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In this issue:
Employment in construction





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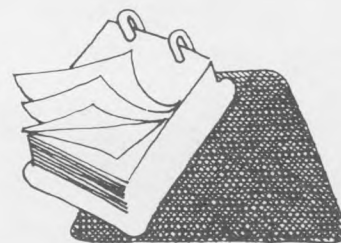
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Labor Month In Review



CPI'S FOR LOCAL AREAS. Commissioner of Labor Statistics Janet L. Norwood discussed the limitations of Consumer Price Indexes for local areas at a January 28 meeting of the City Club of Cleveland, Ohio. The following is based on her remarks, which also reported on the change in the way BLS is measuring homeownership costs.

Small samples. We in the Bureau of Labor Statistics are well aware of the pronounced variability of consumer price indexes for local areas. The local CPI's are a part of the national CPI program. Because the samples for each of the 85 individual areas in which prices are collected are very much smaller than in the national index, which represents an aggregate of all local areas, substantial variability of the local CPI's is a result.

It is for these reasons that we urge all those using the CPI in indexation, where point estimates need to be based on a single month, to use the national index. Given the limited budget for the program, the local area CPI's have a much larger sampling variability than the larger more broadly based national index for all urban consumers (CPI-U). In fact, problems of this sort were among those responsible for the decision to change the method of calculating the homeownership component of the Consumer Price Index.

Homeownership change. In the past, our approach to measuring homeownership costs included the asset value as well as the cost of shelter provided by owned houses. The house prices used in calculating the homeownership portion of the CPI create additional difficult statistical problems because the number of prices varies significantly from one month to the next, and the data base used (from the Federal Housing Adminis-

tration) is not fully representative of all houses sold. In local areas, these problems are aggravated because of the small area sample. For example, in the case of Cleveland, the sample is particularly small and the compilation guidelines require "imputation;" that is, use of a broader-based set of prices from the region as a whole to represent results in the local area.

The new method of measuring homeownership uses rental equivalence as a proxy, effective with release of the Consumer Price Index for All Urban Consumers (CPI-U) for January 1983. The CPI for Urban Wage Earners and Clerical Workers (CPI-W) will begin using the rental equivalence approach in 1985.

The new homeowners' cost component is similar to the one used in the experimental CPI-U-X1, with four important refinements. First, BLS calculated a set of owner weights for the individual units in the CPI rent sample. These new weights make the rent sample represent owner-occupied housing and permit the calculation of a rent change estimate for homeowners.

Second, BLS has augmented the rent sample to enhance the rental equivalence measure. This new sampling is concentrated in areas where housing is predominantly owner-occupied in order to increase the proportion of rental units that have characteristics similar to owner-occupied units.

Third, the expenditure weight for rental equivalence, which for the experimental index (X1) was calculated by means of a short-cut method, has been recalculated using the complex statistical estimating procedure used for weights in the official CPI. In addition, the weights associated with other homeowner expenditures for such things as insurance, appliances, and maintenance and repairs have been modified to be consistent with

the rental equivalence concept. This enhancement has improved the quality of the national CPI's rental equivalence weight and provides weights for computation of local area CPI-U's using the rental equivalence approach.

Finally, the computer system which produces the price index each month has been expanded to accommodate the calculation, with complete item and geographic detail, and with proper geographic weighting for the rental equivalence approach. BLS will continue to work on other refinements in the statistical estimating techniques used in the rental equivalence measure.

Overlap. The new homeownership component was introduced into the CPI in such a manner that the indexes using the old and new methodologies were equal in the so-called link month—December 1982 for the CPI-U (December 1984 for the CPI-W). In accordance with historical practice, BLS will make available to users, for a 6-month overlap period after the change in the two indexes, calculations based on the previous treatment of homeownership. In the case of the CPI-U, the overlap period runs from January to June 1983; for the CPI-W, the overlap period will run from January to June 1985.

Monthly publication of the CPI-U experimental alternative homeownership measures X1 through X5 ceased with conversion to a rental equivalence measure in the CPI-U.

A detailed description of the homeownership change appears in the January 1983 *CPI Detailed Report*, available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The report is available by subscription for \$28 a year (\$35 outside the U.S.). Single copy price, \$5. □

Job Training Partnership Act: new help for the unemployed

*A result of broad bipartisan support,
the law that replaces CETA is designed
to encourage business and State and
local governments to work together
to train disadvantaged or dislocated workers
for employment in the private sector*

ROBERT GUTTMAN

The enactment of the Job Training Partnership Act, which takes effect October 1, comes just 21 years after passage of the first "manpower" (currently called "job training") program of the modern era in the Area Redevelopment Act.

From that modest beginning in 1961, statute succeeded statute and amendment succeeded amendment. The Manpower Development and Training Act was enacted in 1962 and was constantly amended until its repeal by the Comprehensive Employment and Training Act (CETA) in 1973.¹ In the same decade, the Economic Opportunity Act of 1964 began a series of manpower programs which were also steadily revised prior to their repeal by CETA. While the enactment of CETA was a major restructuring of the numerous manpower programs that had resulted from this spate of legislation, the CETA program had no more stability than its predecessors.

In its brief history, from 1973 to 1982, CETA was amended eight times and proliferated 12 separate programmatic titles, parts, and subparts. The instability of program design resulting from the constant legislative changes was exacerbated by even more severe funding instabilities. In 8 fiscal years, there were 26 separate appropriations for the program including regular, supple-

mental, and emergency appropriations, plus a plethora of continuing resolutions, that culminated with the enactment of the Job Training Partnership Act. It will be interesting to see whether, on the 21st anniversary of these programs, a new era of stability and maturity has been ushered in.

The constant revision of manpower programs was largely caused by the diversity of goals and objectives that have been sought to be achieved through these programs. They have, at various times, been designed to retrain the experienced labor force, to remedy the adverse effects of automation, to relieve poverty, to create jobs, to serve as a backstop for income maintenance programs, to encourage high school completion, to reduce juvenile delinquency, to convert welfare recipients into wage earners and to conserve natural resources. Virtually all worthwhile social goals have at some time been an objective of manpower policy.

Combined with this unrelenting redirection of the objectives of manpower policy has been an incessant power struggle. The original Manpower Development and Training Act was described as a careful treaty between the Employment Service and the vocational education system. Since then, new contenders for control have included community action agencies, counties, cities, States, and the business community. The major issues in the development of manpower programs, from the Manpower Development and Training Act of 1962 up to and

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including the Job Training Partnership Act, have been as much the power relationships among these contending parties as the program's substance itself.

In an article following the enactment of CETA, I wrote that "though all agreed on the need to decentralize not all agreed on who would control under decentralization." That statement is just as applicable to the development of the Job Training Partnership Act. The broad objectives of decategorization and decentralization, which were the agreed-upon parameters of the CETA legislation, were also those of the Job Training Partnership Act. Thus, the issues that needed to be resolved in 1973 also needed to be resolved in 1982.

In the development of the new act, there were three basic issues: first, the appropriate relationship among Federal, State, and local government; second, the appropriate relationship between the business sector and local government in the planning and administration of training programs; and third, the appropriate relationship between training and income and other support.

Intergovernmental relations

In the development of CETA, everyone agreed on the need to decentralize, but there was an unremitting controversy as to whom it should be decentralized to. There were several major contenders but, ultimately, the struggle was one between local and State governments. Resolution came through the definition of the term "prime sponsor," who was the direct recipient of Federal grants with basic programmatic responsibility. Local governments were "prime sponsors" and received direct grants from the Federal Government for all major urbanized areas, that is, for cities and counties with populations of 100,000 or more, and the State was defined as the "prime sponsor" for all other areas. Thus, State and local governments were both "prime sponsors" with identical functions. The distinction between them was geographical, not functional. In essence, the Governor was treated as the local government for rural areas and, as a result, received approximately one-third of basic grant funds for the so-called "balance-of-State." Therefore, local government played barely any role in the balance-of-State, and the State played hardly any role in the areas where prime sponsors were local governments.

The solution to the State and local government conflict resolved one of the major issues between the Democratic Congress and the Republican Administration concerning the implementation of "special revenue sharing." The legislative history is unclear as to whether CETA should have been considered a special revenue sharing program, but it is clear that it was a form of decentralization that left no role for State government in those areas where Federal grants were made directly to local government.

The development of the relative roles of State and local governments in the Job Training Partnership Act is quite different. One of the major program goals of the current Administration is the development of a "New Federalism." Whether the Job Training Partnership Act is indeed the first example of new federalism in action remains to be seen, but it is clear that the intergovernmental relationships contemplated by this act are vastly different from those under CETA.

Under the Job Training Partnership Act, the distinction between the role of local and State governments is not based on geography but rather on function. The Governor has the same role with respect to all areas of the State instead of having a commanding voice in rural areas and none in urban. Under the act, Federal grants are made to the States with a mandatory suballocation formula to the service delivery area into which the State is divided. The basic design and administration of job training programs occurs at the local (service delivery area) level through a partnership between local government and business organizations.

The State's role is *not* that of the design and implementation of the details of the training programs; but is coordination, supervision, review, monitoring and assignment of performance goals and sanctions for non-performance. The basic role of the State in this act has not been achieved by transfer of functions from the local government, rather it has been accomplished by transfer of functions in the Federal Government.

The basic functions of the State are the designation of service delivery areas, approval of local plans, fiscal and management controls, application and enforcement of performance standards, and coordination of programs. A word should be said about the first and last of these. Federal legislation no longer mandates service delivery areas, but instead gives the Governor considerable discretion to relate service delivery areas to the economic realities in his or her State or to areas in which related services are performed. Of course, there are substantial limits to the Governor's discretion because localities with populations of 200,000 or more do have a statutory right to form service delivery areas on their own. However, one may hope that, in the long run, the advantages of rationalizing the Governor's areas will discourage this choice.

Another major and new role at the State level is the authority to achieve coordination among job training programs. Prior attempts to mandate coordination at the local level have not been generally effective, while coordination at the Federal level has been no more successful. The State government seems the most logical place to bring the variety of interrelated programs together and thus, under the Job Training Partnership Act, the State is authorized to prescribe coordination criteria which are mandatory on the local delivery sys-

tems. It should also be noted that the act also amends the Wagner-Peyser Act, which had for practical purposes remained unamended since its enactment 50 years ago, with the major objective of promoting coordination between the training and the Employment Service systems.

It should be emphasized that the act also leaves a strong and, one would hope, more effective role for the Federal Government. In past training programs, the Federal role has been substantial, but it has focused on methods of achieving goals rather than on execution. The new training act removes that detailed regulatory authority from the Labor Department. The department is also removed from day-to-day oversight and instead is given the primary function of prescribing effective and enforceable performance goals, though retaining functions related to the appropriate expenditure of funds. However, the whole thrust of the new Federal, State, and local relationship is to give appropriate functions to each governmental level. The Federal Government provides the definition of the objectives, that is, increased earnings, employment, and reduction of welfare dependency; the State government has the basic managerial and coordinating functions, and the design and implementation of programs is placed at the local level.

Business and local government's relations

The original CETA did not give any statutory recognition to the role of the business community. Though it has always been known that most graduates of the training programs are destined to be hired by the private sector, business was not given any statutory role in the design or implementation of programs. This vacuum was occasionally addressed by administrative initiatives, such as the jobs program during the Johnson Administration, and various other attempts to promote coordination and interlocking between the public training system and the private sector. The first statutory move in that direction, though, came in 1978 with the Title VII amendment to CETA, which provided for a private industry council. However, the role of the council was seen by many business people as too weak, both because Title VII was a fairly small part of the total appropriation under the act and because the council was effectively under the domination of the chief elected official, who appointed and could dismiss members.

There was a surprising degree of unanimity during the development of the new statute that effective training programs require business and local government to work in partnership. The Senate bill gave the private industry council a lead role in planning and administering job training programs, but the plan required the concurrence of the local official. If such concurrence could not be reached, the Governor was to be arbitrator. The

House bill gave the lead role to the local government officials but again with the concurrence of private industry required, and disputes were to be resolved by the Secretary. In the conference committee, it was agreed that the partnership in each of the bills was not equal, and it was further agreed that there was to be a true and equal partnership between local government and the business community. That agreement was translated into legislation as follows: a private industry council is to be established for each service delivery area based on nominations from general-purpose business and government so as to ensure that the elected official chooses truly representative persons of the business community. However, nominations are required to be in excess of the number of vacancies to provide some choice to the local government. After a council is established, it is given a planning grant from the Department of Labor so that it can deal on an equal basis with the local government, which, of course, has an available staff. The conference report describes the relationship as follows:

After the PIC is certified and has its first meeting convened by the chief elected official, it will elect its chairperson, provide for operational rules, and select necessary staff to assist it in determining how to exercise its functions. After the PIC has had an opportunity to review the operation of current training programs in the area and to formulate its general policy positions, it will then enter into negotiations with the appropriate local government officials for the agreements specified in the bill. The first such subject of negotiations will concern the method for developing the plan, which may be an agreement to have the PIC or the local government or such other method or institutions specified in the agreement prepare the plan. Further, either as part of the same agreement or in a later one, the PIC and local governments will decide on the grant recipient and administrator of programs in the area. The conference agreement makes plain that these may be the same or separate entities and that either or both may be the PIC, the local government or any other entity or entities provided in the agreement.

The above clarifies that business communities and local government are free to negotiate the terms of any agreement they see fit. They are brought to the bargaining table as equal partners and thereafter their decisions will be influenced by the needs of the locality and the degree of involvement that each of the parties wants. It is, perhaps, one of the most complete forms of decentralization in Federal legislation in terms of local administrative and planning requirements.

Programmatic issues

It is a surprising fact that, throughout the consideration of manpower training programs from the early 1960's through the early 1980's, there has been remarkably little controversy about the substance of training programs. Legislation has continued to authorize the basic forms of institutional and on-the-job training,

placing remarkably few Federal mandates on how these services are to be performed. There have been expansions of the kinds of training activities authorized for youth, but it is fair to say that the core of the argument has related more to who shall deliver the services and what level of government shall be involved rather than to the specifications of the kinds of training. This was true in the development of CETA, which, in essence, merely reauthorized all the forms of training that had been permitted under predecessor legislation. The "decategorization" that was the hallmark of CETA did not eliminate the previous categorical programs. Instead, it meant that the prime sponsor, rather than the Federal Government, chose the mix of categorical programs within its local area. However, in the case of CETA there was one major argument concerning programmatic issues and that concerned public service employment. Likewise, during the development of the new bill, there was one major programmatic issue; and that was the relation between training and income and other support.

In a sense, this was an update of the public service employment issue of 1973. Public service employment is probably the extreme example of income support to participants in training programs. Once public service employment was labeled as "transitional" it acquired, at least in theory, a characteristic of a training program because it was designed to lead from the subsidized public service employment jobs to a regular job, thus promoting the same objectives as training programs. However, while participating in the public service employment programs, the individual received income through the wage payment far in excess of the support available under any other training program. Also included in the income available under CETA were the mandatory allowance payments to persons who were in institutional training and the wage payments made in work experience programs, which encompassed a wide variety of programs from those with heavy training components to others which were little more than a disguised form of income maintenance.

Under the Job Training Partnership Act, it was agreed upon early that there would be no public service employment. Proponents of public service employment programs made no concession on the merits of such programs, but agreed they would fight the battle on a separate piece of legislation, rather than endanger the passage of a bill authorizing training programs. However, the availability of wages under work experience programs and allowances and supportive services for persons in other training programs remained a major issue throughout the consideration of the bill. The Administration bill prohibited all wage and allowance payments to participants and limited the combined costs of administration and supportive services to 30

percent, with the remaining 70 percent required to be spent for training. This proposal was not adopted in full in either the House or the Senate bill, but each bill did provide that 70 percent of the funds should be spent for "training."

The Administration's proposal directly raised a major question, could work experience programs legitimately be classified as "training?" While all the conferees recognized the need to concentrate funds on training, they differed philosophically on what constituted training, thus making the resolution of this issue one of the most difficult faced by the conference.

The outcome is instructive: it is a compromise that all sides could live with, though perhaps difficult to defend philosophically. The new act excludes the summer youth program from the 70-30 restriction altogether, treats the costs of tryout employment and 50 percent of the costs of a training-related work experience program as training costs (thus counting as part of the 70 rather than 30), and permits localities to exceed the 30 percent limitation when specified conditions are met. Thus, it provides for a concentration of funds on training without sacrificing local flexibility or making it impossible to meet the needs of those who cannot participate in training without income support.

Conclusion

I have sketched very briefly, the major issues that were in dispute, their historical development, and the method of their resolution in the Job Training Partnership Act. However, I think it is important to point out that there were several issues that were not in dispute but that may be of more long-run significance than the matters discussed so far. I want to mention three in particular. First, the act contains a permanent authorization, thus relieving the program of the constant reexamination which was required by the limited duration of authorizations in past legislation. Second, it provides for advance funding which may relieve the program from the burden of receiving allocations only after the start of the program year. Third, the act relies on performance standards rather than on process requirements. With these reforms in place, the training programs have an opportunity for rational planning and for evaluation that may give them the stability previously lacking.

The development of the Job Training Partnership Act was a broad bipartisan effort. On the Senate side, S.2036 was introduced by Senator Dan Quayle and cosponsored by Senators Edward Kennedy, Paula Hawkins, and Claiborne Pell. On the House side, H.R. 5320 was introduced by Representative Augustus Hawkins and was cosponsored by a large bipartisan group, including Representative James Jeffords, the ranking minority member of the subcommittee. Yet de-

spite this effort, the Act's passage was in doubt throughout the process because the pressures for divisiveness were almost as great as those for consensus. The fact that both Speaker Thomas O'Neill and President Ronald Reagan held signing ceremonies, in which each claimed credit for the bill and accused the opposite party of obstructionism, shows both the consensus on the substance and the political confrontation.

The reasons for this combination of consensus and confrontation are lengthy, but a word on the context in which the act was developed is important to its understanding. It was a time when the prior program (CETA) had become a political symbol and even the need to change the title of the program was a matter of intense, and largely partisan, dispute while public service em-

ployment had only ardent advocates and harsh critics. The intense feeling surrounding the prior program was exacerbated by the political heat arising from the implementation of major budget reductions through the reconciliation process period and the increase of unemployment to its postwar peak. Thus, the factors making for confrontation were numerous—though insufficient to overcome the basic consensus that the Federal Government has the obligation to provide for training of the disadvantaged in order to enable them to enter the mainstream of the American economy. □

—FOOTNOTE—

¹ See Robert Guttman, "Intergovernmental relations under the new manpower act," *Monthly Labor Review*, June 1974, pp. 10-16.

APPENDIX: A Summary of the Job Training Partnership Act

The act provides for an open-ended authorization for the basic program for the economically disadvantaged (Title II.A) and the Federally administered programs (Title IV, excluding Job Corps). There are also separate, open-ended authorizations for the Summer Youth Program (Title II.B) and the Dislocated Workers Program (Title III). For Job Corps (Title IV.B), there are authorized to be appropriated \$618 million, in fiscal year 1983, and such sums as may be necessary for each succeeding fiscal year.

Not more than 7 percent of the total amount appropriated for the Act shall be available to the Secretary for Federally administered programs. (Of that amount, 5 percent shall be available for Veterans' Employment Programs.)

Title I. Job Training Partnership

Service delivery system. After receiving the proposal of the State Job Training Coordinating Council, the Governor will publish proposed service delivery areas for the State. The Governor must approve any request to be a service delivery area from: 1) any unit of general local government with a population of 200,000 or more and 2) any consortium of contiguous units of general local government, with an aggregate population of 200,000 or more. After reviewing comments from local government, business organizations, and other affected groups, the Governor will make a final designation of service delivery areas.

Establishment of private industry council. There will be a private industry council for each service delivery area. The majority of the membership will be representative of the private sector, one of whom will be selected to be chairperson. The remaining members will be representatives of educational agencies, organized labor, rehabilitation agencies, community-based organizations, economic development agencies, and the Employment Service. After the members have been appointed by the

chief local elected official, the Governor will certify the private industry council.

Functions of the private industry council. The private industry council will provide policy guidance for, and exercise oversight with respect to, activities under the job training plan for the service delivery area, in partnership with the appropriate local official. The private industry council, in accordance with agreements with the local official, shall determine the procedures for the development of the plan and select the administrative entity. After the plan is approved by the private industry council and the local official, it must be jointly submitted to the Governor.

Job training plan. The job training plan is for 2 program years and must include: 1) identification of the administrative entity, 2) a description of services to be provided, 3) procedures for identifying and selecting participants and for eligibility determination, (4) performance goals, 5) procedures for selecting service providers, 6) the budget for the program years, 7) a description of methods of complying with the Governor's coordination and special services plan, 8) coordination provisions, if there is more than one service delivery area in a single labor market area, 9) fiscal control, accounting, audit, and debt collection procedures, and 10) procedures for preparation of submission of an annual report to the Governor. Modifications of the plan may be submitted when required.

Review and approval of plan. At least 4 months prior to the beginning of the first 2 program years covered by the job training plan, the proposed plan, or a summary of it, must be published and made available to the State legislature, local educational and other public agencies, and labor organizations. The final plan, or a summary of it, must be published and submitted to the Governor for approval, not less than 80 days before the beginning

of the first 2 program years. The Governor will approve the plan unless he or she finds that it does not comply with the following criteria, which are specified in the act: (1) corrective measures for deficiencies found in audits or in meeting performance standards from previous years have not been taken or are not acceptably underway, (2) the entity proposed to administer the program does not have the capacity to administer the funds, (3) there are inadequate safeguards for the protection of funds, (4) the plan does not comply with a particular provision of the act or of regulations of the Secretary, or (5) the plan does not comply with the Governor's Coordination and Special Services Plan. Any disapproval by the Governor may be appealed to the Secretary, who shall make a final decision within 45 days after receipt of the appeal.

In order to receive funds for planning and operating job training programs, the Governor must submit to the Secretary a Governor's Coordination and Special Services Plan for 2 program years. The Secretary will approve the plan unless he or she determines that the plan does not comply with specific provisions of the act.

State Job Training Coordinating Council. The State Job Training Coordinating Council will be appointed by the Governor, who will designate one nongovernmental member to be chairperson. One-third of the membership will be representatives of the private sector and no less than 20 percent of the members must be representatives from each of the following categories: State agencies; local governments; and others, including labor, education, community-based organizations, and the general public.

State education coordination grants. Funds are available to the Governors to provide financial assistance to any State education agency responsible for education and training, to be used for eligible participants and to promote coordination, through cooperative agreements between State education agencies and administrative entities.

