue-collar workers	6.2	7.4	7.5	7.5	7.1	7.2	7.5	7.7	7.1	7.5	7.5	7.1	7.0	6.9	6.8
Craftsmen and kindred workers.....	3.8	4.7	4.6	4.3	4.1	5.1	5.3	5.3	4.7	4.6	4.8	4.3	4.4	4.0	4.4
Operatives.....	7.1	8.3	8.7	8.7	8.2	8.1	8.3	8.3	7.8	8.2	8.2	7.9	7.5	7.7	7.4
Nonfarm laborers.....	9.5	10.8	10.4	11.4	11.1	9.2	10.6	11.2	10.6	11.8	11.9	11.6	11.8	11.7	10.7
Service workers	5.3	6.3	6.3	6.4	6.3	6.5	6.5	6.5	6.0	6.6	6.4	6.1	5.9	6.6	6.3
INDUSTRY															
Nonagricultural private wage and salary workers ⁶	5.2	6.2	6.3	6.4	6.1	6.1	6.2	6.2	5.9	6.2	6.3	6.1	5.9	6.1	5.9
Construction.....	9.7	10.4	10.0	11.0	10.3	9.8	9.9	9.7	10.2	9.7	11.2	9.8	10.3	9.8	10.6
Manufacturing.....	5.6	6.8	7.0	6.9	6.7	6.7	6.8	6.9	6.2	6.6	6.9	6.4	6.0	6.2	5.8
Durable goods.....	5.7	7.0	7.5	7.3	7.0	6.8	6.9	7.0	6.4	6.7	6.7	6.7	6.1	6.3	5.8
Nondurable goods.....	5.4	6.5	6.4	6.4	6.2	6.5	6.8	6.8	5.8	6.3	7.1	6.0	6.0	6.1	5.9
Transportation and public utilities.....	3.2	3.8	3.8	4.3	3.4	3.1	3.3	3.6	4.3	4.4	4.1	4.1	3.9	4.0	3.7
Wholesale and retail trade.....	5.3	6.4	6.5	6.8	6.5	6.4	6.3	6.3	6.1	6.6	6.5	6.3	6.2	6.7	6.2
Finance and service industries.....	4.2	5.1	5.2	5.1	4.8	5.2	5.3	5.1	4.9	5.1	4.9	5.3	4.9	5.3	5.1
Government wage and salary workers	2.2	2.9	2.9	3.0	2.6	2.9	3.1	3.0	3.2	3.2	3.2	3.0	2.8	2.8	2.9
Agricultural wage and salary workers	7.5	7.9	6.4	7.7	6.3	7.8	8.8	8.5	7.0	9.6	7.5	8.6	8.3	6.0	6.0

¹ These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of **Employment and Earnings**.

² Vietnam Era veterans are those who served after August 4, 1964; they are all classified as war veterans. Over 80 percent of Vietnam Era veterans of all ages are 20 to 29 years old. Not included in these figures are post-Korean peacetime veterans in ages 20 to 29.

³ Unemployment rate calculated as a percent of civilian labor force.

⁴ Insured unemployment under State programs as a percent of average covered employment.

⁵ Man-hours lost by the unemployed and persons on part time for economic reasons (that is, those persons who worked less than 35 hours during the survey week because of slack work, job changing during the week, material shortages, inability to find full-time work, and so on) as a percent of potentially available labor force man-hours.

⁶ Includes mining, not shown separately.

9. Duration of unemployment, seasonally adjusted ¹

[In thousands]

Period	Annual average		1971									1972			
	1970	1971	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Less than 5 weeks.....	2,137	2,234	2,176	2,245	2,118	2,150	2,320	2,317	2,140	2,290	2,410	2,358	2,142	2,311	2,169
5 to 14 weeks.....	1,289	1,578	1,587	1,552	1,572	1,532	1,553	1,567	1,529	1,650	1,509	1,502	1,454	1,412	1,521
15 weeks and over.....	662	1,181	1,088	1,183	1,175	1,255	1,291	1,250	1,253	1,311	1,273	1,198	1,294	1,224	1,137
15 to 26 weeks.....	427	665	640	667	630	704	735	683	628	741	724	636	634	591	482
27 weeks and over.....	235	517	448	516	545	551	556	567	625	570	549	562	660	633	655
15 weeks and over as a percent of civilian labor force.....	.8	1.4	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.4	1.3
Average (mean duration, in weeks).....	8.8	11.4	11.0	11.4	12.6	11.5	11.6	12.0	12.5	11.8	11.4	11.8	12.5	12.4	12.4

These data have been adjusted to reflect seasonal experience through December 1971. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1972 issue of **Employment and Earnings**.

adjusted series, see the February 1972 issue of **Employment and Earnings**.

10. Unemployment insurance and employment service operations ¹

[All items except average benefits amounts are in thousands]

Item	1971										1972		
	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Employment service:²													
New applications for work.....	833	761	777	1,005	815	779	767	663	763	679			
Nonfarm placements.....	295	309	308	365	315	366	353	288	317	266			
State unemployment insurance program:													
Initial claims ^{3,4}	1,265	1,111	964	1,152	1,468	1,277	1,043	1,048	1,336	1,623	1,643	1,231	
Insured unemployment ⁵ (average weekly volume) ⁶	2,577	2,283	2,001	1,893	1,993	1,912	1,739	1,716	1,879	2,221	2,524	2,492	2,279
Rate of insured unemployment ⁷	4.8	4.3	3.8	3.6	3.8	3.6	3.3	3.2	3.5	4.2	4.8	4.7	4.3
Weeks of unemployment compensated.....	10,808	9,224	7,431	7,542	6,740	6,503	5,923	5,561	6,177	7,546	8,972	8,780	
Average weekly benefit amount for total unemployment.....	\$53.00	\$52.71	\$52.32	\$52.09	\$55.23	\$56.08	\$56.25	\$53.46	\$53.96	\$54.58	\$55.35	\$54.38	
Total benefits paid.....	\$631,032	\$541,933	\$434,463	\$446,691	\$425,440	\$433,636	\$377,795	\$367,169	\$406,905	\$489,566	\$550,902	\$562,146	
Unemployment compensation for ex-servicemen:^{8,9}													
Initial claims ^{3,6}	57	51	45	54	53	54	48	43	51	59	68	57	
Insured unemployment ⁶ (average weekly volume).....	128	121	113	114	120	120	106	97	105	118	133	140	136
Weeks of unemployment compensated.....	587	533	462	506	494	525	478	409	426	498	530	549	
Total benefits paid.....	\$33,254	\$30,757	\$27,010	\$30,117	\$30,047	\$31,552	\$28,944	\$25,012	\$26,089	\$29,180	\$29,998	\$32,438	
Unemployment compensation for Federal civilian employees:^{9,10}													
Initial claims ³	12	12	10	20	15	12	12	13	14	13	16	12	
Insured unemployment ⁵ (average weekly volume).....	35	31	29	31	36	35	33	35	35	35	37	36	34
Weeks of unemployment compensated.....	167	139	119	126	137	157	148	135	144	156	147	146	
Total benefits paid.....	\$10,435	\$8,912	\$7,459	\$7,843	\$8,392	\$9,261	\$8,878	\$8,224	\$8,960	\$9,811	\$8,755	\$8,660	
Railroad unemployment insurance:													
Applications ¹¹	30	85	36	45	89	98	100	48	19	69	8	4	
Insured unemployment (average weekly volume).....	19	20	18	13	15	32	33	27	48	33	36	27	26
Number of payments ¹²	67	119	63	68	99	105	163	124	106	857	87	63	64
Average amount of benefit payment ¹³	\$70.01	\$38.34	\$55.53	\$58.97	\$46.07	\$83.28	\$69.35	\$61.95	\$100.32	\$101.32	\$97.79	\$99.11	\$98.79
Total benefits paid ¹⁴	\$4,566	\$4,364	\$3,522	\$4,159	\$3,800	\$8,698	\$11,134	\$7,616	\$9,930	\$8,891	\$8,007	\$6,212	\$5,983
All programs:¹⁵													
Insured unemployment ⁶	3,091	2,756	2,443	2,332	2,431	2,349	2,174	2,129	2,311	2,666	3,097	3,123	2,923

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.

NOTE: Dashes indicate data not available.

SOURCE: U.S. Department of Labor, Office of Financial and Management Information Systems for all items except railroad unemployment insurance which is prepared by the U.S. Railroad Retirement Board.

p=preliminary.

r=revised.

11. Employees on nonagricultural payrolls, by industry division, 1947 to date ¹

[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	70,284	619	3,435	20,167	4,429	14,639	3,733	10,906	3,564	11,229	12,202	2,758	9,444
1970	70,616	622	3,345	19,369	4,504	14,922	3,824	11,098	3,690	11,630	12,535	2,705	9,830
1971	70,699	601	3,259	18,610	4,481	15,174	3,855	11,319	3,800	11,917	12,858	2,664	10,194

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8). These series are based upon establishment reports which cover all full-time and part-time employees in nonagricultural establishments who worked during, or receive 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 State

[In thousands]

State	Mar. 1971	Feb. 1972	Mar. 1972 ^p	State	Mar. 1971	Feb. 1972	Mar. 1972 ^p
Alabama	1,004.1	1,013.8	1,023.0	Montana	196.7	199.4	200.5
Alaska	87.4	89.9	90.6	Nebraska	478.0	486.9	492.1
Arizona	566.0	610.2	613.8	Nevada	202.6	205.7	207.6
Arkansas	532.4	539.3	544.8	New Hampshire	249.5	252.9	255.2
California	6,806.5	6,899.4	6,978.1	New Jersey	2,563.1	2,563.0	2,568.1
Colorado	756.4	789.3	790.2	New Mexico	295.6	308.1	309.9
Connecticut	1,155.1	1,154.7	1,162.0	New York	6,976.7	6,833.2	6,895.1
Delaware	211.6	208.7	214.7	North Carolina	1,767.1	1,805.1	1,814.7
District of Columbia	677.1	676.0	679.2	North Dakota	158.7	162.3	163.0
Florida ¹	2,228.1	2,299.6	2,310.4	Ohio	3,793.6	3,776.2	3,802.8
Georgia	1,565.7	1,589.4	1,595.5	Oklahoma	765.4	791.1	794.8
Hawaii	297.8	299.9	300.7	Oregon	698.4	727.3	736.7
Idaho	206.0	213.8	215.0	Pennsylvania	4,247.9	4,229.7	4,263.7
Illinois	4,204.0	4,215.0	4,239.8	Rhode Island	332.1	333.5	334.2
Indiana	1,807.2	1,818.0	1,828.7	South Carolina	844.7	876.1	882.0
Iowa	870.5	884.9	894.4	South Dakota	175.1	175.2	176.8
Kansas	661.9	669.1	675.3	Tennessee ¹	1,321.3	1,380.8	1,384.3
Kentucky ¹	908.4	923.2	929.7	Texas	3,626.4	3,709.0	3,723.2
Louisiana	1,031.4	1,062.2	1,069.2	Utah	361.2	373.7	379.2
Maine	322.4	325.7	325.9	Vermont	145.3	148.0	147.6
Maryland	1,291.6	1,311.1	1,322.2	Virginia	1,460.2	1,518.7	1,524.6
Massachusetts	2,233.2	2,222.6	2,234.0	Washington	1,045.1	1,037.2	1,051.8
Michigan	2,947.1	2,968.5	2,982.7	West Virginia	513.6	520.2	521.7
Minnesota	1,258.9	1,291.4	1,296.1	Wisconsin	1,480.9	1,508.2	1,515.1
Mississippi	577.3	596.1	600.1	Wyoming	103.6	107.9	108.3
Missouri	1,623.5	1,611.8	1,623.6				

¹ Revised series; not strictly comparable with previously published data.

NOTE: Current State 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, 1939-70* (BLS Bulletin 1370-8).

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*.

^p=preliminary.

13. Employees on nonagricultural payrolls, by industry division and major manufacturing group¹

[In thousands]

Industry division and group	Annual average		1971									1972			
	1970	1971	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. ^P	Apr. ^P
TOTAL	70,616	70,699	70,309	70,738	71,355	70,452	70,542	71,184	71,379	71,638	72,034	70,643	70,776	71,339	71,834
MINING	622	601	617	622	634	613	625	623	522	524	605	602	596	597	597
CONTRACT CONSTRUCTION	3,345	3,259	3,164	3,265	3,414	3,480	3,509	3,471	3,478	3,410	3,177	2,965	2,880	2,965	3,119
MANUFACTURING	19,369	18,610	18,482	18,554	18,746	18,448	18,651	18,840	18,709	18,693	18,595	18,440	18,537	18,656	18,697
Production workers ²	14,033	13,487	13,357	13,441	13,611	13,315	13,524	13,738	13,616	13,605	13,514	13,373	13,465	13,577	13,615
Durable goods	11,198	10,590	10,562	10,607	10,694	10,487	10,485	10,657	10,605	10,612	10,575	10,522	10,590	10,673	10,704
Production workers ²	8,043	7,612	7,578	7,634	7,713	7,512	7,514	7,695	7,650	7,660	7,629	7,581	7,648	7,727	7,758
Ordnance and accessories.....	242.1	193.0	192.8	194.2	192.7	189.9	189.9	190.2	188.3	187.3	185.5	184.2	183.0	183.2	183.9
Lumber and wood products.....	572.5	579.8	556.4	566.9	593.3	596.4	602.3	601.5	601.8	598.1	591.8	584.5	587.3	591.5	582.0
Furniture and fixtures.....	459.9	459.1	448.1	451.3	459.3	452.1	459.1	468.3	472.8	475.8	478.3	477.8	479.3	481.1	478.8
Stone, clay, and glass products.....	638.5	628.5	622.8	630.1	641.7	638.6	643.8	644.0	637.7	636.3	627.3	620.5	621.7	631.0	644.5
Primary metal industries.....	1,314.8	1,224.6	1,273.3	1,278.8	1,283.1	1,238.9	1,164.1	1,176.0	1,165.4	1,165.2	1,168.6	1,180.5	1,186.7	1,212.5	1,221.9
Fabricated metal products.....	1,379.9	1,331.9	1,323.3	1,328.5	1,343.6	1,319.4	1,332.4	1,354.1	1,349.2	1,350.7	1,343.4	1,333.1	1,338.7	1,350.5	1,354.0
Machinery, except electrical.....	1,976.9	1,791.0	1,796.7	1,784.3	1,784.6	1,772.4	1,767.6	1,788.4	1,774.4	1,778.9	1,786.2	1,782.3	1,806.6	1,808.6	1,815.3
Electrical equipment.....	1,922.9	1,787.8	1,772.8	1,775.5	1,780.6	1,758.7	1,777.2	1,803.2	1,800.2	1,806.7	1,805.8	1,793.6	1,800.8	1,807.8	1,813.5
Transportation equipment.....	1,806.8	1,751.4	1,748.7	1,764.0	1,770.7	1,688.7	1,694.6	1,768.7	1,749.4	1,750.6	1,743.3	1,730.1	1,741.5	1,756.4	1,756.3
Instruments and related products.....	458.6	432.0	425.4	427.6	430.9	430.2	432.4	434.8	436.2	436.7	435.3	435.1	436.8	437.9	439.0
Miscellaneous manufacturing.....	425.7	410.6	401.7	406.2	413.3	402.1	421.4	428.1	429.6	425.8	409.8	400.2	407.3	412.5	414.7
Nondurable goods	8,171	8,020	7,920	7,947	8,052	7,961	8,166	8,183	8,104	8,081	8,020	7,918	7,947	7,983	7,993
Production workers ²	5,990	5,875	5,779	5,807	5,898	5,803	6,010	6,043	5,966	5,945	5,885	5,792	5,817	5,850	5,857
Food and kindred products.....	1,781.7	1,753.5	1,674.3	1,693.2	1,749.3	1,797.0	1,882.8	1,879.3	1,803.8	1,770.8	1,734.0	1,688.2	1,668.9	1,679.2	1,681.6
Tobacco manufactures.....	81.7	73.6	69.2	68.4	67.9	61.9	77.7	84.2	80.0	76.5	73.4	70.2	68.4	67.2	65.2
Textile mill products.....	977.6	961.7	954.9	958.5	968.2	948.6	964.7	964.5	965.5	973.7	976.3	972.3	976.6	984.9	986.8
Apparel and other textile products.....	1,372.2	1,361.5	1,362.5	1,369.8	1,372.3	1,304.1	1,366.1	1,374.2	1,379.0	1,380.6	1,355.6	1,335.7	1,365.9	1,372.4	1,363.6
Paper and allied products.....	706.5	687.5	683.4	675.3	690.2	677.7	688.1	696.7	691.9	693.5	693.5	684.3	683.9	687.4	689.5
Printing and publishing.....	1,106.8	1,087.7	1,087.0	1,085.1	1,088.6	1,082.2	1,080.6	1,081.4	1,087.4	1,087.9	1,091.4	1,085.5	1,087.6	1,090.5	1,093.9
Chemicals and allied products.....	1,051.3	1,014.8	1,021.6	1,020.4	1,222.9	1,018.2	1,015.4	1,009.4	1,004.7	1,003.6	1,001.0	995.3	996.6	998.4	1,002.0
Petroleum and coal products.....	190.4	189.8	188.0	189.8	192.6	193.7	193.2	191.9	190.4	189.1	188.6	183.2	186.8	187.0	186.7
Rubber and plastics products, nec.....	580.4	582.0	572.9	577.7	585.0	577.4	584.5	595.9	597.4	597.0	597.8	597.5	603.0	608.6	614.9
Leather and leather products.....	322.2	307.9	306.5	308.8	314.9	300.0	313.2	305.5	304.1	308.6	308.0	306.1	309.5	307.8	308.4
TRANSPORTATION AND PUBLIC UTILITIES	4,504	4,481	4,469	4,500	4,549	4,534	4,486	4,509	4,455	4,447	4,469	4,430	4,407	4,486	4,500
WHOLESALE AND RETAIL TRADE	14,922	15,174	14,974	15,071	15,192	15,132	15,151	15,242	15,327	15,537	16,089	15,266	15,147	15,269	15,419
Wholesale trade.....	3,824	3,855	3,808	3,823	3,860	3,877	3,886	3,880	3,896	3,905	3,915	3,871	3,866	3,889	3,898
Retail trade.....	11,098	11,319	11,166	11,248	11,332	11,255	11,265	11,362	11,431	11,632	12,174	11,395	11,281	11,380	11,521
FINANCE, INSURANCE, AND REAL ESTATE	3,690	3,800	3,758	3,780	3,837	3,867	3,865	3,829	3,826	3,836	3,841	3,833	3,844	3,866	3,890
SERVICES	11,630	11,917	11,867	11,953	12,050	12,040	11,994	11,986	12,020	12,032	12,029	11,926	12,031	12,120	12,235
Hotels and other lodging places.....	761.9	774.2	747.7	764.1	810.7	878.1	882.9	812.1	759.0	736.0	746.8	750.3	760.6	769.5	-----
Personal services.....	992.3	946.1	949.0	958.6	958.4	939.6	932.2	933.3	939.9	946.4	935.3	922.1	919.6	918.5	-----
Medical and other health services.....	3,052.4	3,239.6	3,188.7	3,206.0	3,254.0	3,270.4	3,273.3	3,279.8	3,294.2	3,305.7	3,312.8	3,326.3	3,345.2	3,361.0	-----
Educational services.....	1,136.2	1,158.6	1,218.9	1,213.7	1,109.4	998.3	973.5	1,109.3	1,210.3	1,230.2	1,220.5	1,193.5	1,230.9	1,243.9	-----
GOVERNMENT	12,535	12,858	12,978	12,993	12,933	12,338	12,261	12,684	13,042	13,159	13,229	13,181	13,334	13,380	13,377
Federal.....	2,705	2,664	2,662	2,659	2,674	2,688	2,690	2,666	2,659	2,655	2,684	2,654	2,656	2,656	2,664
State and local.....	9,830	10,194	10,316	10,334	10,259	9,650	9,571	10,018	10,383	10,504	10,545	10,527	10,678	10,724	10,713

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in **Employment and Earnings, United States, 1909-71** (BLS Bulletin 1312-8).

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.

NOTE: For additional detail, see **Employment and Earnings**, table B-2. P=preliminary.

14. Employees on nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted ¹

[In thousands]

Industry division and group	1971									1972			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. ^P	Apr. ^P
TOTAL	70,599	70,769	70,657	70,531	70,529	70,853	70,848	71,042	71,185	71,584	71,729	71,990	72,172
MINING	623	622	619	597	609	616	521	525	607	616	612	611	603
CONTRACT CONSTRUCTION	3,282	3,275	3,255	3,228	3,219	3,250	3,290	3,320	3,245	3,320	3,236	3,262	3,235
MANUFACTURING	18,639	18,702	18,608	18,533	18,457	18,616	18,560	18,603	18,566	18,609	18,690	18,777	18,855
Production workers ²	13,502	13,569	13,496	13,440	13,371	13,515	13,462	13,505	13,474	13,527	13,597	13,683	13,758
Durable goods	10,598	10,651	10,598	10,552	10,485	10,597	10,561	10,572	10,548	10,574	10,637	10,695	10,743
Production workers ²	7,612	7,667	7,627	7,594	7,534	7,630	7,600	7,614	7,594	7,629	7,685	7,744	7,791
Ordnance and accessories.....	194	196	193	191	191	190	189	186	184	183	182	183	185
Lumber and wood products.....	567	570	574	579	583	591	597	601	600	604	603	604	593
Furniture and fixtures.....	452	457	458	461	456	465	467	470	474	478	481	484	483
Stone, clay, and glass products.....	628	633	629	625	627	633	631	634	632	640	641	645	650
Primary metal industries.....	1,270	1,272	1,259	1,226	1,156	1,182	1,187	1,178	1,176	1,186	1,187	1,211	1,218
Fabricated metal products.....	1,333	1,339	1,333	1,335	1,331	1,346	1,341	1,339	1,331	1,336	1,345	1,357	1,364
Machinery, except electrical.....	1,784	1,783	1,769	1,770	1,775	1,794	1,791	1,797	1,793	1,784	1,798	1,792	1,803
Electrical equipment.....	1,789	1,793	1,783	1,773	1,772	1,791	1,793	1,791	1,793	1,792	1,803	1,813	1,830
Transportation equipment.....	1,745	1,768	1,759	1,751	1,754	1,758	1,720	1,732	1,719	1,716	1,736	1,744	1,753
Instruments and related products.....	426	429	430	431	430	435	437	436	434	436	438	438	440
Miscellaneous manufacturing.....	410	411	411	410	410	412	408	408	412	419	423	424	424
Nondurable goods	8,041	8,051	8,010	7,981	7,972	8,019	7,999	8,031	8,018	8,035	8,053	8,082	8,112
Production workers ²	5,890	5,902	5,869	5,846	5,837	5,885	5,862	5,891	5,880	5,880	5,912	5,939	5,967
Food and kindred products.....	1,753	1,758	1,751	1,762	1,748	1,755	1,728	1,750	1,748	1,757	1,749	1,760	1,761
Tobacco manufactures.....	79	78	77	69	70	72	69	71	69	71	71	73	74
Textile mill products.....	958	963	956	959	959	960	963	970	974	979	981	988	990
Apparel and other textile products.....	1,374	1,373	1,357	1,349	1,351	1,361	1,365	1,370	1,357	1,353	1,365	1,366	1,375
Paper and allied products.....	690	681	682	676	681	694	693	691	690	688	689	692	696
Printing and publishing.....	1,088	1,091	1,088	1,083	1,080	1,082	1,085	1,084	1,084	1,090	1,090	1,091	1,095
Chemicals and allied products.....	1,021	1,024	1,016	1,008	1,004	1,008	1,008	1,009	1,005	1,003	1,003	1,000	1,001
Petroleum and coal products.....	190	190	189	188	188	190	189	189	191	188	192	191	189
Rubber and plastics, products, nec.....	577	582	583	584	582	591	594	592	594	600	604	612	619
Leather and leather products.....	311	311	311	303	309	306	305	306	306	306	309	309	312
TRANSPORTATION AND PUBLIC UTILITIES	4,505	4,518	4,500	4,476	4,428	4,460	4,442	4,434	4,465	4,502	4,479	4,540	4,536
WHOLESALE AND RETAIL TRADE	15,107	15,148	15,135	15,158	15,223	15,273	15,270	15,278	15,315	15,447	15,495	15,513	15,606
Wholesale trade.....	3,854	3,886	3,837	3,835	3,844	3,865	3,873	3,874	3,884	3,902	3,913	3,936	3,945
Retail trade.....	11,253	11,282	11,298	11,323	11,379	11,408	11,397	11,404	11,431	11,545	11,582	11,577	11,661
FINANCE, INSURANCE, AND REAL ESTATE	3,769	3,788	3,807	3,806	3,804	3,821	3,834	3,851	3,860	3,872	3,879	3,889	3,902
SERVICES	11,843	11,858	11,895	11,921	11,946	11,962	11,996	12,044	12,089	12,120	12,177	12,205	12,211
Hotels and other lodging places.....	768	768	775	755	760	796	784	785	801	813	813	812	812
Personal services.....	960	954	943	933	935	938	937	941	932	933	933	926	926
Medical and other health services.....	3,198	3,222	3,231	3,241	3,260	3,283	3,297	3,306	3,323	3,336	3,325	3,368	3,368
Educational services.....	1,168	1,167	1,155	1,142	1,139	1,160	1,165	1,168	1,165	1,160	1,171	1,183	1,183
GOVERNMENT	12,831	12,858	12,838	12,812	12,843	12,855	12,935	12,987	13,038	13,098	13,161	13,193	13,224
Federal.....	2,667	2,667	2,640	2,643	2,650	2,674	2,675	2,669	2,669	2,675	2,672	2,669	2,669
State and local.....	10,164	10,191	10,198	10,169	10,193	10,181	10,260	10,318	10,369	10,423	10,489	10,524	10,555

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8).