At least 80 percent of the funds available for cooperative agreements must be used to provide services for eligible participants and these funds must be equally matched from other resources. At least 75 percent of the funds must be used for activities for the economically disadvantaged.

Training programs for older individuals. Funds are available to the Governor to be used for job training programs for older workers. Individuals eligible to participate must be economically disadvantaged and be age 55 or older.

Program year. Beginning in fiscal year 1984, the program year will be from July 1 to June 30, rather than the current program year which is October 1 to September 30. Funds obligated for any program year may be expended during that program year and the 2 succeeding program years.

If a private industry council and the local elected official fail to reach agreement on a job training plan,

and, as a consequence, funds are not available to the service delivery area, the Governor shall redesignate the service delivery areas in the State. The Governor may merge the affected area into one or more other service delivery areas, in order to promote the reaching of agreement.

Performance standards. The Secretary of Labor will develop performance standards for evaluating job training programs. The basic measure of performance for adult training programs is the increase in employment and earnings and the reductions in welfare dependency resulting from the program. There will be separate performance standards for youth, based on competencies acquired and on placements and retention in employment. The Secretary will also prescribe variations in performance standards for special populations to be served, including Native Americans, Migrant and Seasonal Farmworkers, and ex-offenders, taking into account their special circumstances.

Each Governor may prescribe, within parameters established by the Secretary, variations in the standards, based upon local conditions. Programs failing to meet performance standards for 2 years, after receiving technical assistance, must be reorganized or replaced.

Limitation on certain costs. Of the funds available to service delivery areas for the basic program for the economically disadvantaged (Title II.A), not more than 30 percent may be spent for the costs of administration, supportive services, needs-based payments to participants, and all costs of work experience. Except that, only 50 percent of the costs of work experience must be counted within the limitation, if the work experience program is combined with training, limited to 6 months duration, and the participant is prohibited from further participation in such a program.

Expenditures in excess of the 30 percent limitation are permissible under certain circumstances, if the private industry council requests such excess, the excess is included in the plan for the service delivery area, and the justification for the excess must meet specific criteria. No funds may be used for public service employment.

Governor's coordination and special services plan. Annually, the Governor will prepare a statement of goals and objectives for job training and placement programs within the State to assist in the preparation of the plans for the service delivery areas and the locally developed plans for the Employment Service.

Title II. Training Services for Disadvantaged

Allotment. The Secretary shall distribute funds available for the basic program (Title II.A) among the States on the basis of the following formula: 33 $\frac{1}{3}$ percent on the basis of the relative number of unemployed individuals residing in areas of substantial unemployment; 33 $\frac{1}{3}$ percent on the basis of the relative excess number of unemployed individuals; and 33 $\frac{1}{3}$ percent on the basis of

the relative number of economically disadvantaged individuals. No State will receive less than one quarter of 1 percent of the amount available for allotment. No State will receive less than 90 percent of its share from the prior year.

Within state allocation. The Governor shall distribute 78 percent of the funds to service delivery areas on the basis of the same formula as the Secretary uses to distribute funds to the States. Of the funds available to each State, 8 percent will be available for State Education Coordination Grants (Sec. 123), 3 percent will be available for Training Programs for Older Workers (Sec. 124), 6 percent will be available for incentive grants for programs exceeding performance standards, and 5 percent will be available to the Governor for program administration and State services.

Eligibility for services. Only economically disadvantaged persons are eligible to participate in the basic program, except that up to 10 percent of the participants may be individuals who are not economically disadvantaged, if such individuals have encountered employment barriers. At least 40 percent of the funds are reserved to serve youth under age 22. Aid to Families with Dependent Children recipients and school dropouts must be served on an equitable basis, taking into account their proportion of economically disadvantaged persons, 16 years of age and over, in the service delivery area. In each service delivery area, the ratio of participants in on-the-job training in the public sector to participants in such training in the private sector shall not exceed the ratio between the civilian government employment and non-government employment in the service delivery area.

Use of funds. Funds may be used for basic and remedial education, institutional and on-the-job training, counseling, occupational training, preparation for work, job search training, supportive services, and other activities designed to prepare the disadvantaged for and place them in unsubsidized jobs. Funds may be used for needs-based payments, necessary for participation in accordance with a locally developed formula or procedure. Although traditional forms of job training activities have been listed, services are not limited to those specified, however, funds may not be used for public service employment.

In addition to the other services for youth, the job training plan may include one or more of the exemplary youth programs described in the act, which may be modified to suit local conditions.

Summer Youth Employment and Training Programs. A Summer Youth Employment and Training Program is authorized under this act and is not subject to the 30-percent cost limitation applicable to the basic program. Participants must be economically disadvantaged and under age 22. Eligible individuals aged 14 or 15 may participate in the Summer Youth Program, if appropriate.

Title III. Assistance for Dislocated Workers

There is an open-ended authorization for a program to identify displaced workers, job opportunities, and training available. The program will match the worker with the training and ultimately with the job. The Secretary shall distribute funds to the States for the Dislocated Workers Program according to the following formula: one-third on the basis of the relative number of unemployed individuals, one-third on the basis of the relative excess number of unemployed individuals, and one-third on the relative number of individuals who have been unemployed for 15 weeks or more. Funds may be used to pay 50 percent of the program's cost and the remaining 50 percent must consist of non-Federal matching, with a smaller matching requirement for States with above average unemployment. Unemployment insurance benefits, paid by the State to participants, may be credited for up to 50 percent of the matching requirement.

Title IV. Federally Administered Programs

The Native American Program, the Migrant and Seasonal Farmworker Program, Job Corps, and the National Commission for Employment Policy are all retained under this act.

In addition, a new Veterans' Employment Program has been added which will be administered by the Assistant Secretary for Veterans' Employment. Eligible individuals include service-connected disabled veterans, veterans of the Vietnam era, and veterans who are recently separated from military service.

National activities. The Secretary is authorized to conduct Multi-State Programs which are job training programs or services that are most appropriately administered at the national level and are operated in more than one State.

In addition, the Secretary is authorized to conduct research and demonstration activities, pilot projects, evaluations, and to provide training and technical assistance.

Affirmative action. Contracts subject to affirmative action obligations under Executive Order 11246 may establish or participate in training programs for eligible participants under this act designed to assist in the training and placement of eligible participants. If such programs meet the criteria established in the act as well as criteria established for such programs by the Office of Federal Contract Compliance Programs, the contractor may maintain an abbreviated affirmative action plan and the successful performance of such a contractor's training program shall create a presumption of good-faith effort by such contractor to meet the affirmative action obligations.

Title V. Miscellaneous Provisions

Amendments to the Wagner-Peyser Act. The Employment Service will develop jointly, with the private in-

dustry council and the local official for each service delivery area, those components of the plan which are applicable to the area. The plan will be submitted to the State Job Training Coordination Council, which will certify the plan if it determines that the plan has been agreed upon by those officials affected and the plan is consistent with the Governor's Coordination and Special Services Plan. If the plan is not certified, the Employment Service will be given an opportunity to modify it. If agreement cannot be reached, the plan will be transmitted to the Secretary along with modifications

recommended by the officials concerned, including the Governor.

Funds available to the Secretary for the Employment Service will be distributed according to this formula: two-thirds on the basis of the relative number of individuals in the civilian labor force and one-third on the basis of the relative number of unemployed individuals. There is a 90-percent hold-harmless provision that will bring each State's share up to 90 percent of the portion it received during the prior year. No State will receive less than 0.28 percent of the total amount available.

Innovative bargaining aids productivity

We most frequently speak of competition as being between countries or between domestic companies. In a larger sense, however, American workers are in competition with foreign workers for jobs: jobs in steel, electronics, auto, and every other product which can be produced abroad and sold here. By this, I don't mean that they must work for wages that are strictly competitive. I do mean that they should be given the opportunity (and to use the opportunity) to work smarter. If workers are to succeed in this global competition, they must have the opportunity of making greater cognitive contribution relating to achieving price and quality superiority of the products they are engaged in producing as well as over their own job opportunities in the domestic job market.

There is already evidence of such joint efforts accomplished through the negotiating process. The steel industry and the Steelworkers have acknowledged workers as a valuable resource for years. Most recently, the parties have negotiated inplant participation teams to work on improving product quality, unit performance, and employee morale. Bell Telephone and the Communications Workers have also understood the collaborative role that management and labor can play. They have tailored a negotiated quality of work-life process in their most recent contract to meet goals of economic efficiency and human satisfaction and have carefully and cautiously moved towards its implementation. In the process, they have overcome elements of distrust that were undermining the relationship.

These innovative approaches, each different, bring management and labor into the kind of partnership of common need that potentially serves the goals of productivity improvement and those of increasing the worker's contribution toward his own job security.

—MALCOLM R. LOVELL, JR.

"A Reagan Official Views a Changing Labor Management Relationship,"

Speech before the Thirty-Fifth Annual Meeting of the Industrial Relations Research Association, December 1982.

Employment changes in construction: secular, cyclical, and seasonal

Construction employment growth roughly paralleled that of total employment during 1950–80; but, compared with the total economy, the demand for labor takes longer to recover from recessions

JOHN TSCHETTER AND JOHN LUKASIEWICZ

About 5.8 million persons, or 5.8 percent of the U.S. work force were employed by the construction industry in 1982. Their unemployment rate was 16.5 percent of the construction labor force (or 1.1 million persons), a rate double that for all industries combined. Have these workers traditionally had such high unemployment rates? What are the trends in the industry? And, how do business cycles and seasonal patterns affect construction activity?

Over the 1950–80 period, construction employment grew at about the same rate as total employment. However, during recessions, construction employment declined more than total employment, and during recoveries, it generally took longer to recoup. Seasonality, an important factor in construction activity, could cause employment to rise and fall by as many as 1 million workers over a 12-month period. However, the movement of jobs to the Sun Belt over the last three decades has helped to alleviate the effects of seasonality on unemployment in the industry.

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This article evaluates labor problems in the construction industry by examining the industry's long-term employment trends and its reaction to business cycles and seasonality. For this article, construction industry and occupational employment data include wage-and-salary, self-employed, unpaid family, and government workers.¹ In addition, *construction occupations* include workers outside the construction industry as well as those in the industry. For some construction occupations, more than 50 percent of the workers are employed outside the construction industry. (See table 1.)

Secular trends, 1950–80

Employment growth in the construction industry matched the general employment growth of the economy during each decade of the 1950–80 period. (See table 2.) But, the growth in expenditures for new construction (2.5 percent per year in constant dollars) lagged behind the growth of the U.S. economy, as measured by real gross national product (3 percent per year). And during the 1970's, construction expenditures grew only 0.3 percent per year, while gross national product grew 3.2 percent. Many factors contribute to the growth difference between construction employment and construction expenditures, including difficulties in

measuring real expenditures and changes in labor productivity.²

The construction industry has three major components: private nonresidential, private residential, and government.³ The percentage of construction expenditures attributable to each activity has changed over the decades. The following tabulation shows the percent of expenditures (in constant 1972 dollars) for each component of the industry during 1950–80:⁴

	1950	1960	1970	1980
Private nonresidential	29.0	32.8	37.4	40.2
Private residential	49.2	37.5	33.9	38.3
Government	21.9	29.7	28.6	21.6

During the 30-year period, expenditure growth was fairly steady in the construction of industrial and commercial buildings and in other private nonresidential structures. However, the share for housing (private residential) expenditures declined: almost half of all construction expenditures in 1950 was for housing, compared with slightly more than 38 percent in 1980. And even though housing boomed in the 1970's, expenditures for housing were still lower than those for private nonresidential structures. Government expenditures for highways and educational facilities increased sharply over the 1950–70 period, but declined in both relative and absolute terms over 1970–80. In addition, construction of other government structures was deferred in the recent decade because of budget problems.

Employment in the construction industry during the 1960's and 1970's benefited from a modestly upward trend in expenditures for maintenance and repair of

Table 2. Employment trends in the construction industry and occupations, 1950–80
[Average annual percent change]

Industry or occupation	1950-60	1960-70	1970-80
All industries	1.5	1.7	2.4
Construction industry	1.2	1.8	3.1
Occupations¹			
Carpenters	-0.9	0.2	3.7
Brickmasons	1.3	-1.4	0.5
Electricians	1.1	3.3	3.6
Painters	-0.4	-1.4	3.9
Plumbers	1.1	2.2	2.5
Construction laborers	-0.9	1.0	3.8

¹ Includes workers outside the construction industry.

existing structures.⁵ However, this trend stopped abruptly in 1980, as high interest rates and financing difficulties affected maintenance construction, as well as new construction.

Occupational changes. Construction occupations include craftworkers (such as carpenters, brickmasons, electricians, painters, and plumbers) and laborers (such as carpenters' helpers and electricians' helpers). In 1982, these workers accounted for about two-thirds of total employment in the construction industry; the remaining one-third were mostly managerial and clerical workers. (Employment trends in construction occupations are shown in table 2.)

Over the 1950–80 period, the employment of carpenters, painters, and construction laborers paralleled expenditures growth in residential construction. Housing declined as a percentage of expenditures for new construction during 1950–70, as did the number of carpenters in the construction industry as a percent of total industry employment. During 1970–80, when housing increased modestly as a proportion of new construction, the employment growth rate of carpenters exceeded that of the construction industry. Throughout the 1950–80 period, about 75 to 80 percent of the carpenters (1.1 million in 1981) were employed in the construction industry; the remaining 20 to 25 percent were employed in manufacturing, trade, and service industries.

About half of the 628,000 electricians are employed in the construction industry; most of the others work in manufacturing. Therefore, the employment of electricians depends on trends in construction and in manufacturing. However, during the 1950–70 period, employment growth for electricians occurred almost solely in the construction industry; since 1970, their growth has been equally divided between construction and manufacturing.

A notable characteristic of the construction industry is the number of self-employed workers—they account for a larger percent of employment in construction than in other nonagricultural sectors. In 1982, the industry

Table 1. Employment in all industries and in the construction industry, by occupation, 1982

[In thousands]

Occupation	Total employment	Construction employment	Construction employment as a percent of total employment	Percent of construction employment
Total employed	99,526	5,756	5.8	100.0
Craft and kindred occupations	12,272	3,167	25.8	55.0
Carpenters	1,082	860	79.5	14.9
Brickmasons and stonemasons	145	129	89.0	2.2
Cement and concrete finishers	55	52	94.5	0.9
Electricians	628	309	49.2	5.4
Excavating, grading, and road machinery operators	399	266	66.7	4.6
Painters, construction and maintenance	473	334	70.6	5.8
Plumbers and pipefitters	482	301	62.4	5.2
Structural metal craftworkers	81	58	71.6	1.0
Roofers	133	130	97.7	2.3
Paperhangers, plasterers, and other construction crafts	113	96	85.0	1.7
Laborer occupations, except farm	4,518	722	16.0	12.5
Construction laborers	786	691	87.9	12.0
Carpenters' helpers	51	45	88.2	0.8
Other construction laborers	735	646	87.9	11.2

Source: Current Population Survey.

had 1.1 million self-employed persons, or 19 percent of all employment in the construction industry, and 13 percent of all self-employment in nonagricultural industries. Self-employment in the construction industry increased 5.5 percent per year between 1970 and 1980, about twice the rate of increase in total construction employment, and in self-employment for all industries.

The growing number of self-employed workers in construction reflects several factors, such as the increases in the number of residential construction additions and in maintenance and repair of all existing structures. Self-employment is more suited to these activities than to those involving the larger and more complex nonresidential structures. The recent growth (during the 1980 and 1981-82 recessions) in the number of self-employed also reflects the traditionally counter-cyclical nature of self-employment.

The likelihood of being a self-employed construction worker varies by occupation. About 30 percent of painters, carpenters, and brickmasons were self-employed in 1982, but only 8 percent of electricians were self-employed.

Slower growth for suppliers. The influence of the construction industry extends to industries which supply materials and components needed for buildings, roads, and other structures. Major suppliers of the construction industry include the producers of stone, clay, and glass products, lumber products, and selected fabricated metal products (for example, heating and plumbing fixtures).⁶ (See table 3.) In 1981, the 11 industries which

sold at least 50 percent of their products to the construction industry employed more than 1.8 million workers.

Employment growth in the major supplying industries was slower than that in the construction industry over the 1960-80 period, reflecting, among other things, different rates of productivity growth. However, employment trends vary by supplying industry: over the last 20 years, employment in structural clay products declined, employment in cement and concrete products grew modestly, and employment in fabricated structural metal products, the largest supplier, grew the fastest.

Jobs moved to Sun Belt. Over the last three decades, construction industry employment has shifted from the Midwest and Northeastern States to the "Sun Belt" States—Florida, Alabama, Mississippi, Louisiana, Texas, New Mexico, Arizona, and California. The following tabulation shows construction employment in selected Sun Belt States as a percent of national construction employment:

	1950	1960	1970	1980
Sun Belt States	23.9	26.1	25.9	34.4
Florida	2.9	4.3	4.9	6.1
Texas	5.9	5.8	6.6	9.7
California	9.9	10.1	8.4	10.2
Other Sun Belt States	5.2	5.9	6.0	8.4

The Sun Belt's share of construction employment increased about 10 percentage points from 1950 to 1980, as did its share of total employment. During 1970-80, construction employment grew faster than the national in Nevada, Washington, and Alaska. In States which are growing faster than the Nation as a whole, construction typically accounts for a larger share of total employment. Many of the fastest growing standard metropolitan statistical areas (SMSA's) during 1970-80 were in the Sun Belt—Houston, Dallas-Fort Worth, San Diego, San Francisco-Oakland, and Los Angeles-Long Beach.

The 1970-80 increase in construction employment in several States reversed earlier downward trends. In Massachusetts, the reversal reflected—at least in part—the growth of high-technology and manufacturing industries in the region. In New York, the reversal reflected, among other things, the easing of New York City's budget problems.

Response to recessions

During recessions, employment declines more sharply in the construction industry than in most other industries. Construction employment parallels swings in expenditures for residential structures, especially housing. Expenditures for housing, including mobile homes, declined by more than 40 percent between 1973 and 1975, and by about 45 percent between 1978 and 1982. The

Table 3. Employment in major suppliers of materials and services to the construction industry, 1981, and average annual percent change 1960-80

Industry	Employment in 1981		Average annual percent change	
	Total (in thousands)	Percent generated by construction expenditures	1960-70	1970-80
Construction industry	4,176	—	2.0	1.9
Supplier industries, total	1,766	—	.4	.9
Structural clay products	41	97	-2.7	-2.3
Cement and concrete products	233	95	.9	.6
Stone and clay mining	92	80	-5	-2
Millwork, plywood, and wood products, not elsewhere classified	292	77	2.3	1.5
Fabricated structural metal products	508	76	2.3	1.8
Heating apparatus and plumbing fixtures	69	73	.4	-.1
Sawmills and planing mills	206	63	-2.9	.0
Paints and allied products	63	54	1.1	-6
Stone and clay products, not elsewhere classified	147	52	1.1	1.1
Pottery and related products	43	50	-.7	.4
Logging	82	50	-2.6	2.0

SOURCE: *The Detailed Input-Output Structure of the United States, 1972*, Volume I (U.S. Department of Commerce, Bureau of Economic Analysis, 1972), and the Bureau of Labor Statistics, Office of Economic Growth.

housing industry has yet to recover from the 1980 recession, although it traditionally has led the peaks and troughs of the economy.

Construction employment also follows swings in expenditures for private nonresidential structures, particularly commercial buildings. During 1973–75, nonresidential construction expenditures declined by nearly 20 percent and did not recover their prerecession level until 1979. Expenditures for such structures increased to historically high levels in the 1980 recession and much of the 1981–82 recession. Hence, nonresidential construction expenditures helped to offset the decline in expenditures for private residential construction, thereby sustaining construction employment during the 1980–82 period.

Employment changes in a construction occupation depend on the occupation's concentration in the various construction activities. Carpenters, brickmasons, and construction laborers are concentrated in the housing segment of the construction industry. About a third of all carpenters and brickmasons are employed either by residential building contractors or by special trade contractors whose activities are closely tied to housing construction. Electricians, plumbers, and many other construction craftworkers are less concentrated in housing. Only about 12 percent of the electricians are dependent on residential construction activity.

During the first 12 months of the 1973–75 recession, the numbers of electricians and plumbers rose, as nonresidential construction activity declined only slightly. However, employment of these workers declined during the remainder of the recession when nonresidential construction fell. The number of carpenters declined throughout the 1973–75 recession, as housing declined quickly and sharply.

Between 1979, the last year of high levels of construction activity, and 1982, employment among carpenters has declined 17 percent; employment among electricians has declined 4 percent, and employment among plumbers has risen 5 percent. The decline for carpenters paralleled the sharp decline in housing; the modest change for electricians and plumbers paralleled the positive trends in private nonresidential construction. In fact, about half of the decline among electricians occurred in the manufacturing sector.

A relationship also exists between the employment stability of an occupation and its skill level. For example, carpenters' helpers experienced wider swings in employment than carpenters, a situation which arises when firms hold on to skilled workers.

During recovery periods, the rate of construction employment growth is faster than for other employment, but construction takes longer than most other industries to regain prerecession levels. For example, the construction industry did not return to its November 1973 em-

ployment level until 1978—more than 2 years after other industries had returned to their November 1973 employment level.

In the past, housing has picked up rapidly during recovery phases while large-scale projects, such as commercial buildings, have taken longer to recover. Consequently, the numbers of carpenters, brickmasons, painters, and construction laborers increase sharply in a recovery, while the number of electricians increases only slightly.

Although national construction employment declined between January 1980 and January 1982, seven States—Alaska, Florida, Louisiana, Montana, New Mexico, New York, and Texas—had increases. Florida's growth reflects, in part, immigration from other States and from abroad; the growth in Texas, Montana, Alaska, and Louisiana are related to population movements and the development of energy resources. Construction employment grew more slowly or declined more than total employment in all States, except Alaska and Montana.

The sensitivity of supplying industries to the business cycle depends on the construction activity upon which the industries are dependent. To illustrate, employment in fabricated structural metal products (which are used largely in nonresidential construction) did not decline until the latter part of the 1973–75 recession, and declined only modestly during the 1980 and 1981–82 recessions. In contrast, employment in the lumber industry (which is associated primarily with housing construction) declined sharply in all three recessions.

Effects of seasonality

Seasonality is a notable characteristic of the construction industry. During a 12-month period, employment in the industry can rise and fall by more than a million workers. (See table 4.) The change is concentrated among private wage-and-salary workers—self-employed and government construction workers show far less seasonality. Construction laborers and painters are occupations most affected by seasonal factors, followed by carpenters and brickmasons. Electricians and plumbers are the least affected. The patterns for managers and clerical workers are only slightly different than that for their counterparts in other industries.

Construction seasonality reflects both the weather and the timing of projects. Outdoor activities such as new housing and highway construction decline during the winter in northern States. Housing is probably the most seasonal construction activity because it employs a considerable number of construction laborers, carpenters, and painters—three occupational groups most affected by seasonality. Builders can adjust the timing of many other construction projects to minimize the impact of cold weather. Commercial building construction continues without significant interruptions during cold

Table 4. Seasonal patterns in the construction industry and selected occupations

[In percent]

Industry or occupation	1978-III to 1979-I	1979-I to 1979-III
All industries	-0.1	3.5
Construction industry	-14.5	18.8
Occupations¹		
Carpenters	-13.2	18.3
Brickmasons	-18.2	23.4
Electricians	3.4	6.3
Painters	-29.2	36.3
Plumbers	-3.4	6.5
Construction laborers	-29.6	36.6

¹ Includes workers outside the construction industry.

weather in many colder sections of the country.

Because of its seasonal nature, construction is an important source of summer jobs for students. About 80 percent of the employment decline for construction laborers in winter months consists of persons leaving the labor force. The decline is concentrated among persons age 16 to 24.

The population shift to States and cities in the Sun Belt has implications for seasonality in the construction industry. The seasonal change in construction employment in Arizona, California, and Florida, and in Houston, Dallas-Fort Worth, and Los Angeles-Long Beach is about half the nationwide average; in contrast, Illinois, Minnesota, and Michigan have about twice the nationwide average. Most of the seasonal variations are related to weather, although weather alone is not always a good indication of seasonality. For example, New York City has only slightly more seasonal variations than Dallas-Fort Worth. This is because of New York City's mix of construction activity—more new office structures, and additions and alterations to existing nonresidential structures, and fewer single-family homes.

Less variation in supplying industries. The major industries supplying the construction industry have considerably smaller seasonal employment variations than the construction industry. However, manufacturing industries which supply the construction industries have a slightly greater seasonal pattern than manufacturing industries that do not. Among the major suppliers, the concrete, gypsum, and plaster products industry has the greatest seasonal variation in employment.

The seasonal patterns of construction and its supplying industries reflect their production characteristics. There are two characteristics which minimize the seasonal patterns for the major suppliers relative to the construction industry. First, it is less expensive for a supplying industry to build up and draw down its inventory of finished goods than to start and stop its production line; it is very difficult for a construction

industry to maintain an inventory of finished goods. Second, work tasks in the supplying industries are essentially the same throughout the year and, thus, they can employ the same persons year round. In contrast, tasks at a construction site vary as work progresses, with electricians, plumbers, carpenters, and brickmasons working at different stages of the project. Thus, these craftworkers are not likely to be continuously employed at one site.

Assessing the sensitivity

As noted, the sensitivity of the construction industry to the business cycle and to seasonal patterns affects the prospects for continuous employment in the industry. The unemployment rate in the construction industry has consistently been higher than that in other non-agricultural industries. Unemployment among construction workers varies by sector and by occupation. (See table 5.) The rate for private wage-and-salary construction workers is nearly three times higher than that for government construction workers. The rate for construction laborers is always higher than that for the industry as a whole, and the rate for electricians is always lower.

Other differences in unemployment between the construction industry and other nonagricultural industries include: more construction workers than nonagricultural workers experience at least one spell of unemployment during a 12-month period (for example, 38 versus 18 percent in 1981, the latest data available); more have two or more spells of unemployment (45 versus 32 percent); and more work for two or more employers during a 12-month period (25 versus 13 percent). These characteristics vary among the construction occupations. For example, fewer electricians than carpenters experience multiple spells of unemployment during a 12-month period; more plumbers than carpenters work year round.

Regional unemployment rates for construction workers range from being nearly equal to that for all nonagricultural workers to being three or more times

Table 5. Unemployment rates for the construction industry and selected occupations, 1982

Industry or occupation	Unemployment rate
All industries	8.7
Construction industry	16.5
Private wage and salary workers	20.0
Government wage and salary workers	6.8
Occupations¹	
Construction laborers	28.9
Brickmasons	21.4
Carpenters	18.6
Painters	17.0
Plumbers	10.6
Electricians	8.5

¹ Includes workers outside the construction industry.

Table 6. Average annual earnings of persons whose primary job was in construction occupations, 1981

Occupation	All workers	Year-round workers only
All occupations	\$15,800	\$18,900
Construction occupations: ¹		
Electricians	20,900	23,200
Plumbers	18,900	21,000
Brickmasons	14,800	19,000
Painters	12,100	17,800
Carpenters	13,100	17,000
Construction laborers	9,200	13,600

¹ Includes workers outside the construction industry.

higher. In Houston and Dallas-Fort Worth, 1981 unemployment rates for construction workers were only slightly higher than those for all workers. In these two cities, laid-off construction workers apparently were able to find jobs in other industries because construction employment declined during the 1980 and 1981-82 recessions, while total employment grew. In Milwaukee, Cincinnati, and Pittsburgh, construction workers had 1981 unemployment rates more than three times the rate for all workers. The following tabulation shows 1981 unemployment rates in the construction industry and in all industries combined:

	All industries	Construction industry
U.S. average	6.8	12.8
Houston	3.7	4.1
Dallas-Fort Worth	4.1	5.0
Boston	5.3	11.7
Los Angeles-Long Beach ..	6.1	12.0
Milwaukee	6.6	21.6
New York	7.0	11.5
Pittsburgh	7.3	23.0
Chicago	7.5	17.3

In 1981, supplying industries, except for housing-dependent lumber mills, had unemployment rates close to that for manufacturing. As the recession deepened in 1982, the supplying industries' unemployment rates rose closer to that for construction.

Earnings. Periodic spells of unemployment affect the annual earnings of construction workers. The impact of

varying unemployment rates can be detected for electricians, who experience low unemployment, and carpenters, who experience relatively high unemployment. Most electricians who had full-time jobs work year round (71 percent in 1981), while fewer carpenters who worked primarily at full-time jobs were employed year round (45 percent in 1981). As a consequence, there was relatively little difference between the earnings of the average electrician and those of an electrician who worked year round. (See table 6.) But there was a relatively large difference between the annual average earnings of a carpenter who worked year round and those of the average carpenter.

Growth and unemployment ahead

In 1982, there were numerous problems for construction-related employment. High interest rates and the uncertainties related to the 1981-82 recession continued to dampen expenditures for new and for maintenance and repair construction, causing high unemployment rates in the industry and in construction. However, as demonstrated during 1950-80, and particularly during the 1975-77 recovery period, the industry is capable of recovery from a recessionary downturn. Once the recovery from the 1981-82 recession occurs, an aging infrastructure of highways and sewer lines and the need to repair and replace buildings constructed after World War II indicate a positive growth trend in construction expenditures. However, because construction employment is significantly affected by housing, the exact timing and year-to-year pattern of the growth is difficult to predict. Bureau of Labor Statistics projections show construction employment growth of 1.8 percent per year over the 1980-90 period, about the same rate as that for total employment (1.5 percent per year).⁷ Certainly, future construction growth trends are subject to uncertainties such as inflation rates, regional growth patterns, unemployment levels, and Federal fiscal and monetary policies. Despite the projected growth, one would expect the higher than average unemployment rates and the repeated episodes of unemployment to continue because there have not been any institutional changes to mitigate the seasonal and cyclical factors which cause the industry's high unemployment rates. □

FOOTNOTES

¹ This article uses numerous data sources. The principal source for the construction industry and construction-related occupations is the monthly Current Population Survey (CPS) which is compiled from household interviews and which provides details on the characteristics of persons employed and unemployed during a given month. These employment and unemployment data are tabulated both by industries and by occupations. The CPS, in its March supplement, provides information on the number of weeks worked, the number of employers, and the number of spells of unemployment during a 12-month period. The principal source for the supplying industries and for regional

trends is the Bureau of Labor Statistics establishment survey. This survey, which is compiled from employer records, provides current information on wage-and-salary employment in the private and public sectors.

There are several important differences between the CPS and the establishment survey in the measurement of employment. First, the CPS counts the number of persons who are employed; the establishment survey counts jobs. Because of this difference, a person holding two or more jobs would be counted two or more times in the establishment survey but only once, in his or her primary job, in the CPS. A

second difference is that the CPS provides estimates of persons employed as private wage-and-salary workers, government wage-and-salary workers, self-employed workers, and unpaid family workers for all industries and for all occupations, while the establishment survey provides estimates of only private wage-and-salary workers for the construction industry. Estimates of private wage-and-salary workers from the two surveys differ in the short run but are comparable in the long run.

² For discussions of productivity measurement and other issues in the construction industry, see National Commission on Productivity, *Measuring Productivity in the Construction Industry* (Conference sponsored by the National Commission on Productivity and the Construction Industry Collective Committee), September 1972; H. Kemble Stokes, "An Examination of the Productivity Decline in the Construction Industry," *Construction Productivity Frontiers*, April 1980; and J.E. Cremeans, "Productivity in the Construction Industry," *Construction Review*, May-June 1982.

³ Residential structures include new permanent housing units, mobile homes, and additions and alterations to existing homes. Nonresidential buildings include business structures, such as industrial, commercial, and hospitals; public utilities, such as electric generating plants, telephone facilities, and pipelines; farm structures; and mining exploration, such as petroleum and natural gas wells. Government structures include educational and other buildings, highways and streets, and sewer and water facilities. Government structures also include force-account construction, that is, construction done by government employees.

⁴ Data are from the U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts.

⁵ Maintenance and repair expenditures include both the activity performed by nonconstruction industries and government agencies (force-account construction), the value of materials in residential maintenance and repair which is performed by households on a do-it-yourself basis, and the activity by the construction industries themselves.

⁶ These data are based on the Bureau of Economic Analysis' 1972 input-output study. "Construction" as defined by the Bureau of Economic Analysis (BEA), is not confined to contract construction. As stated in the BEA's Definitions and Conventions of the 1972 Input-Output Study, "The output of the construction industries, whether new or maintenance and repair, includes both construction work performed on a contract basis for an industry or for a final demand sector and work achieved through the utilization of the work force of the industry or the final demand sector (for example, government). The construction work performed by the work force of the consuming industry or final demand sector is called force-account construction.

"The addition of force-account construction to each type of contract construction makes total construction for each type become an activity as well as an industry. Construction has no secondary products and the inclusion of force-account construction means that no other industry has any secondary output of construction. The commodity and the industry are identical and each type is then an activity."

⁷ See *Economic Projections to 1990*, Bulletin 2121 (Bureau of Labor Statistics, 1982).

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.

Reforming the U.S. system of collective bargaining

Collective bargaining procedures and relationships between labor and management must reflect less conflict, more cooperation as the Nation's economy struggles to meet international competition and domestic needs

D. QUINN MILLS

Can collective bargaining in the United States meet the challenge of the 1980's by tempering traditional confrontation with new cooperative approaches? Can management and labor modify their adversarial, rulemaking relationship by exploring and recognizing mutual needs? This article examines some recent events that suggest affirmative answers to both of these questions.

Labor unions developed in the United States within a generally hostile business and legal environment. As early as 1806, unions in major eastern cities were being prosecuted in court as "combinations in restraint of trade." During the economically turbulent 1870's, industrial workers seeking better pay and conditions of work attempted strikes and public protests, only to be dispersed by police. In 1877, railway strikers throughout the country were repulsed by Federal troops. During the depression of the 1890's, martial law was declared to break strikes in the western mines. And the Federal Government intervened at the railroads' request to defeat the 1894 strike by the American Railway Union against the Pullman Co.; to further assist the

company, a Federal court enjoined the railway workers from interfering with interstate commerce.

Following World War I, strong opposition by employer associations and further unfavorable court decisions contributed to a dramatic decline in the labor movement. Revitalization of the unions occurred during the 1930's, but only after lengthy strikes, and the enactment of Federal legislation—the Norris-Laguardia Act (1932) and the Wagner Act (1935)—favorable to the organizing rights of workers.¹

Born in turmoil, and victorious over adamant employer opposition, U.S. unions view themselves essentially as adversaries to management, a role which their legislative successes during the 1930's appeared to legitimize. And during organizing campaigns in recent decades, employers have tended to force unions ever more strongly into an overall anti-management posture. The turbulence of labor relations in the construction and textile industries exemplifies this phenomenon.

Ambiguous national labor policy

Some have argued that the purpose of our system of collective bargaining no longer commands a national consensus. When the Wagner Act was passed, it included a statement endorsing collective bargaining and the right of workers to join unions as being in the national

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interest. It appeared that the United States was committed to incorporating unions among the institutions of its pluralist democracy and to making its economic system work by and through their addition. But with passage of the Taft-Hartley Act in 1947, the mood of the Congress and of the public seems to have shifted somewhat: the right of employees not to join unions in effect became enshrined with their right to join unions. When, by decisions of the courts in subsequent years, employers were permitted to attempt to persuade employees not to join unions, the national policy had come full circle. For all practical and legal purposes, government has ceased to favor a specific industrial relations policy, and seeks rather to serve as an unbiased umpire in the choice which employees make as to union affiliation.

The result of this apparent shift in public policy is, as might be expected, that labor relations in the United States is now best described as a series of disconnected events. There is no overall pattern or purpose. The national policy is one of free choice for individual employees, and the choices vary considerably among individuals and over time. The energies of business and labor are channeled into the struggle over union recognition rather than into making collective bargaining an institution which contributes to national economic objectives. Within this environment, which might best be termed "benign neglect" by government, collective bargaining has stagnated.

In practice, then, collective bargaining in the United States involves open economic conflict over the rights of employees, unions, and management in the workplace. Under U.S. law, employees who strike for better wages and benefits, or to preserve existing levels of wages and benefits, are gambling with their jobs. Managers are free to replace the strikers either on a temporary or permanent basis. Thus it is that economic strikes by long-established unions in our country often quickly become struggles over the continued existence of the union.

The result: a law of the shop

Some management and union representatives have described collective bargaining in our country in terms of a fistfight: the question is which side will be knocked down, or out, first. Given such a relationship, it is not surprising that there is little trust between the two sides. Where there is little trust, conflicts over the terms of the employment relationship are resolved not through mutual understanding but with specific, written contractual arrangements which the Congress has chosen to make legally enforceable.

The American collective bargaining agreement consequently reflects the importation of much of the adversarial system of U.S. law into the workplace. The agreement sets forth rules which are legally binding on the parties and establishes a grievance procedure as the

mechanism by which the rules are enforced. The union and management take the roles of contending parties, as in a lawsuit, whenever there is a dispute in the plant. And increasingly, the parties bring attorneys into the grievance procedure to conduct what is virtually, though not yet entirely, a formal court proceeding to resolve their differences.

Many of the requirements of due process in our legal system have been incorporated directly into the contract grievance procedure. (The major exception is that the strict rules of evidence do not apply.) Thus, the grievance procedure involves several steps with appeals to higher levels, ending in a quasi-judicial proceeding before an arbitrator. To ensure that a disciplinary action will survive the oversight of an arbitrator, the employer must have established clear rules of conduct in the workplace; have communicated them to employees; and have documented transgressions. At some plants, for example, groups of managers (for arbitrators insist that there be more than one witness of an employee's infraction of a company rule) assemble to watch workers punch out at the timeclock at the end of the workday. Employees seen punching out early or punching more than one card are subject to disciplinary action by management.

Due process is a treasured right of U.S. citizens and is not to be disparaged. But its incorporation in the industrial relations world has given us a "law of the shop" that has become more and more burdensome to our economic enterprises. For, like U.S. law generally, collective bargaining agreements have grown increasingly complex. What began as one-page documents establishing that the union and the company would deal with each other have become contracts, hundreds of pages long, specifying in minute detail rules for the operation of economic enterprises. In some agreements, for example, many pages of rules are devoted solely to the question of how management is to make temporary assignments of employees to cover for other workers who are absent. But, because neither managers nor union officials really know what all the rules mean in certain instances, each noncustomary assignment made by the company tends to find its way into the grievance procedure.

Rules as a productivity drain

Rules alone cannot ensure that an organization will perform well. They may keep it from dissolving into self-defeating open warfare, but often do not permit it to achieve its potential. An organization which depends upon adherence to a myriad of rules will always be vulnerable to competition from other organizations which operate in a more consensual and cooperative fashion, even when the latter have fewer resources. And, although an organization of rules may sometimes pull it-

self together to respond to an emergency, this need not necessarily occur.

It follows, then, that primary dependence on establishing and enforcing rules is a very poor way to run an economic enterprise. The existence of a multitude of rules, many of which attempt to "stretch the work" to maintain jobs in ways reminiscent of depression-era tactics, constrains productivity and raises costs. For example, maintenance classifications may prohibit an employee from doing incidental work outside the strict limits of his or her trade; multiple job classifications may exist even where a person in a single combined classification could do the work effectively, without undue effort and stress; and, job classifications may be perpetuated although technological change has rendered the incumbents' work trivial. Other restrictions may limit the amount of work a person may be assigned, such as permitting a mechanic to open only two flanges. The location of materials and inventory may be restricted by contract or past practice to retain jobs in now-inefficient areas of the plant. In some cases, rules may prohibit employees being assigned work during breaks, and simultaneously prohibit supervisors from doing the employees' work, so that emergencies occurring at coffee breaks or lunchtime cannot be legally handled under the agreement.

Over time, rules tend to become increasingly costly and constraining as technology, materials, products, and other aspects of production change. Even rules which made great sense at first become out-of-date under changing conditions. But the rules are difficult to change, and particular employees may be further benefited the more outdated the rules become. Sometimes a company can pay a high price and "buy the rules out," or a union can persuade some workers to give up favored positions for the good of the membership as a group. But often, change cannot be accomplished without a bitter struggle between management and labor.

Furthermore, the rulemaking process promotes a set of attitudes which are inimical to successful enterprise. The existence of the rulebook encourages both management and labor to assert their rights under the contract, rather than to attempt to work out problems. It gives rise to "shop-floor lawyers," rather than problemsolvers. It fosters conflict and controversy. It undermines trust.

To a large degree, it seems that unions have become captives of their origins. Born in adversity and conflict, they continued to act as opponents of management even when their strength had become much greater. In some instances, unions have created thickets of rules in which to immobilize management, just as spiders build webs to ensnare prey. But when the thickets of rules have crippled productivity, the unions have discovered themselves to be caught alongside management in the trap.

Plants have declined in competitiveness, and jobs have been lost. The unions have discovered too late that a snare is no less a snare because they have set it themselves.

A prescription for change

In a recent survey conducted by the Harris organization, a majority of the general public professed the belief that unions contribute less than they once did to the growth and efficiency of business. Not surprisingly, only 15 percent of union leaders agreed with this judgment.² The need for unions to assist companies in the light of increased foreign competition is apparent to the public. To the inhabitants of the Snow Belt, it is similarly evident that unions should cooperate with local business to stem the outflow of industry and jobs to the South and West. Public perceptions of a productivity problem are supported by Bureau of Labor Statistics estimates, which show particularly sluggish growth in output per labor hour after 1973.³

Collective bargaining practiced primarily as rule-making has become self-defeating for both unions and management. It interferes with management's efficient operation of the enterprise, and ensnares employees with legitimate grievances in a web of red tape. It also contributes to the vehemence of employer attempts to resist union organization drives. Study after study of U.S. managers has shown that managers fear the imposition of restrictive work practices far more than the higher wages and benefits which unionization may bring. Companies' efforts to make competitive operations out of older plants often fail because changes in current work rules take the form of additional complex rules which do not provide the flexibility needed to turn a facility around. What management really needs is fewer rules altogether, and willing cooperation from the work force. The union, for its side, needs a management sensitive to the needs of people. Both are very difficult to obtain in the U.S. labor relations environment.

There are, of course, many reasons for this. The unions cite a long list of management actions and inactions which they feel justify an emphasis on protected rules and challenges to management action. Among the accusations frequently leveled at management are its failure to update the equipment in union plants; its location of new and more profitable products in nonunion facilities; and its burdening of unionized facilities with unfairly heavy overhead charges. Such actions call into question the good faith that management would show in any more cooperative relationship.

Managers have also helped to shore up the archaic labor relations system. American management has often proved unsympathetic to the problems of workers. For example, U.S. firms are quick to turn to layoffs during business downturns in an effort to maintain profit lev-

els. (In contrast, many firms abroad and some few U.S. firms attempt to preserve employment at the cost of short-term fluctuations in profits.) It should be acknowledged, however, that U.S. unions often contribute to the problem by insisting upon layoffs by seniority in preference to worksharing among employees during business declines, and that the U.S. unemployment insurance system encourages this preference by generally denying benefits to workers on short workweeks due to economic conditions.

Because of the substantial inefficiencies created by outdated rules, and the risk of resulting job losses, managers and union officials should always have at the top of their agenda the minimizing of rulemaking and the broadening of cooperation and consensus. This is the only method by which the flexibility needed to meet changing conditions and the ability to call forth the full potential of people can be obtained. In some instances, the relaxation of restrictive rules will cause employees to lose jobs, or to be assigned to less desirable jobs. But it is an illusion in most situations to think that jobs can be preserved in the long term by restrictive practices. Instead of preserving the few jobs at risk, high costs imperil the jobs of all persons in a plant.

Collective bargaining should be more than a fistfight, more than rulemaking. It must be more than merely adversarial. And there is ample evidence that it can be.

A great irony of history may serve as an example. At the end of World War II, the U.S. occupation authorities, under General Douglas MacArthur, reorganized the Japanese economy. The great trading companies, or *zaibatsu*, were broken up. Trade unions were established to add a dimension of social responsibility to Japanese political life. But the occupation authorities did not simply copy the U.S. industrial relations system. Instead, they imposed what they thought would be a better system, of which company-specific unions were to be the building blocks. And in West Germany, British occupation authorities with similar purposes in mind reorganized German industrial relations. In the British zone of occupation they introduced three major reforms: elected work councils, union representation on the boards of directors of companies (initially in the coal and steel industries only), and a few national industrial unions to bargain at the industry level with companies on behalf of the workers. In later years, a reunited Western Germany adopted the British innovations on a nationwide basis. In Japan, MacArthur avoided the adversarial and rulemaking obsession of U.S. labor relations. In Germany, the British avoided the multiplicity of trade union organizations that contributes to decentralized and disorderly industrial relations in Great Britain.