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.

NOTE: These data have been seasonally adjusted to reflect experience through May 1971. For additional detail, see September 1971 issue of *Employment and Earnings*.

^P=preliminary.

15. Labor turnover rates in manufacturing, 1962 to date¹

[Per 100 employees]

Year	Annual average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total accessions													
1962	4.1	4.1	3.6	3.8	4.0	4.3	5.0	4.6	5.1	4.9	3.9	3.0	2.4
1963	3.9	3.6	3.3	3.5	3.9	3.9	4.8	4.3	4.8	4.8	3.9	2.9	2.5
1964	4.0	3.6	3.4	3.7	3.8	3.9	5.1	4.4	5.1	4.8	4.0	3.2	2.6
1965	4.3	3.8	3.5	4.0	3.8	4.1	5.6	4.5	5.4	5.5	4.5	3.9	3.1
1966	5.0	4.6	4.2	4.9	4.6	5.1	6.7	5.1	6.4	6.1	5.1	3.9	2.9
1967	4.4	4.3	3.6	3.9	3.9	4.6	5.9	4.7	5.5	5.3	4.7	3.7	2.8
1968	4.6	4.2	3.8	4.0	4.3	4.7	5.9	5.0	5.8	5.7	5.1	3.9	3.1
1969	4.7	4.6	3.9	4.4	4.5	4.8	6.6	5.1	5.6	5.9	4.9	3.6	2.9
1970	4.0	4.0	3.6	3.7	3.7	4.2	5.4	4.4	5.1	4.7	3.8	3.0	2.4
1971	3.9	3.5	3.1	3.5	3.7	3.9	4.9	4.0	5.3	4.8	3.8	3.3	2.5
1972		4.1	3.7	4.1									
New hires													
1962	2.5	2.2	2.1	2.2	2.4	2.8	3.5	2.9	3.2	3.1	2.5	1.8	1.2
1963	2.4	1.9	1.8	2.0	2.3	2.5	3.3	2.7	3.2	3.2	2.6	1.8	1.4
1964	2.6	2.0	2.0	2.2	2.4	2.5	3.6	2.9	3.4	3.5	2.8	2.2	1.6
1965	3.1	2.4	2.4	2.8	2.6	3.0	4.3	3.2	3.9	4.0	3.5	2.9	2.2
1966	3.8	3.2	3.1	3.7	3.6	4.1	5.6	3.9	4.8	4.7	4.2	3.1	2.1
1967	3.3	3.0	2.7	2.8	2.8	3.3	4.6	3.3	4.0	4.1	3.7	2.8	2.0
1968	3.5	3.0	2.7	2.9	3.2	3.6	4.7	3.7	4.3	4.6	4.0	2.9	2.2
1969	3.7	3.3	3.0	3.4	3.5	3.8	5.4	3.9	4.3	4.8	4.0	2.8	2.1
1970	2.8	2.9	2.5	2.6	2.6	2.8	3.9	3.0	3.5	3.4	2.7	1.9	1.4
1971	2.5	2.0	1.9	2.2	2.3	2.6	3.5	2.7	3.4	3.3	2.7	2.2	1.6
1972		2.5	2.4	2.8									
Total separations													
1962	4.1	3.9	3.4	3.6	3.6	3.8	3.8	4.4	5.1	5.0	4.4	4.0	3.8
1963	3.9	4.0	3.2	3.5	3.6	3.6	3.4	4.1	4.8	4.9	4.1	3.9	3.7
1964	3.9	4.0	3.3	3.5	3.5	3.6	3.5	4.4	4.3	5.1	4.2	3.6	3.7
1965	4.1	3.7	3.1	3.4	3.7	3.6	3.6	4.3	5.1	5.6	4.5	3.9	4.1
1966	4.6	4.0	3.6	4.1	4.3	4.3	4.4	5.3	5.8	6.6	4.8	4.3	4.2
1967	4.6	4.5	4.0	4.6	4.3	4.2	4.3	4.8	5.3	6.2	4.7	4.0	3.9
1968	4.6	4.4	3.9	4.1	4.1	4.3	4.1	5.0	6.0	6.3	5.0	4.1	3.8
1969	4.9	4.5	4.0	4.4	4.5	4.6	4.6	5.3	6.2	6.6	5.4	4.3	4.2
1970	4.8	4.8	4.3	4.4	4.8	4.6	4.4	5.3	5.6	6.0	5.3	4.3	4.1
1971	4.2	4.2	3.5	3.7	4.0	3.7	3.8	4.8	5.5	5.3	4.3	3.7	3.8
1972		4.0	3.5	3.9									
Quits													
1962	1.4	1.1	1.1	1.2	1.3	1.5	1.5	1.4	2.1	2.4	1.5	1.1	.8
1963	1.4	1.1	1.0	1.2	1.3	1.4	1.4	1.4	2.1	2.4	1.5	1.1	.8
1964	1.5	1.2	1.1	1.2	1.3	1.5	1.4	1.5	2.1	2.7	1.7	1.2	1.0
1965	1.9	1.4	1.3	1.5	1.7	1.7	1.7	1.8	2.6	3.5	2.2	1.7	1.4
1966	2.6	1.9	1.8	2.3	2.5	2.5	2.5	2.5	3.6	4.5	2.8	2.1	1.7
1967	2.3	2.1	1.9	2.1	2.2	2.2	2.3	2.1	3.2	4.0	2.5	1.9	1.5
1968	2.5	2.0	1.9	2.1	2.2	2.4	2.3	2.4	3.8	4.2	2.8	2.1	1.6
1969	2.7	2.3	2.1	2.4	2.6	2.7	2.6	2.7	4.0	4.4	3.0	2.1	1.6
1970	2.1	2.1	1.9	2.0	2.1	2.1	2.1	2.1	3.0	3.3	2.1	1.4	1.2
1971	1.8	1.5	1.3	1.5	1.6	1.7	1.8	1.8	2.8	2.9	1.9	1.5	1.2
1972		1.7	1.6	1.9									
Layoffs													
1962	2.0	2.1	1.7	1.6	1.6	1.6	1.6	2.2	2.2	1.9	2.2	2.3	2.5
1963	1.8	2.2	1.6	1.7	1.6	1.5	1.4	2.0	1.9	1.8	1.9	2.1	2.3
1964	1.7	2.0	1.6	1.6	1.4	1.4	1.3	2.1	1.4	1.5	1.8	1.7	2.1
1965	1.4	1.6	1.2	1.2	1.3	1.1	1.1	1.8	1.6	1.3	1.4	1.5	1.9
1966	1.2	1.3	1.0	1.0	1.0	.9	1.0	2.0	1.1	1.0	1.1	1.3	1.7
1967	1.4	1.5	1.3	1.5	1.3	1.1	1.1	1.9	1.2	1.2	1.3	1.3	1.6
1968	1.2	1.5	1.2	1.1	1.0	1.0	.9	1.8	1.3	1.1	1.2	1.2	1.4
1969	1.2	1.2	1.0	1.0	.9	.9	1.0	1.6	1.1	1.1	1.3	1.3	1.8
1970	1.8	1.7	1.5	1.6	1.7	1.5	1.5	2.3	1.7	1.7	2.2	2.1	2.2
1971	1.6	1.9	1.4	1.4	1.4	1.2	1.2	2.1	1.8	1.5	1.5	1.5	1.8
1972		1.4	1.1	1.1									

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8).

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 because (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.
* =corrected.

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		
	Mar. 1971	Feb. 1972	Mar. 1972 ^p	Mar. 1971	Feb. 1972	Mar. 1972 ^p	Mar. 1971	Feb. 1972	Mar. 1972 ^p	Mar. 1971	Feb. 1972	Mar. 1972 ^p	Mar. 1971	Feb. 1972	Mar. 1972 ^p
MANUFACTURING	3.5	3.7	4.1	2.2	2.4	2.8	3.7	3.5	3.9	1.5	1.6	1.9	1.4	1.1	1.1
Seasonally adjusted ²	3.9	4.5	4.6	2.5	3.0	3.2	4.1	4.1	4.3	1.7	2.1	2.2	1.5	1.2	1.2
Durable goods	3.4	3.5	3.9	1.9	2.2	2.6	3.5	3.2	3.5	1.2	1.3	1.6	1.4	1.0	1.0
Ordnance and accessories.....	1.8	1.9	-----	.8	1.0	-----	3.1	2.6	-----	.7	.6	-----	1.9	1.5	-----
Lumber and wood products.....	5.3	4.9	6.2	3.8	3.9	4.7	4.8	4.6	5.8	2.4	2.7	3.6	1.5	1.1	1.2
Furniture and fixtures.....	4.9	5.3	5.7	3.7	4.5	4.9	4.7	5.0	5.6	2.5	3.1	3.6	1.2	.8	.7
Stone, clay, and glass products.....	4.4	3.8	4.6	2.5	2.6	3.1	3.6	3.6	3.7	1.5	1.6	1.9	1.3	1.3	.9
Primary metal industries	3.3	3.7	3.8	1.9	1.4	1.6	2.6	2.6	2.5	.9	.8	.9	.8	1.0	.7
Fabricated metal products.....	3.7	3.8	-----	2.4	2.6	-----	3.9	3.6	-----	1.4	1.5	-----	1.6	1.3	-----
Machinery, except electrical.....	2.4	2.8	3.0	1.3	1.9	2.1	3.1	2.5	2.7	.9	.9	1.2	1.4	.8	.7
Electrical equipment.....	2.7	3.1	-----	1.3	1.9	-----	3.3	2.9	-----	1.1	1.2	-----	1.3	.8	-----
Transportation equipment.....	3.3	3.3	-----	1.6	1.8	-----	3.8	3.0	-----	.9	1.0	-----	2.1	1.2	-----
Instruments and related products.....	2.3	2.7	3.6	1.5	2.0	2.9	2.5	2.2	3.2	.9	1.1	1.6	.9	.5	.7
Miscellaneous manufacturing.....	5.5	5.8	5.9	3.4	3.8	4.5	4.4	4.6	5.0	1.9	2.2	2.7	1.4	1.5	1.2
Nondurable goods	3.8	3.8	4.2	2.6	2.7	3.0	4.0	3.9	4.4	1.9	1.9	2.3	1.4	1.2	1.3
Food and kindred products.....	4.6	4.1	4.9	2.8	2.6	2.8	5.1	5.4	5.7	2.0	2.0	2.2	2.3	2.7	2.8
Tobacco manufactures.....	1.7	1.8	1.9	1.2	1.0	1.2	4.7	3.0	3.0	1.1	1.0	1.2	2.9	1.2	1.0
Textile mill products.....	4.6	4.9	5.9	3.5	3.8	4.7	4.9	4.6	5.6	3.0	3.1	4.0	1.0	.6	.5
Apparel and other textile products.....	4.9	5.6	5.3	3.4	3.7	3.9	5.2	4.7	6.1	2.4	2.8	3.2	2.0	1.2	2.1
Paper and allied products	2.5	2.4	2.7	1.7	1.6	1.9	2.8	2.4	2.8	1.2	1.1	1.4	.9	.7	.6
Printing and publishing.....	2.7	2.8	2.9	1.9	2.2	2.3	2.7	2.5	2.8	1.3	1.4	1.6	.8	.7	.7
Chemicals and allied products.....	2.0	1.9	2.1	1.4	1.4	1.6	2.1	1.9	1.9	.8	.7	.9	.6	.5	.4
Petroleum and coal products.....	1.8	1.4	1.5	1.4	1.2	1.3	1.7	1.8	1.7	.6	.6	.6	.2	.5	.5
Rubber and plastics products, nec.....	4.2	4.0	4.7	2.7	3.0	3.7	3.7	3.4	4.1	1.8	1.9	2.3	.9	.7	.8
Leather and leather products.....	5.5	5.9	6.3	3.5	4.1	4.7	6.0	5.5	6.7	2.6	3.2	3.6	2.2	1.2	1.9

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data, will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8).

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 because (1) the labor turnover series measures changes during the calendar month, while the employment series measures

changes from midmonth to midmonth, and (2) the turnover series excludes personnel changes caused by strikes, but the employment series reflects the influence of such stoppages.

² These data have been seasonally adjusted to reflect experience through May 1971. For additional detail, see September 1971 issue of *Employment and Earnings*.

NOTE: For additional detail, see *Employment and Earnings*, table D-2.

P=preliminary.

17. Job vacancies in manufacturing ¹

Industry	Annual average		1971										1972		
	1970	1971	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. ^p
Job vacancies in manufacturing (number in thousands).....	132	88	83	93	94	90	90	106	98	90	79	78	90	97	109
JOB VACANCY RATES ²															
Manufacturing	0.7	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.4	0.5	0.5	0.6
Durable goods industries.....	.6	.4	.4	.4	.4	.4	.4	.5	.5	.4	.4	.4	.5	.5	.5
Nondurable goods industries.....	.7	.6	.5	.6	.6	.6	.6	.6	.6	.5	.5	.5	.5	.6	.6
Selected durable goods industries:															
Primary metal industries.....	.5	.2	.3	.4	.3	.2	.2	.2	.2	.2	.1	.1	.2	.2	.2
Machinery, except electrical.....	.7	.4	.4	.4	.4	.4	.4	.5	.4	.4	.4	.4	.5	.5	.6
Electrical equipment and supplies.....	.7	.5	.4	.5	.5	.5	.5	.6	.5	.6	.5	.5	.6	.7	.6
Transportation equipment.....	.5	.4	.4	.4	.4	.4	.5	.6	.5	.4	.4	.3	.4	.5	.6
Instruments and related products.....	1.0	.7	.6	.8	.7	.9	.8	.8	.8	.7	.6	.6	.7	.7	.9
Selected nondurable goods industries:															
Textile mill products.....	.9	.8	.8	.8	.9	.9	.8	1.0	.9	.9	.8	.8	.8	.9	1.1
Apparel and other textile products.....	1.4	1.2	1.3	1.3	1.3	1.3	1.3	1.4	1.2	1.2	1.0	1.1	1.2	1.2	1.4
Printing and publishing.....	.6	.4	.4	.4	.3	.3	.3	.4	.3	.4	.3	.3	.3	.3	.3
Chemicals and allied products.....	.7	.4	.5	.4	.5	.4	.4	.4	.4	.4	.3	.3	.4	.4	.5

¹ Data have been adjusted to March 1970 benchmarks (comprehensive counts of employment). For months prior to July 1971, data are not comparable to those published in the February 1972 and earlier issues of the *Monthly Labor Review*.

² Computed by dividing the total number of job vacancies by the sum of employ-

ment plus the total number of job vacancies and multiplying the quotient of 100.

NOTE: For additional detail on this series, see *Employment and Earnings*, tables E-1, E-2, and E-3.

P=preliminary.

18. Gross average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls, by industry division, 1947 to date

Year	Average			Average			Average			Average		
	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	155.23	43.0	3.61	181.54	37.9	4.79	129.51	40.6	3.19
1970	119.46	37.1	3.22	163.97	42.7	3.84	196.35	37.4	5.25	133.73	39.8	3.36
1971	126.91	37.0	3.43	171.72	42.4	4.05	213.36	37.3	5.72	142.44	39.9	3.57
	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				74.28	37.9	1.96	85.79	37.3	2.30	\$69.84	36.0	\$1.94
1965	\$118.37	41.1	\$2.88	76.53	37.7	2.03	88.91	37.2	2.39	73.60	35.9	2.05
1966	125.14	41.3	3.03									
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	148.15	40.7	3.64	91.14	35.6	2.56	108.70	37.1	2.93	90.57	34.7	2.61
1970	155.93	40.5	3.85	95.66	35.3	2.71	113.34	36.8	3.08	96.66	34.4	2.81
1971	169.24	40.2	4.21	100.74	35.1	2.87	121.36	37.0	3.28	102.26	34.2	2.99

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in *Employment and Earnings, United States 1909-71* (BLS Bulletin 1312-8).

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	Annual average		1971									1972			
	1970	1971	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. ^P	Apr. ^P
	TOTAL PRIVATE	37.1	37.0	36.7	36.8	37.3	37.3	37.4	37.0	37.0	37.0	37.3	36.7	36.8	36.9	37.0
MINING	42.7	42.4	42.3	42.4	42.6	42.6	42.3	42.1	42.8	42.3	42.8	42.5	42.0	42.3	42.4
CONTRACT CONSTRUCTION	37.4	37.3	37.0	37.0	38.0	38.1	38.3	36.9	38.2	37.9	36.5	35.8	36.0	36.8	36.8
MANUFACTURING	39.8	39.9	39.5	40.0	40.2	39.8	39.8	39.8	40.0	40.2	40.7	39.8	40.1	40.3	40.5
Overtime hours.....	3.0	2.9	2.7	2.9	3.0	2.9	3.0	3.1	3.1	3.1	3.2	2.8	3.0	3.1	3.2
Durable goods	40.3	40.4	40.0	40.5	40.8	40.1	40.0	40.0	40.5	40.7	41.4	40.4	40.7	41.0	41.2
Overtime hours.....	2.9	2.9	2.6	2.8	3.0	2.7	2.8	3.0	3.0	3.0	3.2	2.8	3.0	3.2	3.3
Ordnance and accessories.....	40.6	41.7	41.3	41.5	41.8	41.3	41.7	41.9	41.8	42.0	42.4	41.7	42.2	42.1	42.1
Lumber and wood products.....	39.7	40.3	40.1	40.2	40.9	40.4	40.5	40.4	41.0	40.6	40.8	40.0	40.4	40.9	41.4
Furniture and fixtures.....	39.2	39.8	38.9	39.5	40.1	39.7	40.4	40.0	40.4	40.4	40.9	39.7	39.8	40.2	40.1
Stone, clay, and glass products.....	41.2	41.6	41.1	41.6	42.3	42.0	42.3	41.9	42.1	41.9	41.6	40.9	41.2	41.8	41.7
Primary metal industries.....	40.5	40.4	41.1	41.1	41.3	40.7	38.8	39.5	39.7	39.9	41.0	40.7	41.0	41.2	41.1
Fabricated metal products.....	40.7	40.3	39.8	40.7	40.9	40.3	40.3	39.9	40.3	40.6	41.3	40.1	40.4	40.7	41.1
Machinery, except electrical.....	41.1	40.6	40.0	40.5	40.7	40.3	40.3	40.6	40.8	41.1	41.9	41.0	41.4	41.7	42.0
Electrical equipment.....	39.9	39.9	39.4	39.8	40.1	39.6	40.0	40.0	40.1	40.4	40.9	40.0	40.2	40.3	40.5
Transportation equipment.....	40.3	40.7	39.8	41.2	41.5	39.4	39.3	39.1	41.0	41.1	42.5	40.6	41.2	41.6	41.8
Instruments and related products.....	40.1	39.8	39.5	39.8	39.8	39.5	39.6	40.0	40.1	40.5	40.8	40.1	40.4	40.3	39.9
Miscellaneous manufacturing.....	38.7	38.9	38.5	38.8	38.8	38.6	39.2	38.9	39.3	39.5	39.5	38.7	39.2	39.3	39.5
Nondurable goods	39.1	39.3	38.9	39.2	39.4	39.4	39.5	39.5	39.4	39.6	39.8	39.1	39.2	39.4	39.5
Overtime hours.....	3.0	3.0	2.7	2.9	3.1	3.0	3.2	3.4	3.2	3.1	3.1	2.9	3.0	3.1	3.1
Food and kindred products.....	40.5	40.3	39.8	40.3	40.5	40.6	40.7	40.9	40.1	40.1	40.6	39.8	39.6	39.8	39.9
Tobacco manufactures.....	37.8	37.0	36.7	37.9	36.8	39.3	37.4	36.0	36.0	35.7	36.0	34.1	33.1	33.4	33.4
Textile mill products.....	39.9	40.6	40.0	40.6	41.0	40.1	40.8	40.6	41.0	41.4	41.5	40.8	41.0	41.3	41.4
Apparel and other textile products.....	35.3	35.5	35.0	35.5	35.5	35.8	36.0	35.5	35.9	36.3	35.9	35.3	35.9	36.0	36.0
Paper and allied products.....	41.9	42.1	41.9	42.0	42.3	42.4	42.5	42.2	42.3	42.4	42.8	41.9	42.2	42.4	42.7
Printing and publishing.....	37.7	37.6	37.3	37.6	37.7	37.6	37.7	37.7	37.6	37.6	38.0	37.1	37.2	37.7	37.8
Chemicals and allied products.....	41.6	41.6	41.9	41.5	41.7	41.3	41.3	42.1	41.5	41.6	41.9	41.6	41.6	41.7	41.9
Petroleum and coal products.....	42.7	42.4	42.3	42.5	42.6	43.0	42.6	42.8	42.6	42.1	42.3	41.7	41.4	41.6	42.8
Rubber and plastics products, nec.....	40.3	40.3	39.9	40.3	40.7	40.1	40.3	40.5	40.6	40.8	41.2	40.6	40.7	40.8	41.0
Leather and leather products.....	37.2	37.7	37.2	37.8	38.1	38.2	37.6	36.9	37.7	38.4	38.7	38.2	38.5	37.9	37.8
TRANSPORTATION AND PUBLIC UTILITIES	40.5	40.2	40.2	39.8	40.8	38.4	40.7	40.8	40.5	40.6	40.6	39.8	40.2	40.3	40.2
WHOLESALE AND RETAIL TRADE	35.3	35.1	34.8	34.8	35.4	36.1	36.0	35.2	35.0	34.9	35.5	34.7	34.6	34.8	34.8
Wholesale trade.....	40.0	39.8	39.4	39.6	40.0	39.9	39.9	39.7	39.8	39.8	40.3	39.6	39.7	39.8	39.9
Retail trade.....	33.8	33.7	33.3	33.3	34.0	34.8	34.7	33.7	33.5	33.4	34.1	33.2	33.0	33.2	33.2
FINANCE, INSURANCE, AND REAL ESTATE	36.8	37.0	36.9	36.9	37.0	37.1	37.3	36.9	37.0	37.0	37.0	37.3	37.1	37.1	37.1
SERVICES	34.4	34.2	34.0	33.9	34.2	34.8	34.7	34.1	34.1	34.0	34.2	33.9	34.0	33.9	34.0

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8).

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.