The reforms in Germany and Japan were largely a dramatic break with prewar institutions in both countries. Such substantial change was made possible

by the virtually total devastation which war had imposed on the industrial and social fabric of both nations. But over the years since the war, managers and unions in Japan and Germany have, by and large, built successfully upon the reforms instituted by occupation authorities. Many observers believe that these reforms in industrial relations have had as much to do with the economic success of the two nations as did any material assistance they were given in the postwar period.

The irony is that neither the United States nor Britain has been able to implement domestically the sorts of reforms in industrial relations practices that were imposed on the defeated powers. The result is that both Germany and Japan today have systems of collective bargaining which are much better suited to the needs of a competitive international economy than that of Britain or the United States. We in the United States apparently have known for many years the direction in which we should move, but we do not know how to get there from here.

Of course, there is no "clean slate" in this country as there was in the defeated powers at the end of World War II. We are not in a position to abandon collective bargaining as rulemaking, or simply to dispense with the adversarial element of our collective bargaining process. But we must move beyond these obsessions in substantial ways if a major new contribution to U.S. economic performance is to be made. Rulemaking may be replaced by a greater degree of employee participation and commitment in the workplace, but unless the adversarial posture also changes, increased participation may be of no use. Instead of resolving production problems, participatory schemes may simply add delays to management decisionmaking. And if the parties insist on treating earlier participatory decisions as precedents for further matters, the problemsolving mechanism may itself become yet another source of conflict and rigidity in the bargaining relationship.

Fortunately, a concept of collective bargaining that goes beyond rulemaking has deep roots in the U.S. labor movement. Before the 1930's, unions ordinarily envisioned themselves becoming involved in a broad range of problems associated not only with the difficulties of employees on the job, but also with the performance of the business enterprise. In union meetings, skilled trades workers debated what we would today call management issues. The dividing line between prerogatives of management and those of labor was far less well-defined than it is now.

It is time to draw on this older tradition of the U.S. labor movement, and leave behind the concept of collective bargaining as primarily a rulemaking process. This should be accomplished by putting far more flexibility into the collective bargaining agreement—making provisions less detailed, reorganizing work arrange-

ments, and designing different incentives for both management and labor. Some rulemaking and the legal enforceability of contracts are not to be abandoned. But they must take a back seat to attempts to move the collective bargaining process beyond continual confrontation and into a more constructive mode.

A commitment to enhancing productivity is not easily made by the U.S. unionist. Too often, past attempts to boost productivity have simply meant speeding up the pace at which managers require employees to work. But there is far more to improving productivity than speed-ups; and the failure to seek productivity improvement in a company threatens the continued existence of jobs that the company provides. Unions must become more sophisticated in their response to management efforts to improve productivity. Some efforts, perhaps, should be opposed, but others must be supported. And the goal of improving productivity should be accepted.

Today, the United States is full of experimental efforts to extend collective bargaining beyond the concepts of the 1930's—to increase the participation of the worker in his or her job and to help preserve jobs by keeping business viable. These efforts extend across many industries and various sectors of the economy, and take many forms, including quality circles, Scanlon plans, and job enrichment programs. They cannot yet be described as successes, although many have shown promise. These endeavors are of great significance for the future—they are steps that are being taken today to meet tomorrow's needs. If successful, these innovations may provide the basis for a new system of collective bargaining which will help preserve jobs, increase the number of U.S. businesses that successfully meet the

challenge of foreign competitors, and enhance the contribution and satisfaction of employees in the American workplace.

THE ECONOMIC REVITALIZATION of the United States in the 1980's is getting off to a start, though slow and uneven. With recent tax legislation, the Government has provided certain economic incentives which may help to restore the U.S. goods-producing sector to long-term viability, although much remains to be done in the important area of job creation for the next decade.

Within this broad economic context, both business and labor have their separate obligations. Business should be prepared to assist our work force in adjusting to the substantial production and employment changes which the 1980's are going to bring, both by providing workers with more advance notice of planned innovations, and by implementing changes in ways that minimize adverse effects on employees. The unions, for their part, should be ready to work with management toward a broader concept of collective bargaining than has been common in recent decades—one which is based on the participation of employees and union officials in the business process and which includes their commitment to the success of the individual enterprise.

The transition to a new cooperative mode of collective bargaining will be a difficult one, given the traditionally antagonistic atmosphere of U.S. labor-management relations and the fact that the change will probably have to be accomplished within a generally unfavorable business environment. But the alternative is a degree of economic and social unrest which cannot be in the best interests of management, workers, or, indeed, of the Nation as a whole. □

—FOOTNOTES—

¹ For an interesting discussion of the history of U.S. labor relations, see *A Brief History of the American Labor Movement, 1970 Edition*, BLS Bulletin 1000 (Bureau of Labor Statistics, 1970), and the 1976 supplement to that bulletin (also BLS Bulletin 1000).

² Louis Harris, quoted in *Daily Labor Report* (Washington, Bureau of National Affairs), June 3, 1981, pp. A14-A16.

³ See *Productivity and the Economy: A Chartbook*, BLS Bulletin 2084 (Bureau of Labor Statistics, 1981), p. 4; and p. 83 of this issue.

An experiment in the mediation of grievances

Under the aegis of the U.S. Department of Labor, analysts examined the merits of grievance mediation relative to arbitration in the coal mining industry, a frequently combative labor relations environment

STEPHEN B. GOLDBERG AND JEANNE M. BRETT

Grievance mediation proved substantially faster and less expensive than arbitration, according to a 1980 test of the mediation procedure in the Appalachian coal fields. Of 37 grievances submitted to mediation during the 6-month experimental period, 32 were resolved—a success rate of 86 percent. And, on average, mediation consumed only about one-fourth of the time and cost normally required to obtain the final resolution of a grievance in binding arbitration.

For these and other reasons, persons directly involved in the test were positive about the experience. A majority of company labor relations personnel, union grievance representatives, and rank-and-file miners expressed satisfaction with every aspect of mediation, and a preference for mediation over arbitration as a means of dispute resolution.

Rationale for the test

A high rate of grievance arbitration imposes substantial burdens on both employers and unions. In the coal mining industry, for example, the costs of arbitration under the 1974 contract have been estimated at approximately \$2 million per year.¹ A heavy volume of arbitration also leads to substantial delay in the resolution of those grievances that are arbitrated. At four coal mines previously studied by the authors, the average time

from grievance filing to the arbitrator's decision ranged from 138 to 204 days.²

Outside the coal mining industry, those employers and unions which have been concerned about the excess cost and delay resulting from a heavy volume of arbitration have predominantly turned to expedited arbitration as the solution. Pioneered in the steel industry in 1971,³ expedited arbitration procedures normally provide that the arbitration hearing shall be informal in nature, that the rules of evidence shall not apply, that there shall be no stenographic transcript, and that posthearing briefs may not be filed. The arbitrator is required to decide the grievance either immediately or within a brief period of time, and that decision is usually without precedential effect. However, because of the parties' concern with hasty decisions of a final and binding nature, access to expedited arbitration has normally been limited to grievances of little contractual significance, primarily those involving minor discipline.⁴

Grievance mediation is another device sometimes used to reduce the cost and delay associated with a heavy volume of arbitration.⁵ The grievance mediator seeks to assist the parties to resolve their differences in a mutually satisfactory fashion, without resort to arbitration. If successful, mediation can be comparatively fast and inexpensive because it eliminates the delay and cost associated with a written arbitration decision.

Mediation can also reduce the frequency of resort to arbitration in more fundamental ways. Often, a heavy volume of arbitration reflects a combative relationship

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in which the parties approach grievances in a highly adversarial fashion. The mediation process, however, compels a different approach by eliminating the concept of "winning" a grievance, and substituting the concept of resolving the grievance in a mutually satisfactory manner. Because the procedure requires each party to consider, and attempt to satisfy, the legitimate interests of the other, it is possible that experience with mediation will so accustom the parties to dealing with grievances as problems to be resolved, rather than disputes to be won, that they will resolve a higher proportion of grievances without resort to either arbitration or mediation. It is also possible that the mediation approach, because it focuses on the problem underlying the grievance as well as on the grievance itself, will sometimes lead to a resolution of the underlying problem that is both broader and more satisfactory than could be achieved in arbitration.

Another advantage of mediation over arbitration, even expedited arbitration, is that mediation is less formal. At a minimum, expedited arbitration procedures require that the facts giving rise to the grievance be elicited by the traditional means of examination and cross-examination.⁶ This can be exceedingly frustrating to a worker or foreman who only wants to tell the story in his or her own fashion. Mediation allows for just this.

Whether grievance mediation will provide any or all of the benefits mentioned above depends upon its success in two fundamental respects. First, the mediation process must be capable of bringing about the final resolution of a substantial proportion of those grievances that are mediated. If mediation is simply a stopping off point on the way to arbitration, it will only add to the total cost and delay of grievance resolution, and might even persuade the parties that there is little to be gained from serious efforts to attain a mutually satisfactory resolution. Second, the availability of grievance mediation should not substantially lower the frequency with which grievances are settled within the firm at internal steps of the grievance procedure. The risk of a decreased internal settlement rate is obvious. A party which might settle a grievance internally on terms proposed by the other, rather than incur the substantial cost and delay of arbitration, might reject that same proposal if mediation were available, calculating that the prospect of a more favorable outcome warrants the comparatively brief delay and low cost associated with mediation. Despite the savings expected from mediation relative to arbitration, any substantial shift from internal settlement to mediation might actually drive up the overall cost and time of grievance resolution.

There is some evidence from Canada, from the records of some U.S. State mediation agencies, and for individual firms that grievance mediation is capable of re-

solving a high proportion of grievances without resort to arbitration.⁷ Evidence as to the effect of mediation on the internal settlement rate is more sparse, but suggests that the availability of inexpensive mediation does not result in a substantial shift away from internal settlement efforts.⁸ Until now, however, there has been no systematic study of the effect of grievance mediation on the internal settlement rate, or of the capacity of mediation to resolve grievances short of arbitration.

The mediation experiment

The coal mining industry provides an ideal setting for further experimentation in the use of grievance mediation. The frequency of arbitration is great, labor relations are often highly combative, and expedited arbitration is not used except in the case of grievances protesting the discharge of an employee.

Accordingly, in November 1980, the authors began an experiment in grievance mediation in the coal industry. The project, which was jointly funded by the U.S. Department of Labor and by a J.L. Kellogg Research Professorship at Northwestern University, was designed to determine whether mediation could resolve a substantial proportion of grievances more promptly, less expensively, and more satisfactorily than arbitration; how the availability of mediation would affect the settlement rate at the final step ("step three") of the internal grievance procedure; and how employers, union representatives, and workers would react to a radical change in dispute resolution procedures.

Mediation procedure. As presented to potential participants, the mediation procedure was to be this: after the final step of the internal grievance procedure, the parties would have the option of going to mediation rather than directly to arbitration. The mediation procedure would be as informal as possible, eliciting relevant facts in a narrative fashion, rather than through examination and cross-examination of witnesses. The rules of evidence would not apply, and no record of the proceedings would be made. The grievant would be encouraged to participate fully in the proceedings, stating his or her views and asking questions of other participants in the hearing.

The mediator's primary purpose would be to assist the parties to settle the grievance in a mutually satisfactory fashion. If no settlement were possible, the mediator would give the parties an immediate oral advisory opinion, based on their collective bargaining agreement, as to how the grievance would be decided if it went to arbitration. The advisory opinion could be used as the basis for further settlement discussions or for granting or withdrawing the grievance. The parties would be free to arbitrate grievances not resolved in any of these ways. If they did so, the mediator could not serve as ar-

bitrator, nor could anything said or done by the parties or the mediator during mediation be used against a party at arbitration.

Choosing the participants. United Mine Workers of America (UMWA) Districts 28 (Virginia) and 30 (eastern Kentucky), and the nine major coal mine operators⁹ in those districts, were invited to participate in the mediation experiment. The two districts were selected because they were both in the Appalachian coal fields, and similar in that respect, yet quite different in their relations with employers. Labor relations in District 28 have been comparatively tranquil in recent years, while those in District 30 have been turbulent, marked by a high rate of arbitration and by frequent wildcat strikes. Using both districts in the study would provide some evidence of the capacity of grievance mediation to succeed in substantially different labor relations climates.

The parties accepted the experiment proposal, and agreed, in principle, to mediate unresolved grievances for a 6-month period, subject to the qualification that no grievance would be submitted to mediation without the mutual consent of the employer and the union. The participants also agreed on a detailed set of rules to govern the mediation procedure.¹⁰ The project directors then met with the grievance representatives of the participating UMWA districts and employers to familiarize them with the rules and procedures of mediation, thus lessening the likelihood of subsequent disputes as to proper interpretation of the rules.

Mediator selection and training. Four mediators were selected by the project directors, with the advice and consent of the participants, to serve in both participating districts. All four had substantial experience in arbitration, both in the coal industry and elsewhere, and two also had mediation experience.¹¹ In October 1980, the mediators met in Washington, D.C., with the project directors and an experienced mediator from the Federal Mediation and Conciliation Service for a 1-day training and familiarization session. At this meeting, they discussed mediation techniques and agreed upon responses to anticipated problems.¹²

Mediation charges and scheduling. To minimize the cost and increase the speed of mediation, the parties were told that up to three grievances would be scheduled for mediation each day, but that, on request, a particular grievance could be scheduled to take up to an entire day. The mediator's fee was to be \$375 per day, plus travel expenses, divided among the parties presenting grievances on that day. Contrary to the practice in arbitration, the mediator was not to charge for travel time, and because he was not required to provide a written decision, there would be no fee for study or writing

time. Thus, the average charge for mediating a grievance was expected to be \$125, plus one-third of the mediator's travel expenses.

To increase the speed of mediation, conferences were scheduled regularly so that the parties would not have to wait until a mediator had a day available to consider their grievance. Based on the anticipated volume of grievances, conferences were scheduled 1 day per week in District 30 and 1 day every other week in District 28. To ensure that mediators would be available on the scheduled conference dates, they were guaranteed payment for those dates, whether or not their services were needed. This guarantee was provided by the funding agencies to encourage the parties to use the mediation process, without subjecting them to liability for the payments if the frequency of mediation were not as great as anticipated.

The mediators were assigned to the scheduled mediation dates on a random basis, and the identity of the mediator was kept secret until the date of the conference. The secrecy was at the request of the parties, who wished to guard against scheduling maneuvers by any party to bring a grievance before a particular mediator it believed to be sympathetic to its position.¹³ The parties telephoned requests for mediation to the project staff, and were provided with the first available date and time for mediation. The staff was also responsible for notifying the mediators of their assignments, and for collecting the data that the parties had agreed to provide for purposes of evaluating the mediation procedure.

The experimental period. The mediation of grievances began on November 1, 1980, and continued until March 27, 1981, when the 1978-81 contract expired, and the UMWA called a nationwide strike. A new contract was signed on June 6, 1981, but the parties did not begin mediating again until September. At the end of September, the 6-month experiment in grievance mediation was concluded.

During the experimental period, the following data were collected for the participating employers in Districts 28 and 30: rate of final resolution at mediation; nature of the final resolution (compromise settlement or acceptance of the mediator's advisory decision); congruence between the mediator's advisory decision and the arbitrator's final and binding decision in those grievances that went both to mediation and arbitration; mediator techniques; cost and time of mediation; nature of the issues involved; and attitudes towards mediation of the parties' grievance representatives and of miners whose grievances had been mediated. To compare mediation with arbitration, similar data relevant to arbitration were collected from both participating and nonparticipating employers in the experimental districts both during the experimental period and for the two 6-month

periods that preceded it.¹⁴

Finally, to determine if any of the changes observed in Districts 28 and 30 with respect to step-three settlement rates and the time and cost of arbitration were taking place elsewhere as well, and so might not be attributable to the availability of mediation, pertinent data were collected in District 29 (southern West Virginia)—where mediation was not available—both during the experimental period and for 6 months preceding it.

The findings

Results of mediation. The vast majority of grievances that were submitted to mediation were finally resolved in the mediation process. A total of 37 grievances was submitted to mediation, 21 in District 28, 16 in District 30. Of those, five went on to arbitration, four in District 28, one in District 30. Thus, mediation succeeded in bringing about the final resolution of 32 out of 37 grievances, an overall success rate of 86 percent—81 percent in District 28 and 94 percent in District 30.

Approximately 70 percent of the grievances that were mediated were settled by the parties without the need for an advisory decision by the mediator; 54 percent of the conferences resulted in a compromise settlement, and another 16 percent ended in a noncompromise settlement, in which the grievance was either withdrawn by the union or granted in its entirety by the employer. Twenty-four percent of the conferences resulted in the issuance of an advisory decision, and another 5 percent concluded with neither a settlement nor an advisory decision, a situation permitted by the mediation rules at the joint request of the parties only when a possible settlement was being negotiated which might have been adversely affected by the issuance of an advisory decision.

In those instances in which the mediator did issue an advisory decision, that decision was nearly always that the grievance would be denied if it went to arbitration. In 3 of 5 such cases which the union took on to arbitration, the arbitrator denied the grievance as the mediator had predicted.

Speed of mediation. Mediation proved substantially faster than arbitration. The average time between the request for mediation and the mediation conference was 13 days, compared to an average of 49 days between a request for arbitration and the arbitrator's decision.¹⁵

The time saving achieved through mediation was the result of two factors. Initially, the regular scheduling of mediation conferences resulted in an average time of 13 days from the request for mediation to the mediation conference, compared to 25 days from the request for arbitration to the arbitration hearing. Additionally, an average of 23 days after the arbitration hearing was required for the issuance of the arbitrator's written deci-

sion, while no written decision was issued after a mediation conference.¹⁶

To be sure, the time lost in unsuccessful mediation should be taken into account in determining the overall time savings of mediation. If the days lost in unsuccessful mediation are subtracted from the days saved in successful mediation, there is still an average saving of 28 days for mediation compared to arbitration.¹⁷

Cost of mediation. The average cost (mediator's fee and expenses) of mediation was \$250 per grievance, compared to an average arbitration cost (arbitrator's fee and expenses) of \$1,025. Thus, each grievance that was resolved through mediation saved the parties an average \$775 over arbitration.

Mediation was relatively inexpensive, in part because the mediators could consider up to three grievances per day, rather than one as is the practice in arbitration, and also because no written decision was required.¹⁸ This was true despite the fact that the mediator's daily fee of \$375 was substantially greater than the average daily arbitrator's fee of \$275.¹⁹

Again, it is appropriate to take into account the cost of those grievances which were not successfully resolved in mediation. When the amount so lost was subtracted from the amount saved in successful mediation, mediation was still found to have saved the participating union districts and employers \$23,550, an average \$636 per grievance.²⁰

The payments to mediators for those dates when mediation was scheduled but did not take place has not been included in calculating the financial saving of mediation over arbitration because those payments were borne by the funding agencies to encourage the parties to employ mediation during the experimental period. However, because the parties in District 28 chose to continue the mediation arrangement at their own expense after the experiment was completed, it is possible to measure that portion of the district's current costs of mediation accounted for by the fees paid to mediators for scheduled, but unused, mediation dates. At this writing, the amount of those fees has been \$1,275, and the saving otherwise attributable to mediation has been \$8,400. The net savings have thus been \$7,125 for the 12 grievances mediated to date, an average of \$594 per grievance.²¹

Effect on the step-three resolution rate. The availability of mediation does not appear to have lowered the frequency with which grievances were settled at step three. As shown in table 1, the step-three settlement rate among those companies participating in the experiment was 75 percent between October 1979 and March 1980, 73 percent during the 6-month period immediately preceding the experimental period (April–September 1980),

and 76 percent during the experimental period. Thus, there is no evidence that the availability of high-speed, low-cost mediation would result in the mediation of grievances that otherwise would have been settled at step three. To the contrary, table 1 shows that, during the experimental period, the number of grievances taken to arbitration declined by approximately the number of grievances taken to mediation. It thus appears that those grievances which went to mediation were those which would otherwise have gone to arbitration.²²

Attitudes towards mediation and arbitration. Attitudes towards mediation and arbitration were tested among three groups: company personnel who had represented their companies in both arbitration and mediation, union personnel who had performed the same function for the UMWA, and miners who had had a grievance processed through mediation, arbitration, or in a few instances, both.

As shown in table 2, a higher proportion of both union representatives and miners were satisfied with mediation than with arbitration, while company representatives were equally satisfied with both. Turning to specific aspects of the two procedures, a higher proportion of each of the three groups preferred mediation to arbitration, in every respect but one: a slightly higher percentage of company representatives thought that arbitrators understood the grievances presented to them than thought that mediators did. When directly asked which procedure they preferred, all three groups preferred mediation over arbitration.

In giving the reasons for their preference of procedures, 50 percent (7 of 14) of the miners referred to the speed of mediation compared to arbitration, as did 50 percent of the union representatives (4 of 8), and 33 percent (4 of 12) of the company representatives. Other characteristics of mediation referred to favorably were its low cost (company representatives, 42 percent; union representatives, 38 percent; miners, 21 percent); informality (company representatives, 42 percent; union rep-

resentatives, 63 percent; miners, 14 percent); opportunity for full discussion of the problem that led to the grievance (company representatives, 25 percent; union representatives, 50 percent); opportunity for the parties to resolve the problem by negotiation, rather than submit to the directed resolution of a third party (company representatives, 17 percent; union representatives, 25 percent; miners, 15 percent); and the chance for the grievant to be fully heard (company representatives, 8 percent; union representatives, 25 percent; miners, 14 percent).

Only two criticisms of mediation were voiced with any frequency. Twenty-five percent of the company representatives complained that mediation did not ensure a final resolution of the grievance, as did 12 percent of the union representatives and 28 percent of the miners. Twenty-five percent of the company representatives and 7 percent of the miners also commented that the mediator sometimes encouraged the parties to compromise without regard to the contractual merits of their respective positions.

Mediation techniques. The techniques used by the mediators to obtain grievance settlements were, for the most part, the same as those typically used in mediating contract negotiation disputes. Thus, in 30 of the 37 cases, the mediator met separately with union and company representatives, and in 26 of the cases, the mediator both encouraged the parties to work out a compromise settlement and suggested the terms of such a settlement.

However, there were some respects in which the mediators employed techniques not typically used in contract negotiations. One such technique was the advisory decision, in which the mediator advised the parties of the likely outcome if the grievance were arbitrated. The advisory decision was usually given at the close of the conference, after all efforts to work out a settlement had proven unsuccessful. The advisory decision did not normally lead to further negotiations, but to a decision by the "loser" either to accept the advisory decision or to proceed to arbitration. As previously noted, the advisory decision was accepted in four cases, while in five cases the grievance was taken to arbitration.