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	1971									1972			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. ^p	Apr. ^p
TOTAL PRIVATE	37.0	36.9	37.1	36.9	36.9	36.7	37.0	37.1	37.2	37.0	37.2	37.1	37.3
MINING	42.2	42.4	42.3	42.2	42.0	41.9	42.5	42.3	42.6	43.0	42.5	43.0	42.3
CONTRACT CONSTRUCTION	37.1	36.8	37.2	37.1	37.1	35.7	37.6	39.0	36.8	37.4	37.3	37.5	36.9
MANUFACTURING	39.8	40.0	40.0	40.0	39.8	39.5	39.8	40.1	40.3	40.0	40.5	40.4	40.8
Overtime hours.....	2.9	3.0	2.9	3.0	2.9	2.8	3.0	3.0	3.1	2.9	3.2	3.3	3.4
Durable goods	40.3	40.5	40.6	40.4	40.0	39.7	40.3	40.6	40.9	40.6	41.1	41.0	41.5
Overtime hours.....	2.8	2.9	2.9	2.8	2.8	2.7	2.8	2.9	3.0	2.9	3.2	3.3	3.6
Ordnance and accessories.....	41.5	41.5	41.6	41.9	41.9	41.7	41.8	41.9	42.0	41.2	42.4	42.2	42.3
Lumber and wood products.....	40.1	39.8	40.4	40.5	40.2	40.1	40.7	40.8	40.8	40.9	40.9	40.9	41.4
Furniture and fixtures.....	39.5	39.9	39.9	40.1	39.9	39.4	39.7	40.0	39.9	40.3	40.7	40.5	40.7
Stone, clay, and glass products.....	41.1	41.4	42.0	41.8	41.8	41.4	41.8	41.9	41.6	41.8	42.0	42.2	41.7
Primary metal industries.....	41.0	41.0	41.0	40.6	38.8	39.5	40.1	40.1	41.0	40.6	41.1	41.2	41.0
Fabricated metal products.....	40.1	40.7	40.6	40.7	40.2	39.3	40.1	40.4	40.9	40.4	41.0	40.9	41.4
Machinery, except electrical.....	40.0	40.5	40.7	40.7	40.8	40.5	40.8	41.1	41.3	41.0	41.4	41.4	42.0
Electrical equipment.....	39.8	39.9	39.9	40.1	40.0	39.6	39.9	40.1	40.3	40.1	40.7	40.3	40.9
Transportation equipment.....	40.6	41.1	41.4	39.5	39.9	38.5	40.5	40.5	41.7	40.7	41.9	42.0	42.7
Instruments and related products.....	39.7	40.0	39.7	39.8	39.8	39.7	39.9	40.2	40.4	40.3	40.8	40.3	40.1
Miscellaneous manufacturing.....	38.6	38.9	38.7	39.2	39.2	38.7	38.9	39.1	39.2	39.0	39.6	39.3	39.6
Nondurable goods	39.2	39.4	39.3	39.3	39.3	39.1	39.3	39.5	39.5	39.4	39.6	39.6	39.9
Overtime hours.....	2.9	3.0	3.1	3.0	3.1	3.1	3.0	3.0	3.0	3.1	3.2	3.3	3.3
Food and kindred products.....	40.5	40.5	40.4	40.5	40.5	40.5	40.0	40.0	40.3	40.1	40.0	40.0	40.2
Tobacco manufactures.....	37.5	38.3	36.2	39.6	37.1	36.6	34.7	35.6	35.6	34.8	33.6	34.5	34.1
Textile mill products.....	40.4	40.8	40.8	40.3	40.7	40.4	40.8	41.1	41.0	41.3	41.2	41.4	41.8
Apparel and other textile products.....	35.1	35.5	35.4	35.8	35.7	35.4	36.0	36.2	35.9	35.7	36.2	35.8	36.1
Paper and allied products.....	42.3	42.1	42.3	42.4	42.4	41.9	42.0	42.3	42.3	42.1	42.6	42.7	43.1
Printing and publishing.....	37.5	37.7	37.7	37.6	37.5	37.4	37.5	37.6	37.5	37.5	37.5	37.7	38.0
Chemicals and allied products.....	41.7	41.5	41.7	41.4	41.5	42.1	41.5	41.4	41.7	41.8	41.8	41.7	41.7
Petroleum and coal products.....	41.7	41.7	42.3	42.6	43.4	42.9	42.4	41.8	42.7	42.2	42.0	41.7	42.2
Rubber and plastics products, nec.....	40.3	40.4	40.7	40.3	40.1	40.0	40.3	40.6	40.9	40.8	41.0	41.2	41.4
Leather and leather products.....	38.3	37.8	37.5	37.7	37.6	37.3	37.9	38.3	37.9	38.0	38.5	38.2	38.9
TRANSPORTATION AND PUBLIC UTILITIES ...	40.6	40.0	40.7	38.0	40.5	40.6	40.3	40.4	40.5	40.0	40.4	40.7	40.6
WHOLESALE AND RETAIL TRADE	35.2	35.1	35.2	35.3	35.1	35.1	35.2	35.2	35.3	35.1	35.1	35.1	35.2
Wholesale trade.....	39.6	39.8	39.9	39.6	39.7	39.7	39.8	39.9	40.0	39.7	40.0	39.9	40.1
Retail trade.....	33.7	33.7	33.7	33.8	33.6	33.6	33.8	33.7	33.9	33.7	33.5	33.6	33.6
FINANCE, INSURANCE, AND REAL ESTATE ...	36.9	37.0	37.0	37.1	37.3	37.0	36.9	36.9	37.0	37.3	37.1	37.1	37.1
SERVICES	34.1	34.1	34.1	34.4	34.3	34.2	34.2	34.1	34.2	34.1	34.2	33.9	34.1

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8).

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.

NOTE: These data have been seasonally adjusted to reflect experience through May 1971. For additional detail, see September 1971 issue of *Employment and Earnings*.

^p=preliminary.

21. Gross average hourly earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls, by industry division and major manufacturing group

Industry division and group	Annual average		1971									1972			
	1970	1971	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. ^p	Apr. ^p
TOTAL PRIVATE	\$3.22	\$3.43	\$3.38	\$3.41	\$3.42	\$3.43	\$3.45	\$3.49	\$3.49	\$3.48	\$3.51	\$3.54	\$3.55	\$3.57	\$3.59
MINING	3.84	4.05	40.4	4.04	4.04	4.05	4.10	4.15	3.92	3.92	4.27	4.32	4.31	4.31	4.34
CONTRACT CONSTRUCTION	5.25	5.72	5.55	5.65	5.63	5.68	5.75	5.86	5.90	5.90	5.93	5.99	5.98	5.97	5.99
MANUFACTURING	3.36	3.57	3.54	3.55	3.57	3.57	3.56	3.60	3.60	3.60	3.69	3.71	3.72	3.75	3.77
Durable goods	3.56	3.80	3.76	3.78	3.80	3.79	3.79	3.83	3.82	3.83	3.93	3.95	3.96	3.99	4.01
Ordnance and accessories.....	3.61	3.85	3.80	3.81	3.85	3.89	3.88	3.90	3.91	3.88	3.98	3.98	4.04	4.01	4.03
Lumber and wood products.....	2.96	3.14	3.07	3.12	3.17	3.19	3.19	3.21	3.21	3.20	3.19	3.21	3.21	3.23	3.23
Furniture and fixtures.....	2.77	2.90	2.86	2.88	2.90	2.91	2.94	2.95	2.93	2.93	2.98	2.98	2.99	3.01	3.02
Stone, clay, and glass products.....	3.40	3.66	3.59	3.63	3.67	3.70	3.73	3.75	3.73	3.71	3.74	3.76	3.78	3.82	3.85
Primary metal industries	3.93	4.23	4.17	4.15	4.21	4.19	4.29	4.35	4.35	4.36	4.50	4.54	4.55	4.58	4.61
Fabricated metal products.....	3.53	3.74	3.70	3.74	3.75	3.74	3.75	3.77	3.77	3.78	3.87	3.88	3.89	3.92	3.95
Machinery, except electrical.....	3.77	3.99	3.95	3.97	3.99	4.00	4.02	4.04	4.04	4.04	4.16	4.16	4.19	4.21	4.23
Electrical equipment.....	3.28	3.50	3.47	3.49	3.49	3.51	3.50	3.52	3.51	3.52	3.60	3.60	3.62	3.63	3.65
Transportation equipment.....	4.06	4.44	4.40	4.43	4.43	4.39	4.37	4.42	4.44	4.44	4.62	4.60	4.65	4.68	4.71
Instruments and related products.....	3.35	3.53	3.49	3.52	3.52	3.55	3.55	3.57	3.55	3.56	3.62	3.67	3.69	3.70	3.71
Miscellaneous manufacturing.....	2.82	2.96	2.94	2.94	2.95	2.94	2.95	2.96	2.96	2.97	3.05	3.07	3.06	3.06	3.07
Nondurable goods	3.08	3.26	3.23	3.24	3.26	3.29	3.27	3.31	3.29	3.29	3.36	3.38	3.40	3.41	3.42
Food and kindred products.....	3.16	3.38	3.37	3.38	3.38	3.39	3.34	3.38	3.38	3.40	3.51	3.52	3.53	3.57	3.58
Tobacco manufactures.....	2.92	3.15	3.24	3.30	3.30	3.33	3.19	3.03	3.02	3.08	3.29	3.32	3.37	3.40	3.42
Textile mill products.....	2.45	2.57	2.55	2.56	2.56	2.56	2.57	2.58	2.59	2.59	2.62	2.69	2.71	2.71	2.72
Apparel and other textile products.....	2.39	2.49	2.47	2.47	2.47	2.47	2.50	2.53	2.52	2.52	2.55	2.56	2.58	2.57	2.58
Paper and allied products.....	3.44	3.68	3.61	3.62	3.67	3.71	3.73	3.77	3.73	3.73	3.80	3.81	3.83	3.85	3.86
Printing and publishing.....	3.92	4.20	4.14	4.18	4.20	4.21	4.23	4.28	4.27	4.27	4.36	4.35	4.36	4.40	4.44
Chemicals and allied products.....	3.69	3.94	3.88	3.90	3.94	3.99	3.99	4.03	4.00	4.00	4.06	4.10	4.12	4.11	4.13
Petroleum and coal products.....	4.28	4.58	4.58	4.58	4.58	4.60	4.59	4.66	4.65	4.65	4.65	4.84	4.88	4.88	4.90
Rubber and plastics products, nec.....	3.20	3.41	3.36	3.38	3.38	3.44	3.45	3.48	3.46	3.46	3.53	3.54	3.54	3.54	3.51
Leather and leather products.....	2.49	2.59	2.58	2.58	2.58	2.58	2.59	2.62	2.63	2.61	2.65	2.67	2.70	2.70	2.69
TRANSPORTATION AND PUBLIC UTILITIES	3.85	4.21	4.10	4.13	4.15	4.23	4.25	4.33	4.31	4.33	4.41	4.46	4.48	4.51	4.53
WHOLESALE AND RETAIL TRADE	2.71	2.87	2.85	2.87	2.87	2.87	2.88	2.90	2.91	2.91	2.91	2.97	2.98	2.99	2.99
Wholesale trade.....	3.44	3.67	3.62	3.67	3.66	3.67	3.70	3.72	3.72	3.74	3.79	3.82	3.82	3.82	3.83
Retail trade.....	2.44	2.57	2.56	2.57	2.58	2.58	2.57	2.60	2.60	2.60	2.61	2.66	2.66	2.67	2.68
FINANCE, INSURANCE, AND REAL ESTATE	3.08	3.28	3.26	3.30	3.28	3.29	3.30	3.30	3.31	3.30	3.34	3.40	3.40	3.40	3.41
SERVICES	2.81	2.99	2.96	2.98	2.97	2.98	2.99	3.04	3.03	3.04	3.06	3.09	3.11	3.11	3.12

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8).

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.

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	Annual average		1971									1972			
	1970	1971	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar. ^p	Apr. ^p
TOTAL PRIVATE	\$119.46	\$126.91	\$124.05	\$125.49	\$127.57	127.94	\$129.03	\$129.13	\$129.13	\$128.76	\$130.92	\$129.92	\$130.64	\$131.73	\$132.83
MINING	163.97	171.72	170.89	171.30	172.10	172.53	173.43	174.72	167.78	165.82	182.76	183.60	181.02	182.31	184.02
CONTRACT CONSTRUCTION	196.35	213.36	205.35	209.05	213.94	216.41	220.23	216.23	225.38	223.61	216.45	214.44	215.28	219.70	220.43
MANUFACTURING	133.73	142.44	139.83	142.00	143.51	142.09	141.69	143.28	144.00	144.72	150.18	147.66	149.17	151.13	152.69
Durable goods	143.47	153.52	150.40	153.09	155.04	151.98	151.60	153.20	154.71	155.88	162.70	159.58	161.17	163.59	165.21
Ordnance and accessories, Lumber and wood products.....	146.57	160.55	156.94	158.12	160.93	160.66	161.80	163.41	163.44	162.96	168.75	165.97	170.49	168.82	169.66
Furniture and fixtures.....	117.51	126.54	123.11	125.42	129.65	128.88	129.20	129.68	131.61	129.92	130.15	128.40	129.68	132.11	133.72
Stone, clay, and glass products.....	108.58	115.42	111.25	113.76	116.29	115.53	118.78	118.00	118.37	118.37	121.88	118.31	119.00	121.00	121.10
Primary metal industries.....	140.08	152.26	147.55	151.01	155.24	155.40	157.78	157.13	157.03	155.45	155.58	153.78	155.74	159.68	160.55
Fabricated metal products.....	159.17	170.89	171.39	170.57	173.87	170.53	166.45	171.83	172.70	173.96	184.50	184.78	186.55	188.70	189.47
Machinery, except electrical.....	143.67	150.72	147.26	152.22	153.38	150.72	151.13	150.42	151.93	153.47	159.83	155.59	157.16	159.54	162.35
Electrical equipment.....	154.95	161.99	158.00	160.79	162.39	161.20	162.01	164.02	164.83	166.04	174.30	170.56	173.47	175.56	177.66
Transportation equipment.....	130.87	139.65	136.72	138.90	139.95	139.00	140.00	140.80	140.75	142.21	147.24	144.00	145.52	146.29	147.83
Instruments and related products.....	163.62	180.71	175.12	182.52	183.85	172.97	171.74	172.82	182.04	182.48	196.35	186.76	191.58	194.69	196.88
Miscellaneous manufacturing.....	134.34	140.49	137.86	140.10	140.10	140.23	140.58	142.80	142.36	144.18	147.70	147.17	149.08	149.11	148.03
Nondurable goods	109.13	115.14	113.19	114.07	114.46	113.48	115.64	115.14	116.33	117.32	120.48	118.81	119.95	120.26	121.27
Food and kindred products.....	120.43	128.12	125.65	127.01	128.44	129.63	129.17	130.75	129.63	130.28	133.73	132.16	133.28	134.35	135.09
Tobacco manufactures.....	127.98	136.21	134.13	136.21	136.89	137.63	135.94	138.24	135.54	136.34	142.51	140.10	139.79	142.09	142.84
Textile mill products.....	110.38	116.55	118.91	125.07	121.44	130.87	119.31	114.53	108.72	109.96	118.44	113.21	111.55	113.56	114.23
Apparel and other textile products.....	97.76	104.34	102.00	103.94	104.96	102.66	104.86	104.75	106.19	107.23	108.73	109.75	111.11	111.92	112.61
Paper and allied products.....	84.37	88.40	86.45	87.69	87.69	88.43	90.00	89.82	90.47	91.48	91.55	90.37	92.62	92.52	92.88
Printing and publishing.....	144.14	154.93	151.26	152.04	155.48	157.30	158.53	159.08	157.78	158.15	162.64	159.64	161.63	163.24	164.82
Chemicals and allied products.....	147.78	157.92	154.42	157.17	158.34	158.30	159.47	161.36	160.55	160.55	165.68	161.39	162.19	165.88	167.83
Petroleum and coal products.....	153.50	163.90	162.57	161.85	164.30	164.79	164.79	169.66	166.00	166.40	170.11	170.56	171.39	171.39	173.05
Rubber and plastics products, nec.....	182.76	194.19	193.73	194.65	195.11	197.80	195.53	199.45	198.09	195.77	196.70	201.83	202.03	203.01	209.72
Leather and leather products.....	128.96	137.42	134.06	136.21	137.57	137.94	139.04	140.94	140.48	141.17	145.44	143.72	144.08	144.43	143.91
Leather and leather products.....	92.63	97.64	95.98	97.52	98.30	98.56	97.38	96.68	99.15	100.22	102.56	101.99	103.95	102.33	101.68
TRANSPORTATION AND PUBLIC UTILITIES	155.93	169.24	164.82	164.37	169.32	162.43	172.98	176.66	174.56	175.80	179.05	177.51	180.10	181.75	182.11
WHOLESALE AND RETAIL TRADE	95.66	100.74	99.18	99.88	101.60	103.61	103.68	102.08	101.85	101.56	103.31	103.06	103.11	104.05	104.05
Wholesale trade.....	137.60	146.07	142.63	145.33	146.40	146.43	147.63	147.68	148.06	148.85	152.74	151.27	151.65	152.04	152.82
Retail trade.....	82.47	86.61	85.25	85.58	87.72	89.78	89.18	87.62	87.10	86.84	89.00	88.31	87.78	88.64	88.98
FINANCE, INSURANCE, AND REAL ESTATE	113.34	121.36	120.29	121.77	121.36	122.06	123.09	121.77	122.47	122.10	123.58	126.82	126.14	126.14	126.51
SERVICES	96.66	102.26	100.64	101.02	101.57	103.70	103.75	103.66	103.32	103.36	104.65	104.75	105.74	105.43	106.08

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to October 1971. Comparable back data will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8).

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.

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 1967 dollars, 1960 to date

Year and month	Private nonagricultural workers						Manufacturing workers					
	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	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars
1960.....	\$80.67	\$90.95	\$65.59	\$73.95	\$72.96	\$82.25	\$89.72	\$101.15	\$72.57	\$81.82	\$80.11	\$90.32
1961.....	82.60	92.19	67.08	74.87	74.48	83.13	92.34	103.06	74.60	83.26	82.18	91.72
1962.....	85.91	94.82	69.56	76.78	76.99	84.98	96.56	106.58	77.86	85.94	85.53	94.40
1963.....	88.46	96.47	71.05	77.48	78.56	85.67	99.63	108.65	79.82	87.04	87.58	95.51
1964.....	91.33	98.31	75.04	80.78	82.57	88.88	102.97	110.84	84.40	90.85	92.18	99.22
1965.....	95.06	100.59	78.99	83.59	86.30	91.32	107.53	113.79	89.08	94.26	96.78	102.41
1966.....	98.82	101.67	81.29	83.63	88.66	91.21	112.34	115.58	91.57	94.21	99.45	102.31
1967.....	101.84	101.84	83.38	83.38	90.86	90.86	114.90	114.90	93.28	93.28	101.26	101.26
1968.....	107.73	103.39	86.71	83.21	95.28	91.44	122.51	117.57	97.70	93.76	106.75	102.45
1969.....	114.61	104.38	90.96	82.84	99.99	91.07	129.51	117.95	101.90	92.81	111.44	101.49
1970.....	119.46	102.72	95.94	82.49	104.61	89.95	133.73	114.99	106.62	91.68	115.90	99.66
1971.....	126.91	104.62	103.51	85.33	112.12	92.43	142.44	117.43	114.97	94.78	124.24	102.42
1971:												
April.....	124.05	103.20	101.40	84.36	109.86	91.40	139.83	116.33	113.04	94.04	122.21	101.67
May.....	125.49	103.88	102.46	84.82	111.00	91.89	142.00	117.55	114.65	94.91	123.90	102.57
June.....	127.57	105.00	104.00	85.60	112.64	92.71	143.51	118.12	115.76	95.28	125.07	102.94
July.....	127.94	105.04	104.27	85.61	112.93	92.72	142.09	116.66	114.71	94.18	123.97	101.78
August.....	129.03	105.68	105.07	86.05	113.79	93.19	141.69	116.04	114.42	93.71	123.65	101.27
September.....	129.13	105.67	105.15	86.05	113.86	93.18	143.28	117.25	115.59	94.59	124.89	102.20
October.....	129.13	105.50	105.15	85.91	113.86	93.02	144.00	117.65	116.12	94.87	125.45	102.49
November.....	128.76	105.02	104.87	85.54	113.57	92.63	144.72	118.04	116.65	95.15	126.01	102.78
December.....	130.92	106.35	106.47	86.49	115.28	93.65	150.18	122.00	120.64	98.00	130.25	105.81
1972:												
January.....	129.92	105.45	107.04	86.88	116.18	94.30	147.66	119.85	120.13	97.51	130.09	105.59
February.....	130.64	105.53	107.57	86.89	116.74	94.30	149.17	120.49	121.25	97.94	131.26	106.03
March.....	131.73	106.23	108.38	87.40	117.60	94.84	151.13	121.88	122.69	98.94	132.79	107.09
April.....	132.83	106.86	109.19	87.84	118.47	95.31	152.69	122.84	123.85	99.64	134.00	107.80

¹ The industry series have been adjusted to March 1970 benchmarks (comprehensive counts of employment). To reflect the retroactive tax exemption provisions of the Tax Reform Act of 1971, the spendable earnings series has been revised back to January 1971. Moreover, the Consumer Price Index has been revised back to August 1971, to reflect the retroactive repeal of the automobile excise tax. Because of these revisions, monthly data published in this table beginning with the January 1972 issue of the *Monthly Labor Review* are not comparable with such data in earlier issues. Comparable back data will be published in *Employment and Earnings, United States, 1909-71* (BLS Bulletin 1312-8).

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.

Spendable average weekly earnings are based on gross average weekly earnings as published in table 22 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 1967 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 date ¹

[Indexes: 1967 = 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	71.4	-1.0	78.3	-2.6	56.9	4.8	78.7	-5.0	89.6	-11.7	75.3	-2.1
1950	72.1	1.0	78.8	.6	58.7	3.2	81.8	3.9	93.9	4.8	78.0	3.6
1951	77.8	7.9	85.9	9.0	61.8	5.3	91.9	11.4	106.9	13.8	86.1	10.4
1952	79.5	2.2	87.0	1.3	64.5	4.4	88.6	-2.7	102.7	-3.9	84.1	-2.3
1953	80.1	.8	86.7	-.3	67.3	4.3	87.4	-1.4	96.0	-6.5	84.8	.8
1954	80.5	.5	85.9	-.9	69.5	3.3	87.6	.2	95.7	-.3	85.0	.2
1955	80.2	-.4	85.1	-1.9	70.9	2.0	87.8	.2	91.2	-4.7	86.9	2.2
1956	81.4	1.5	85.9	.9	72.7	2.5	90.7	3.3	90.6	-.7	90.8	4.5
1957	84.3	3.6	88.6	3.1	75.6	4.0	93.3	2.9	93.7	3.4	93.3	2.8
1958	86.6	2.7	90.6	2.3	78.5	3.8	94.6	1.4	98.1	4.7	93.6	3.3
1959	87.3	.8	90.7	.1	80.8	2.9	94.8	.2	93.5	-4.7	95.3	1.8
1960	88.7	1.6	91.5	.9	83.5	3.3	94.9	.1	93.7	.2	95.3	.0
1961	89.6	1.0	92.0	.5	85.2	2.0	94.5	-.4	93.7	.0	94.8	-.5
1962	90.6	1.1	92.8	.9	86.8	1.9	94.8	.3	94.7	1.1	94.8	.0
1963	91.7	1.2	93.6	.9	88.5	2.0	94.5	-.3	93.8	-1.0	94.7	-.1
1964	92.9	1.3	94.6	1.1	90.2	1.9	94.7	.2	93.2	-.6	95.2	.5
1965	94.5	1.7	95.7	1.2	92.2	2.2	96.6	2.0	97.1	4.2	96.4	1.3
1966	97.2	2.9	98.2	2.6	95.8	3.9	99.8	3.3	103.5	6.6	98.5	2.2
1967	100.0	2.9	100.0	1.8	100.0	4.4	100.0	.2	100.0	-3.4	100.0	1.5
1968	104.2	4.2	103.7	3.7	105.2	5.2	102.5	2.5	102.4	2.4	102.5	2.5
1969	109.8	5.4	108.4	4.5	112.5	6.9	106.5	3.9	108.0	5.5	106.0	3.4
1970	116.3	5.9	113.5	4.7	121.6	8.1	110.4	3.7	111.6	3.3	110.0	3.8
1971	121.3	4.3	117.4	3.4	128.4	5.6	113.9	3.2	113.8	2.0	114.0	3.6

¹ Historical price changes are shown in greater detail and for earlier years in the Bureau's Handbook of Labor Statistics, 1971 (BLS Bulletin 1705).

25. Consumer Price Index—U.S. average—general summary and groups, subgroups, and selected items

[1967 = 100 unless otherwise specified]

Group	Annual average 1971	General summary													
		1971										1972			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
All items	121.3	120.2	120.8	121.5	121.8	122.1	122.2	122.4	122.6	123.1	123.2	123.3	123.4	123.5	123.6
All items (1957-59=100)	141.0	139.8	140.5	141.3	141.7	142.0	142.1	142.2	142.3	142.4	142.5	142.6	142.7	142.8	142.9
Food	118.4	117.8	118.2	119.2	119.8	120.0	119.1	118.9	119.0	120.3	120.3	122.2	122.4	122.4	122.4
Food at home	116.4	116.1	116.3	117.4	118.1	118.1	116.9	116.6	116.7	118.2	118.2	120.5	120.6	120.6	120.4
Food away from home	126.1	124.8	125.3	125.9	126.5	127.1	127.6	128.0	128.2	128.3	128.6	128.9	129.4	130.0	130.0
Housing	124.3	122.5	123.2	124.0	124.5	125.1	125.5	125.9	126.4	126.8	127.3	127.6	127.9	128.2	128.2
Rent	115.2	114.4	114.7	115.2	115.4	115.8	116.1	116.4	116.6	116.9	117.1	117.5	117.7	118.1	118.1
Homeownership	133.7	130.9	131.6	133.0	133.5	134.4	135.1	135.7	136.7	137.0	137.8	138.0	138.2	138.5	138.5
Apparel and upkeep	119.8	119.1	120.2	120.1	119.3	119.0	120.6	121.6	121.9	121.8	120.2	120.7	121.3	121.8	121.8
Transportation	118.6	118.1	118.8	119.6	119.5	119.3	118.6	119.3	118.8	118.6	119.0	118.3	118.4	118.6	118.6
Health and recreation	122.2	121.2	121.6	122.1	122.6	123.1	123.6	123.5	123.7	123.9	124.3	124.7	125.0	125.5	125.5
Medical care	128.4	127.5	128.1	128.6	129.3	130.0	130.4	129.6	129.7	130.1	130.5	131.0	131.4	131.7	131.7
Special groups															
All items less shelter	119.3	118.6	119.2	119.8	120.0	120.2	120.2	120.3	120.4	120.9	120.9	121.5	121.8	122.1	122.1
All items less food	122.1	120.9	121.6	122.2	122.4	122.7	123.1	123.5	123.7	123.9	124.0	124.2	124.5	124.9	124.9
All items less medical care	120.9	119.8	120.4	121.1	121.4	121.6	121.7	122.1	122.3	122.7	122.8	123.4	123.6	123.9	123.9
Commodities	117.4	116.6	117.2	117.9	118.1	118.2	118.1	118.4	118.5	118.9	118.7	119.4	119.7	119.9	119.9
Nondurables	117.7	116.9	117.4	118.1	118.3	118.6	118.7	118.8	118.9	119.5	119.2	120.3	120.6	120.7	120.7
Durables	116.5	115.7	116.6	117.4	117.5	116.9	116.4	117.4	117.2	117.3	117.3	117.1	117.3	117.7	117.7
Services	128.4	126.8	127.5	128.2	128.8	129.4	129.8	130.0	130.4	130.8	131.5	131.8	132.0	132.4	132.4
Commodities less food	116.8	115.8	116.6	117.1	117.0	117.1	117.4	118.0	118.1	118.1	117.7	117.8	118.2	118.5	118.5
Nondurables less food	117.0	116.0	116.6	116.9	116.7	117.2	118.2	118.7	118.7	118.8	118.1	118.4	118.9	119.1	119.1
Apparel commodities	120.1	119.3	120.5	120.4	119.5	119.1	120.9	122.0	122.4	122.2	120.3	120.9	121.6	122.1	122.1
Apparel commodities less footwear	119.9	119.0	120.3	120.1	119.3	118.6	120.7	121.9	122.3	122.1	119.9	120.6	121.3	121.8	121.8
Nondurables less food and apparel	115.2	114.0	114.3	114.9	115.1	116.2	116.6	116.8	116.5	116.8	116.8	117.0	117.3	117.4	117.4
Household durables	112.9	112.4	112.7	113.1	113.2	113.4	113.5	113.6	113.6	113.7	113.7	113.6	114.1	114.4	114.4
Housefurnishings	114.3	114.0	114.1	114.7	114.7	114.8	114.9	115.1	115.1	115.3	114.9	115.0	115.6	115.9	115.9
Services less rent	130.9	129.1	129.8	130.6	131.2	131.9	132.3	132.5	132.9	133.3	134.1	134.4	134.7	135.0	135.0
Household services less rent	132.6	129.7	130.7	131.6	132.5	133.6	134.2	134.7	135.4	136.1	137.0	137.4	137.7	138.1	138.1
Transportation services	133.1	133.0	133.1	134.1	134.3	134.1	133.8	133.9	134.0	134.2	135.6	135.7	135.5	135.6	135.6
Medical care services	133.3	132.2	132.9	133.5	134.4	135.1	135.6	134.6	134.8	135.3	135.6	136.4	136.9	137.3	137.3
Other services	122.5	121.5	122.0	122.5	122.6	122.8	123.7	123.8	124.0	124.1	124.3	124.5	124.7	125.1	125.1

25. Continued—Consumer Price Index—U.S. average

Item and group	Groups, subgroups, and selected items														
	Annual average 1971	1971										1972			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
FOOD	118.4	117.8	118.2	119.2	119.8	120.0	119.1	118.9	119.0	120.3	120.3	122.2	122.4	122.4	
Food away from home	126.1	124.8	125.3	125.9	126.5	127.1	127.6	128.0	128.2	128.3	128.6	128.9	129.4	130.0	
Restaurant meals.....	125.8	124.5	125.0	125.7	126.2	126.9	127.3	127.7	127.9	128.0	128.3	128.6	129.3	129.9	
Snacks.....	127.5	126.2	126.7	127.2	128.0	128.2	128.6	129.5	129.4	129.6	130.0	130.0	130.2	130.6	
Food at home	116.4	116.1	116.3	117.4	118.1	118.1	116.9	116.6	116.7	118.2	118.2	120.5	120.6	120.4	
Cereals and bakery products	113.9	113.9	114.1	114.2	114.8	114.5	114.6	114.3	114.1	113.8	113.7	114.3	114.8	115.0	
Flour.....	101.0	101.3	101.6	101.7	101.3	101.2	101.5	101.1	101.1	100.5	100.8	100.9	100.8	100.4	
Cracker meal.....	129.8	129.4	130.1	130.6	130.8	131.1	131.5	131.6	131.7	131.9	132.2	133.9	134.9	135.4	
Corn flakes.....	107.3	110.1	110.2	110.1	109.0	105.6	104.2	103.6	103.5	103.0	102.5	102.2	102.0	101.4	
Rice.....	109.4	108.9	109.1	109.4	109.6	109.9	110.1	109.9	109.8	110.0	111.4	111.2	112.7	113.2	
Bread, white.....	112.3	112.1	112.2	112.6	113.9	112.9	113.4	112.1	112.0	111.4	111.2	111.9	113.9	119.2	
Bread, whole wheat.....	117.5	116.6	117.0	117.2	118.4	118.7	119.1	119.2	119.3	118.5	118.9	119.7	110.7	111.2	
Cookies.....	108.7	109.7	109.8	108.4	109.9	110.0	109.9	109.9	108.7	109.3	109.2	119.6	119.2	120.1	
Layer cake.....	120.1	119.6	119.5	120.0	120.3	121.2	121.5	120.7	120.5	120.8	119.6	119.2	120.4	120.8	
Cinnamon rolls.....	118.2	117.3	118.0	118.3	118.8	119.1	118.6	119.6	119.2	118.5	119.0	119.2	120.0	120.8	
Meats, poultry, and fish	116.9	115.7	115.8	117.4	118.0	118.7	119.1	118.4	118.1	118.9	120.7	126.3	126.8	125.9	
Meats	116.7	115.7	115.6	117.0	117.6	118.4	118.8	118.3	118.2	119.1	121.1	127.5	127.9	126.9	
Beef and veal	124.9	124.2	124.6	126.1	126.6	126.8	127.7	127.1	126.6	128.0	130.8	136.1	137.1	135.9	
Steak, round.....	123.5	124.3	123.8	125.1	124.4	125.3	126.1	125.5	125.2	126.3	128.5	132.1	132.3	130.9	
Steak, sirloin.....	122.8	120.9	122.5	125.1	126.7	125.0	127.8	125.3	125.5	125.5	128.5	132.1	132.3	130.9	
Steak, porterhouse.....	124.1	121.7	123.1	125.7	128.1	128.1	129.5	127.3	125.7	127.5	131.1	134.4	134.8	133.2	
Rump roast.....	122.4	122.7	123.1	124.1	122.4	124.1	124.0	125.2	124.0	124.4	131.1	134.6	135.4	132.7	
Rib roast.....	126.2	122.5	125.4	128.2	129.3	129.9	130.8	129.3	128.8	131.8	135.2	139.2	140.1	138.2	
Chuck roast.....	124.4	125.6	125.1	125.5	125.1	126.0	125.9	125.6	125.9	128.9	131.0	139.5	141.2	137.6	
Hamburger.....	126.2	125.7	125.9	127.4	127.5	127.1	128.3	127.6	127.6	129.1	130.8	135.9	137.3	136.6	
Beef liver.....	113.7	114.0	113.5	113.3	114.5	114.3	114.0	114.8	114.7	114.6	114.8	118.3	121.3	128.5	
Veal cutlets.....	141.7	138.7	139.6	140.8	144.6	145.5	146.0	146.7	147.2	148.0	150.1	156.2	157.4	159.1	
Pork.....	105.0	103.6	102.2	103.6	104.7	106.9	106.4	105.8	106.3	107.2	109.2	119.4	118.2	116.7	
Chops.....	107.4	105.9	102.5	105.3	108.0	113.1	109.9	109.8	110.5	111.2	111.4	124.2	119.0	115.9	
Loin roast.....	106.6	103.6	102.5	104.9	106.6	111.1	110.0	108.7	109.2	109.7	111.1	124.1	119.5	115.8	
Pork sausage.....	111.4	111.7	109.3	110.4	110.9	111.4	113.0	112.8	112.0	111.4	112.9	120.3	123.5	124.6	
Ham, whole.....	103.9	99.4	102.4	103.6	103.0	102.9	103.8	102.0	102.4	105.9	110.0	112.6	114.3	112.7	
Picnics.....	108.0	109.2	106.8	105.5	105.6	107.4	106.7	107.9	108.7	111.3	113.3	122.7	123.8	122.8	
Bacon.....	96.6	95.6	95.3	96.1	96.7	96.6	97.7	96.6	97.4	97.3	101.0	114.0	112.6	112.3	
Other meats.....	115.6	114.3	114.9	115.9	116.1	116.4	117.0	116.5	116.5	116.6	118.0	120.3	121.6	122.0	
Lamb chops.....	121.5	118.6	119.4	121.1	123.5	124.2	124.7	123.4	124.5	124.4	124.8	127.1	127.3	126.7	
Frankfurters.....	115.1	115.2	114.4	115.8	114.7	115.7	116.0	116.0	115.9	115.2	115.4	121.3	123.3	123.1	
Ham, canned.....	107.2	104.6	107.1	107.5	105.9	106.6	108.0	107.8	108.3	107.8	109.0	111.4	112.7	112.6	
Bologna sausage.....	118.8	117.9	118.4	118.9	119.4	119.8	120.4	120.1	119.9	120.1	124.5	126.3	127.8	127.8	
Salami sausage.....	116.3	115.4	115.5	116.9	117.4	117.6	117.7	116.8	116.4	117.4	116.9	119.8	122.5	123.8	
Liverwurst.....	114.3	114.0	114.4	114.8	115.5	114.2	114.8	114.5	113.8	114.1	114.2	117.4	117.5	118.3	
Poultry.....	109.0	107.3	107.8	111.6	112.1	112.1	112.2	110.0	108.1	107.5	108.4	110.7	111.6	109.4	
Frying chicken.....	108.5	107.5	107.3	112.1	112.3	111.7	111.9	109.0	106.8	106.2	107.5	110.1	111.0	108.3	
Chicken breasts.....	109.5	108.7	108.3	109.9	111.1	113.5	112.7	111.3	109.7	109.8	110.4	112.0	112.5	111.6	
Turkey.....	111.1	105.5	109.6	111.1	112.2	112.6	113.3	113.7	112.9	111.4	111.1	112.2	113.7	112.9	
Fish.....	130.2	128.6	129.4	130.3	131.0	131.9	132.5	132.8	132.9	133.2	134.7	137.0	138.3	139.8	
Shrimp, frozen.....	117.6	115.3	116.2	116.8	118.8	119.9	119.7	120.1	120.6	120.4	123.1	128.3	131.9	133.9	
Fish, fresh or frozen.....	140.2	138.5	140.0	141.3	141.9	142.4	142.5	143.0	142.7	142.7	144.7	145.0	144.9	146.2	
Tuna fish, canned.....	128.4	129.0	128.8	129.5	129.1	129.1	129.2	128.9	128.2	128.7	128.6	130.4	132.0	133.3	
Sardines, canned.....	134.7	131.5	132.8	133.7	134.3	136.3	138.5	139.1	139.7	140.9	142.2	144.1	144.1	145.4	
Dairy products	115.3	114.6	115.1	115.7	116.0	116.0	116.1	116.0	115.9	116.1	116.4	116.9	117.3	117.4	
Milk, fresh, grocery.....	114.6	114.2	114.8	115.2	115.1	115.2	115.4	115.3	115.2	115.2	115.7	116.4	116.9	116.9	
Milk, fresh, delivered.....	117.6	117.2	117.6	117.9	118.1	118.1	118.1	118.1	118.1	118.5	118.8	119.4	120.0	120.0	
Milk, fresh, skim.....	119.7	119.4	120.2	120.7	120.5	120.3	120.8	120.3	120.1	120.1	120.5	121.3	121.8	121.9	
Milk, evaporated.....	118.6	115.8	117.0	119.0	120.4	121.2	121.2	121.4	120.2	120.6	120.9	120.9	120.8	120.8	
Ice cream.....	106.2	105.0	105.4	105.2	107.2	106.5	106.9	106.1	106.4	107.2	106.7	106.1	107.1	106.8	
Cheese, American process.....	121.0	120.3	120.7	121.7	122.1	122.0	121.8	122.1	122.3	122.1	122.3	123.4	123.4	124.2	
Butter.....	105.8	105.9	105.6	105.8	105.6	105.7	105.8	105.8	105.7	105.4	105.8	105.8	105.8	105.7	
Fruits and vegetables	119.1	120.0	121.4	125.1	126.0	123.6	116.6	115.6	117.8	124.4	120.9	123.9	121.4	122.1	
Fresh fruits and vegetables	121.0	123.6	125.6	131.2	132.2	127.4	115.3	113.6	117.3	128.2	121.6	126.8	122.3	123.2	
Apples.....	114.2	113.4	116.2	123.9	136.1	139.0	125.3	101.8	98.5	102.1	106.8	109.9	112.2	114.1	
Bananas.....	95.5	95.8	94.1	92.6	97.4	99.5	98.5	101.8	94.1	92.2	92.6	100.4	98.3	109.4	
Oranges.....	125.5	115.9	120.9	125.0	128.7	135.3	138.3	137.1	133.1	128.4	123.7	122.0	121.3	117.3	
Orange juice, fresh.....	124.3	119.2	121.6	124.0	126.8	128.2	129.4	129.1	129.9	130.5	130.8	130.6	130.7	131.3	
Grapes	135.7	118.9	124.3	149.3	168.2	175.9	171.6	153.5	126.8	120.6	121.2	121.1	124.6	122.4	
Grapes ¹	143.8	-----	-----	-----	171.4	169.7	120.3	119.6	138.2	-----	-----	-----	-----	-----	
Strawberries ¹	114.1	128.6	109.4	104.2	-----	-----	-----	-----	-----	-----	-----	-----	-----	119.2	
Watermelon ¹	141.7	-----	-----	170.9	135.1	119.0	-----	-----	-----	-----	-----	-----	-----	-----	
Potatoes	117.3	113.4	115.7	135.9	134.0	127.7	115.0	111.2	110.2	112.4	112.7	114.7	115.4	113.6	
Onions	104.4	97.3	103.4	107.0	111.1	115.2									

25. Continued—Consumer Price Index—U.S. average

Item and group	Groups, subgroups, and selected items													
	Annual average 1971	1971									1972			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Fresh fruits and vegetables—Continued														
Celery.....	118.5	107.3	107.6	121.4	122.3	125.6	111.2	111.5	129.1	161.3	174.6	172.0	164.3	125.2
Cucumbers.....	120.1	173.2	151.5	129.4	109.5	90.0	84.8	96.6	104.9	125.2	120.9	148.2	145.5	162.4
Lettuce.....	124.1	109.7	125.3	117.3	125.4	124.0	111.4	123.2	146.6	173.0	133.6	152.1	106.4	115.2
Peppers, green.....	142.9	215.6	212.2	207.3	131.6	105.2	90.8	97.5	118.5	148.3	114.0	134.3	147.8	150.4
Spinach.....	129.2	129.5	129.2	127.4	129.8	129.0	128.1	130.8	131.0	140.0	139.1	143.2	135.8	135.5
Tomatoes.....	131.8	147.0	152.2	127.9	154.3	122.0	95.4	106.0	121.7	159.1	143.8	140.8	112.9	130.7
Processed fruits and vegetables														
Fruit cocktail, canned.....	116.2	114.7	115.1	115.9	116.9	117.9	118.6	118.4	118.5	118.8	119.2	119.5	119.9	120.3
Pears, canned.....	116.7	116.7	116.6	117.1	119.0	119.1	120.2	120.0	118.9	120.2	121.4	120.9	121.4	122.2
Pineapple-grapefruit drink.....	113.6	113.5	113.3	113.2	113.5	114.1	114.0	114.5	115.1	114.4	114.7	114.4	115.2	115.6
Orange juice concentrate, frozen.....	127.2	120.4	121.0	126.1	130.3	133.6	136.3	136.0	135.3	135.6	135.6	135.9	136.6	136.6
Lemonade concentrate, frozen.....	113.9	113.0	113.2	113.5	113.8	114.8	115.5	115.9	115.3	116.9	117.4	117.5	117.8	118.0
Beets, canned.....	115.1	114.0	114.4	114.8	115.7	116.6	117.5	117.4	116.8	117.0	118.3	119.0	119.8	120.2
Peas, green, canned.....	106.6	106.5	106.3	105.8	107.2	107.6	108.0	107.0	108.0	108.6	108.6	108.5	107.9	108.7
Tomatoes, canned.....	115.6	115.6	115.3	116.0	115.9	116.2	116.6	115.7	115.7	115.1	114.9	115.3	115.5	115.4
Dried beans.....	122.8	116.0	119.1	122.4	124.7	128.1	129.5	130.6	131.9	133.9	133.9	135.4	136.5	137.1
Broccoli, frozen.....	117.7	117.8	117.9	117.5	118.2	118.7	118.4	117.9	117.8	117.9	117.8	118.5	119.0	119.2
Other food at home														
Eggs.....	115.9	115.8	115.5	114.7	115.7	116.7	115.5	116.2	115.6	116.6	116.2	115.6	116.7	116.2
Fats and oils:	108.4	109.7	106.1	99.1	105.2	109.7	102.4	106.7	103.2	110.5	108.0	101.4	107.5	102.9
Margarine.....	116.0	115.3	116.1	115.6	115.6	116.4	117.6	118.1	117.8	117.7	117.3	118.1	118.6	118.4
Salad dressing, Italian.....	109.3	109.0	109.7	109.6	110.2	110.0	110.2	109.9	110.6	110.9	110.2	110.4	110.8	111.4
Salad or cooking oil.....	120.1	119.0	119.1	119.0	119.7	121.6	123.3	123.4	123.5	123.9	123.9	124.0	123.7	123.0
Sugar and sweets														
Sugar.....	119.3	118.7	119.0	119.4	119.7	120.3	120.2	120.1	120.0	120.1	120.1	120.5	121.2	121.4
Grape jelly.....	112.5	112.1	112.2	112.2	112.6	113.2	113.5	113.4	113.5	130.1	113.6	114.3	114.9	115.3
Chocolate bar.....	119.3	117.3	118.5	119.4	120.4	121.7	121.6	121.2	121.4	121.6	121.5	122.7	124.5	125.1
Syrup, chocolate flavored.....	130.9	130.7	130.7	131.2	131.3	131.7	131.4	131.5	131.3	131.3	130.8	130.7	130.6	130.8
Nonalcoholic beverages:	113.2	113.7	113.6	113.5	113.3	113.4	113.2	113.0	112.5	112.7	113.3	113.4	113.5	113.4
Coffee, can and bag.....	121.6	122.0	121.8	122.2	122.0	122.0	121.0	121.2	120.9	120.5	120.4	120.7	120.9	120.9
Coffee, instant.....	121.8	123.1	122.6	122.4	121.8	121.8	119.1	119.3	119.0	118.5	118.2	118.3	118.3	118.2
Tea.....	124.7	124.1	124.3	125.0	124.9	125.2	125.4	125.3	125.1	125.1	124.7	125.5	125.1	125.0
Cola drink.....	107.6	108.5	107.7	108.4	108.5	108.0	108.0	107.8	107.8	106.0	106.1	107.1	108.1	108.2
Carbonated fruit drink.....	125.9	125.2	125.7	126.3	126.4	126.7	127.0	127.3	127.1	127.1	127.7	127.8	128.1	128.2
126.4	125.6	125.9	126.8	127.2	127.5	127.6	127.8	127.7	127.9	127.9	127.6	128.2	128.2	128.2
Prepared and partially prepared foods														
Bean soup, canned.....	112.7	112.3	112.5	112.8	113.1	113.5	113.4	113.4	113.2	113.3	113.5	114.1	114.4	114.5
Chicken soup, canned.....	114.1	113.7	113.6	114.0	113.7	114.8	114.7	114.7	114.7	114.7	114.5	115.7	116.2	116.3
Spaghetti, canned.....	106.4	106.6	106.5	106.5	106.4	106.3	106.6	106.5	106.0	105.7	106.4	106.9	106.4	106.6
Mashed potatoes, instant.....	117.3	117.2	117.0	117.1	117.1	117.6	117.7	117.7	117.7	117.5	118.1	117.8	116.8	117.4
Potatoes, French fried, frozen.....	110.8	110.2	110.8	111.6	112.4	111.9	110.4	110.4	110.7	111.0	111.5	112.2	112.3	111.3
Baby food, canned.....	110.1	110.4	110.1	110.1	110.8	110.9	110.3	109.9	108.5	109.3	108.5	110.0	110.4	111.0
Sweet pickle relish.....	110.9	110.7	110.6	111.1	111.0	111.8	111.8	111.6	111.3	111.1	111.1	111.2	111.4	111.4
Pretzels.....	117.4	115.2	116.5	116.7	117.4	118.9	119.5	120.0	120.6	121.2	122.0	122.5	124.4	125.2
113.1	112.8	113.4	113.9	114.5	114.1	114.5	114.4	114.0	114.0	114.5	114.1	114.5	115.2	115.0
HOUSING														
Shelter.....	124.3	122.5	123.2	124.0	124.5	125.1	125.5	125.9	126.4	126.8	127.3	127.6	127.9	128.2
Rent.....	128.8	126.5	127.2	128.3	128.8	129.5	130.1	130.6	131.3	131.6	132.3	132.5	132.7	133.0
Homeownership.....	115.2	114.4	114.7	115.2	115.4	115.8	116.1	116.4	116.6	116.9	117.1	117.5	117.7	118.1
133.7	130.9	131.6	133.0	133.5	134.4	135.1	135.7	136.7	137.0	137.8	138.0	138.2	138.5	
Mortgage interest rates.....	120.4	118.5	117.3	117.0	117.4	118.1	118.7	119.1	118.9	118.6	118.4	118.2	117.7	117.1
Property taxes.....	131.1	127.8	129.6	129.9	130.5	132.2	133.1	134.6	136.3	137.6	141.1	141.8	143.6	144.7
Property insurance rates.....	119.9	118.8	119.3	120.2	121.5	121.5	122.4	122.4	122.4	122.4	122.4	122.4	122.4	122.6
Maintenance and repairs.....	133.7	131.1	131.9	134.0	134.7	135.8	136.8	137.0	137.1	137.4	137.8	138.0	138.6	139.2
Commodities														
Exterior house paint.....	119.0	117.4	118.1	119.8	119.9	120.6	120.9	120.9	120.8	120.8	121.3	121.3	122.0	122.4
Interior house paint.....	115.9	115.5	116.0	116.0	115.7	115.3	116.5	116.5	116.5	116.8	117.7	117.9	118.2	118.5
114.5	113.9	113.4	114.1	114.2	115.2	115.5	115.6	115.3	115.4	115.8	115.6	116.3	116.4	
Services														
Repainting living and dining rooms.....	140.0	137.1	137.9	140.1	141.2	142.4	143.7	144.0	144.1	144.6	144.9	145.2	145.9	146.5
Reshingling roofs.....	148.3	144.6	146.2	148.5	149.6	151.3	153.0	153.1	153.6	154.0	154.4	155.1	155.6	156.5
Residing houses.....	144.8	140.4	141.9	145.8	147.2	148.8	150.1	150.7	150.6	151.6	152.0	152.3	153.0	154.3
Replacing sinks.....	130.6	128.8	129.0	130.5	131.1	132.1	132.8	133.1	133.2	133.3	133.4	133.7	133.9	134.5
Repairing furnaces.....	140.6	137.9	138.9	141.1	142.2	143.0	143.4	143.4	143.6	143.7	143.9	144.2	145.1	145.5
144.3	141.1	141.6	143.0	144.5	145.9	148.9	149.2	149.1	150.2	150.9	151.2	152.2	152.4	
Fuel and utilities														
Fuel oil and coal.....	115.1	114.1	114.4	114.6	115.5	116.3	116.3	116.3	116.8	117.9	118.7	119.3	119.6	119.9
Fuel oil, #2.....	117.5	117.3	117.2	117.4	117.5	117.8	117.8	118.1	118.1	118.1	118.7	118.7	118.7	118.6
Gas and electricity.....	116.1	116.0	115.9	116.1	116.1	116.4	116.4	116.4	116.4	116.5	116.5	116.5	116.5	116.5
Gas.....	114.7	113.9	114.4	114.6	114.7	115.7	115.7	115.7	116.2	116.2	119.0	119.4	119.7	120.2
Electricity.....	116.3	115.8	116.6	116.4	116.1	116.8	116.8	116.8	118.1	120.5	121.7	121.9	122.2	122.3
113.2	112.1	112.4	113.0	113.5	114.6	114.6	114.6	114.5	116.0	116.6	117.0	117.2	118.2	
Other utilities:														
Residential telephone.....	108.0	106.2	106.2	106.4	108.9	110.2	110.2	110.2	110.2	110.7	111.8	113.5	113.5	113.7
Residential water and sewerage.....	133.4	132.6	132.6	132.6	135.0	135.0	135.0	135.0	136.4	136.4	136.4	136.4	137.7	137.7

See footnotes at end of table.