There were some grievances in which the mediator did not issue an advisory decision, but did advise the parties privately of the likely outcome in arbitration. This technique enabled the parties to adjust their negotiating position in light of their contractual strength, and was reported by several of the mediators to have been quite successful in bringing about settlements.²³

In 31 of the cases, the mediator discussed with the parties the nature of the underlying problem that had led to the grievance, and how that problem might be dealt with in the future. In some of these cases, this technique resulted in a mutually satisfactory resolution

Table 1. Distribution of grievances by method of resolution before and during the grievance mediation experiment

Method of resolution	Number of grievances		
	Oct. 1, 1979– Mar. 31, 1980	Apr. 1, 1980– Sept. 30, 1980	Oct. 1, 1980– Mar. 31, 1981
Step three	216	226	260
Mediation	0	0	28
Arbitration	72	82	57
Percentage of grievances resolved at step three ...	75	73	76

¹ This number does not reflect the 4 grievances which were resolved at mediation in September 1981.

Table 2. Results of the attitude survey taken among participants in the mediation experiment

Query and response	Company representatives	Union representatives	Miners
<i>Were you generally satisfied with mediation (arbitration)?</i>			
Percent satisfied:			
Mediation	83	100	72
Arbitration	83	25	48
<i>Do you think the mediators (arbitrators) generally understood the grievance(s)?</i>			
Percent "Yes":			
Mediation	83	100	54
Arbitration	92	38	49
<i>Do you think that in general all the important facts came out in the mediation conferences (arbitration hearings)?</i>			
Percent "Yes":			
Mediation	92	100	65
Arbitration	83	38	33
<i>Do you think the mediation conferences (arbitration hearings) were too formal, not formal enough, or just about right?</i>			
Percent "Just about right":			
Mediation	92	100	81
Arbitration	42	37	72
<i>Do you think the mediators (arbitrators) were in any way dishonest or unfair?</i>			
Percent "No":			
Mediation	92	87	77
Arbitration	84	50	63
<i>All things considered, which procedure do you like better—mediation or arbitration?</i> ¹			
Total (percent)	100	100	100
Mediation	50	75	64
Arbitration	33	12	14
Undecided	17	12	21

¹ This question was asked only of miners with experience in both procedures. Due to rounding, sums of individual items may not equal 100.

of both the grievance and the problem which had led to that grievance. For example, a number of grievances concerned the assignment of idle-day work, and in some of those, the parties entered into a settlement which substantially restructured their idle-day work assignment procedure. One grievance, which originated as a dispute over shift starting time, led to a discussion of the procedure by which management decisions affecting employees were made and communicated to the employees, and culminated in the settlement dealing with both of those matters as well as the original dispute. Still another grievance, which was filed to protest the employer's failure to assign the grievant to a temporary vacancy, resulted in an agreement with respect to the filling of all temporary vacancies occurring in the next 6 months. The device of an agreement to try a particular approach for a limited time, with the option of abandoning it if it proved unsuccessful, was frequently used

by the mediators to encourage the parties to enter into a settlement that appeared to satisfy the concerns of each, but that one or both were reluctant to agree to on a permanent basis.

Issues mediated. The issues presented by those grievances that were mediated were essentially the same as those presented by those grievances that were arbitrated. Thus, during the experimental period, grievances presenting the following issues were arbitrated: discharge, discipline less than discharge, vacation pay, personal or sick leave, job bidding, idle-day or overtime work assignments, layoff or realignment, supervisor doing classified work, contracting out, and the "wrong" employee doing classified work (jurisdictional disputes). Grievances presenting these issues were also mediated, with the exception of personal or sick leave, jurisdictional disputes, and discharges.

Directions for further research

Despite the apparent success of the mediation experiment, there remain some unanswered questions about the value of mediation as a means of grievance resolution. Because the number of grievances mediated and the number of persons who participated in mediation during the experimental period were not great, it is possible that with more experience, problems will develop that are not presently apparent. Furthermore, the only grievances that were mediated during the experimental period were those which both the employer and the union agreed to submit to mediation. This requirement of mutual consent maximized the likelihood of settlement by bringing to mediation only those grievances for which both parties contemplated the possibility of a settlement. It also minimized the risk that the availability of mediation would result in a decrease in the step-three settlement rate, because either party could respond to a refusal to settle at step three by refusing to agree to mediation. Thus, it cannot be determined whether grievance mediation, if available on a basis other than mutual consent, would achieve comparable results.

This is a question of considerable importance, because there are substantial advantages to providing for mediation on a basis other than mutual consent. Under a mutual consent approach, mediation would be precluded whenever one party believes its position to be so clearly right, and not susceptible to compromise, that mediation would be a waste of time. Similarly, mediation could not be used whenever discussion of a particular subject is sufficiently acrimonious that one party reacts to any suggestion of the other—including the suggestion that mediation be attempted—with a negative response. To the extent that mediation is preferable to arbitration as a dispute resolution mechanism, any procedure that increases the proportion of unresolved

grievances going to mediation, rather than to arbitration, is desirable.

Data collected after the experimental period shed some light on the effect of providing for mediation on a basis other than mutual consent. Since the end of the project, UMWA Districts 11 and 12 and three employers operating in those districts have begun a self-funded experiment in the mediation of grievances. Two of the employers and the union districts agreed to substitute for the mutual consent requirement a provision that either party could submit a grievance to mediation. During the first 5 months under that procedure, 21 of 25 grievances were successfully resolved in mediation, a settlement rate of 84 percent.

Additional evidence is provided by UMWA District 28 and the participating employers in that district, who agreed to continue experimenting with grievance mediation on a self-funded basis after their role in our project was ended. Their agreement provided that, for a period of 6 months, all grievances not settled at step three would be submitted to mediation, except for discharge grievances and those grievances that both parties agreed not to mediate.²⁴ During the first 3 months under that provision, 12 grievances were submitted to mediation, all of which were finally resolved, a settlement rate of 100 percent. Thus, initial indications are that easier ac-

cess to mediation will not drive down the frequency with which grievances are resolved in mediation. However, data are not yet available on the effects on the step-three settlement rate.

In sum, our test of the grievance mediation procedure has demonstrated that, at least under a provision for mutual consent to mediation, the mediation procedure is capable of resolving a high proportion of grievances more promptly and less expensively than can conventional arbitration, without a substantial decrease in the internal settlement rate. And, followup evidence suggests that mediation can be successful in resolving disputes even if it is available on a basis other than mutual consent.

The implications of these findings are profound. Initially, they indicate the desirability of further experimentation with grievance mediation in the coal mining industry. Our results also suggest the desirability of further experimentation with mediation in other industries. The coal industry is not unique in having a high volume of arbitration, and there appears to be no reason why a carefully designed grievance mediation procedure, tailored to fit the needs of employers and unions in other industries, should not be equally successful in resolving grievances promptly, inexpensively, and to the mutual satisfaction of the parties. □

—FOOTNOTES—

¹ The total cost of arbitrating 2,700 cases per year for a 3-year period starting in 1974 would be approximately \$5,550,000. See Federal Mediation and Conciliation Service, *33d Annual Report* (Washington, 1981), p. 37.

² Jeanne M. Brett and Stephen B. Goldberg, "Wildcat Strikes in Bituminous Coal Mining," *Industrial and Labor Relations Review*, July 1979, p. 477.

³ See Ben Fischer, "Arbitration: the steel industry experiment," *Monthly Labor Review*, November 1972, pp. 7-10.

⁴ Marcus Sandver, Harry Blaine, and Mark Woyar, "Time and Cost Savings Through Expedited Arbitration Procedures: Evidence From Five Industrial Settings," *Arbitration Journal*, December 1981, pp. 11-20.

⁵ See Gordon Gregory and Robert Rooney, "Grievance Mediation: A Trend in the Cost-Conscious Eighties," *Labor Law Journal*, August 1980, p. 502; James O'Grady, "Grievance Mediation Activities by State Agencies," *Arbitration Journal*, June 1976, p. 125; and William McPherson, "Grievance Mediation Under Collective Bargaining," *Industrial and Labor Relations Review*, January 1956, p. 200.

⁶ Sandver, Blaine, and Woyar, "Time and Cost Savings."

⁷ The most powerful evidence comes from British Columbia, where grievance mediation is made available by the Labour Board. Since 1976, slightly more than 600 grievances per year have gone to mediation, with an average settlement rate of 71 percent. See Paul Weiler, "The Role of the Labour Board as an Alternative to Arbitration," *Avoiding the Arbitrator: Some New Alternatives to the Grievance Procedure*, Proceedings, 30th Annual Meeting (National Academy of Arbitrators, 1977), pp. 72-80; and, letter to the authors from the Labour Relations Board of British Columbia, Mar. 11, 1981.

Data from State mediation agencies, which show settlement rates of 75 percent or more, are reported in O'Grady, "Grievance Mediation Activities," pp. 125-28; Gregory and Rooney, "Grievance Mediation: A Trend," p. 502; and, letter to the authors from Edward W. Allen,

Supervisor, California State Mediation and Conciliation Service, May 18, 1981. Reports on the results of mediation procedures used by individual firms are contained in Arnold Zack, "Suggested Approaches to Grievance Arbitration," *Avoiding the Arbitrator: Some New Alternatives to the Grievance Procedure*, Proceedings, 30th Annual Meeting (National Academy of Arbitrators, 1977), pp. 105-12; and, William McPherson, "Grievance Mediation," pp. 200-04.

⁸ See Weiler, "The Role of the Labour Board," pp. 117-20.

⁹ The firms participating in the experiment were: Beth-Elkhorn Corp., Carbon Fuel Co., Clinchfield Coal Co., Eastern Coal Corp., Kentland-Elkhorn Coal Corp., Rebel Coal Co., Robert Coal Co., Scotts Branch Co., and Westmoreland Coal Co..

¹⁰ Those rules are presented in the appendix to the complete report on the study, on which this article is based. See Stephen B. Goldberg and Jeanne M. Brett, *An Experiment in the Mediation of Grievances, Final Report to the U.S. Department of Labor under Contract No. J-9-P-1-0034* (January 1982), pp. 53-57.

¹¹ The mediators selected to participate in the experiment were David Beckman, James Searce, Rolf Valtin, and Stephen Goldberg.

¹² During the experimental period, a similar meeting was held to discuss common problems that had arisen, and to exchange ideas for possible solutions.

¹³ The mediator's lack of power to impose a settlement would appear to make his views of little importance, but the parties, perhaps because their prior experience was exclusively with arbitration, were concerned about the mediator's perceived sympathies.

¹⁴ We collected data on step-three settlement rates beginning on Oct. 1, 1980, on the theory that those grievances that were ready for mediation by November 1 would probably have reached step three some time in October. We terminated the data collection period for step-three settlement rates on Mar. 31, 1981, because the UMWA strike of April-June rendered the April-September 1981 period atypical.

¹⁵ These statistics do not include discharge grievances because the wage agreement provides an expedited procedure for the arbitration of such grievances.

¹⁶ If mediation were as successful in other industries as it has been in coal, the time saved in resolving grievances through mediation, rather than arbitration, would average 108 days. The average time from the request for arbitration to the arbitration hearing for the experimental districts (25 days) was achieved at least partially because a permanent arbitration panel is provided for in the UMWA-BCOA contract. The comparable time for U.S. industry in general was 69 days. Similarly, while the average time from the arbitration hearing to the issuance of the arbitrator's decision in the experimental districts was 23 days, the average for all industries was 52 days. See Federal Mediation and Conciliation Service, *33rd Annual Report* (Washington, 1981), p. 39.

¹⁷ The total time lost in unsuccessfully mediating five grievances was 115 days. Subtracting the 115 days lost from the 1,152 days saved in the 32 successfully mediated grievances results in an overall saving of 1,037 days for 37 grievances.

¹⁸ No data are available for the coal mining industry on the proportion of the arbitrator's fee that is attributable to the time necessary to write a decision. However, nationwide data show that in 1980 the average arbitrator charged 1.33 days per grievance for travel and hear-

ing, and 1.88 days for study and decision writing. Because the nationwide data also show that the average daily arbitrator's fee was \$275, the average charge for a written decision was \$517. See Federal Mediation and Conciliation Service, *33d Annual Report* (Washington, 1981), p. 37.

¹⁹ Federal Mediation and Conciliation Service, *33d Annual Report*, p. 37.

²⁰ This result is calculated by the same method as the time saving result calculated in note 17: subtracting the \$1,250 cost of unsuccessful mediation of five grievances from the \$24,800 saved in the 32 successfully mediated grievances results in overall financial savings of \$23,550 for 37 grievances.

²¹ This figure also takes into account an increase in the mediator's fee from \$125 to \$200 per grievance.

²² Just as for the participating companies, step-three settlement rates of a control group of nonparticipating companies remained remarkably constant during the 18-month period preceding and including the experimental period.

²³ The frequency with which private outcome prediction was used, and the effect of this technique, was, unfortunately, not measured. It will be measured in future experiments.

²⁴ Discharges may be submitted to mediation by mutual agreement.

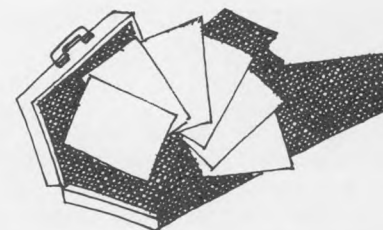
Settlements are the norm

To many Americans, the strike epitomizes the union. Headlines are made in industrial disputes. They are the sensational aspects of union policies and managerial counterpolicies. Yet, strikes are surprisingly few in comparison to either man-days worked or the number of collective agreements negotiated. For example, the average annual number of man-days lost in the United States because of strikes during 1935-36—a period of great labor unrest—was 16.9 million, or 0.27 percent of the total annual estimated working time. In 1946, the worst strike year in our history, man-days lost totaled 116 million, or 1.43 percent of the annual estimated working time. In 1959, despite the impact of a steel strike that shut down that industry for several months, man-days lost totaled 68 million, or only 0.61 percent of the annual estimated working time. Almost every hour while strikes occur, a collective bargaining agreement is being peacefully negotiated by a union and a company.

—GORDON F. BLOOM AND HERBERT R. NORTHRUP

Economics of Labor Relations,
9th ed. (Homewood, Ill., Richard D. Irwin,
Inc., 1981), p. 171.

Conference Papers



The following excerpts are adapted from papers presented at the Thirty-Fifth Annual Meeting of the Industrial Relations Research Association, December 1982, in New York.

The full text of all papers appears in the copyrighted IRRA publication, *Proceedings of the Thirty-Fifth Annual Meeting*, available from IRRA, Social Science Building, Madison, Wis. 53706.

Do the 1982 concessions by unions mark a turning point in bargaining?

DANIEL J. B. MITCHELL

In early 1982, it seemed as though the labor market was splitting into two camps. Certain employers were on the verge of bankruptcy or, at least, large-scale plant closings and mass layoffs. Such developments threatened the job security of senior union members who have special influence on the union policymaking process.¹ Such threats created more wage responsiveness than the normal ups and downs of the business cycle.

The contracts negotiated under these circumstances varied. A common feature, however, was a freeze on basic wages (sometimes including the escalator, sometimes with delays or "diversion" of escalator money) or a decrease in wages.

Accompanying the concessions was an increased willingness, in some bargaining units, to experiment with worker participation in management, quality circles, and other innovative reforms. In addition, the most tangible measure of labor-management friction—strike incidence—showed a marked decline. But, in the past, such a cooperative spirit tended to erode when the economic crisis ended.

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Several views surfaced during the discussion of union wage concessions early in 1982. There is the Audrey Freedman-William Fulmer view that Humpty-Dumpty (which to them is industrywide union wage targets and resulting wage rigidity) has fallen off the wall and will never be put together again. At the other end of the spectrum is the John T. Dunlop view that Humpty is merely repositioning himself and that 1982 bargaining (including the concessions) is within the range of normality.² Closer to Dunlop's is my opinion that Humpty falls off the wall from time to time, but has not broken in the past and has always climbed back. Thus, there is reason to believe that 1982 will not be an exception.

Is union wage determination at a turning point? "No," not in a fundamental way. Union wage settlements were low in 1982. But this fact says little about permanent changes in institutional structures. In my view, the primary structural characteristic of modern union bargaining associated with wage insensitivity is not the industrywide pattern but rather the long-duration contract, often supported with an escalator. Concession bargainers took pains to preserve the escalated long-term contract and to label deviations as temporary. Pattern bargaining has long been an elusive and ephemeral concept in the industrial relations literature, especially when it is thought of as connecting totally unrelated industries. Wage changes throughout the economy (union and nonunion) tend to be correlated, but statistical attempts to determine if the correlations are due to patterning (conscious imitation) or common determining factors have not been successful.³ Even where it is obvious that patterning has occurred in the past, the significance of its dissolution for wage flexibility is unclear.

The main structural reform which could increase wage sensitivity to demand is gain sharing (including profit sharing) which appeared as part of some concession packages. These plans are modest in scope, however, and might be abandoned unless reinforced by public policy. Unless gain sharing is externally stimulated by appropriate tax incentives, it is unlikely to encompass a substantial fraction of the work force or a substantial portion of compensation.⁴ The greater wage sensitivity to demand that gain sharing could bring would help to ensure that future episodes of inflation fighting would be less painful than the 1979-82 experience. □

FOOTNOTES

¹ Daniel J. B. Mitchell, "Recent Union Contract Concessions," *Brookings Papers on Economic Activity*, 1:1982, pp. 165-201.

² Audrey Freedman and William E. Fulmer, "Last Rites for Pattern Bargaining," *Harvard Business Review*, March-April 1982, pp. 30-48; John T. Dunlop, "Remarks by Former Secretary of Labor Dunlop on 1982 Wage Developments Before Conference of Business Economists," *Daily Labor Report*, Feb. 23, 1982, pp. D1-D2.

³ Daniel J. B. Mitchell, "How to Find Wage Spillovers (Where None Exist)," *Industrial Relations*, Fall 1982, pp. 392-97.

⁴ In March 1982, Congressman John F. Seiberling introduced a bill (HR 5682) to provide tax incentives for certain types of gain-sharing plans.

Will union concessions expand areas for bargaining?

EVERETT M. KASSALOW

Recent union economic concessions have not been a one-way street, particularly in the case of the larger companies. In some instances, unions have been able to bargain their way into wholly new areas, in return for yielding some economic ground. For example, in auto and meatpacking negotiations, new rights have been gained on the matter of plant closings or outsourcing to nonunion companies. These new rights are by no means comprehensive, but they represent an important breakthrough in an area where companies in those industries have not yielded ground in the past. Even where the newly gained rights are not extensive, a foot in the door in these areas almost inevitably means the union is entitled to flows of companies' internal information which they did not have in the past. The same goes for the various profit-sharing plans which are being offered to unions in lieu of wage adjustments—their information value could be far-reaching.

Union members in the auto industry also seem to be achieving a variety of new job and income security benefits, as a tradeoff for some present economic benefits. Experiments with "lifetime seniority" at a few plants and a "guaranteed income stream" to protect workers "with 10 or more years of seniority in plants which are permanently closed, and to workers with 15 or more years of seniority in all other cases" are notable advances.¹ Prepaid legal services, a new benefit for most auto workers, were also gained in a number of companies. The extension of health insurance to laid-off employees for 1 year, and in some cases, 2 years, has also

been negotiated in the concession framework in a number of companies.

In the light of these new gains, it is surprising that public attention has been devoted almost exclusively to the unions' economic concessions. Unions have also been able to strengthen already existing severance pay plans, employees' rights to transfer from shutdown plants to still open company plants, and early retirement benefits, as part of bargaining in a recession era.²

Some of the companies' concession tradeoffs which did not quite come off are even more revealing of how far changes might go. Thus, General Motors in its first (unsuccessful) round of negotiations with the UAW in 1982 apparently offered to link any worker economic concessions directly to temporary price reductions. This linkage of wage and price bargaining is something that the UAW had proposed on several occasions after World War II, but which the auto companies had indignantly rejected. Further, according to Steelworkers' President Lloyd McBride, steel industry negotiators (also in negotiations which "failed") had indicated their readiness to guarantee "spending all their returns and labor cost relief in basic steel," if the negotiations for concessions succeeded.³ In an industry where a few steel companies have recently invested billions of dollars outside the steel industry, such an offer might have great significance.

In addition to obtaining a moratorium on plant shutdowns, the United Food and Commercial Workers, under their agreement with the Armour & Co., are to receive a copy of the company's "capital investment plan for the next 5 years and [the company] promised to reveal its actual expenditures each year."⁴

One management counselor argues that unions have not really made significant concessions, but only tempered their demands, while the concessions they obtained from management were a "shrewd tradeoff revealing a pattern of erosion in managerial rights and entrepreneurial freedom."⁵ Another counselor has warned about the possible consequences of widespread information sharing with the unions. Once "the spigot of confidential information is turned on, it cannot easily be turned off." Opening the books in hard times may moderate union demands, but it can be employed against "the company in collective bargaining when profit becomes more buoyant," because management "loses its ability to edit the data provided to unions." The same counselor also seem to fear such concessions as allowing UAW President Douglas Fraser to sit on the Chrysler Board, or permitting the Rubber Workers' President Milan Stone to appear before the Uniroyal board twice a year. He sees these in a pattern similar to the growth of workers' access to information and board representation in Western Europe, though in Europe these matters generally proceed under a legislative umbrella.⁶ My own

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feeling is that this kind of union sharing in management's fiscal power is generally so foreign to the ideology of American workers (and union leaders with a few notable exceptions) and to management tradition, that it may not advance rapidly. There are few signs that employers outside of the most economically besieged industries are prepared to yield any important new share in management to unions. In those companies which do not regain economic viability, the newly gained union rights at the expense of traditional management prerogatives could become more or less moot. Still, on balance what may be significant is that important managerial prerogatives have been (or may be) breached by unions in several large companies, and this will be an area commanding close observation and research in the next few years. □

—FOOTNOTES—

¹ See *The UAW-GM Report* (Detroit, Mich., United Auto Workers, 1982), p. 21, which includes an extensive summary of the contracts negotiated with General Motors. Similar benefits were negotiated at Ford. Both agreements also include provisions to strengthen the supplementary unemployment benefit funds at these companies.

² See, for example, the description of the "Closure Settlement," agreed to in June 1979 by Brown and Williamson Co. and the unions it bargains with in *Labor Relations in an Economic Recession* (Washington, D.C., Bureau of National Affairs, 1982), p. 10.

³ *Daily Labor Report*, Sept. 29, 1982 (Washington, D.C., Bureau of National Affairs). The union had apparently pressed the companies to reinvest all savings in modernization of facilities. Although the companies' counteroffer did not go that far, they did seemingly accept the principle of keeping the funds saved within the steel industry.

⁴ *Daily Labor Report*, Sept. 29, 1982.

⁵ See *Daily Labor Report*, June 16, 1982, for a summary of remarks by former National Labor Relations Board Chairman Edward B. Miller, at the 35th National Conference on Labor, held at New York University.

⁶ Richard A. Beaumont, *The Wall Street Journal*, Oct. 18, 1982.

Implications of concession bargaining: lessons from the public sector

DAVID LEWIN

A lively debate is emerging about the significance of recent developments in collective bargaining, especially so-called concession bargaining. Some analysts believe that these concessions mark the beginning of a new era of labor-management relations, while others view them merely as a conventional response to economic recession

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and still others take a "middle-ground" position on the issue.¹ The question posed in this paper is, "To what extent can the significance of private-sector concession bargaining be adduced from recent concession bargaining in the public sector?"

At first glance, this question may seem ill-formed. For example, writing in mid-1982, Robert McKersie and Peter Cappelli contended that because "... concessions have no possibility of increasing revenue . . . unions in the public sector are not engaging in concession bargaining."² Further, Bureau of Labor Statistics data for the first half of 1982 show that pay and benefit changes in major bargaining agreements were considerably larger in the public than in the private sector, implying that concessions are not a fact of life in the former sector.³ Nevertheless, it is the case that concession bargaining has occurred in some portions of the public sector, and an analysis of these concessions may be instructive for interpreting private-sector bargaining developments.

The public-sector experience

The following discussion is based on a study of eight instances of concession bargaining, together covering more than 103,000 State and local government employees, that have been reported for the first half of 1982. Most of these actions occurred in States with economies that are, in general, very sensitive to business cycles and which have experienced severe economic declines and high unemployment during the current recession. Typically, the concessions will be in effect only for the 1982-83 fiscal year that prevails in these jurisdictions, although a few apply to longer periods.

The dominant response of the public-sector employers and unions to economic pressures has been to freeze wages and salaries. Such freezes were in effect in all of the Michigan, Philadelphia, and Washington State bargaining situations studied, and covered almost 100,000 employees. In most cases, existing contracts were extended for 1 year, but several jurisdictions negotiated longer-term agreements, some of which provide for pay or benefit improvements in the second or third years. However, and as has occurred previously in some of these jurisdictions,⁴ contracts may be reopened and scheduled pay increases may be deferred or cancelled if economic conditions do not improve.

It is also clear that public-sector pay freezes are intended to preserve jobs and prevent layoffs. As examples, contracts negotiated in Philadelphia and Memphis include explicit no-layoff provisions; Maryland officials provided municipal employees with no-layoff "assurances"; scheduled layoffs by the Detroit Public Library were cancelled as a result of a pay freeze for 1982-83; and worksharing was incorporated into 1982-83 bargaining agreements in several Michigan school districts.

Other notable bargaining actions and contract provisions in these jurisdictions that might properly be labeled concessions include the substitution of compensatory time off for overtime pay and unpaid holidays for work leave credit (Michigan State troopers); unpaid work days (Detroit librarians); and cost-sharing for health insurance coverage (Baltimore municipal employees). Of particular note are actions taken in the State of Washington that eliminate the accrual and application of annual leave time to the calculation of public employees' retirement pay, require future pay increases to be based on employee performance rather than seniority, and extend probationary periods for new employees from 6 months to 1 year.

Do such concessions portend a new era of public-sector bargaining in the United States? Perhaps not, for the following reasons. First, the concessions apply to only about one-fourth of all public employees represented by collective bargaining units in negotiations during the first half of 1982; the large majority of such employees are not operating under concession-type contract provisions.⁵ Second, governments at all levels have grown much more slowly since the 1973-75 recession than they did prior to that time, and personnel layoffs, budget reductions, and various productivity improvement schemes have become commonplace. For example, the Federal Government, 44 of the 50 State governments, and 59 of the Nation's 100 largest cities reported personnel layoffs during fiscal 1981 and 1982 and had planned some layoffs for fiscal 1983.⁶ Most of these layoffs were not formally subject to collective bargaining, but where they were, the most common union response was to press for seniority clauses to guide layoffs. Only where reductions in force could not be accomplished via attrition and where major layoffs seemed imminent have some organized public employees been willing to agree to concessions in collective bargaining.

Finally, present day concessions in public-sector bargaining appear mild in comparison with the concessions that characterized some public-sector bargaining relationships in the late 1970's. For example, in the wake of New York City's mid-1970's fiscal crisis, no general wage increases were granted between 1976 and 1980, various fringe benefits were reduced or eliminated, and municipal unions were called upon to invest \$2.3 billion of pension funds in city notes so as to prevent municipal bankruptcy.⁷ Further, such productivity improvement measures as one-person police patrol cars, two-man sanitation crews, and "broad-banding" were introduced during this period.⁸ Similar, if not as severe, measures emerged from collective bargaining in other local and State governments during the late 1970's.⁹ But, as economic conditions improved for some of these governments, including New York City, during the early 1980's, pay increases were negotiated and other—but

not all—characteristics of more "normal" bargaining re-emerged.

Implications for private-sector pacts

What lessons for private-sector collective bargaining can be learned from recent bargaining experiences in the public sector? Perhaps the main point is that the concept of a "sector" is overly encompassing, for it includes a wide range of bargaining experiences, relationships, and outcomes. According to the Bureau of Labor Statistics, the median first-year wage change in public-sector contracts negotiated during the first half of 1982 was 9.0 percent; yet we have seen that well over 100,000 public employees were parties to contracts that featured bargaining concessions, most notably pay freezes. (In the private sector during the same period, the median first-year wage change in major bargaining settlements ranged from zero in manufacturing, to 3.6 percent in nonmanufacturing, and to 7.2 percent in construction.)¹⁰

Another lesson is that the collective bargaining structure of a sector, while not immutable, is relatively stable. Almost no multi-employer bargaining takes place in the public sector, and this is as true today as it was before the mid-1970's slowdown in the growth of government in the United States. Coalition bargaining has emerged in New York City's government and in a few other jurisdictions, and this would appear to be a logical consequence of fiscal crisis;¹¹ but the overwhelming proportion of public-sector contracts are still negotiated on a single-employer, single-union basis. Similarly, in the private sector, where single-employer agreements slightly outnumber multi-employer agreements,¹² concession bargaining does not seem to have featured major changes in bargaining structure. This is not to deny that some changes in bargaining structure have occurred in U.S. industry¹³ or that "wage patterning" is becoming diluted as the parties weight productivity and ability to pay at the individual plant level more heavily than cost of living and pay comparability in making wage and benefit decisions. Rather, it is to underscore that, in 1982, private-sector labor agreements, including those containing concessions, have been reached largely through the same structural arrangements that characterized previous bargaining rounds.

A final lesson concerns the somewhat slippery matter of labor-management cooperation. In times of severe fiscal strain, numerous public employers have expanded the scope of bargaining, formed joint labor-management committees, and, in general, "invited" organized workers to play a larger role in management policy-making. The same seems to have occurred in 1982 in the private sector, especially in severely depressed industries, and has taken such specific forms as widened information

sharing, companywide quality-of-worklife and joint productivity committees, and profit-sharing arrangements.¹⁴ Perhaps the key analytical question here is whether the "expanded" union role in management that is implied by these practices and arrangements will persist, increase, or diminish over time. What little public-sector experience exists in this regard suggests that employers draw back from an expanded union role in management as fiscal strain eases.¹⁵ Further, one might expect that the U.S. labor movement, which today represents a shrinking proportion of the work force, loses more representation elections than it wins, and faces numerous employers and consultants bent on achieving a union-free environment, would oppose rather than support the concept of labor-management cooperation.

Nevertheless, through their contractual agreements, particularly those reached in 1982, private-sector union members have shown support (albeit limited) for cooperative arrangements with employers. Thus, it primarily rests with management to demonstrate that labor-management cooperation is not a passing, recession-associated fancy. Given that, in less than two decades, public-sector employers and managers have shown that they can accommodate unions and collective bargaining, negotiate concessions when circumstances warrant, and occasionally pursue cooperative arrangements with organized employees, it may be that private-sector employers are also capable of pursuing labor-management cooperation irrespective (and not solely because) of economic circumstances. However, only time can provide the empirical evidence of a link between contemporary concession bargaining and a lasting shift to a more consensual system of labor-management relations. □

—FOOTNOTES—

¹ See, for example, Audrey Freedman and William E. Fullmer, "Last Rites for Pattern Bargaining," *Harvard Business Review*, March-April 1982, pp. 30-48; John T. Dunlop, "Remarks by Former Secre-

tary of Labor Dunlop on 1982 Wage Developments Before Conference of Business Economists," *Daily Labor Report*, Feb. 23, 1982, pp. D1-D2; and, Audrey Freedman and others, *Labor Outlook 1983* (New York, The Conference Board, 1982).

² Robert B. McKersie and Peter Cappelli, "Concession Bargaining," Working Paper (Cambridge, Mass., Massachusetts Institute of Technology, Sloan School of Management, 1982), p. 20.

³ See U.S. Department of Labor, "BLS Introduces Data on the Size of Collective Bargaining Settlements Covering State and Local Government Employees," *News*, Aug. 18, 1980.

⁴ For example, the State of Washington deferred salary increases for higher-education employees that were scheduled to take effect in 1981.

⁵ See *Current Wage Developments*, September 1982, pp. 49-55. Little more than 300,000 public employees were in major bargaining units that negotiated new agreements with employers during the first half of 1982. I estimate that another 100,000 employees were in "minor" bargaining units.

⁶ See *Layoffs, RIFs and EEO in the Public Sector*, BNA Special Report (Washington, Bureau of National Affairs, 1982).

⁷ See David Lewin and Mary McCormick, "Coalition Bargaining in Municipal Government: The New York City Experience," *Industrial and Labor Relations Review*, January 1981, pp. 175-90.

⁸ See David Lewin, Peter Feuille, and Thomas A. Kochan, eds., *Public Sector Labor Relations: Analysis and Readings*, 2d ed. (Sun Lakes, Ariz., Horton and Daughters, 1981), pp. 177-78. The term "broad-banding" refers to the establishment of wider job classifications that permit greater flexibility and skill interchangeability.

⁹ *Ibid.*, pp. 17-24.

¹⁰ *Current Wage Developments*, August 1982, pp. 52-54. The median first-year wage settlement for all industries was zero during the first half of 1982.

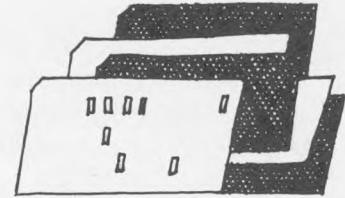
¹¹ See Lewin and McCormick, "Coalition Bargaining."

¹² See *Characteristics of Major Collective Bargaining Agreements, July 1, 1980*, BLS Bulletin 2095 (Bureau of Labor Statistics, 1982).

¹³ See, for example, Wallace E. Hendricks and Lawrence A. Kahn, "The Determinants of Bargaining Structure in U.S. Manufacturing Industries," *Industrial and Labor Relations Review*, January 1982, pp. 181-95.

¹⁴ See David Lewin and Audrey Freedman, *Information Sharing in Collective Bargaining* (New York, The Conference Board, 1983), forthcoming. The 1982 General Motors-UAW agreement provides for companywide quality-of-worklife and joint labor-management committees, and the Ford Motor Co.-UAW agreement contains a profit-sharing provision.

¹⁵ See, for example, Melvin H. Osterman, Jr., "Productivity Bargaining in New York—What Went Wrong?" in Lewin, Feuille, and Kochan, *Public Sector Labor Relations*, pp. 162-74.



Pay levels in hosiery manufacturing

HARRY B. WILLIAMS

Average earnings in women's hosiery mills in August 1981 were 57 percent above the level recorded in an earlier study in July 1976¹—a 9.3-percent annual rate of increase. Earnings in mills making other hosiery products rose 50 percent during the same period, or by 8.3 percent a year. In comparison, the Bureau's Employment Cost Index for nondurable goods manufacturing rose at an average annual rate of 8.4 percent between the third quarters of 1976 and 1981.

Straight-time earnings of production workers in hosiery mills averaged \$4.62 an hour in August 1981² according to the latest Bureau of Labor Statistics survey. Workers in mills producing women's full-length and knee-length hosiery averaged \$4.70; those in mills making other hosiery products averaged \$4.56.³ (See table 1.) Workers also commonly received paid holidays, vacations, various health and insurance plans, and retirement pension benefits.

Hosiery manufacturing is concentrated in the Southeastern States, which employed just over 90 percent of the 48,150 workers covered by the survey. Most of the remaining workers were in the Middle Atlantic States. Workers in these two regions averaged \$4.60 and \$4.79 an hour, respectively. Within regions, earnings varied by type of mill (commission or own account), size of community, location, product, and occupation.

Hourly earnings of virtually all workers covered by the survey were between the Federal minimum wage of \$3.35 and \$7 an hour. The middle 50 percent of the workers earned between \$3.91 and \$5.27 an hour in women's hosiery mills and between \$3.78 and \$5.10 in other hosiery mills.

Among the occupational classifications selected for separate study, average earnings in women's hosiery

mills ranged from \$4.21 an hour for boxers of hosiery products to \$6.28 for knitting-machine adjusters and fixers. Job averages above \$5 an hour also were recorded for preboarders (\$5.20), baggers (\$5.26), folders (\$5.32), and sewing-machine repairers (\$5.86). Sewing-machine operators joining parts of panty hose—numerically the most important job studied in women's hosiery mills—averaged \$4.78 an hour. Knitters of seamless hosiery averaged \$4.69.

Occupational averages in other hosiery mills ranged from \$3.65 for hand-finish menders to \$6.15 for knitting-machine adjusters and fixers. Sewing-machine repairers, at \$5.75, was the only other occupation in this industry averaging over \$5 an hour. Averages for the other occupations studied ranged between \$4.06 for preboarders and \$4.68 for dyeing-machine tenders. Automatic knitters and toe seamers accounted for the largest numbers of workers—slightly over 3,100 each; hourly earnings averaged \$4.43 and \$4.47, respectively.

Straight-time hourly earnings of individual workers within the same job and area varied widely, with hourly earnings of the highest paid workers frequently exceeding those of the lowest paid by \$2.50 or more. Thus, there was substantial overlap of individual earnings among jobs with disparate pay levels, a reflection of the widespread use of incentive wage systems in hosiery mills.

Almost three-fifths of the production workers were paid on an incentive basis, nearly always under individual piecework plans. Among the occupations studied, incentive pay plans applied to at least nine-tenths of the boarders, automatic-packaging-machine operators, baggers, folders and boxers, pairers, toe seamers, and sewing-machine operators in women's hosiery mills; and to at least nine-tenths of the boarders, folders, pairers, and toe seamers in other hosiery mills. Within the same occupation, workers paid on an incentive basis typically had higher average earnings than those paid time rates. The earnings advantage for incentive workers, however, was generally less than 15 percent.

Paid holidays were granted to seven-eighths of the workers in women's hosiery mills and to three-fourths of the work force in other hosiery mills. In women's hosiery mills, workers typically received 6 or 7 days annually; in other hosiery mills, provisions for between 3

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Table 1. Average hourly earnings and number of production workers in hosiery mills, by selected characteristics, August 1981

Characteristics	Women's hosiery		Other hosiery	
	Workers	Earnings ¹	Workers	Earnings ¹
United States ²	20,089	\$4.70	28,035	\$4.56
Region and locality				
Middle Atlantic	—	—	1,026	4.81
Southeast ³	18,633	4.68	25,923	4.54
North Carolina	13,126	4.64	19,026	4.57
Winston-Salem-High Point, N.C.	6,459	4.74	9,045	4.56
Hickory-Statesville, N.C.	—	—	4,628	4.70
Tennessee	—	—	3,054	4.40
Size of community				
Metropolitan areas ⁴	9,394	4.69	8,699	4.60
Nonmetropolitan areas	10,695	4.71	19,336	4.54
Size of establishment				
Less than 100 workers ⁵	1,353	4.34	5,755	4.35
100-249 workers	2,174	4.37	11,582	4.49
250 workers or more	16,562	4.77	10,698	4.75
Selected occupations				
Adjusters and fixers, knitting machines ..	1,101	6.28	2,803	6.15
Automatic-packaging-machine operators ..	69	4.98	—	—
Baggers	408	5.26	168	4.36
Boarders, automatic	343	4.60	2,474	4.39
Boarders, other than automatic	394	4.34	320	4.23
Boxers	49	4.21	123	4.26
Dyeing-machine tenders	232	4.67	611	4.68
Examiners (hosiery inspectors) ⁶	1,419	4.75	998	4.34
Grey (greige) examiners	1,223	4.74	642	4.40
Finished examiners	635	4.70	308	4.24
Folders	214	5.32	268	4.16
Folders and boxers	2,152	4.28	1,592	4.32
Knitters, automatic	80	4.37	3,147	4.43
Knitters, string	—	—	586	4.59
Knitters, women's seamless hosiery	511	4.69	—	—
Menders, hand, finish	80	4.41	105	3.65
Menders, hand, grey	—	—	70	4.18
Pairers	107	4.77	1,916	4.47
Repairers, sewing machine	129	5.86	66	5.75
Seamers, toe	1,494	4.66	3,134	4.47
Sewing-machine operators, party hose ..	4,539	4.78	—	—
Transfer-machine operators	39	4.44	191	4.37

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.
² Includes data for regions in addition to those shown separately.
³ Includes data for States and localities in addition to those shown separately.
⁴ Standard Metropolitan Statistical Areas as defined by the U.S. Office of Management and Budget through February 1974.
⁵ Includes data for establishments employing 50 workers or more in women's hosiery and 20 workers or more in other hosiery mills.
⁶ Includes data for workers in classifications in addition to those shown separately.
 Note: Dashes indicate no data reported or data that do not meet publication criteria.

and 6 days were common. Slightly more than nine-tenths of the workers in women's hosiery and four-fifths of those in other mills were in establishments providing paid vacations after qualifying periods of service. Typical provisions for women's hosiery workers were 1 week after 1 year of service, 2 weeks after 3 years, 3 weeks after 10 years, and 4 weeks after 20 years or more. In other hosiery mills, typical provisions were 1 week's pay after 1 year and 2 weeks after 4 years or more of service. Various health and insurance plans also were available to large proportions of workers, although the incidence of the plans varied by type of hosiery mill and geographic location. Retirement pension plans—other

than Federal social security—applied to two-thirds of the workers in women's hosiery mills and to two-fifths in other hosiery mills.

The study included establishments engaged primarily in knitting, dyeing, or finishing full-fashioned or seamless hosiery. These establishments were classified into two broad categories: (1) those primarily making women's full-length or knee-length hosiery, and (2) those primarily making hosiery, except women's full-length and knee-length. In August 1981, the 313 hosiery mills within the scope of this survey employed 20,107 production workers in women's hosiery mills and 28,032 production workers in other hosiery mills. Less than 5 percent were in mills operating under labor-management agreements.

Separate releases for selected States and areas of hosiery industry concentration (Tennessee; North Carolina; Hickory-Statesville and Winston-Salem-High Point, N.C.) are available from the Bureau or any of its regional offices. A comprehensive bulletin, *Industry Wage Survey: Hosiery, August 1981*, is for sale by the Superintendent of Documents, Washington, D.C. 20402. □

—FOOTNOTES—

¹ See "BLS examines pay in hosiery mills," *Monthly Labor Review*, August 1978, pp. 44-45. For full details of the survey, see *Industry Wage Survey: Hosiery, July 1976*, Bulletin 1987 (Bureau of Labor Statistics, 1977).

² Earnings data in this article exclude premium pay for overtime and for work on weekends, holidays, and late shifts.

³ The survey excluded women's hosiery mills employing fewer than 50 workers and other hosiery mills employing fewer than 20 workers.

Hourly pay of contract cleaners lags but sweeps past weekly gains

NORMA W. CARLSON

Average hourly earnings of service workers in contract cleaning establishments rose more rapidly between 1977 and 1981 than their average weekly earnings because of widespread declines in hours worked. Nevertheless, increases in hourly earnings for cleaning workers generally lagged behind gains in the service worker component of the Bureau of Labor Statistics Employment Cost Index.

These findings resulted from a comparison of two Bureau of Labor Statistics surveys of occupational wages and employee benefits in contract cleaning services.¹ The

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survey taken in July 1977 covered approximately 151,000 service workers in 24 metropolitan areas; the survey conducted in July 1981 involved about 160,000 service workers in the same areas.² Both surveys developed separate wage information for five key industry occupations: light cleaners, heavy cleaners, floor waxers, exterminators, and window cleaners.³ These occupations accounted for at least nine-tenths of the regularly employed service workers in 19 of the 24 areas studied in 1981. In the remaining five areas, at least four-fifths of the workers were represented by these jobs.

Between 1977 and 1981, the average annual rate of increase in average hourly earnings in contract cleaning establishments ranged from 2.5 percent in Detroit to 11.7 percent in Baltimore (table 1). In most areas, average annual gains were within a 6 to 8 percent band. Between the second quarters of 1977 and 1981, the Bureau's Employment Cost Index for service workers rose at an 8 percent average annual rate.

At the same time, the growth in average weekly earnings of cleaning workers lagged behind the rise in hourly earnings in 14 of the 24 areas because hours worked per week declined (table 1). In Detroit, average weekly earnings actually fell—from \$125 to \$113.50—as the average workweek dropped from 31 to 25 hours. However, average weekly earnings in eight areas grew faster

Table 2. Service workers in contract cleaning establishments earning within 10 cents above the Federal minimum, 24 metropolitan areas, 1977 and 1981

[In percent]

Area	Workers with straight-time hourly earnings of—	
	\$2.30 to \$2.40 (1977)	\$3.35 to \$3.45 (1981)
Northeast:		
Boston	4.5	4.7
Nassau-Suffolk	1.0	12.2
Newark	—	18.5
New York .....	.2	4.5
Philadelphia	1.8	19.1
Pittsburgh	28.9	29.4
South:		
Atlanta	54.9	67.4
Baltimore	65.3	56.7
Dallas-Fort Worth	47.2	49.2
Houston	49.1	70.0
Memphis	76.5	81.5
Miami	32.3	53.2
New Orleans	22.1	42.4
Washington	14.1	25.4
North Central:		
Chicago	1.5	6.7
Cleveland	1.9	10.9
Detroit	2.1	24.0
Kansas City .....	.2	12.4
Minneapolis-St. Paul	1.9	.3
St. Louis	16.5	36.2
West:		
Denver-Boulder	5.6	22.6
Los Angeles-Long Beach	—	8.3
San Francisco-Oakland	—	.6
Seattle-Everett	1.6	—

NOTE: Dashes indicate no data available.