25. Continued—Consumer Price Index—U.S. average

Item and group	Groups, subgroups, and selected items													
	Annual average 1971	1971									1972			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
APPAREL AND UPKEEP—Continued														
Slips, nylon.....	110.7	110.9	110.5	109.8	110.9	111.1	111.1	110.4	111.2	111.2	111.0	110.5	110.9	110.9
Panties, acetate or nylon.....	115.2	114.7	115.0	115.2	115.7	115.7	115.8	115.4	116.2	116.2	116.2	116.3	116.5	116.6
Girdles, manmade blend.....	116.2	114.9	114.7	116.1	116.3	116.8	117.1	117.7	117.9	118.1	118.1	117.2	117.4	118.2
Brassieres, nylon lace.....	120.9	120.6	120.6	120.0	121.2	121.2	122.2	123.0	123.4	123.4	122.3	121.3	121.6	121.9
Hose, or panty hose, nylon, seamless.....	98.9	98.9	99.4	98.0	99.2	98.6	97.9	98.1	98.2	98.3	97.4	97.7	97.5	96.1
Anklets or knee-length socks, various fibers.....	115.8	116.5	116.7	115.8	115.6	114.8	114.8	114.6	115.6	116.4	115.9	115.8	116.1	115.9
Gloves, fabric, nylon or cotton.....	109.6	109.4	109.8	110.0	110.5	109.7	109.9	109.5	109.7	109.8	110.2	109.8	110.3	110.7
Handbags, rayon faille or plastic.....	132.4	130.2	132.3	131.9	132.1	134.2	135.6	134.8	136.8	138.2	138.9	140.2	141.5	142.5
Girls':														
Raincoats, vinyl plastic or chiefly cotton ¹	116.5						115.6	118.5	119.5	119.3	117.1	117.3	116.8	
Skirts, wool or wool blend ¹	106.8							109.0	109.0	108.6	100.2			
Dresses, cotton, manmade fibers or blends.....	107.4	107.9	111.1	109.6	105.2	107.4		109.3	110.3	109.4	108.9	107.2	119.2	121.4
Slacks, cotton ¹	131.3								131.8	131.5	131.7			
Slips, cotton blend.....	110.4	110.5	110.2	110.5	110.4	109.8	111.0	110.9	111.3	111.9	111.7	112.1	112.1	111.1
Handbags.....	129.0	129.5	131.2	130.3	129.7	126.9	128.3	129.3	130.0	129.3	124.1	127.5	128.8	130.6
Footwear.....	121.5	121.1	121.7	121.7	120.9	121.5	122.2	122.7	132.2	123.1	122.7	122.7	123.5	124.1
Men's:														
Shoes, street (oxford or buckle strap).....	119.6	119.1	119.7	120.2	119.4	119.2	120.9	119.8	121.1	121.0	119.7	119.9	121.6	121.4
Shoes, work, high.....	118.7	117.9	118.1	118.5	118.9	119.5	120.0	120.1	120.4	120.6	121.1	121.4	121.3	121.3
Women's:														
Shoes, street, pump.....	123.4	123.4	123.9	123.7	122.0	122.9	123.2	124.5	125.2	125.1	124.3	123.8	124.6	125.8
Shoes, evening, pump.....	120.2	119.9	120.5	119.3	118.8	119.6	120.3	121.0	121.0	121.1	120.7	120.5	121.4	122.0
Shoes, casual, pump.....	124.1	123.4	125.2	126.2	122.9	123.5	124.3	125.7	126.0	125.8	125.1	124.7	125.5	126.5
Houseslippers, scuff.....	121.9	120.4	121.0	121.0	122.5	123.5	123.4	123.5	123.6	123.4	124.0	124.0	124.2	124.5
Children's:														
Shoes, oxford.....	122.3	122.5	122.4	122.9	122.1	122.4	122.8	123.8	124.4	124.1	122.4	123.6	124.6	125.9
Sneakers, boys', oxford type.....	118.8	118.4	118.8	118.9	119.4	119.4	119.5	119.7	119.9	120.3	121.0	121.5	122.3	122.6
Dress shoes, girls', strap or pump.....	125.8	125.5	125.6	126.2	124.4	126.4	127.3	128.4	128.6	128.4	128.6	128.7	128.7	129.5
Miscellaneous apparel:														
Diapers, cotton gauze or disposable.....	112.0	110.9	111.8	111.8	112.3	112.5	112.7	112.8	113.3	113.3	113.0	113.0	113.2	113.5
Yard goods, polyester blend.....	122.1	122.0	122.5	123.0	122.4	121.9	122.1	122.1	122.3	121.9	120.6	120.5	118.9	118.1
Apparel services:														
Drycleaning, men's suits and women's dresses.....	116.6	116.3	117.1	117.1	116.8	116.8	117.1	117.2	117.0	117.1	117.2	117.4	117.4	117.4
Automatic laundry service.....	113.8	115.1	112.6	112.8	112.9	113.2	113.3	113.3	113.8	113.9	113.7	114.3	114.2	114.9
Laundry, men's shirts.....	119.1	118.8	119.0	119.3	119.1	119.2	119.1	119.2	119.2	120.4	120.5	120.7	120.9	120.6
Tailoring charges, hem adjustment.....	128.5	127.2	127.6	127.7	128.3	129.0	129.6	130.0	131.2	131.6	131.7	131.8	132.1	132.1
Shoe repairs, women's heel lift.....	112.0	109.9	112.3	113.0	112.3	112.4	113.5	114.0	114.0	113.8	113.8	113.8	114.0	114.6
TRANSPORTATION.....	118.6	118.1	118.8	119.6	119.5	119.3	118.6	119.3	118.8	118.6	119.0	118.3	118.4	118.6
Private.....	116.6	116.2	117.0	117.6	117.4	117.3	116.4	117.2	116.6	116.3	116.4	115.7	115.9	116.1
Automobiles, new.....	112.0	113.8	113.9	113.9	113.8	109.3	105.6	109.1	109.6	110.4	112.2	111.9	111.7	111.7
Automobiles, used.....	110.2	109.8	112.8	114.1	113.5	112.5	111.6	111.7	110.2	107.2	105.3	103.0	103.9	106.4
Gasoline, regular and premium.....	106.3	103.7	104.0	104.9	104.1	107.9	108.7	108.8	106.9	107.3	106.7	105.7	106.1	105.0
Motor oil, premium.....	120.0	119.0	119.3	119.9	120.5	121.0	121.5	121.7	121.8	121.9	122.3	122.5	122.7	122.9
Tires, new, tubeless.....	116.3	114.6	114.8	114.8	116.2	117.3	117.5	117.6	118.8	118.3	117.9	117.4	116.6	116.0
Auto repairs and maintenance.....	129.2	127.9	128.4	129.4	130.3	131.0	131.2	131.3	131.6	131.9	133.1	133.6	134.0	134.3
Auto insurance rates.....	141.4	141.9	142.1	142.5	142.7	142.9	142.9	141.8	141.8	141.8	140.0	140.8	140.9	140.7
Auto registration.....	123.2	123.8	123.8	123.8	123.8	123.7	123.7	123.7	123.7	123.7	127.1	127.1	127.1	127.5
Public.....	137.7	136.4	136.4	139.0	139.0	139.1	139.3	139.3	139.3	139.7	143.4	143.5	142.3	142.7
Local transit fares.....	143.4	143.7	143.7	143.8	143.8	144.0	144.0	144.0	144.0	144.4	150.2	150.3	148.4	149.1
Taxicab fares.....	126.5	119.1	119.1	131.7	131.7	131.7	131.7	131.7	131.7	132.8	132.8	132.8	132.9	132.9
Railroad fares, coach.....	126.8	126.2	126.2	127.4	127.4	127.4	127.7	127.7	127.6	128.2	128.2	128.2	126.4	127.0
Airplane fares, chiefly coach.....	126.9	124.1	124.1	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6	129.6
Bus fares, intercity.....	132.7	130.6	130.6	132.9	132.9	132.9	135.9	135.9	135.9	136.1	136.1	136.1	137.6	137.6
HEALTH AND RECREATION.....	122.2	121.2	121.6	122.1	122.6	123.1	123.6	123.5	123.7	123.9	124.3	124.7	125.0	125.5
Medical care.....	128.4	127.5	128.1	128.6	129.3	130.0	130.4	129.6	129.7	130.1	130.5	131.0	131.4	131.7
Drugs and prescriptions.....	105.4	105.1	105.5	105.7	105.5	105.6	105.7	105.6	105.7	105.6	105.5	105.5	105.5	105.5
Over-the-counter items.....	110.2	110.4	110.7	110.0	110.0	110.2	110.3	110.4	110.5	110.2	110.3	110.6	110.8	110.9
Multiple vitamin concentrates.....	96.6	98.1	97.6	97.2	95.4	95.3	95.1	95.4	95.4	95.1	95.1	95.0	95.1	95.2
Aspirin compounds.....	114.1	113.7	114.0	114.5	114.3	114.2	115.1	115.8	115.4	114.0	114.1	114.5	115.0	115.4
Liquid tonics.....	101.3	101.7	101.4	101.5	101.2	101.3	100.7	100.9	100.8	100.8	100.8	101.2	101.2	101.2
Adhesive bandages, package.....	122.6	122.6	123.1	124.1	123.2	123.8	124.1	123.6	123.6	124.1	123.8	123.7	123.9	124.1
Cold tablets or capsules.....	111.3	110.4	111.6	111.8	111.8	112.2	112.0	112.0	113.2	112.9	112.8	113.1	113.5	113.2
Cough syrup.....	112.4	112.9	113.4	113.8	111.2	111.3	111.4	111.4	111.2	111.3	111.7	112.7	112.9	112.8
Prescriptions.....	101.3	100.7	101.1	101.2	101.6	101.7	101.8	101.6	101.6	101.7	101.5	101.2	101.1	100.9
Anti-infectives.....	80.2	80.0	80.2	80.2	80.4	80.0	79.9	79.6	79.4	79.1	78.9	77.4	76.1	76.0
Sedatives and hypnotics.....	122.9	121.9	122.4	122.4	123.9	123.8	124.2	123.8	124.6	124.8	124.7	124.9	125.1	125.2
Ataractics.....	101.7	101.2	100.8	100.7	101.2	102.3	102.6	102.5	102.6	102.6	102.6	102.7	102.8	102.8
Anti-spasmodics.....	107.1	106.0	107.4	107.7	108.1	108.1	108.1	107.9	107.8	108.0	107.9	107.7	107.8	107.8
Cough preparations.....	126.0	124.8	125.8	125.8	126.8	127.3	127.9	127.4	127.2	127.2	127.1	127.8	128.5	128.9
Cardiovasculars and antihypertensives.....	111.1	110.2	111.2	111.6	111.7	112.0	112.0	112.0	112.0	112.1	112.1	111.8	111.8	111.8
Analges														

25. Continued—Consumer Price Index—U.S. average

Item and group	Annual average 1971	Groups, subgroups, and selected items												
		1971										1972		
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
HEALTH AND RECREATION—Continued														
Professional services:														
Physicians' fee.....	129.8	128.5	129.2	129.9	130.3	131.2	131.5	131.7	132.0	132.2	132.3	132.6	132.9	133.2
General physician, office visits.....	131.4	130.6	130.9	131.7	132.2	132.7	133.0	133.0	133.1	133.3	133.3	133.5	134.0	134.2
General physician, house visits.....	131.0	129.2	130.0	131.4	131.6	132.0	133.6	133.9	134.1	134.6	134.8	135.1	135.5	135.6
Obstetrical cases.....	129.0	126.9	128.8	128.9	129.0	130.9	131.3	131.5	131.5	131.6	132.0	132.3	132.8	133.9
Pediatric care, office visits.....	132.0	130.3	132.2	132.4	132.6	133.4	133.5	133.6	134.7	135.3	135.3	135.6	135.5	135.6
Psychiatrist, office visits.....	124.8	123.6	124.1	124.7	125.1	125.7	125.9	127.2	127.2	127.3	127.9	128.3	128.5	128.5
Psychorrhaphy, adult.....	123.4	121.8	122.7	123.3	123.6	124.3	124.4	125.2	126.2	126.4	126.8	127.0	127.4	127.8
Tonsillectomy and adenoidectomy.....	125.2	122.9	124.1	124.3	125.0	128.0	128.0	128.2	128.7	128.7	128.7	129.2	129.2	129.6
Dentists' fees.....	127.0	125.6	126.0	126.4	127.5	127.9	128.2	129.6	129.8	130.0	130.5	130.6	131.0	131.6
Fillings, adult, amalgam, one surface.....	128.0	126.4	126.8	127.3	128.7	129.3	129.5	131.0	131.0	131.3	131.8	131.8	132.3	133.0
Extractions, adult.....	126.9	126.1	126.4	126.5	127.3	127.4	127.7	128.9	129.4	129.6	130.4	130.6	131.0	131.5
Dentures, full uppers.....	124.9	123.4	123.8	124.4	125.1	125.6	126.0	127.7	127.7	127.7	128.2	128.3	128.3	128.8
Other professional services:														
Examination, prescription, and dispensing of eyeglasses.....	120.3	118.6	119.6	120.0	120.5	121.9	122.1	122.6	122.9	122.9	123.1	123.8	124.0	124.5
Routine laboratory tests.....	116.1	114.9	115.2	115.3	115.7	117.2	117.6	117.8	117.8	118.6	118.7	118.9	119.4	119.7
Hospital service charges:														
Daily service charges ¹	160.8	158.8	159.6	160.5	162.5	163.5	164.4	164.6	164.6	165.5	167.1	168.2	172.2	172.7
Semiprivate rooms.....	163.1	161.0	161.7	162.6	164.8	165.8	166.8	167.0	167.0	167.9	169.6	171.1	172.2	172.7
Private rooms ⁴	157.5	155.6	156.4	157.3	159.0	160.0	160.9	161.1	161.1	162.0	163.5	165.0	166.6	166.6
Operating room charges.....	156.2	154.5	155.2	155.3	157.8	156.7	158.0	159.1	159.0	162.6	163.5	165.0	166.6	166.6
X-ray, diagnostic series, upper G.I.....	124.9	124.4	124.8	125.4	125.9	126.4	126.5	126.5	126.6	126.9	127.7	127.7	128.6	129.0
Personal care.....														
Toilet goods.....	113.8	113.5	113.5	113.8	114.2	114.5	114.6	114.9	114.8	114.8	115.1	115.4	115.8	116.3
Toothpaste, standard dentifrice.....	107.7	107.5	107.3	107.6	107.2	107.7	108.6	108.8	108.3	109.9	109.9	109.6	119.5	108.8
Toilet soap, hard milled.....	114.1	111.8	112.2	112.4	115.4	116.8	115.2	118.4	118.8	119.7	119.7	120.3	121.1	121.0
Hand lotions, liquid.....	119.5	120.3	118.1	118.9	117.5	119.0	119.7	120.5	120.0	120.4	121.2	124.0	123.8	125.1
Shaving cream, aerosol.....	106.6	106.6	107.1	107.1	107.3	106.9	107.2	107.1	107.8	107.3	107.1	106.4	107.2	107.5
Face powder, pressed.....	123.5	123.9	123.9	124.1	123.8	124.0	124.1	123.9	122.4	122.0	122.0	123.1	125.1	126.2
Deodorants, aerosol.....	105.6	104.9	105.1	105.5	105.7	106.0	106.4	106.3	105.9	105.9	104.9	105.0	105.6	105.6
Cleansing tissues.....	123.3	123.2	124.4	124.7	124.8	124.2	124.1	122.6	123.6	121.8	124.4	123.1	123.4	125.4
Home permanent wave sets.....	110.9	110.4	110.7	111.2	111.7	111.5	111.7	111.8	111.7	111.6	111.3	113.1	110.5	110.9
Personal care services.....														
Men's haircuts.....	122.6	121.7	121.8	122.2	122.5	123.2	123.4	123.7	123.9	123.9	124.1	124.2	124.2	124.4
Beauty shop services.....	118.2	117.6	118.0	118.4	118.5	118.8	118.9	119.1	119.7	119.2	119.9	119.7	119.9	120.4
Reading and recreation.....														
Recreational goods.....	106.6	106.2	106.4	106.7	106.8	106.9	107.1	107.2	107.2	107.3	107.4	107.3	107.6	107.7
TV sets, portable and console.....	100.1	100.1	100.0	100.1	99.9	99.9	100.0	100.2	100.3	100.3	99.9	99.7	100.0	99.8
TV replacement tubes.....	122.5	121.6	121.9	122.2	122.2	122.1	123.4	124.1	124.5	124.7	126.4	126.9	128.8	129.8
Radios, portable and table model.....	98.5	98.3	98.4	98.5	98.4	98.4	98.5	98.4	98.4	98.4	98.4	98.4	98.5	98.8
Tape recorders, portable.....	94.2	95.1	94.7	94.3	94.1	93.6	93.0	92.7	92.5	93.1	93.4	93.3	93.3	93.8
Phonograph records, stereophonic.....	103.5	100.5	102.3	103.1	104.9	105.8	106.5	106.5	106.5	107.1	107.2	107.0	106.6	106.4
Movie cameras, Super 8, zoom lens.....	89.4	88.8	89.3	89.2	89.3	89.3	89.1	89.2	88.9	88.9	88.3	88.7	88.8	88.8
Film, 35mm, color.....	108.3	108.1	108.1	108.5	108.6	108.4	108.4	108.3	108.5	108.7	108.6	108.3	108.3	108.3
Bicycle, boys.....	112.6	111.9	112.5	113.4	113.9	114.0	113.7	114.0	113.6	113.3	113.8	114.2	114.9	114.8
Tricycles.....	111.2	111.1	111.3	111.2	111.6	111.9	112.0	111.9	111.7	112.2	112.6	113.0	113.4	112.7
Recreational services.....														
Indoor movie admissions.....	137.6	136.6	138.3	138.4	138.8	138.2	138.9	138.3	138.7	137.9	139.0	138.6	139.2	140.7
Drive-in movie admissions, adult.....	140.1	138.0	139.3	141.5	141.9	142.5	142.5	142.3	142.3	142.5	143.1	143.5	143.7	143.8
Bowling fees, evening.....	116.3	116.4	116.0	116.5	116.3	116.1	116.7	117.7	117.7	117.6	117.9	118.4	119.1	119.3
Golf greens fees ¹	127.5	124.0	125.8	128.5	128.6	128.8	128.4	128.3	128.3	128.3	128.3	128.3	128.3	129.6
TV repairs, picture tube replacement.....	98.0	97.8	98.1	98.3	98.2	98.1	98.5	98.4	98.5	98.6	98.6	98.5	98.3	98.1
Film developing, color.....	116.7	114.7	116.2	117.0	117.4	117.7	118.3	118.1	118.3	118.2	118.2	118.3	118.2	118.1
Reading and education:														
Newspapers, street sale and delivery.....	129.6	129.3	129.8	130.0	130.4	130.5	130.6	130.5	130.6	130.7	130.7	130.9	130.8	131.6
Piano lessons, beginner.....	121.0	120.8	120.8	120.6	120.7	120.7	121.4	121.5	121.5	121.5	121.6	122.0	122.1	122.1
OTHER GOODS AND SERVICES														
Tobacco products.....	126.4	124.3	124.7	125.3	126.9	127.9	128.9	129.0	129.2	129.2	130.2	130.2	132.5	132.7
Cigarettes, nonfilter tip, regular size.....	127.9	125.9	126.3	126.9	128.5	129.6	130.2	130.2	130.3	130.6	131.6	133.2	133.7	133.9
Cigarettes, filter, king.....	128.1	125.7	126.1	126.9	128.6	129.6	130.8	130.8	130.8	131.1	132.2	134.3	134.8	135.0
Cigars, domestic, regular.....	107.1	105.9	105.9	106.0	106.3	107.3	108.5	108.7	109.3	109.5	109.7	110.3	110.6	110.7
Alcoholic beverages.....														
Beer.....	116.9	116.2	116.4	116.7	117.0	117.4	117.6	117.9	118.3	118.4	118.5	118.7	118.9	119.3
Whiskey, spirit blended and straight bourbon.....	112.9	112.8	112.7	113.2	113.3	113.3	113.4	113.6	113.7	113.8	113.5	113.6	113.9	114.1
Wine, dessert and table.....	106.4	105.9	106.0	106.2	106.3	107.0	107.0	106.8	106.9	107.0	107.4	108.5	108.5	108.6
Beer, away from home.....	122.3	120.6	121.2	121.8	123.0	123.9	124.5	124.7	124.9	125.1	125.3	125.6	125.9	126.4
Financial and miscellaneous personal expenses:	126.4	125.1	125.6	125.7	126.2	126.8	127.1	127.7	128.8	128.8	129.3	129.0	129.1	130.1
Funeral services, adult.....	117.2	116.2	116.3	116.8	117.7	118.3	118.4	118.8	119.1	119.2	119.5	120.2	120.6	120.6
Bank service charges, checking accounts.....	110.6	111.4	111.5	110.7	110.8	110.9	110.9	109.3	109.3	109.5	109.7	108.5	108.2	107.4
Legal services, will.....	135.5	133.3	133.3	133.3	133.6	133.9	137.4	139.9	140.2	141.4	141.7	141.8	141.9	149.3

¹ Priced only in season.

² This item is a replacement for bedroom suites, good or inexpensive quality, which was discontinued after March 1970.

³ March 1970=100.

⁴ Item discontinued.

⁵ This item is a replacement for dining room suites, which was discontinued after March 1970.

⁶ This item is a replacement for box springs, which was discontinued after April 1970.