Table 1. Annual change in average earnings and hours of service workers in contract cleaning establishments, July 1977–July 1981, 24 metropolitan areas

[In percent]

Area	Average hourly earnings	Average weekly earnings	Average weekly hours
Northeast:			
Boston	5.9	3.8	-1.6
Nassau-Suffolk	8.3	7.5	-.5
Newark	4.4	2.9	-1.8
New York	6.7	7.9	+1.2
Philadelphia	6.0	3.2	-2.6
Pittsburgh	10.7	11.4	+ .6
South:			
Atlanta	8.6	11.6	+2.8
Baltimore	11.7	12.7	+1.1
Dallas-Fort Worth	8.1	8.6	+ .6
Houston	9.8	12.5	+2.6
Memphis	10.5	7.7	-2.4
Miami	7.3	3.8	-3.2
New Orleans	11.0	11.1	0
Washington	7.9	6.9	-.5
North Central:			
Chicago	7.5	6.8	-.7
Cleveland	6.7	5.4	-.9
Detroit	2.5	-2.4	-5.2
Kansas City	5.4	2.5	-2.7
Minneapolis-St. Paul	7.2	5.0	-2.5
St. Louis	6.5	5.3	-1.5
West:			
Denver-Boulder	6.9	4.2	-2.8
Los Angeles-Long Beach	7.3	8.1	+ .8
San Francisco-Oakland	9.9	10.0	0
Seattle-Everett	7.7	8.2	+ (1)

¹ Less than 0.5 percent.

than hourly rates because of longer workweeks in 1981. In two areas, average workweeks remained the same.

Pay rates of contract cleaning workers traditionally have clustered in narrow bands, often near the Federal minimum wage. This concentration shows the relatively low level of skills and the narrow range of tasks typically required of these workers. For example, light and heavy cleaners accounted for five-sixths of the July 1981 service work force in the 24 areas combined. The Federal minimum wage advanced more rapidly than average hourly earnings of contract cleaning workers, and many individuals found their wages closer to the Federal floor in 1981 than in 1977.⁴ The increase in the proportion of workers whose pay clustered just above the minimum is shown in table 2.

Between 1977 and 1981, nearly all of the metropolitan areas studied (21 of 24) experienced an increase in the proportion of service workers in contract cleaning establishments who were earning no more than 10 cents above the minimum wage. In some areas, the rise was modest. For example, in Dallas-Fort Worth, the percentage of workers falling within the 10-cent band moved up to 49.2 percent in 1981 from 47.2 percent in 1977. But in Detroit, about 24 percent of the service workers earned no more than 10 cents above the minimum in 1981, up from 2.1 percent in 1977.

Occupational earnings in 1981

Light cleaners—who perform duties such as sweeping and dry mopping floors, dusting furniture, and emptying waste baskets—and heavy cleaners—who operate motor-driven cleaning equipment, move furniture, and wash walls—accounted for the bulk of the workers in the contract cleaning establishments surveyed in 1981. Exterminators, floor waxers, and window cleaners, combined, usually accounted for one-tenth or less of the service workers in each area.

On an hourly basis, light cleaners generally were the lowest paid, while window cleaners were the highest paid (table 3). Light cleaners, typically averaging less than 25 hours per week, usually worked fewer hours than workers in the other jobs studied. Heavy cleaners typically averaged 10 to 18 percent an hour more than light cleaners. Their weekly wage advantage was even larger because of longer hours. In 11 areas where comparisons could be made, window cleaners averaged more per hour than exterminators; but longer hours for exterminators—often 40 and over per week—reversed this relationship on a weekly basis.

Benefits vary by area

A majority of the service workers in all but five areas—Atlanta, Dallas, Memphis, Miami, and Minneapolis—were in establishments providing paid holidays, usually 6 to 10 days annually. Establishments also provided paid vacations, after qualifying periods of service, for a majority of workers in all but seven areas. Typical provisions included at least 1 week of pay after 1 year of service, 2 weeks after 2 or 3 years, 3 weeks after 10 years, and 4 weeks or more after at least 15 years.

A majority of the service workers in one-half of the areas studied were in contract cleaning establishments providing various health and insurance benefits. Typically financed solely by the employer, these benefits most frequently included life, hospitalization, surgical, and basic medical insurance. Sickness and accident insurance or paid sick leave, or both, applied to a majority of the workers in nine areas. Major medical insurance was available to at least a majority in six areas, and to between one-fifth and one-half of the workers in five areas.

Retirement pension plans, other than social security,

Table 3. Average earnings and hours: selected occupations in contract cleaning establishments, 24 metropolitan areas, July 1981

Area	Light Cleaners			Heavy Cleaners			Floor Waxers			Exterminators			Window Cleaners		
	Average hourly earnings	Average weekly hours	Average weekly earnings	Average hourly earnings	Average weekly hours	Average weekly earnings	Average hourly earnings	Average weekly hours	Average weekly earnings	Average hourly earnings	Average weekly hours	Average weekly earnings	Average hourly earnings	Average weekly hours	Average weekly earnings
Northeast:															
Boston	\$4.00	21.0	\$83.50	\$3.88	30.0	\$116.00	—	—	—	\$6.53	44.0	\$287.00	\$6.99	32.5	\$226.00
Nassau-Suffolk	4.02	22.5	90.00	—	—	—	4.63	30.5	142.00	5.45	41.5	226.00	—	—	—
Newark	3.88	24.5	95.50	4.27	27.0	116.00	4.47	28.5	126.50	—	—	—	5.52	37.5	207.00
New York	5.96	30.5	180.50	6.72	35.0	236.50	6.23	33.5	209.50	6.84	39.0	267.00	8.53	38.5	329.00
Philadelphia	4.18	25.0	103.50	4.75	28.0	133.00	4.22	24.5	103.00	6.39	41.0	262.50	—	—	—
Pittsburgh	3.99	22.0	88.00	4.72	31.5	147.50	3.76	24.0	90.50	—	—	—	6.13	35.5	216.50
South:															
Atlanta	3.48	23.5	81.50	3.50	21.0	73.00	4.47	34.0	152.00	5.34	42.0	223.50	—	—	—
Baltimore	4.26	24.0	101.50	—	—	—	—	—	—	6.09	39.0	236.00	—	—	—
Dallas-Fort Worth	3.58	19.5	70.50	3.86	20.0	77.50	4.06	24.0	98.50	6.39	41.5	265.00	6.81	36.0	243.50
Houston	3.42	23.5	81.00	3.62	30.5	110.50	3.87	25.5	99.00	6.34	41.0	258.50	7.04	36.5	257.00
Memphis	3.40	17.5	59.00	—	—	—	4.01	24.0	95.50	6.43	40.5	261.00	—	—	—
Miami	3.50	22.5	79.00	3.79	33.5	126.50	3.98	26.5	106.00	6.90	41.0	284.50	—	—	—
New Orleans	3.92	24.5	96.50	3.46	19.5	67.00	—	—	—	7.37	40.5	297.50	—	—	—
Washington	3.76	20.5	76.00	4.32	27.0	116.50	4.24	24.5	104.50	5.78	40.5	233.00	—	—	—
North Central:															
Chicago	5.12	25.0	128.00	5.93	35.0	209.00	—	—	—	6.66	43.0	287.00	8.84	37.5	331.50
Cleveland	4.72	25.0	118.50	5.25	29.0	151.50	4.62	28.5	130.50	6.34	39.0	247.50	8.20	40.5	332.50
Detroit	4.26	24.5	104.00	4.87	26.0	126.50	—	—	—	6.74	41.5	281.00	7.06	32.5	230.50
Kansas City	3.90	18.5	72.00	3.88	27.0	105.50	4.79	31.5	152.00	—	—	—	6.70	24.0	162.00
Minneapolis-St. Paul	4.29	16.0	69.50	5.75	25.5	145.50	5.45	32.5	178.00	6.30	45.0	283.50	6.78	33.0	225.50
St. Louis	3.56	22.0	79.00	—	—	—	3.69	25.5	94.50	5.25	40.0	211.00	6.83	36.0	246.50
West:															
Denver-Boulder	3.90	19.0	73.00	4.29	25.5	108.50	4.37	19.5	85.00	5.24	41.0	215.50	6.71	30.0	201.50
Los Angeles-Long Beach	4.95	31.5	155.50	—	—	—	5.94	35.0	209.50	8.68	40.0	349.00	7.88	37.0	292.00
San Francisco-Oakland	8.07	35.5	288.50	7.73	36.5	282.00	8.99	37.5	337.00	9.18	40.0	367.00	9.99	37.5	376.00
Seattle-Everett	5.70	28.5	163.00	—	—	—	6.27	28.0	176.00	—	—	—	9.03	36.0	326.50

NOTE: Earnings information excludes premium pay for overtime and for work on weekends and holidays, but includes premium pay for late shift and hazardous work, if any. Average hourly earnings were obtained by dividing aggregated weekly earnings by aggregated weekly hours. Average weekly earnings were obtained by dividing aggregated weekly earnings by the total

number of workers. Weekly earnings were rounded to the nearest half dollar and weekly hours to the nearest half hour.

Dashes indicate no data or data do not meet publication criteria.

were available to one-half or more of the workers in seven areas, to between one-fourth and one-half in four areas, and to less than one-fifth in the remaining thirteen. Such plans were nearly always financed solely by the employer.

Janitorial services predominate

Of the various types of contract cleaning establishments, those providing primarily janitorial services accounted for at least 86 percent of the workers in every area, with the proportion reaching 95 percent or more in 14 areas. Virtually all workers in 15 areas were employed by contractors doing business principally with private firms or individuals. Establishments whose contracts were mainly with government agencies—whether Federal, State, or local—employed between one-tenth and about one-fifth of the workers in Baltimore, Newark, New Orleans, and Washington, and less than one-tenth in the remaining areas.

Cleaning establishments employing at least 100 workers accounted for only one-seventh of the contractors covered by the 1981 survey. However, they employed at least one-half of the service workers in 20 of the 24 areas. In three areas—Chicago, Houston, and New York—at least six-tenths of the workers were in establishments with 500 workers or more.

Contract cleaning establishments traditionally have hired large numbers of workers on a regular part-time basis, generally to perform routine janitorial tasks. Slightly under three-fifths of the 1981 work force in the 24 areas combined were regularly employed part time. The ratio varied by location, from just over one-tenth in San Francisco to nearly nine-tenths in Memphis. Twelve areas reported more than two-thirds of the workers on part-time schedules.

In 10 of the areas studied, a majority of the service workers were in establishments where labor-management agreements covered at least 50 percent of the workers. In 10 other areas, 15 to 45 percent of the

workers were employed where agreements covered one-half or more of the workers. None of the establishments visited in four areas—Dallas, Houston, Memphis, and Miami—had contracts covering a majority of all service workers. Nearly all agreements were with the Service Employees' International Union (AFL-CIO).

Separate releases on wages and benefits for each of the 24 areas studied are available from the Bureau or its regional offices. A comprehensive bulletin, *Industry Wage Survey: Contract Cleaning Services, July 1981*, is for sale by the Superintendent of Documents, Washington, D.C. 20402. □

FOOTNOTES

¹ For a summary account of the 1977 study, see "Area pay differentials pinpointed in cleaning services," *Monthly Labor Review*, February 1979, pp. 64–65. For full details of both studies, see *Industry Wage Survey: Contract Cleaning Services, July 1981*, Bulletin 2152, and *July 1977*, Bulletin 2009 (Bureau of Labor Statistics). The surveys in 1981 and 1977 included establishments employing eight workers or more which were classified in Industry Group 734, as defined in the 1972 edition of the *Standard Industrial Classification Manual* prepared by the U.S. Office of Management and Budget. This group included SIC 7341 (Window Cleaning), SIC 7342 (Disinfecting and Exterminating Services), and SIC 7349 (Cleaning and Maintenance Services to Dwellings and Other Buildings).

² Service workers, as defined for the industry study, include working supervisors and all regularly employed full- and part-time non-supervisory workers engaged in performing nonoffice functions. Casual workers—those hired on a job basis—were excluded.

³ Information on wages relates to straight-time hourly earnings, excluding premium pay for overtime and for work on weekends and holidays. Premium pay for late-shift work and for hazardous work was included in straight-time earnings for workers receiving such payments. Group average hourly earnings were obtained by dividing aggregate weekly earnings by aggregate weekly hours. For earnings distributions (table 2), however, workers were distributed among specified earnings classes according to their individual hourly rates. Average weekly earnings were obtained by dividing aggregate weekly earnings by the total number of workers.

⁴ A \$2.30 minimum wage became effective July 1, 1976, under 1974 amendments to the Fair Labor Standards Act. The 1977 amendments to the act provided for the following hourly minimum wage standards and effective dates: \$2.65 (Jan. 1, 1978); \$2.90 (Jan. 1, 1979); \$3.10 (Jan. 1, 1980); and \$3.35 (Jan. 1, 1981).

Major Agreements Expiring Next Month



This list of collective bargaining agreements expiring in April 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.

Employer and location	Industry	Labor organization ¹	Number of workers
ACF Industries, Inc., W-K-M Valve Division (Missouri City, Tex.)	Machinery	Machinists	1,050
Allied Employers, Inc. (Washington)	Retail trade	Food and Commercial Workers	1,700
Allied Employers, Inc. (King-Snohomish Counties, Washington)	Retail trade	Food and Commercial Workers	5,000
Ambac Industries, Inc., American Bosch Division (Springfield, Mass.)	Transportation equipment	Electrical Workers (IUE)	1,200
Area Grocers Association (Wisconsin and Minnesota)	Retail trade	Food and Commercial Workers	1,500
Associated General Contractors of America:			
Central Illinois Builders Chapter	Construction	Carpenters	3,350
Lake Charles Chapter (Louisiana)	Construction	Laborers	2,000
Mississippi Chapter (Central Mississippi)	Construction	Building and Construction Trades Council	1,000
St. Louis Chapter (Missouri)	Construction	Laborers	2,600
Associated General Contractors of Massachusetts, Inc. and 1 other, 2 agreements	Construction	Laborers and Operating Engineers	14,300
Associated Hospitals of East Bay, Inc. (San Francisco, Calif.)	Hospitals	Service Employees	1,100
Associated Mechanical Contractors of Chattanooga, Inc. (Interstate)	Construction	Plumbers	1,300
Bendix Corp., Master Agreement (Interstate)	Transportation equipment	Auto Workers	6,100
Bergen-Passaic Building Contractors Association (New Jersey)	Construction	Carpenters	1,000
Builders Association of Tazewell County and 5 others (Peoria, Ill.)	Construction	Carpenters	3,500
Carrier Corp., BDP Co., La Puente Operations Division (California)	Machinery	Laborers	1,000
Chicago Lithographers Association (Illinois)	Printing and publishing	Graphic Arts	4,200
Clark Equipment Co., Transmission Division (Jackson, Mich.)	Transportation equipment	Allied Industrial Workers	1,000
Clark Equipment Co., Industrial Truck Division (Battle Creek, Mich.)	Machinery	Allied Industrial Workers	1,550
Cleveland Electric Illuminating Co. (Ohio)	Utilities	Utility Workers	2,700
Construction Contractors Council, Inc., 2 agreements (Maryland, District of Columbia, and Virginia)	Construction	Laborers	4,800
Construction Contractors Council, Inc. (Maryland, District of Columbia, and Virginia)	Construction	Operating Engineers	1,000
Construction Industries of Massachusetts	Construction	Operating Engineers	4,300
Contractors Association of Eastern Pennsylvania	Construction	Carpenters, Laborers, and Teamsters (Ind.)	4,500
Dana Corp., Weatherhead Division (Ohio and Indiana)	Transportation equipment	Auto Workers	1,700
Dayco Corp., Southern Division (Waynesville, N.C.)	Rubber	Rubber Workers	1,500
Denver Retail Grocers (Colorado) ²	Retail trade	United Food and Commercial Workers	2,000
E. I. Dupont de Nemours and Co. (Martinsville, Va.)	Chemicals	Martinsville Nylon Employees Council Corp. (Ind.)	3,200
E. I. Dupont de Nemours and Co. (Waynesboro, Va.)	Chemicals	United Workers, Inc. (Ind.)	1,450
Exxon Corp., Exxon Co., U.S.A. (Baytown, Tex.)	Petroleum	Gulf Coast Industrial Workers Union (Ind.)	1,500
Fischer & Porter Co. and 2 others (Pennsylvania)	Instruments	Independent Union of Rotameter Workers	1,500
Foundation-Marine Contractors Association of New England (Interstate)	Construction	Operating Engineers	4,300
General Building Contractors Association, Inc. (Pennsylvania)	Construction	Carpenters	6,000
General Public Utilities Corp., Metropolitan Edison Co. (Pennsylvania)	Utilities	Electrical Workers (IBEW)	1,550
Gould, Inc. (Interstate)	Electrical products	Electrical Workers (IBEW)	2,000
Gould, Inc. (Philadelphia, Pa.)	Electrical products	Auto Workers	2,800
Great Atlantic & Pacific Tea Co., Inc. Bakery/Grocery Division (Horseheads, N.Y.)	Food products	Teamsters (Ind.)	1,250
Greater Peoria Contractors and Suppliers Association, Inc. (Illinois)	Construction	Laborers	1,450
Health Care Service Corp. (Chicago, Ill.)	Insurance	Teamsters (Ind.)	1,850
Heavy Contractors Association of Greater Kansas, 2 agreements (Interstate)	Construction	Laborers and Operating Engineers	3,250
Home Builders Association (St. Louis, Mo.)	Construction	Carpenters	3,000
Hoover Co. (Canton, Ohio)	Electrical products	Electrical Workers (IBEW)	3,400

See footnotes at end of table.

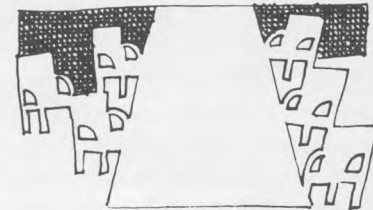
Continued—Major Agreements Expiring Next Month

Employer and location	Industry	Labor organization ¹	Number of workers
J. P. Stevens and Co., Inc. (North Carolina)	Textiles	Clothing and Textile Workers	2,600
J. R. Simplot Co., Food Processing Plant, (Caldwell, Idaho)	Food products	Teamsters (Ind.)	1,100
Keystone Consolidated Industries, National Lock Division (Rockford, Ill.)	Fabricated metal products	Auto Workers	1,100
Kroger Co., Detroit Branch (Michigan)	Retail trade	United Food and Commercial Workers	3,650
Latchford Glass Co. (Interstate)	Stone, clay, and glass products	Glass, Pottery, Plastics and Allied Workers	1,100
Leviton Manufacturing Co., Inc. (Rhode Island)	Electrical products	Electrical Workers (IBEW)	1,600
McCall Corp., McCall Printing Co. (Ohio)	Printing and publishing	Graphic Arts	1,200
Mechanical Contractors Association of Eastern Pennsylvania, Inc.	Construction	Plumbers	1,000
Mechanical Contractors Association of Pennsylvania	Construction	Plumbers	3,800
Milwaukee Area Retail Meat Industry (Wisconsin) ²	Retail trade	Food and Commercial Workers	2,200
Minneapolis Area Hotels and Motels (Minnesota)	Hotels	Hotel Employees and Restaurant Employees	1,700
Minneapolis Automobile Dealers Association (Minnesota)	Retail trade	Teamsters (Ind.)	1,200
National Electrical Contractors Association, Inc., Nassau and Suffolk Chapter (New York)	Construction	Electrical Workers (IBEW)	2,200
National Electrical Contractors Association, Inc., Washington, D.C. Chapter	Construction	Electrical Workers (IBEW)	2,200
New York Druggists Association (New Jersey and New York)	Retail trade	Food and Commercial Workers	3,500
Nevada Resort Association (Las Vegas, Nev.)	Hotels	Teamsters (Ind.)	2,500
North Texas Contractors Association, 2 agreements	Construction	Carpenters and Laborers	7,000
Ohio Contractors Association (Ohio and Kentucky)	Construction	Operating Engineers	11,000
Ohio Contractors Association and 1 other, 2 agreements (Ohio and Kentucky)	Construction	Bricklayers and Laborers	13,600
Ohio Contractors Association and 1 other (Ohio and West Virginia)	Construction	Teamsters (Ind.)	1,400
Owens-Illinois, Inc. (Interstate)	Rubber	Glass, Pottery, Plastics and Allied Workers	1,300
Pierce County Grocery Agreement (Washington)	Retail trade	Food and Commercial Workers	1,450
Pipe Line Contractors Association, National Agreement (Interstate)	Construction	Plumbers	10,000
Plumbing, Heating and Air Conditioning Contractors (Pennsylvania)	Construction	Plumbers	1,500
Printing Industry of Twin Cities (Minnesota) ²	Printing and publishing	Graphic Arts	1,700
Retail Meat Markets (Michigan) ²	Retail trade	Food and Commercial Workers	3,000
Roofing and Sheet Metal Contractors Association of Philadelphia (Pennsylvania)	Construction	Sheet Metal Workers	1,500
Roofing and Sheet Metal Contractors Association (Interstate)	Construction	Sheet Metal Workers	2,000
Sheet Metal and Air Conditioning Contractors National Association, Inc. (St. Louis, Mo.)	Construction	Sheet Metal Workers	1,200
Store Fixture and Architectural Woodwork Institute (California)	Furniture	Carpenters	1,300
Television and Radio Commercial Announcements Agreement (Interstate) ²	Amusements	Musicians	5,000
United Aircraft Corp., Hamilton Standard Division (Connecticut)	Transportation	Machinists	3,000
Virginia Association of Contractors, Inc.	Construction	Laborers	3,000
Washington Metal Trades, Inc. (Seattle, Wash.)	Machinery	Machinists	3,000
Washington Metal Trades, Inc. (Seattle, Wash.)	Fabricated metal products	Boilermakers	2,500
West Penn Power Co. (Pennsylvania)	Utilities	Utility Workers	1,100
West Tennessee Bargaining Group, Inc. (Memphis, Tenn.)	Construction	Carpenters	1,500
Western Illinois Contractors Association, Peoria and Tazewell Counties (Illinois)	Construction	Laborers	1,450

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

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

Developments in Industrial Relations



Contract talks start again in steel industry

After a January meeting of the Steelworkers' wage policy committee, union president Lloyd McBride announced that he would again seek early negotiations with the eight Coordinating Committee Steel Companies, despite unsuccessful bargaining in July and November of 1982. His goal was to have a settlement by March 1.