Reserve Bank of St. Louis

7 June 1970=100.

^{*} December 1971=100.

[°] Not available.

NOTE: For a description of the general method of computing the monthly Consumer Price Index, see BLS Handbook of Methods for Surveys and Studies (BLS Bulletin 1711, 1971), chapter 10.

^r=revised. These figures have been recalculated to reflect the retroactive repeal of the automobile excise tax. Indexes for August recalculated to reflect adjustments for refunds on new cars in the August 15-31 period. Indexes for services reflect revision of auto finance charges which are imputed to changes in new car prices.

^c=corrected.

26. Consumer Price Index¹—U.S. city average, and selected areas

[1967 = 100 unless otherwise specified]²

Area ²	Annual average 1971	1971										1972			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
All items															
U.S. city average ³	121.3	120.2	120.8	121.5	121.8	122.1	122.2	122.4	122.6	123.1	123.2	123.8	124.0	124.3	
Atlanta, Ga.....	121.7	(4)	(4)	122.3	(4)	(4)	-122.0	(4)	(4)	123.5	(4)	(4)	132.8	(4)	
Baltimore, Md.....	123.4	(4)	(4)	123.5	(4)	(4)	-124.4	(4)	(4)	125.1	(4)	(4)	124.9	(4)	
Boston, Mass.....	122.8	121.7	(4)	(4)	122.9	(4)	-124.5	(4)	(4)	124.9	(4)	(4)	126.2	(4)	
Buffalo, N.Y.....	121.8	(4)	121.4	(4)	(4)	-122.8	(4)	(4)	123.1	(4)	(4)	124.9	(4)	(4)	
Chicago, Ill.-Northwestern Ind.....	120.8	120.2	120.6	120.9	120.9	-121.5	-121.7	-121.7	121.8	122.3	122.1	(4)	123.2	123.3	
Cincinnati, Ohio-Kentucky.....	120.7	(4)	(4)	120.7	(4)	(4)	-121.4	(4)	(4)	121.9	(4)	(4)	123.0	(4)	
Cleveland, Ohio.....	122.8	(4)	122.0	(4)	(4)	-123.2	(4)	(4)	124.4	(4)	(4)	125.9	(4)	(4)	
Dallas, Tex.....	121.3	(4)	120.4	(4)	(4)	-122.7	(4)	(4)	122.4	(4)	(4)	123.7	(4)	(4)	
Detroit, Mich.....	121.7	120.1	120.9	121.9	121.8	-122.8	-122.8	123.4	123.7	124.2	124.9	125.0	125.0	125.0	
Honolulu, Hawaii.....	118.9	(4)	(4)	118.5	(4)	(4)	-121.2	(4)	121.1	(4)	(4)	122.4	(4)	(4)	
Houston, Tex.....	120.9	119.5	(4)	(4)	121.3	(4)	-122.4	(4)	(4)	123.2	(4)	(4)	124.8	(4)	
Kansas City, Mo.-Kansas.....	120.5	(4)	(4)	120.6	(4)	(4)	-121.5	(4)	(4)	121.4	(4)	(4)	122.4	(4)	
Los Angeles-Long Beach, Calif.....	118.5	116.7	118.1	118.7	119.1	-119.5	-120.0	-120.3	120.1	120.2	120.4	121.2	121.3	(4)	
Milwaukee, Wis.....	120.1	(4)	119.1	(4)	(4)	-121.4	(4)	(4)	120.9	(4)	(4)	122.2	(4)	(4)	
Minneapolis-St. Paul, Minn.....	121.7	120.3	(4)	(4)	121.9	(4)	-123.4	(4)	(4)	123.8	(4)	(4)	124.2	(4)	
New York, N.Y.-Northeastern N.J.....	125.9	124.6	125.2	126.1	126.8	-126.9	-127.3	-127.5	127.6	128.0	128.4	129.5	130.0	130.3	
Philadelphia, Pa.-N.J.....	123.5	122.6	123.4	124.1	123.7	-123.6	-124.6	-125.0	124.7	125.0	124.7	125.2	125.8	126.0	
Pittsburgh, Pa.....	121.5	120.9	(4)	(4)	121.8	(4)	(4)	-122.9	(4)	(4)	(4)	(4)	(4)	124.7	
Portland, Oreg.-Wash. ⁵	116.1	114.7	(4)	(4)	116.2	(4)	(4)	-117.4	(4)	(4)	118.1	(4)	(4)	118.4	
St. Louis, Mo.-Ill.....	119.6	(4)	(4)	119.9	(4)	(4)	-120.5	(4)	(4)	120.9	(4)	(4)	120.8	(4)	
San Diego, Calif.....	119.9	(4)	119.5	(4)	(4)	-120.7	(4)	(4)	120.9	(4)	(4)	122.3	(4)	(4)	
San Francisco-Oakland, Calif.....	120.2	(4)	(4)	119.9	(4)	(4)	-120.9	(4)	(4)	121.8	(4)	(4)	122.9	(4)	
Scranton, Pa. ⁶	121.4	(4)	120.8	(4)	(4)	-123.2	(4)	(4)	122.6	(4)	(4)	123.6	(4)	(4)	
Seattle, Wash.....	116.4	(4)	115.5	(4)	(4)	-117.6	(4)	(4)	117.6	(4)	(4)	119.0	(4)	(4)	
Washington, D.C.-Md.-Va.....	122.7	(4)	122.2	(4)	(4)	-123.5	(4)	(4)	124.2	(4)	(4)	124.7	(4)	(4)	
Food															
U.S. city average.....	118.4	117.8	118.2	119.2	119.8	120.0	119.1	118.9	119.0	120.3	120.3	122.2	122.4	122.4	
Atlanta, Ga.....	118.1	118.3	118.1	118.8	119.1	119.3	119.0	118.4	118.7	119.6	120.6	122.1	122.6	123.7	
Baltimore, Md.....	121.0	120.1	120.2	121.5	122.0	122.6	122.2	121.8	121.7	123.2	121.9	123.2	123.9	122.7	
Boston, Mass.....	118.5	118.7	117.8	118.6	119.0	119.2	118.5	118.4	118.8	119.9	119.5	121.2	122.3	122.5	
Buffalo, N.Y.....	119.7	119.9	120.1	121.0	121.4	122.0	119.6	119.8	119.8	120.9	121.1	122.9	122.8	122.5	
Chicago, Ill.-Northwestern Ind.....	118.5	118.0	117.7	119.8	120.5	120.7	119.4	118.9	119.2	119.6	119.8	122.8	122.7	122.3	
Cincinnati, Ohio-Kentucky.....	118.4	117.8	118.5	119.3	119.2	119.7	118.7	118.9	118.9	120.7	120.5	123.6	123.6	123.2	
Cleveland, Ohio.....	118.9	119.5	119.3	119.4	120.3	119.0	118.2	118.1	118.4	119.2	118.9	121.7	122.1	121.7	
Dallas, Tex.....	117.8	116.9	117.3	117.9	118.8	119.5	118.6	118.7	118.5	120.6	120.8	122.5	122.1	121.4	
Detroit, Mich.....	117.3	116.2	117.5	118.6	118.9	119.4	118.4	117.8	117.8	119.2	119.7	122.1	122.0	121.3	
Honolulu, Hawaii.....	118.1	116.8	116.7	116.6	116.5	119.6	121.4	121.8	120.4	120.9	120.7	123.7	123.2	122.8	
Houston, Tex.....	118.8	117.8	118.3	118.7	120.1	120.5	120.1	120.2	120.0	121.5	121.9	123.2	124.0	123.6	
Kansas City, Mo.-Kansas.....	118.6	117.5	117.5	118.8	119.6	120.3	120.0	119.5	119.8	120.8	120.9	122.8	122.8	122.5	
Los Angeles-Long Beach, Calif.....	114.9	114.3	114.6	115.2	115.8	115.8	115.1	115.3	115.8	116.6	117.5	118.9	118.8	119.2	
Milwaukee, Wis.....	115.7	114.9	115.7	116.7	117.6	117.6	116.8	116.3	116.3	117.2	117.0	119.4	119.4	119.1	
Minneapolis-St. Paul, Minn.....	119.2	119.0	119.3	120.2	121.8	122.1	119.5	119.1	119.2	120.6	120.5	122.0	122.8	122.9	
New York, N.Y.-Northeastern N.J.....	123.1	122.4	122.8	123.9	124.8	124.9	124.2	124.3	124.3	125.2	125.2	126.9	127.4	127.4	
Philadelphia, Pa.-N.J.....	120.1	119.3	119.6	120.8	121.4	121.8	121.4	121.0	120.6	122.0	122.2	123.8	124.3	124.2	
Pittsburgh, Pa.....	118.9	118.4	119.0	119.9	120.3	120.1	119.4	119.0	119.4	120.9	120.9	122.6	123.1	122.4	
Portland, Oreg.-Wash. ⁵	113.4	113.6	-----	-----	114.6	-----	-----	112.5	-----	-----	114.9	-----	-----	116.4	
St. Louis, Mo.-Ill.....	118.0	117.8	117.9	118.3	119.6	120.0	118.8	118.3	118.5	119.4	119.7	120.9	120.8	121.0	
San Diego, Calif.....	117.3	116.2	117.3	117.9	118.3	118.2	117.8	117.7	118.6	119.5	120.0	121.8	121.8	122.0	
San Francisco-Oakland, Calif.....	116.1	115.7	115.9	116.7	117.2	116.6	115.5	116.3	116.9	118.9	119.1	120.2	119.8	119.7	
Scranton, Pa. ⁶	120.1	-----	120.6	-----	-----	122.8	-----	-----	119.6	-----	-----	123.6	-----	-----	
Seattle, Wash.....	115.9	114.7	116.0	116.5	116.7	117.0	116.8	116.3	116.5	118.2	118.4	119.6	119.0	119.1	
Washington, D.C.-Md.-Va.....	120.2	119.5	120.0	121.4	121.4	122.2	121.3	121.4	121.2	122.0	120.9	123.7	124.0	123.8	

¹ See table 25. 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 (old market basket components).
⁶ In the March and April 1971 Monthly Labor Review, these indexes were on a 1957-59=100 base. Indexes are now on a 1967=100 base.
⁷ = revised. These figures have been recalculated to reflect the retroactive repeal of the automobile excise tax. Indexes for August recalculated to reflect adjustments for refunds on new cars in the August 15-31 period.

27. Wholesale Price Index,¹ by group and subgroup of commodities[1967 = 100 unless otherwise specified]²

Code	Commodity group	Annual average 1971	1971									1972			
			Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	All commodities.....	113.9	113.3	113.8	114.3	114.6	114.9	114.5	114.4	114.5	115.4	116.3	117.3	117.4	117.5
	All commodities (1957-59=100).....	120.9	120.2	120.7	121.3	121.6	121.9	121.5	121.4	121.5	122.4	123.4	124.5	124.6	124.7
	Farm products and processed foods and feeds.....	113.8	113.3	114.3	115.4	115.0	114.6	113.0	113.0	113.6	115.9	117.4	119.6	119.1	118.3
	Industrial commodities.....	114.0	113.3	113.7	113.9	114.5	115.1	115.0	115.0	114.9	115.3	115.9	116.5	116.9	117.3
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS														
01	Farm products.....	112.9	113.0	114.0	116.0	113.4	113.2	110.5	111.3	112.2	115.8	117.8	120.7	119.7	119.1
01-1	Fresh and dried fruits and vegetables.....	120.1	120.8	127.5	136.1	109.3	115.9	103.6	115.8	127.1	126.3	124.9	127.5	112.8	117.6
01-2	Grains.....	100.9	106.8	107.2	109.4	102.5	92.8	89.0	88.3	87.8	95.3	94.1	93.0	93.8	96.0
01-3	Livestock.....	118.3	116.9	119.0	118.9	121.3	121.3	119.1	120.9	121.0	124.7	132.2	139.6	136.7	133.8
01-4	Live poultry.....	100.3	99.5	101.3	108.1	121.1	100.8	102.8	93.5	92.3	87.2	94.3	105.4	107.6	94.1
01-5	Plant and animal fibers.....	92.8	89.4	90.3	92.3	92.6	93.4	95.2	96.3	97.3	102.5	109.5	113.2	114.3	122.1
01-6	Fluid milk.....	118.8	119.7	118.7	119.1	119.5	119.3	119.2	119.2	118.8	119.0	120.5	120.5	121.8	122.1
01-7	Eggs.....	100.8	104.4	92.4	98.0	89.4	110.1	107.8	92.4	88.5	114.4	92.6	91.9	107.7	87.2
01-8	Hay, hayseeds, and oilseeds.....	109.2	104.8	106.8	109.9	114.4	114.3	108.9	107.9	109.0	109.2	108.7	110.2	114.4	118.5
01-9	Other farm products.....	115.4	114.4	113.6	113.7	113.3	113.9	115.6	115.4	111.8	117.3	118.0	116.8	117.5	118.0
02	Processed foods and feeds.....	114.3	113.5	114.5	114.9	116.0	115.4	114.6	114.1	114.4	115.9	117.2	118.8	118.6	117.7
02-1	Cereal and bakery products.....	111.4	111.5	111.5	111.5	111.5	111.4	111.3	111.3	111.5	111.6	112.2	112.4	112.6	112.8
02-2	Meats, poultry, and fish.....	116.0	113.3	116.4	116.7	119.6	117.7	117.5	116.9	117.1	120.4	125.4	130.5	127.3	123.6
02-3	Dairy products.....	115.4	115.5	116.2	116.1	116.2	115.4	115.4	116.4	116.3	117.4	117.3	117.5	118.0	117.5
02-4	Processed fruits and vegetables.....	114.3	113.0	114.0	115.4	115.9	116.2	115.7	115.3	115.4	115.8	116.0	116.1	116.7	118.3
02-5	Sugar and confectionery.....	119.2	118.6	119.2	119.0	119.4	120.5	119.8	118.7	119.1	120.2	120.1	121.1	121.9	121.1
02-6	Beverages and beverage materials.....	115.8	115.6	115.7	115.7	115.9	116.1	116.0	116.4	116.6	116.4	116.4	116.8	116.7	117.2
02-7	Animal fats and oils.....	130.9	135.9	131.5	123.9	135.7	144.0	136.5	132.1	130.1	122.3	121.4	133.5	130.4	127.8
02-72	Crude vegetable oils.....	128.8	120.4	120.6	127.2	136.7	147.5	135.6	128.9	128.6	118.2	114.2	116.8	115.6	118.9
02-73	Refined vegetable oils.....	134.8	125.2	128.3	131.6	135.5	140.7	133.6	127.9	130.4	122.7	121.0	120.1	120.6	120.9
02-74	Vegetable oil end products.....	121.1	119.4	118.5	118.5	122.8	124.6	123.3	122.8	122.8	122.0	121.7	121.1	120.8	120.7
02-8	Miscellaneous processed foods.....	113.2	114.3	113.9	113.9	113.8	113.8	113.0	112.7	113.0	113.1	113.6	113.8	113.7	113.8
02-9	Manufactured animal feeds.....	104.4	104.4	104.6	107.4	106.9	104.7	101.3	98.7	100.3	104.5	103.8	103.7	108.5	108.5
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel.....	108.6	107.5	107.8	108.5	109.2	109.7	109.7	109.6	109.8	110.6	111.3	112.0	112.1	112.6
03-1	Cotton products.....	110.6	108.9	109.6	110.9	111.9	112.5	112.2	112.2	112.5	113.6	116.7	118.0	119.6	120.5
03-2	Wool products.....	93.5	94.4	93.5	93.4	92.6	92.7	92.5	92.4	92.3	91.5	92.0	92.2	92.0	93.0
03-3	Manmade fiber textile products.....	100.8	98.6	99.7	101.4	101.9	103.1	103.1	102.5	103.2	104.3	103.4	105.9	106.1	107.2
03-5	Apparel.....	112.9	112.2	112.2	112.3	113.3	113.6	113.8	113.8	113.8	113.8	113.8	114.0	114.1	114.1
03-6	Textile housefurnishings.....	104.2	103.5	104.3	104.5	104.8	104.8	104.1	104.1	104.1	106.1	106.2	108.5	108.7	108.7
03-7	Miscellaneous textile products.....	117.2	118.7	113.6	118.7	119.9	117.2	119.8	120.8	121.2	136.2	137.4	141.6	130.9	131.1
04	Hides, skins, leather, and related products.....	114.0	114.0	114.4	114.2	114.2	114.4	114.7	114.7	115.1	116.2	117.8	119.1	123.0	127.2
04-1	Hides and skins.....	115.1	121.1	121.4	114.0	114.0	114.6	117.7	117.2	123.1	128.6	136.0	148.9	173.8	188.6
04-2	Leather.....	112.5	111.0	113.0	114.4	114.4	114.4	113.4	113.4	113.5	117.0	120.0	120.6	128.4	138.1
04-3	Footwear.....	116.8	116.6	116.7	116.8	116.8	117.1	117.1	117.1	117.1	117.1	118.1	118.5	120.1	122.4
04-4	Other leather and related products.....	108.3	107.7	107.9	108.2	108.2	108.2	109.0	109.0	109.1	109.8	110.6	111.2	111.9	113.7
05	Fuels and related products and power.....	114.2	113.0	114.2	114.4	114.4	114.8	115.3	114.8	114.7	115.0	116.0	116.1	116.5	116.8
05-1	Coal.....	181.8	184.0	182.8	182.5	182.9	182.9	182.9	182.9	182.9	182.9	190.2	192.7	192.6	191.2
05-2	Coke.....	148.7	145.9	147.6	150.5	150.5	150.5	150.5	150.5	150.5	150.5	150.5	155.0	155.0	155.3
05-3	Gas fuels.....	108.0	105.9	106.9	107.5	107.7	107.2	108.4	108.8	108.8	107.9	110.0	110.2	110.9	112.5
05-4	Electric power.....	113.6	112.3	112.6	113.0	113.5	115.3	116.4	116.3	116.2	116.3	118.9	120.0	120.0	120.5
05-61	Crude petroleum.....	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.2
05-7	Petroleum products, refined.....	106.8	105.3	107.4	107.4	107.2	107.3	107.3	106.3	106.2	106.1	106.1	105.5	106.3	106.6
06	Chemicals and allied products.....	104.2	104.5	104.3	104.4	104.4	104.3	104.3	104.2	103.8	103.4	103.4	103.5	103.4	104.1
06-1	Industrial chemicals.....	102.0	101.9	101.5	102.2	102.4	102.4	102.4	101.7	101.1	101.1	101.4	101.4	101.0	101.5
06-21	Prepared paint.....	115.6	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	116.2	117.3	117.9	118.3
06-22	Paint materials.....	101.5	103.5	103.5	99.4	99.8	99.8	99.7	99.7	99.7	101.9	102.7	102.7	102.7	103.0
06-3	Drugs and pharmaceuticals.....	102.4	102.0	101.9	102.3	102.6	102.7	102.6	102.6	102.4	102.5	102.3	102.2	102.5	102.4
06-4	Fats and oils, inedible.....	133.5	143.0	138.8	132.0	130.8	134.2	132.9	129.0	125.3	119.9	111.3	110.7	103.5	112.2
06-5	Agricultural chemicals and chemical products.....	92.2	94.1	93.8	94.1	93.4	91.0	91.0	90.4	90.3	90.3	90.3	90.2	90.6	92.2
06-6	Plastic resins and materials.....	88.9	88.2	88.2	88.1	88.6	89.0	89.5	89.9	89.2	89.0	88.6	89.3	88.9	88.3
06-7	Other chemicals and allied products.....	112.1	111.8	112.1	112.5	112.5	112.4	112.4	112.5	112.5	112.4	112.4	112.5	112.7	113.5
07	Rubber and plastic products.....	109.2	109.0	108.7	108.7	109.7	109.8	109.7	109.5	109.5	109.4	109.5	109.2	108.9	108.7
07-1	Rubber and rubber products.....	112.2	110.8	110.9	111.1	113.2	113.7	113.7	113.3	113.3	113.3	113.4	113.0	112.9	112.9
07-11	Crude rubber.....	99.3	99.8	100.6	99.4	98.8	99.6	99.3	99.0	98.5	98.5	99.2	98.8	98.5	98.2
07-12	Tires and tubes.....	109.2	107.5	107.5	107.5	111.2	111.4	110.8	110.8	110.8	110.8	110.3	108.4	108.4	108.4
07-13	Miscellaneous rubber products.....	118.0	116.3	116.3	117.0	118.7	119.3	119.8	119.2	119.2	119.2	119.7	120.4	120.4	120.4
07-21	Support construction products ³	94.7	95.5	94.6	93.6	94.0	94.1	94.7	94.6	94.1	93.8	93.7	93.8	93.6	93.6
07-22	Unsupported plastic film and sheeting ⁴	101.1	102.6	102.2	101.9	100.6	100.1	100.0	100.0	100.0	100.0	100.0	99.9	98.9	98.4
07-23	Laminated plastic sheets, high pressure ⁴	99.2	101.0	99.1	99.2	99.7	98.6	98.6	98.2	98.0	97.9	98.2	98.6	98.1	98.4
08	Lumber and wood products.....	127.0	124.6	124.9	126.1	130.6	134.6	134.3	131.8	131.3	132.7	134.9	137.7	139.5	141.1
08-1	Lumber.....	135.5	131.5	132.8	134.4	142.5	146.7	146.8	142.7	141.9	143.8	146.9	150.4	152.4	155.1
08-2	Millwork.....	120.7	118.6	120.3	122.2	122.8	123.8	1							

27. Continued—Wholesale Price Index,¹ by group and subgroup of commodities[1967 = 100 unless otherwise specified]²

Code	Commodity group	Annual average 1971	1971									1972				
			Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
INDUSTRIAL COMMODITIES—Continued																
09	Pulp, paper, and allied products	110.1	109.6	109.9	110.2	110.5	110.6	110.6	110.6	110.6	110.6	110.7	110.8	111.6	112.3	112.8
09-1	Pulp, paper, and products, excluding building paper and board.....	110.4	109.9	110.2	110.5	110.8	110.8	110.8	110.9	110.9	111.0	111.1	111.1	111.9	112.5	113.1
09-11	Woodpulp.....	112.0	112.2	112.4	112.4	112.4	112.4	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5	111.5
09-12	Wastepaper.....	111.9	107.7	107.6	112.3	111.8	112.8	114.5	117.2	117.2	124.6	124.9	126.6	129.3	131.0	131.0
09-13	Paper.....	114.1	114.3	114.2	114.3	114.6	114.7	114.7	114.7	114.7	114.7	114.7	114.9	115.3	115.7	115.9
09-14	Paperboard.....	102.4	103.0	102.6	102.8	102.8	102.8	102.8	102.9	102.9	102.7	102.7	103.5	103.6	105.6	105.6
09-15	Converted paper and paperboard products.....	109.7	108.8	109.4	109.8	110.1	110.1	110.2	110.1	110.1	110.1	110.3	111.4	112.2	112.7	112.7
09-2	Building paper and board.....	103.0	101.7	102.7	103.2	103.6	104.3	104.5	104.6	104.7	104.6	104.7	104.7	105.6	106.1	106.1
10	Metals and metal products	119.0	117.8	118.5	118.5	119.4	121.1	121.1	121.0	120.9	120.8	121.4	122.6	123.4	123.6	123.6
10-1	Iron and steel.....	121.8	118.4	120.1	120.3	121.9	125.3	125.6	125.5	125.3	125.3	125.3	126.8	128.2	128.3	128.3
10-13	Steel mill products.....	123.0	118.5	120.1	121.1	123.4	128.1	128.2	128.1	128.2	128.2	128.2	129.6	131.0	130.9	130.9
10-2	Nonferrous metals.....	116.0	117.2	117.2	116.4	116.9	117.1	116.5	116.3	116.0	114.9	114.4	115.0	117.2	117.6	117.6
10-3	Metal containers.....	121.7	123.1	123.1	123.0	123.0	124.2	124.2	124.2	124.2	124.2	124.2	124.2	127.1	127.1	127.3
10-4	Hardware.....	116.5	115.6	115.6	115.8	116.7	117.7	117.7	117.7	117.7	117.7	117.7	118.4	119.0	119.2	119.6
10-5	Plumbing fixtures and brass fittings.....	116.4	114.9	115.8	116.8	117.9	118.3	118.3	118.3	118.3	118.3	118.4	118.2	118.6	118.9	119.0
10-6	Heating equipment.....	115.5	114.7	115.1	115.2	115.9	116.8	116.7	116.3	116.5	116.3	115.9	116.2	117.0	117.9	117.9
10-7	Fabricated structural metal products.....	118.2	116.8	117.3	117.9	118.2	119.6	120.3	120.3	120.3	120.4	121.6	122.0	122.1	122.1	122.1
10-8	Miscellaneous metal products.....	119.0	118.0	118.2	118.7	119.3	119.8	119.9	119.7	119.7	119.7	120.9	121.3	123.2	124.1	124.3
11	Machinery and equipment	115.5	115.0	115.3	115.5	115.7	116.1	116.0	116.0	115.9	116.2	116.5	117.1	117.3	117.6	117.6
11-1	Agricultural machinery and equipment.....	117.2	116.7	116.6	116.9	117.4	117.5	117.5	117.5	117.5	118.6	119.9	121.5	122.0	122.1	122.1
11-2	Construction machinery and equipment.....	121.4	120.9	121.1	121.2	121.6	121.9	121.8	121.8	122.0	123.2	124.3	124.7	125.0	125.7	125.7
11-3	Metalworking machinery and equipment.....	117.3	116.6	117.4	117.9	117.7	118.1	118.0	118.1	118.2	118.4	118.5	118.9	119.4	119.7	119.7
11-4	General purpose machinery and equipment.....	119.1	118.3	118.7	119.3	119.8	120.3	120.2	120.2	120.2	120.5	120.8	121.2	121.5	121.9	121.9
11-6	Special industry machinery and equipment.....	120.9	119.7	120.4	120.9	121.6	121.6	121.7	122.0	122.0	122.1	122.6	123.1	123.0	123.4	123.4
11-7	Electrical machinery and equipment.....	109.5	109.5	109.4	109.4	109.5	109.9	109.7	109.6	109.3	109.3	109.5	110.0	110.1	110.2	110.2
11-9	Miscellaneous machinery.....	117.2	117.0	117.2	117.2	117.3	118.0	117.8	117.8	117.8	117.8	117.9	118.3	118.8	119.0	119.6
12	Furniture and household durables	109.9	109.7	109.9	109.8	110.0	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.8	110.9	111.0
12-1	Household furniture.....	114.8	114.1	115.0	115.2	115.3	115.5	115.6	115.6	115.6	115.4	115.5	116.0	116.7	116.8	116.9
12-2	Commercial furniture.....	118.1	118.1	118.1	118.1	118.1	118.2	118.2	118.2	118.2	118.2	118.3	118.3	118.7	119.2	119.2
12-3	Floor coverings.....	98.8	98.8	98.8	98.4	98.2	97.6	97.6	97.6	97.6	97.9	98.1	98.2	98.2	98.2	98.2
12-4	Household appliances.....	107.2	107.1	107.1	107.1	107.0	107.4	107.6	107.5	107.6	107.4	106.9	107.5	107.4	107.5	107.5
12-5	Home electronic equipment.....	93.8	93.7	93.7	93.6	93.9	94.0	93.8	93.8	93.4	93.4	93.3	92.9	93.0	92.8	92.8
12-6	Other household durable goods.....	120.9	120.1	120.1	120.1	121.6	122.1	122.1	121.9	122.0	122.1	122.3	124.1	124.5	124.5	124.5
13	Nonmetallic mineral products	122.4	121.6	121.8	122.2	123.3	124.2	124.2	124.1	124.0	124.2	124.3	124.6	124.8	124.8	125.6
13-11	Flat glass.....	123.9	126.2	124.4	122.5	122.5	124.3	124.3	124.3	123.1	123.6	123.6	123.6	123.6	122.4	121.1
13-2	Concrete ingredients.....	121.9	121.0	121.2	121.5	123.3	124.0	124.1	124.1	124.3	124.2	124.4	124.6	124.6	126.4	126.4
13-3	Concrete products.....	120.6	119.4	119.6	120.1	121.5	122.8	122.6	122.6	122.6	122.9	123.4	123.8	124.5	125.1	125.1
13-4	Structural clay products excluding refractories.....	114.2	114.5	114.5	114.5	114.5	114.9	114.9	114.9	114.9	114.9	114.9	114.8	116.1	116.2	117.2
13-5	Refractories.....	126.9	126.7	126.7	126.9	126.9	126.9	126.9	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1
13-6	Asphalt roofing.....	125.5	123.6	123.6	130.7	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2	131.2
13-7	Gypsum products.....	106.8	101.0	101.2	104.0	112.7	114.3	114.5	113.6	112.1	114.1	113.4	112.8	115.3	114.9	114.9
13-8	Glass containers.....	131.6	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5
13-9	Other nonmetallic minerals.....	124.1	122.0	124.8	124.8	125.6	125.7	125.7	125.7	125.6	125.6	125.7	125.9	126.4	126.4	126.4
14	Transportation equipment ⁵	110.3	109.7	109.8	110.0	110.3	110.5	109.6	110.7	110.8	112.9	113.4	113.6	113.8	113.8	113.8
14-1	Motor vehicles and equipment.....	114.7	114.1	114.2	114.4	114.7	114.9	113.8	115.2	115.3	117.5	117.9	118.1	118.1	118.1	118.1
14-4	Railroad equipment.....	121.1	119.9	120.4	120.8	121.5	122.5	122.5	122.5	122.5	122.6	123.7	123.9	127.3	128.4	128.4
15	Miscellaneous products	112.8	112.7	112.5	112.6	112.8	113.0	113.0	113.0	113.1	113.2	113.7	114.0	114.2	114.1	114.1
15-1	Toys, sporting goods, small arms, ammunition.....	112.6	112.5	112.4	112.6	112.6	112.6	112.6	112.6	112.8	113.1	113.5	114.0	114.5	114.0	114.0
15-2	Tobacco products.....	116.7	116.5	116.5	116.5	116.6	116.8	116.8	116.8	116.8	116.7	117.4	117.4	117.4	117.4	117.4
15-3	Notions.....	111.6	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7	111.7
15-4	Photographic equipment and supplies.....	106.1	105.8	105.9	106.0	106.2	106.3	106.3	106.3	106.3	106.5	106.4	106.7	106.9	106.2	106.2
15-9	Other miscellaneous products.....	112.3	112.2	111.6	111.9	112.4	112.9	112.9	112.9	112.9	113.0	113.9	114.4	114.5	115.0	115.0

¹ As of January 1967, the index 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 1971 the indexes were converted from the former base of 1957-59 = 100 to the new base of 1967 = 100. Technical details and earlier data on the 1967 base furnished upon request to the Bureau.

³ December 1969 = 100.

⁴ December 1970 = 100.

⁵ December 1968 = 100.

NOTE: For a description of the general method of computing the monthly Wholesale Price Index, see BLS Handbook of Methods (BLS Bulletin 1711, 1971), Chapter 11.

°=corrected.

28. Wholesale Price Index for special commodity groupings¹[1967 = 100 unless otherwise specified]²

Commodity group	Annual average 1971	1971									1972			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
All commodities—less farm products.....	114.0	113.3	113.8	114.0	114.7	115.1	114.9	114.8	114.8	115.4	116.1	116.9	117.1	117.3
All foods.....	115.5	114.7	116.0	117.0	115.8	116.6	115.1	115.3	116.3	118.1	118.9	120.8	119.3	118.0
Processed foods.....	115.6	114.5	115.8	116.0	117.3	116.9	116.4	116.1	116.2	117.5	119.2	121.2	120.3	119.1
Textile products, excluding hard and bast fiber products.....	103.7	102.2	102.9	104.1	104.6	105.2	105.0	104.7	105.1	106.1	107.6	108.7	109.1	110.0
Hosiery.....	95.6	95.6	95.5	95.5	95.5	95.5	95.5	95.5	95.5	96.0	96.0	96.0	96.0	96.0
Underwear and nightwear.....	108.1	107.9	107.9	108.1	108.3	108.6	108.4	108.4	108.4	108.4	108.7	109.6	109.6	109.6
Refined petroleum products.....	106.8	105.3	107.4	107.4	107.2	107.3	107.3	106.3	106.2	106.1	106.1	105.5	106.3	106.6
East Coast.....	120.0	122.2	122.2	121.8	121.8	120.8	120.4	120.4	119.2	119.2	119.2	119.9	119.9	119.9
Mid-Continent.....	103.3	97.3	106.0	103.1	103.1	103.1	103.1	101.6	101.6	101.6	101.6	100.2	100.2	103.1
Gulf Coast.....	100.0	98.4	100.7	100.7	100.7	100.7	98.4	98.4	98.4	98.4	98.4	96.9	99.2	99.2
Pacific Coast.....	112.7	113.8	113.8	113.8	112.4	113.0	113.3	113.8	113.8	112.7	113.3	114.1	113.3	113.3
Midwest.....	112.5	110.1	111.6	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	112.8	112.8
Chemicals and allied products, including synthetic rubber and manmade fibers and yarns ³	103.2	103.3	103.2	103.4	103.5	103.3	103.3	103.3	103.0	102.9	103.0	103.2	103.2	103.7
Pharmaceutical preparations.....	102.2	101.8	101.7	102.1	102.4	102.5	102.5	102.5	102.3	102.4	102.2	102.1	102.5	102.4
Lumber and wood products, excluding millwork and other wood products ⁴	130.1	127.4	127.2	128.2	134.7	140.0	139.7	135.9	135.3	137.2	140.1	143.9	146.4	148.4
Special metals and metal products ⁵	117.6	116.6	117.1	117.2	117.9	119.0	118.7	119.0	119.0	119.7	120.3	121.1	121.6	121.7
Copper and copper products ⁶	116.6	119.4	119.4	117.7	118.4	117.8	117.0	116.7	116.0	114.0	115.0	116.3	120.1	119.9
Machinery and motive products.....	115.3	114.8	115.0	115.2	115.5	115.8	115.3	115.8	115.8	116.7	117.2	117.6	117.8	118.0
Machinery and equipment, except electrical.....	118.9	118.2	118.6	118.9	119.3	119.6	119.6	119.6	119.7	120.1	120.6	121.1	121.4	121.8
Agricultural machinery, including tractors.....	117.3	116.8	116.7	117.0	117.6	117.7	117.7	117.7	117.7	118.9	120.4	122.1	122.6	122.7
Metalworking machinery.....	118.6	117.6	118.4	119.1	119.2	119.4	119.2	119.3	119.5	119.8	119.9	120.3	120.8	121.2
Numerically controlled machine tools (Dec. 1971 = 100).....											100.0	100.5	100.6	101.5
Total tractors.....	120.7	120.4	120.4	120.8	120.8	120.8	120.8	120.8	120.8	122.5	124.1	124.6	125.0	125.4
Industrial valves.....	116.3	114.3	116.6	117.7	118.1	118.6	118.6	118.6	119.1	119.1	119.1	120.2	120.2	120.2
Industrial fittings.....	122.4	122.2	122.2	122.2	122.6	122.6	122.6	122.6	122.6	123.0	123.8	123.1	123.1	124.2
Abrasive grinding wheels.....	122.1	123.6	123.6	123.7	123.7	123.5	123.5	123.5	123.5	123.5	123.5	123.8	126.5	126.8
Construction materials.....	119.5	118.0	118.5	119.0	120.9	122.9	123.0	122.2	122.0	122.4	123.2	124.2	124.9	125.7

¹ As of January 1967, the index incorporated a revised weighting structure reflecting 1963 values of shipments. Changes were also 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 1971 the indexes were converted from the former base of 1957-59

= 100 to the new base of 1967 = 100. Technical details and earlier data on the 1967 base furnished upon request to the Bureau.

³ Introduced in February 1971.

⁴ Formerly titled "Lumber and wood products, excluding millwork."

⁵ Metals and metal products, agricultural machinery and equipment, and motor vehicles and equipment.

⁶ Formerly titled "Copper and copper base metals."

29. Wholesale Price Index,¹ by durability of product[1967 = 100]²

Commodity group	Annual average 1971	1971									1972			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
All commodities.....	113.9	113.3	113.8	114.3	114.6	114.9	114.5	114.4	114.5	115.4	116.3	117.3	117.4	117.5
Total durable goods.....	117.0	116.1	116.5	116.7	117.5	118.4	118.2	118.2	118.1	118.6	119.2	120.0	120.4	120.7
Total nondurable goods.....	111.7	111.2	111.8	112.5	112.4	112.4	111.7	111.6	111.8	113.0	114.1	115.3	115.2	115.1
Total manufactures.....	113.8	113.0	113.5	113.8	114.5	114.9	114.7	114.5	114.5	115.1	115.7	116.5	116.7	116.9
Durable.....	117.0	116.1	116.5	116.7	117.5	118.5	118.3	118.3	118.3	118.8	119.3	120.1	120.4	120.8
Nondurable.....	110.5	109.9	110.5	110.8	111.4	111.2	111.0	110.6	110.7	111.3	112.0	112.8	112.9	112.9
Total raw or slightly processed goods.....	114.4	114.4	114.9	116.3	114.7	114.8	113.2	113.8	114.3	116.8	118.9	120.9	120.7	120.4
Durable.....	112.2	115.9	113.7	111.5	111.4	110.4	111.1	110.4	108.9	107.4	110.3	113.1	116.2	115.0
Nondurable.....	114.6	114.4	115.1	116.6	115.0	115.1	113.4	114.0	114.6	117.3	119.3	121.3	121.0	120.7

¹ As of January 1967, the index incorporated a revised weighting structure reflecting 1963 values of shipments. Changes were also 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 1971 the indexes were converted from the former base of 1957-59 = 100 to the new base of 1967 = 100. Technical details and earlier data on the 1967 base furnished upon request to the Bureau.

NOTE: For a description of the series by durability of product and data beginning with 1947, see Wholesale Prices and Price Indexes, 1957 (BLS Bulletin 1235, 1958).

30. Wholesale Price Index,¹ by stage of processing[1967 = 100]²

Commodity group	Annual average 1971	1971									1972			
		Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
All commodities.....	113.9	113.3	113.8	114.3	114.6	114.9	114.5	114.4	114.5	115.4	116.3	117.3	117.4	117.5
Crude materials for further processing.....	115.0	115.2	115.8	116.9	116.6	115.2	113.9	114.3	114.3	117.0	120.2	123.1	123.1	123.0
RAW MATERIALS														
Foodstuffs and feedstuffs.....	114.2	114.4	115.4	117.1	116.6	114.5	112.1	112.6	112.7	115.8	119.3	122.9	122.0	121.0
Nonfood materials except fuel.....	110.5	110.6	110.3	110.1	110.4	110.2	111.1	111.1	111.1	112.8	115.4	117.3	119.5	121.3
Manufacturing.....	109.7	109.9	109.6	109.3	109.5	109.3	110.3	110.3	110.2	112.2	115.1	117.1	119.5	121.5
Construction.....	119.1	118.2	118.7	119.3	119.6	120.1	120.3	120.3	120.5	120.4	120.7	120.9	121.0	121.2
Crude fuel.....	138.5	138.5	139.0	139.4	139.7	139.3	140.3	140.6	140.6	142.7	145.4	145.6	146.2	146.9
Manufacturing industries.....	129.6	129.1	129.8	130.4	130.7	130.2	131.4	131.8	131.8	132.8	135.5	135.7	136.5	137.6
Nonmanufacturing industries.....	150.4	151.0	151.0	151.3	151.5	151.2	152.0	152.2	152.2	155.7	158.4	158.6	159.0	159.1
INTERMEDIATE MATERIALS														
Intermediate materials: Supplies and components.....	114.0	113.1	113.6	114.0	114.8	115.6	115.4	115.0	115.0	115.4	115.9	116.7	117.2	117.7
Materials and components for manufacturing.....	113.0	112.1	112.6	112.8	113.6	114.6	114.4	114.2	114.2	114.4	114.9	115.7	115.9	116.4
Materials for food manufacturing.....	116.2	115.2	116.2	116.3	117.5	118.3	117.1	116.6	116.8	117.3	117.9	119.4	118.6	117.8
Materials for nondurable manufacturing.....	105.6	105.4	105.5	105.9	106.1	106.3	106.2	105.9	105.9	106.3	107.0	107.4	107.5	108.7
Materials for durable manufacturing.....	118.8	117.2	118.0	118.1	119.6	121.7	121.6	121.4	121.2	121.0	121.5	122.7	123.3	123.7
Components for manufacturing.....	114.7	113.8	114.1	114.5	114.9	115.5	115.6	115.4	115.6	115.8	116.0	116.5	116.6	117.0
Materials and components for construction.....	119.5	118.0	118.5	119.2	120.8	122.5	122.5	121.9	121.8	122.3	123.1	124.2	124.9	125.5
Processed fuels and lubricants.....	113.4	112.0	113.0	113.2	113.4	114.6	115.3	114.6	114.4	114.3	116.0	116.8	116.9	117.3
Manufacturing industries.....	115.2	113.9	114.3	114.7	115.1	116.6	117.5	117.2	117.0	117.0	119.2	120.4	120.4	120.8
Nonmanufacturing industries.....	110.6	109.1	111.1	110.9	110.9	111.5	111.9	110.6	110.4	110.1	111.0	111.1	111.5	111.9
Containers.....	116.6	116.2	116.6	116.9	117.2	117.5	117.6	117.6	117.6	117.6	117.8	119.5	120.0	121.2
Supplies.....	110.9	110.7	110.9	111.9	111.9	111.3	110.3	109.6	110.1	111.1	111.0	111.4	112.8	113.0
Manufacturing industries.....	113.1	113.0	113.4	113.5	113.2	113.2	113.2	113.2	113.2	113.2	113.2	113.9	114.2	114.5
Nonmanufacturing industries.....	109.9	109.7	109.7	111.2	111.3	110.4	109.0	107.9	108.6	110.2	110.1	110.3	112.3	112.4
Manufactured animal feeds.....	104.3	104.3	104.6	107.8	107.2	104.6	100.8	97.9	99.8	104.4	103.6	103.3	108.3	108.1
Other supplies.....	112.6	112.2	112.1	112.7	113.2	113.2	113.0	113.0	113.0	113.0	113.2	113.8	114.1	114.3
FINISHED GOODS														
Finished goods (including raw foods and fuels).....	113.5	112.9	113.5	113.8	113.8	114.1	113.6	113.8	114.0	115.0	115.5	116.3	116.1	115.8
Consumer goods.....	112.7	112.0	112.7	113.1	113.0	113.3	112.7	112.9	113.1	114.2	114.7	115.6	115.3	114.8
Foods.....	115.2	114.5	115.6	116.4	115.6	116.1	114.9	115.0	115.7	117.7	118.7	120.6	119.4	118.0
Crude.....	115.8	116.9	117.1	121.8	109.0	115.8	109.6	112.2	116.1	121.5	117.4	117.9	115.7	113.4
Processed.....	115.0	114.0	115.3	115.4	116.7	116.1	115.8	115.5	115.6	117.0	118.8	121.0	120.0	118.7
Other nondurable goods.....	111.3	110.5	111.0	111.2	111.6	111.8	111.9	111.7	111.7	111.8	112.0	112.1	112.4	112.7
Durable goods.....	110.9	110.5	110.7	110.7	111.0	111.1	110.4	111.3	111.3	112.6	112.9	113.2	113.2	113.3
Producer finished goods.....	116.6	116.1	116.3	116.5	116.8	117.1	116.9	117.1	117.0	117.8	118.4	188.8	119.0	119.3
Manufacturing industries.....	117.3	116.7	117.0	117.2	117.7	117.9	117.8	117.9	117.8	118.2	118.7	119.1	119.2	119.5
Nonmanufacturing industries.....	116.0	115.6	115.6	115.8	116.1	116.4	116.0	116.3	116.3	117.4	118.1	118.4	118.8	119.0
SPECIAL GROUPINGS														
Crude materials for further processing, excluding crude foodstuffs and feedstuffs, plant and animal fibers oilseeds, and leaf tobacco.....	122.7	124.1	123.5	122.8	122.7	122.3	123.0	122.9	122.6	123.4	125.6	127.0	129.1	129.3
Intermediate materials, supplies and components excluding intermediate materials for food manufacturing and manufactured animal feeds.....	114.3	113.3	113.8	114.1	114.9	115.9	115.9	115.7	115.6	115.8	116.4	117.2	117.6	118.2
Consumer finished goods, excluding consumer foods.....	111.2	110.5	110.9	111.0	111.4	111.5	111.3	111.6	111.6	112.1	112.3	112.5	112.7	112.9

¹ As of January 1967, the index incorporated a revised weighting structure reflecting 1963 values of shipments. Changes were also 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 1971 the indexes were converted from the former base of 1957-59 = 100 to the new base of 1967 = 100. Technical details and earlier data on the 1967 base furnished upon request to the Bureau.

NOTE: For a description of the series by stage of processing see *Wholesale Prices and Price Indexes*, January 1967 (final) and February 1967 (final).

° = corrected.

31. Industry-sector price indexes for output of selected industries¹[1967 = 100 unless otherwise indicated]²

1963 SIC code	Industry	Annual average 1971	1971										1972			
			Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
MINING																
1111	Anthracite.....	144.9	146.3	144.2	140.5	144.7	144.7	145.6	144.7	144.7	144.7	146.4	146.4	146.4	146.4	
1211	Bituminous coal.....	185.0	187.1	186.1	186.1	186.1	186.1	186.1	186.2	186.2	194.1	196.6	196.6	196.6	195.0	
1311	Crude petroleum and natural gas.....	113.0	112.7	113.0	113.2	113.3	113.1	113.5	113.6	113.6	113.3	113.9	114.0	114.2	114.6	
1421	Crushed and broken stone.....	117.7	117.1	117.1	118.3	118.5	118.5	118.5	118.5	118.8	118.8	119.1	119.4	119.4	119.7	
1442	Construction sand and gravel.....	120.6	119.5	120.5	120.5	120.8	121.9	122.3	122.3	122.3	122.2	122.5	122.5	122.7	122.8	
1475	Phosphate rock.....	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	
1476	Rock salt.....	118.3	112.2	112.2	112.2	124.4	124.4	124.4	124.4	124.4	124.4	124.4	124.4	124.4	124.4	
1477	Sulfur.....	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	
MANUFACTURING																
2011	Meat slaughtering plants.....	115.6	113.2	116.9	115.2	117.7	117.5	117.5	117.1	117.1	120.8	125.4	130.6	126.0	123.0	
2013	Meat processing plants.....	110.7	109.7	111.0	111.0	111.6	111.4	110.2	112.0	112.4	114.9	117.4	124.5	124.0	122.1	
2015	Poultry dressing plants.....	111.0	109.5	110.7	117.1	127.1	112.0	113.0	106.0	104.9	100.8	106.8	114.1	115.3	104.9	
2021	Creamery butter.....	113.1	113.6	113.5	113.3	113.3	113.4	113.5	113.6	113.6	114.2	113.9	114.0	113.8	113.7	
2033	Canned fruits and vegetables.....	111.7	110.8	111.4	113.0	113.3	113.7	113.0	112.5	112.6	113.0	113.3	112.9	113.6	114.6	
2036	Fresh or frozen packaged fish.....	141.2	132.5	134.9	142.5	141.0	148.4	145.3	145.3	150.0	158.1	165.3	167.9	166.0	173.2	
2041	Flour and other grain mill products (12/71=100)											98.4	97.8	99.5	98.7	
2042	Prepared animal feeds (12/71=100)											100.5	100.2	101.7	101.9	
2044	Rice milling.....	98.9	98.2	97.7	99.3	99.3	99.3	99.3	99.3	99.3	100.5	100.5	100.5	100.5	100.5	
2052	Biscuits, crackers and cookies.....	119.3	120.3	120.3	120.3	119.6	119.6	119.6	119.6	119.6	119.6	119.6	120.6	122.2	123.0	
2061	Raw cane sugar.....	116.9	113.4	116.0	117.7	117.7	119.5	116.7	116.7	118.1	121.3	126.7	123.5	126.1	123.6	
2062	Cane sugar refining.....	118.3	117.3	117.6	117.8	119.5	119.8	119.4	119.4	119.6	120.0	120.9	123.0	123.6	125.4	
2063	Beet sugar.....	116.8	116.5	116.8	116.7	117.1	117.3	117.0	117.0	117.0	117.3	118.0	119.7	120.2	121.2	
2073	Chewing gum.....	123.6	126.1	126.1	126.1	126.2	126.2	126.2	126.2	126.2	126.2	125.9	125.9	125.9	125.9	
2082	Malt liquors.....	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.9	110.6	110.7	110.9	110.4	110.7	
2083	Malt.....	98.5	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	94.2	94.2	94.2	94.2	94.2	
2084	Wines and brandy.....	117.0	114.8	115.4	115.4	120.4	120.4	120.4	120.5	102.5	119.4	117.5	120.5	125.1	125.2	
2091	Cottonseed oil mills.....	111.4	111.0	108.8	110.4	113.1	120.0	118.1	105.2	104.9	108.5	106.7	106.4	106.4	104.9	
2092	Soybean oil mills.....	111.4	103.1	107.5	112.9	120.8	120.8	109.2	110.3	110.9	111.3	109.6	112.7	120.0	123.1	
2094	Animal and marine fats and oils.....	125.7	133.9	128.7	124.3	122.8	124.4	125.4	122.6	120.3	114.0	113.1	115.7	117.0	125.6	
2096	Shortening and cooking oils.....	121.0	119.5	118.5	118.4	122.9	125.0	123.3	122.4	122.2	121.1	120.6	120.2	119.8	119.8	
2098	Macaroni and noodle products.....	106.3	106.5	106.5	106.4	106.5	106.4	106.5	105.8	105.8	105.8	105.8	105.8	105.8	106.0	
2111	Cigarettes.....	117.4	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	118.2	118.2	118.2	118.2	
2121	Cigars.....	108.1	107.0	107.0	107.0	107.6	109.6	109.6	109.6	109.6	109.6	109.1	109.1	109.1	109.1	
2131	Chewing and smoking tobacco.....	125.0	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	125.1	
2254	Knit underwear mills.....	107.8	107.5	107.5	107.7	107.8	108.3	108.3	108.2	108.3	108.2	108.7	109.8	109.8	109.8	
2272	Tufted carpets and rugs.....	96.0	97.6	97.7	95.5	95.2	94.2	94.2	94.2	94.2	94.5	94.8	95.1	94.7	94.9	
2281	Yarn mills, except wool (12/71=100)											101.0	102.5	103.1	104.2	
2311	Men's and boys' suits and coats.....	128.0	126.1	126.0	126.5	127.7	129.1	131.0	131.2	131.3	131.3	131.5	131.3	131.2	131.0	
2321	Men's dress shirts and nightwear.....	111.9	111.7	111.9	112.0	112.2	112.3	112.4	112.4	111.4	111.1	111.5	111.7	111.9	112.0	
2322	Men's and boys' underwear.....	110.3	110.1	110.2	110.2	110.2	110.6	110.6	110.6	110.5	110.5	111.0	111.7	111.8	111.8	
2327	Men's and boys' separate trousers.....	110.6	110.2	110.2	110.2	110.7	110.9	111.0	111.0	111.0	111.0	110.7	111.0	111.0	108.3	
2328	Work clothing.....	113.7	113.0	113.0	113.4	113.4	114.7	114.6	114.6	114.6	114.9	115.0	115.1	115.1	116.3	
2337	Women's suits, coats and skirts (12/71=100)											100.0	100.0	100.0	100.0	
2381	Fabric dress and work gloves.....	111.8	111.7	111.7	111.7	111.7	111.7	111.8	111.8	111.5	111.5	113.2	113.6	115.0	118.7	
2421	Sawmills and planing mills (12/71=100)											102.2	104.8	106.4	108.2	
2426	Hardwood dimension and flooring.....	115.5	113.7	113.9	114.2	116.2	118.8	118.5	118.2	118.2	119.4	120.6	120.8	121.9	124.9	
2431	Millwork plants (12/71=100)											100.5	100.6	101.3	102.2	
2432	Veneer and plywood plants (12/71=100)											102.3	106.8	110.5	110.7	
2442	Wirebound boxes and crates (12/67=100)	117.6	117.3	117.3	117.5	117.9	117.9	117.9	117.9	118.3	118.5	119.8	120.1	120.5	121.6	
2511	Wood furniture, not upholstered (12/71=100)											100.7	101.4	101.7	101.7	
2512	Wood furniture upholstered (12/71=100)											100.3	100.6	100.2	100.6	
2515	Mattresses and bedsprings.....	108.8	108.8	108.9	109.1	108.9	109.0	109.0	109.0	109.0	109.0	108.9	109.6	109.6	109.6	
2521	Wood office furniture.....	117.1	117.1	117.1	117.1	117.1	117.3	117.3	117.3	117.5	117.5	117.5	117.5	117.9	118.5	
2647	Sanitary paper products.....	119.1	119.2	119.2	119.5	119.5	119.5	119.5	119.5	119.5	119.5	119.5	119.6	119.6	120.1	
2654	Sanitary food containers.....	106.0	106.0	106.0	106.1	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.3	106.4	107.2	
2819	Inorganic chemicals, nec. (12/71=100)											100.1	100.2	100.2	101.5	
2822	Synthetic rubber.....	99.9	100.0	99.9	99.9	99.9	99.9	99.9	99.9	99.7	99.7	99.7	99.7	99.7	99.7	
2823	Cellulosic man-made fibers.....	102.5	102.5	102.5	102.5	102.5	102.8	102.8	102.9	102.7	103.7	104.3	104.8	105.6	105.9	
2824	Organic fibers, noncellulosic.....	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.1	98.1	98.1	
2834	Pharmaceutical preparations (12/71=100)											99.9	99.8	100.1	100.0	
2841	Soap and other detergents (12/71=100)											100.0	100.0	100.0	100.0	
2844	Toilet preparations (12/71=100)											100.0	100.1	99.8	100.0	
2871	Fertilizers.....	91.8	94.0	94.1	94.1	93.7	89.7	89.7	89.8	89.8	89.7	89.7	89.5	90.2	90.6	

See footnotes at end of table.

31. Continued—Industry-sector price indexes for output of selected industries¹[1967 = 100 unless otherwise indicated]²

1963 SIC code	Industry	Annual average 1971	1971										1972			
			Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
MANUFACTURING—Continued																
2872	Fertilizers, mixing only.....	102.5	103.3	103.5	103.5	102.8	102.3	102.4	102.5	102.4	102.3	102.3	102.3	101.5	102.9	103.3
2892	Explosives.....	112.8	112.9	112.9	112.9	112.9	112.8	112.8	112.8	112.8	112.7	112.7	112.7	112.7	112.9	113.1
2911	Petroleum refining.....	105.7	104.4	106.4	106.3	106.2	106.2	106.3	105.3	105.2	105.0	105.1	104.5	105.2	105.6	105.6
3021	Rubber footwear (12/71=100).....											102.9	106.7	106.7	106.8	106.8
3111	Leather tanning and finishing.....	113.0	111.5	113.5	114.7	114.7	114.7	113.9	114.0	114.0	117.5	120.4	121.1	129.0	139.0	139.0
3121	Industrial leather belting.....	125.5	124.8	126.0	125.3	125.5	126.0	125.6	125.6	126.3	126.3	125.6	126.6	125.8	126.9	126.9
3141	Shoes, except rubber (12/71=100).....											100.7	101.1	102.6	104.7	104.7
3211	Flat glass (12/71=100).....											100.0	100.0	99.5	99.0	99.0
3221	Glass containers.....	131.5	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	131.4	136.1
3241	Cement, hydraulic.....	124.6	123.6	123.6	123.6	126.7	127.6	127.8	127.8	127.8	127.8	127.8	127.8	128.1	128.1	131.5
3251	Brick and structural clay tile.....	119.1	119.1	119.1	119.1	119.1	120.0	120.0	120.0	120.0	120.0	119.9	122.5	122.7	123.2	123.2
3255	Clay refractories.....	128.7	128.5	128.5	128.7	128.7	128.7	128.7	128.9	128.9	128.9	128.9	128.9	128.9	128.9	128.9
3259	Structural clay products nec.....	109.2	110.0	110.0	109.9	109.9	109.9	110.0	110.0	109.9	109.9	109.9	109.9	109.9	109.9	109.9
3261	Vitreous plumbing fixtures.....	112.1	109.3	110.7	113.2	114.0	114.3	114.6	114.8	114.4	114.7	113.9	114.4	114.9	115.3	115.3
3262	Vitreous china food utensils.....	132.4	133.4	133.4	133.4	133.4	133.4	133.4	133.4	133.4	133.4	133.4	135.8	137.9	137.9	137.9
3263	Fine earthenware food utensils.....	125.5	120.3	120.3	120.3	129.7	131.1	131.1	131.1	131.1	131.1	134.6	134.8	140.3	140.3	140.3
3271	Concrete block and brick.....	118.4	118.2	118.3	118.3	118.4	118.9	119.1	119.1	119.1	119.1	120.0	120.5	120.8	122.0	122.0
3273	Ready mixed concrete.....	122.5	120.8	121.0	121.8	123.3	124.8	124.6	124.6	124.6	124.9	125.3	125.8	126.7	127.3	127.3
3275	Gypsum products.....	107.0	101.3	101.6	104.2	112.7	114.4	114.5	113.7	112.3	114.1	113.4	113.0	115.3	114.9	114.9
3291	Abrasive products (12/71=100).....											100.0	100.3	101.3	101.9	101.9
3312	Blast furnace and steel mills.....	123.4	118.9	121.0	121.6	124.0	128.2	128.3	128.3	128.3	128.3	129.6	130.9	130.9	130.9	130.9
3315	Steel wire drawing, etc.....	120.2	115.5	117.9	119.1	119.2	124.3	125.3	125.2	125.7	125.7	127.1	127.6	127.7	127.9	127.9
3316	Cold finishing of steel shapes.....	124.1	118.9	121.2	122.4	126.2	128.5	128.9	128.9	128.9	128.9	127.9	132.4	132.4	132.1	132.1
3317	Steel pipe and tube.....	121.9	116.8	119.9	120.3	120.7	128.4	128.4	128.2	128.2	128.2	128.6	128.5	128.7	129.2	129.2
3321	Gray iron foundries (12/68=100).....	115.1	114.4	115.2	115.8	116.0	116.1	116.2	116.3	116.4	116.4	116.1	116.7	116.9	116.8	116.8
3333	Primary zinc.....	113.3	109.1	110.3	112.0	112.8	118.8	118.8	118.8	118.8	118.8	119.0	119.1	119.2	122.3	122.3
3334	Primary aluminum.....	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	115.9	101.5	99.2	95.9	95.9	95.9
3339	Primary nonferrous metals, nec.....	112.8	119.1	115.9	114.1	111.2	111.8	106.5	104.9	105.1	107.2	110.4	112.2	114.2	115.4	115.4
3341	Secondary nonferrous metals (12/71=100).....											96.3	96.0	99.7	100.5	100.5
3351	Copper rolling and drawing.....	119.0	120.2	123.1	120.4	120.5	120.5	120.0	120.0	119.7	118.3	120.3	122.2	125.6	125.4	125.4
3352	Aluminum rolling and drawing (12/68=100).....	108.2	108.0	108.0	108.2	108.3	108.4	108.4	108.4	108.3	108.3	108.3	108.2	108.3	108.6	108.6
3356	Nonferrous rolling and drawing, nec. (12/71=100).....											100.1	101.1	101.3	101.8	101.8
3411	Metal cans.....	121.9	124.1	124.1	123.9	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	127.5	127.6	127.6
3423	Hand and edge tools (12/67=100).....	120.8	118.9	118.9	119.6	121.3	123.1	123.1	123.0	123.2	123.2	124.4	125.0	125.0	125.9	125.9
3431	Metal plumbing fixtures.....	114.0	110.1	111.5	114.2	116.2	117.7	117.7	117.6	117.8	117.8	116.9	116.9	117.5	117.9	117.9
3493	Steel springs.....	111.9	110.8	110.7	111.7	110.2	111.5	113.3	113.1	114.3	115.9	116.6	118.7	118.9	119.0	119.0
3494	Valves and pipe fittings (12/71=100).....											100.3	100.6	100.6	100.9	100.9
3496	Collapsible tubes.....	118.4	117.1	117.0	119.8	119.9	120.0	120.0	119.9	119.9	119.9	119.9	120.5	120.7	120.8	120.8
3498	Fabricated pipe and fittings.....	133.0	128.2	129.7	135.6	135.6	135.6	136.7	136.7	136.7	136.7	136.7	136.7	136.7	136.7	136.7
3519	Internal combustion engines.....	117.4	116.7	116.7	116.6	116.8	118.4	118.5	118.5	118.5	119.3	120.2	120.9	121.1	121.1	121.1
3533	Oil field machinery.....	123.3	123.4	123.5	123.8	123.8	124.0	123.9	123.9	123.9	123.9	125.3	125.6	125.6	126.5	126.5
3534	Elevators and moving stairways.....	121.0	120.5	120.6	120.6	102.6	122.2	122.2	122.2	122.2	122.2	122.3	122.3	122.3	122.3	122.3
3535	Conveyors and conveying equipment (12/71=100).....											100.2	101.1	101.1	101.2	101.2
3537	Industrial trucks and tractors.....	120.4	118.5	118.5	118.6	121.6	123.5	121.7	121.7	121.7	124.2	124.2	123.3	123.4	123.5	123.5
3541	Machine tools, metal cutting types (12/71=100).....											100.2	100.7	100.9	101.4	101.4
3542	Machine tools, metal forming types (12/71=100).....											100.3	100.7	101.4	101.4	101.4
3552	Textile machinery (12/69=100).....	108.9	107.5	108.0	109.4	109.7	109.8	110.1	110.4	110.4	110.4	111.0	111.3	111.3	111.4	111.4
3562	Ball and roller bearings.....	114.2	113.9	113.9	113.9	114.0	114.6	114.6	114.6	114.6	114.6	115.0	115.7	116.2	116.8	116.8
3572	Typewriters.....	103.4	103.4	103.4	103.4	103.4	103.5	103.5	103.5	103.5	103.5	103.5	104.0	104.4	104.5	104.5
3576	Scales and balances.....	114.3	114.6	113.9	113.9	114.1	114.1	114.1	114.5	114.5	114.5	116.5	116.5	117.6	117.8	117.8
3611	Electric measuring instruments (12/71=100).....											100.5	100.7	101.2	101.2	101.2
3612	Transformers.....	97.3	100.7	99.1	96.9	96.7	95.6	95.5	94.8	92.4	93.0	94.4	94.1	94.3	95.5	95.5
3613	Switchgear and switchboards.....	113.3	114.0	114.1	113.5	113.1	113.1	112.7	113.0	112.5	112.3	112.0	112.1	112.4	111.7	111.7
3624	Carbon and graphite products (12/67=100).....	113.1	113.3	113.3	113.3	113.3	113.3	113.3	113.3	113.3	113.3	113.4	113.4	113.4	113.4	113.4
3634	Electric housewares and fans (12/71=100).....											99.7	99.9	100.1	99.8	99.8
3635	Household vacuum cleaners.....	100.4	100.2	100.2	100.2	100.5	100.5	100.5	100.5	100.5	100.5	100.4	100.4	101.8	101.8	101.8
3641	Electric lamps.....	113.6	113.7	113.3	113.5	113.3	113.8	113.8	114.3	114.0	114.0	114.2	114.2	114.5	116.3	117.4
3642	Lighting fixtures (12/71=100).....											100.3	101.1	101.1	101.5	101.5
3652	Phonograph records.....	106.8	110.2	105.4	105.4	105.4	105.4	105.4	105.4	105.4	105.4	113.2	113.2	113.2	113.2	113.2
3671	Electron tubes, receiving type.....	132.0	132.2	132.1	132.2	132.2	132.2	132.2	132.2	132.2	132.2	132.1	139.8	139.9	139.9	139.9
3672	Cathode ray picture tubes.....	86.4	87.7	87.7	87.7	87.7	87.7	83.3	83.0	83.0	83.0	83.0	82.9	83.1	82.8	82.8
3673	Electron tubes, transmitting.....	111.4	111.9	111.9	111.7	111.7	111.7	111.6	111.6	111.6	111.6	111.4	111.2	112.1	112.4	112.4
3674	Semiconductors.....	93.9	93.7	93.5	93.5	93.3	93.7	93.5	93.5	93.5	93.0	93.0	93.1	92.5	92.3	92.3
3692	Primary batteries, dry and wet.....	118.9	116.6	119.2	120.5	121.8	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.1
3693	X-ray apparatus and tubes (12/67=100).....	128.5	129.6	129.7	129.6	129.5	129.5	129.5	129.5	129.5	129.5	132.1	132.1	132.1	132.1	132.1
3861	Photographic equipment (12/71=10															

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	5,716		3,305		66,414	.37
1970: January	279	458	71.1	269.9	3,710.8	.25
February	330	529	116.3	329.6	2,110.6	.15
March	427	630	316.2	402.5	2,471.2	.16
April	640	884	451.1	523.1	5,431.1	.34
May	699	1,050	331.1	675.4	6,650.7	.46
June	657	1,060	288.1	538.0	5,845.6	.36
July	585	989	242.2	467.1	5,112.1	.32
August	527	950	127.3	340.7	3,851.8	.26
September	560	971	591.1	785.0	8,669.5	.57
October	448	881	231.1	753.9	11,573.6	.73
November	340	695	83.6	552.0	7,798.0	.54
December	224	529	455.5	919.9	3,188.7	.20
1971: January P	280	440	222	286	2,709	.19
February P	330	490	114	169	1,771	.13
March P	410	590	116	200	2,292	.14
April P	540	750	174	254	2,184	.14
May P	580	790	702	774	3,437	.24
June P	610	850	272	384	3,923	.25
July P	410	670	820	967	7,906	.52
August P	390	660	166	472	4,505	.28
September P	280	540	88	286	2,841	.19
October P	300	540	210	300	4,507	.29
November P	260	490	249	455	4,229	.28
December P	150	360	27	243	4,444	.29
1972: January P	300	460	79	154	2,284	.15
February P	290	455	58	137	1,597	.11
March P	360	540	122	161	1,517	.09

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 establish-

ments 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 1967=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	
	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
1969: 1st.....	107.1	107.2	103.4	104.0	103.6	103.1	112.6	111.9	104.9	104.3	108.7	108.6	102.5	102.4	106.3	106.3
2d.....	107.5	107.9	104.2	104.9	103.1	102.8	114.4	113.7	104.8	104.2	110.9	110.6	102.6	102.2	107.7	107.4
3d.....	108.0	108.3	104.5	105.4	103.4	102.7	116.6	115.5	105.4	104.4	112.8	112.5	102.9	102.8	109.0	108.8
4th.....	107.6	107.8	104.0	105.2	103.4	102.4	118.9	117.5	105.9	104.7	115.0	114.7	102.6	102.2	110.2	110.0
Annual average.....	107.5	107.8	104.0	104.9	103.4	102.7	115.6	114.7	105.3	104.5	111.9	111.6	106.2	102.3	108.3	108.1
1970: 1st.....	106.7	107.1	103.7	104.9	103.0	102.1	121.1	119.7	106.3	105.0	117.7	117.2	102.1	101.3	111.6	111.2
2d.....	106.9	107.2	103.1	104.0	103.7	103.1	122.5	121.5	105.9	105.0	118.1	117.8	104.4	104.0	112.8	112.6
3d.....	107.3	107.7	102.0	103.1	105.3	104.6	125.3	124.1	107.1	106.0	119.0	118.7	106.4	106.6	114.1	114.1
4th.....	106.1	106.2	100.8	102.0	105.3	104.1	127.2	125.7	107.2	106.0	120.7	120.7	108.1	108.8	115.9	116.2
Annual average.....	106.8	107.1	102.4	103.5	104.3	103.5	124.0	122.7	106.6	105.5	118.9	118.6	105.3	105.2	113.6	113.5
1971: 1st.....	108.3	108.5	101.3	102.5	106.9	105.8	129.8	128.4	108.6	107.4	121.4	121.3	110.4	110.9	117.1	117.4
2d.....	109.3	109.5	101.7	102.8	107.4	106.5	131.7	130.4	109.0	108.0	122.6	122.4	111.7	112.2	118.4	118.6
3d.....	110.0	110.0	101.4	102.6	108.5	107.1	133.7	132.2	109.6	108.3	123.3	123.4	112.6	112.8	119.1	119.4
4th.....	111.7	111.9	102.2	103.3	109.3	108.3	135.1	133.8	110.1	109.0	123.6	123.5	113.0	112.6	119.5	119.4
Annual average.....	109.8	110.0	101.7	102.8	108.1	107.0	132.6	131.2	109.3	108.1	122.7	122.7	111.9	112.1	118.5	118.7
1972: 1st.....	p 113.2	p 113.8	p 103.0	p 104.1	p 109.9	p 109.3	p 137.9	p 136.8	p 111.5	p 110.5	p 125.5	p 125.1	p 114.0	p 113.2	p 121.0	p 120.6
Percent change over previous quarter at annual rate ⁴																
1969: 1st.....	3.0	2.5	3.4	4.2	-0.4	-1.7	6.4	5.8	1.4	0.8	6.8	7.7	1.0	0.0	4.6	4.7
2d.....	1.4	2.4	3.3	3.6	-1.8	-1.1	6.5	6.4	-0.4	-0.5	8.4	7.6	0.4	-0.9	5.4	4.4
3d.....	1.8	1.6	0.9	1.9	0.9	-0.3	7.9	6.7	2.0	0.9	7.0	7.1	1.3	2.4	4.8	5.3
4th.....	-1.5	-1.7	-1.6	-0.7	0.1	-1.0	8.0	7.1	2.2	1.3	7.8	8.2	-1.1	-2.3	4.5	4.4
1970: 1st.....	-3.0	-2.7	-1.4	-1.2	-1.6	-1.5	7.9	7.5	1.5	1.1	9.7	9.1	-1.9	-3.4	5.4	4.5
2d.....	0.8	0.6	-2.2	-3.6	3.1	4.3	4.7	6.3	-1.7	-0.2	1.6	1.9	9.0	11.2	4.2	5.1
3d.....	1.5	2.0	-4.3	-3.5	6.1	5.6	9.4	8.7	4.6	4.0	3.1	2.9	8.2	10.4	4.9	5.5
4th.....	-4.4	-5.6	-4.5	-4.0	0.2	-1.6	6.1	5.5	0.7	0.1	6.0	7.2	6.6	8.2	6.2	7.6
1971: 1st.....	8.5	8.8	2.1	2.1	6.2	6.6	8.5	8.6	5.1	5.2	2.1	1.9	8.7	8.1	4.4	4.1
2d.....	3.6	3.7	1.7	1.0	1.9	2.7	6.2	6.6	1.7	2.1	4.1	3.8	4.6	4.6	4.3	4.1
3d.....	2.7	1.8	-1.2	-0.5	4.0	2.3	6.2	5.4	2.1	1.3	2.2	3.0	3.3	2.4	2.5	2.8
4th.....	6.3	7.2	3.0	2.6	3.2	4.5	4.4	5.0	1.9	2.7	1.0	0.5	1.4	-0.9	1.2	-0.1
1972: 1st.....	p 5.6	p 7.0	p 3.4	p 3.2	p 2.1	p 3.7	p 8.6	p 9.3	p 5.0	p 5.7	p 6.3	p 5.4	p 3.5	p 2.1	p 5.3	p 4.2
Percent change over previous year ⁵																
1971: 1st.....	1.5	1.3	-2.3	-2.3	3.8	3.7	7.1	7.3	2.1	2.2	3.2	3.5	8.1	9.5	4.9	5.5
2d.....	2.2	2.1	-1.3	-1.2	3.6	3.3	7.5	7.3	3.0	2.8	3.8	3.9	7.0	7.8	5.0	5.3
3d.....	2.5	2.0	-0.5	-0.4	3.0	2.5	6.7	6.5	2.4	2.2	3.6	4.0	5.8	5.8	4.4	4.6
4th.....	5.2	5.3	1.4	1.3	r 3.8	r 4.0	r 6.2	r 6.4	2.7	2.8	2.3	2.3	4.5	3.5	3.1	2.7
1972: 1st.....	p 4.5	p 4.9	p 1.7	p 1.5	p 2.8	p 3.3	p 6.3	p 6.6	p 2.6	p 2.9	p 3.4	p 3.1	p 3.2	p 2.0	p 3.3	p 2.7

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 Percent change computed from original data.

NOTE: Data for 1968, 1969, 1970, and the first two quarters of 1971 have been adjusted to new benchmarks and are not comparable to those previously published in the Monthly Labor Review.

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.

p=Preliminary.
r=Revised.

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