The union's determination to attain a settlement was intensified by the possibility that U.S. steel consumers might turn to foreign producers to assure an uninterrupted supply of steel. For example, General Motors Corp. had announced that it could not wait beyond March to award steel contracts for its 1984 models.

In a move that will apparently increase the possibility of winning approval of any concessionary accord with the eight Coordinating Committee Steel Companies, the Steelworkers' 29-member executive board substantially reduced the membership of the Basic Steel Industry Conference which, since 1966, has had the final decision on all settlements in the industry. Now, the final vote on an accord will be cast by local union presidents from the eight companies and by district directors and members of the executive board, or a total of about 333 people. Previously, some 300 local union presidents from other steel companies also were eligible to vote. The executive board did not extend the voting exclusion to the 90 local union presidents of nonsteel operations of the eight companies, although they played an important role in the defeat of the November accord. They opposed that settlement because it would have excluded their 9,000 members from coverage under agreements for the companies' steel-producing employees.

Operations in the steel industry continued at about one-third of capacity. McBride contends that the industry's financial difficulty was a "temporary cash-flow problem" that will disappear when the recession ends. However, this view contrasted with that of some steel industry officials who contend that the industry is beset

by high labor costs which prevent it from competing effectively with foreign producers.

In a related development, Eastmet Corp.'s Eastern Stainless Steel Co. and the Steelworkers agreed that the Baltimore plant's 1,100 employees would continue to work through any work stoppage that might occur when the union's agreements with the Coordinating Committee Steel Companies expire. In return, Eastmet agreed to match any wage-and-benefit changes the union negotiates with the coordinating committee. For the year ending June 30, 1982, Eastern Stainless had a loss of \$12.9 million on sales of \$216 million.

Steel producers still pressing for wage cuts

Wheeling-Pittsburgh Steel Corp. and the Steelworkers agreed on a 3½-year contract that superseded the balance of a contract that had been scheduled to expire in November. Terms included an immediate wage-and-benefit reduction reportedly averaging about \$3.65 an hour, which will be restored by the end of the contract; a new fund to aid laid-off workers who have exhausted their regular Supplemental Unemployment Benefits (the fund will be financed using some of the lost wages); establishment of a profit-sharing plan; additional restrictions on contracting out of work; and a guarantee that the company will not close any covered plants during the agreement term. The concession accord, which covered more than 10,000 workers, followed an April 1982 settlement in which the workers gave labor cost concessions in exchange for shares of preferred stock. (See *Monthly Labor Review*, June 1982, p. 64.)

Laclede Steel Co. of St. Louis also was pressing the Steelworkers for additional wage-and-benefit concessions. In June 1982, the union had agreed to a 4-month, 15 percent reduction in pay, and to defer until January 1983 a wage increase and automatic cost-of-living pay increase scheduled for August 1982. Company president John B. McKinney said that further aid was necessary because the company had lost \$5.6 million during the first 9 months of 1982 and that the "situation had worsened greatly" since then.

In a cost-cutting move that could help persuade Steelworkers' members to accept concessions, U.S. Steel

"Developments in Industrial Relations" is prepared by George Ruben of the Division of Developments in Labor-Management Relations, Bureau of Labor Statistics, and is largely based on information from secondary sources.

Corp. cut the pay of 28,000 nonunion management, salaried, and hourly workers. This was in addition to pay-and-benefit reductions and a freeze on cost-of-living allowances imposed in July. (See *Monthly Labor Review*, August 1982, p. 56.) Earlier in 1982, other steel companies also had imposed pay-and-benefit cuts for nonunion employees.

Early settlement at Rockwell International

Rockwell International Corp. and three unions settled more than 3 months in advance of the scheduled March 31, 1983, expiration date of their current agreements. The new contracts were effective immediately and will run to February 28, 1986. Rockwell, which had reported losses for the past 2 years, had sought wage concessions. The accords did not provide for any specified wage increases over the term, but the 8,000 workers received a \$500 lump-sum payment immediately, and they will receive an additional \$500 on December 1, 1983, and \$250 on December 1, 1984.

The unions agreed to suspend operation of the automatic cost-of-living pay adjustment formula until February 1, 1984, when quarterly adjustments will resume at the rate of 1 cent an hour for each 0.3-point movement in the Consumer Price Index for Urban Wage Earners and Clerical Workers (1967=100). There also were improvements in insurance and an increase in second shift premium.

The coordinated bargaining approach by the three unions—the International Brotherhood of Electrical Workers, the Machinists, and the International Union of Electrical Workers—was part of the drive the AFL-CIO's Industrial Union Department began in the mid-1960's to strengthen its member unions' ability to deal with employers. The settlement covered Rockwell plants in Texas, California, Iowa, and Canada.

American Home Products settle with five unions

Using a coordinated bargaining approach, five unions settled with American Home Products Corp. for 4,900 workers at 13 plants. The 3-year contracts provided for wage increases of 7 percent in the first and second years, and 5 percent in the third. Pension improvements included a three-step \$3.50 increase in the benefit rate, bringing it to \$18.50 a month for each year of credited service in January 1985; a 9-percent reduction in benefits for employees retiring at age 62, instead of the previous 15 percent; and an increase in benefits for pre-1980 retirees.

The unions involved in the settlement were the Food and Commercial Workers; the Chemical Workers; the Oil, Chemical and Atomic Workers; the Steelworkers; and the Retail, Wholesale and Department Store Union.

Trans World, Hawaiian Airlines accords

A threatened end-of-the-year holiday strike was averted when Trans World Airlines and the Machinists union settled on a 3-year contract. Terms for the 10,000 mechanics and other ground service workers included pay increases of 10 percent retroactive to November 1, 1981, 10.1 percent retroactive to November 1, 1982, 3.7 percent on September 1, 1983, and 4.5 percent on June 1, 1984. Shift and license premiums were increased and the pension rate was raised to a range of \$22 to \$27 a month for each year of credited service.

Elsewhere, Hawaiian Airlines decided to stay in business after its three unions agreed to contract concessions to aid the inter-island carrier. Company head John H. Magoon, Jr. said, "We needed those concessions in order to be competitive in this deregulation climate we're in, and to meet our competition squarely." The airline lost \$12.9 million during the first 9 months of 1982. Much of the airline's financial difficulties began when mid-Pacific Airlines, a nonunion carrier with lower operating costs, entered the market and offered lower fares than Hawaiian Airlines.

The contract changes accepted by the 1,100 members of the three unions were expected to total about \$10 million in 1983. The concessions for members of one of the unions, the Air Line Pilots Association, included a 15-percent reduction in pay. The other unions involved were the Machinists and the Association of Flight Attendants. Despite the concessions, there were expected to be additional layoffs, along with those implemented prior to the settlements.

Hatters Union to merge with Clothing Workers

The 160-year-old, 10,000-member United Hatters, Cap and Millinery Workers Union voted to become a division of the Amalgamated Clothing and Textile Workers Union. Murray H. Finley, president of the Clothing Workers, explained that ". . . with the depressed economy, it makes sense to join our forces and mobilize for the future."

Labor cost concessions save newspaper

Continued operation of the Boston Herald American was assured when members of 11 unions approved labor cost concessions sought by publishing magnate Rupert Murdoch as a condition to buying the ailing morning newspaper from the Hearst Corp. The Hearst Corp. had indicated that it would close the paper if a settlement was not reached.

The expected \$7 million a year reduction in costs will be attained primarily by reducing the number of employees by about one-third. The 275 affected employees will

receive severance payments averaging about \$20,000. The balance of the \$7 million savings will be attained through changes in work rules.

Murdoch, who owns newspapers in Great Britain and Australia, and several in the United States, agreed to spend \$12 million over 2 years to improve the Herald American. The paper's daily circulation had dropped 22 percent, to 230,000, during the last 5 years and, at the end of 1981, the rival Boston Globe had more than three times as much advertising, the major source of newspaper income.

Kodak plan encourages employees to quit

Faced with a continuing decline in profits, the Eastman Kodak Co. laid off 1,100 employees and announced a new plan to induce employees to voluntarily leave the company. One part of the voluntary separation plan permits employees age 55 to begin drawing pensions ranging from 55 percent of normal rates for those with 21 years of service to 100 percent for those with 30 years of service. Kodak estimated that 8,000 of its 93,200 U.S. employees were eligible for early retirement. As before, 55-year-old workers with as few as 10 years of service can also retire early, but their benefit rate was not increased.

The eligible workers age 55 and over who retire also receive severance pay under the second part of the plan, which was offered to about 80 percent of the employees. Employees who leave the company receive 1 week of severance pay, plus 1 week for each year of service to a maximum combined total of 26 weeks of pay.

The voluntary separation offer did not apply to 17,500 employees in the chemical division, or to the 1,000 employees of the company's Atex, Inc. subsidiary in Bedford, Mass.

Teamsters' president indicted

In Chicago, a Federal jury convicted Teamsters' union President Roy Williams of conspiring to bribe Senator Howard W. Cannon (D.-Nev.). Also convicted were Allen M. Dorfman, a Chicago insurance executive (who was later murdered); Joseph Lombardo, an alleged mobster; and Amos Massa and Thomas G. O'Malley, both officials of the union's Central States Pension Fund.

In the case, the Government had charged Williams and the others with conspiring to bribe Senator Cannon by selling him property at below market price in return

for his help in stopping legislation to deregulate the trucking industry. As it turned out, the property was sold to someone else and Senator Cannon introduced the trucking deregulation legislation that the Congress enacted.

The defendants also were found guilty of traveling interstate in furtherance of a bribe and of scheming to defraud the pension fund, which owned the land in question.

Williams plans to appeal the decision. If he loses on appeal, he will be subject to removal under provisions of the Landrum-Griffin Act.

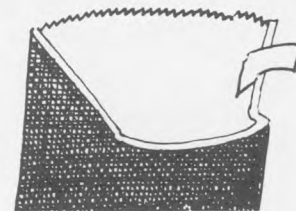
Supreme Court says union liable for back wages

The Supreme Court held that a union failing to properly represent a member illegally fired from a job is liable for part of the lost wages. The case arose in 1976, when Charles V. Bowen, a member of the American Postal Workers Union, asked the union to initiate arbitration proceedings to prevent the U.S. Postal Service from firing him for allegedly fighting with a fellow employee. The union refused, and Bowen then sued the Postal Service for firing him and the union for failing to properly represent him. A U.S. District Court judge ordered Bowen reinstated and awarded him \$52,954 for lost benefits and wages—\$22,954 to be paid by the Postal Service and \$30,000 by the union because it increased Bowen's losses by refusing to take his grievance to arbitration. However, the appeals court held that lost wages can be charged only to an employer, and dismissed the \$30,000 judgment against the union, leading Bowen to appeal to the Supreme Court.

Speaking for the 5-member majority, Justice Lewis Powell wrote, "By seeking and acquiring the exclusive right and power to speak for a group of employees, the union assumes a corresponding duty to discharge that responsibility faithfully—a duty which it owes to the employees whom it represents and on which the employer with whom it bargains may rely." The majority opinion further stated that apportionment of damages between the employer and the union was proper because it would be unjust to require the employer to bear the increase in damages resulting from a union's wrongful conduct.

The four dissenting members of the court maintained that employers should be primarily responsible for all back pay, and that a union should be held liable only if it aided in the firing or if union inaction made it impossible for a worker to collect lost wages from an employer. □

Book Reviews



Industrial relations—American style

Labor-Management Cooperation: The American Experience. By Irving H. Siegel and Edgar Weinberg. Kalamazoo, Mich., The W. E. Upjohn Institute for Employment Research, 1982. 316 pp. \$13.95, cloth; \$9.95, paper.

An increasing number of employers and unions are jointly exploring ways of incorporating a cooperative dimension into what heretofore has been primarily an adversarial relationship. Frequently, though not exclusively, this search has taken the form of crisis response to exigencies created by intense international competition. A recently completed study by the New York Stock Exchange revealed that 1 in 7 companies with 100 employees or more has some form of quality-of-worklife program. Of the companies surveyed with more than 500 employees, 25 percent had labor-management committees. Despite the continuing proliferation of these programs, many of the books written about labor-management cooperative efforts have focused on experiences outside the United States and have had marginal utility to American labor and management practitioners. Irving Siegel and Edgar Weinberg have done much to remedy this situation.

The authors examine the wide range of cooperative arrangements and present a thoughtful discussion of their attendant benefits and shortcomings. This book offers much information and insight, as well as an undertone of encouragement to labor leaders, managers, and government policymakers.

The authors' discussion of the various forms of labor-management cooperation is divided into what they see as the five principal levels of cooperation—national, industry, community or regional, company, and the public sector. Each level is discussed within its historical context, with frequent reference to significant cases. The descriptions are comprehensive, yet do not bore or overwhelm the reader. The writing style is clear and understandable to both experts and those less informed about the complexities of labor relations and organizational development.

The introductory chapter provides a conceptual

framework for the review of the American experience in cooperative labor-management programs. This framework distinguishes between those efforts considered to be within the scope of the authors' inquiry and the many varied types of cooperation which are not. It also addresses distinctions between American and foreign models of cooperation. But the discussion of these differences is focused almost exclusively on the contrast between American and Japanese experiences. The book may have been strengthened by examining more extensively European experiences, particularly those of Sweden. Although the Japanese have adopted our legal model for labor relations, its application has been significantly conditioned by cultural factors and "enlightened management techniques." The Swedes, on the other hand, operated within a more similar cultural view, but with a different legal framework. Both countries have successfully achieved widespread worker participation and may offer important lessons for the United States.

Chapter 2 is concerned with the national scene and includes discussions of national committees and commissions, normally established to provide public policymakers with advice on major issues. The impetus for these joint efforts has tended to come from either wartime emergencies, during which the parties understood the need for mutuality, or peacetime economic challenges such as the maintenance of price stability or full employment. The role of government and the various national commissions is traced chronologically in this chapter. As already indicated, each chapter provides a historical backdrop for the specific level of cooperation being discussed. This approach has shortcomings, insofar as it requires the reader interested in a historical overview among the various levels to read the entire text to glean the necessary information. Furthermore, the analysis of the national scene contains too little insight as to the factors impeding the development of a national initiative for encouraging labor-management cooperation in this country. Government efforts to either foster or ignore cooperative relations have been based primarily on the perceived interest or disinterest of organized labor and management. When, for exam-

ple, the authors describe the demise of the National Center for Productivity and Quality of Working Life under the Carter Administration in 1978, there is no mention of the fact that these key constituencies were generally lukewarm at best to the continuation of the Center's activities. Lacking support from either party, it was relatively risk-free for the Carter Administration to withdraw. This is an important point. Government policy typically reflects the political pressures exerted by primary interest groups.

Chapter 3 examines labor-management committees at the industry level by focusing on five major industries—steel, construction, retail food, railroads, and men's clothing. The descriptions of these are usefully supplemented by excerpts of agreements and memoranda of understanding included in the documentary appendix.

Chapter 4 focuses on communitywide cooperative efforts by examining six case studies of area labor-management committees. A list of 28 such committees is provided, although, given the mortality rates of these committees, any such list becomes quickly dated. The six cases selected are excellent choices for review. Most have been in existence for substantial lengths of time and have made significant contributions to their respective communities. The selected committees represent large and small cities and have utilized a variety of methods to accomplish sometimes distinctive goals. Curiously omitted, however, is a discussion of the Labor-Management Cooperation Act of 1978, which has provided a principal and, in some cases, sole source of funds for these efforts through the Federal Mediation and Conciliation Service. This act is briefly mentioned in the following chapter on company-level arrangements, but it seems misplaced here, insofar as its major focus has been community and regional activities with only a minor portion of its appropriated funds going to support in-plant committees.

The next four chapters, and the primary focus of the book, concern company-level efforts. In the American experience, it is at this level that the vast majority of cooperative efforts are to be found. However, to the extent that the authors do not distinguish between plant-level arrangements and enterprise-level activities, the reader may come away with some degree of misperception. Many enterprises are multiplant with some organized and some not, some with meaningful programs and others with none. It may have been preferable, therefore, to focus more pointedly on the worksite rather than the company or enterprise as a whole.

In chapters 6, 7, and 8, the authors discuss company-level arrangements through the use of a curious typology: (1) consultation, productivity, and quality; (2) satisfaction, well-being, and security; and (3) monetary supplements.

The first of these three chapters concentrates on co-

operative programs directed towards the improvement of organizational performance. It provides an excellent description of labor-management initiatives aimed at assuring the continuity of production, increasing productivity, or improving product quality. Examples of such cooperative efforts are described in some detail.

Chapter 7 covers programs focusing on employee welfare issues such as safety and health, alcoholism, quality of working life, flexible schedules, and employee ownership. The discussion of quality-of-worklife programs is particularly insightful.

The last of these chapters reviews various forms of incentive programs—group bonuses, profit-sharing, stock ownership, and pensions. Although these programs supposedly provide inducements to employees to cooperate with management, few offer real opportunities for worker participation in decisionmaking and most involve the mechanistic application formulas for gainsharing approaches.

The utility of the authors' overall typology of programs is limited. Many of the cooperative efforts overlap the specified categories or defy categorization entirely. Readers may find the three divisions more arbitrary and confusing than enlightening. For example, a committee created to deal primarily with issues involving worker "satisfaction, well-being and security" will, in most cases, have to address issues of work performance, cost, and productivity if it is to survive. Most labor-management initiatives have to cover a wide range of issues to be effective and retain the support of both parties. Distinguishing among programs on the basis of scope, structure, and process might have been more useful to the authors' examination.

Chapter 9 scans the variety of cooperative approaches used in the public sector for both consultation and problem-solving. Federal, State, and local governmental examples are provided.

The concluding chapter entitled "Looking Ahead" is a brief section on what the authors refer to as the "near term outlook." This might have been the key chapter of the book, given the growing interest in cooperative arrangements. A broad analysis of these developments and the authors' view of the dispositions of policymakers, would have been a useful ending, especially given the credentials of the authors and their knowledge of the field.

This book has an excellent documentary appendix which includes: sample contract language, proposed and enacted legislation, reports of various committees and commissions and their recommendations, and other related information. This should be useful to the practitioner as well as the general audience. Also included is a listing of agencies and institutions involved in the area of labor-management cooperation, a useful reference for those interested in further information or assistance.

The authors might have included a subject index as well, which may have increased the book's utility as a reference book.

On the whole, the authors have produced a comprehensive, well-written, and useful overview of labor-management cooperation. The book assuredly makes a significant contribution to the existing store of information available to industrial relations practitioners and others interested in learning the basics of labor-management cooperation in the United States. Labor relations in the United States is in a state of transition. Siegel and Weinberg have provided us with a much-needed tool for effectively dealing with these changing conditions.

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The Appalachian fall

Miners, Millhands, and Mountaineers: Industrialization of the Appalachian South, 1880-1930. By Ronald D. Eller. Knoxville, The University of Tennessee Press, 1982. 272 pp. \$23.50, cloth; \$12.50, paper.

Between the Civil War and the Great Depression, the Appalachian South underwent a turbulent transformation as the forces of modern, industrial society penetrated the region. First came the railroads, then the timber and textile industries, but mainly bituminous coal mining, with capitalists and adventurers and their variety of "New South" boosterism. Ronald D. Eller chronicles their coming and the results thereof, giving a vivid portrait of the dark side of American economic progress.

On the eve of the great transition, Appalachia was a land of scattered, loosely integrated, and self-sufficient island communities, with the family farm its backbone and the family the organizing force of its social life. The end of the war released the engine of development and progress, opening the area to the depredations of capitalists from Atlanta, Louisville, and Richmond, as well as Philadelphia, New York, and London.

In frenzies of economic expansionism, the outlanders and local speculators laid the tracks, felled the timber, and sank the mine shafts. At times, it seemed the Federal Government itself helped move the mountaineer off his land. Corporate interests and local business boosters increasingly dominated political life, enforcing their brand of economic conservatism which mixed paternalism with social darwinism.

In the process, integration into the broader economy

rendered the region much more vulnerable to fluctuations in national and international markets. Moreover, the mix of industries was weak. Timber declined after World War I, bituminous coal went bust after 1923, agriculture suffered all during the 1920's, as did textiles. Thus, the southern mountains felt the hardship of the Great Depression long before other parts of the country. By 1936, more than 47 percent of all mountain families were on Federal relief rolls.

Industrialization left the mountains scarred and ugly and the streams polluted, the author asserts. Moreover, it destroyed the self-sufficient economy of farms and local regional markets, leaving the mountaineers individually at the mercy of the wage system, and the operator's ledger sheet. As Eller concludes, "The mountaineers had lost the independence and self-determination of their ancestors, without becoming full participants in the benefits of the modern world."

This penetration and consolidation by the forces of industrial development formed, as the author notes, "part of a larger drama taking place in the Nation as a whole." Indeed, that phrase capsules the weakness of this book—the wider content receives little attention. Nationally, during those same eventful years, the urban northeast colonized the whole of the country south of the Potomac and west of the Mississippi. After all, Appomattox had established the ascendancy of the modern urban, industrial, wage economy. Internationally, Europeans extended their imperial-industrial domains into Africa, India, and Asia, but the author gives such actions—then or more recently—only a few token glances.

A reader accepting the author's tragic version regrets the gaps in the story and the lack of analysis. For example, the reader finds no mention of the railroad frenzies, whether over transcontinentals or regionals such as the Southern Railway. Nor does the reader find mention of the wars fought in the western mining country, or the agrarian protest flaming throughout the South and Middle West. Nor does the author cover events in the industrial heartland itself, the Pullman eruption, for instance. Thus, the author never establishes significant differences from—or similarities to—other aspects of the "larger drama."

Regional history is often overlooked in the overall story, and Eller provides a valuable reminder of its importance. Moreover, Eller has done much to build up regional archives. Nevertheless, to avoid excessive provincialism and antiquarianism, regionalists must cast their efforts in the broad and comparative context, and Eller fails that test.

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Guidelines for dealing with conflict

Managing Conflict—A Complete Process-Centered Handbook. By Roy W. Pneuman and Margaret E. Bruehl. Englewood Cliffs, N.J., Prentice Hall, Inc. Publishers, 1982. 128 pp. \$6.95.

Whether you are a rank novice or seasoned professional, you are likely to experience some anxiety when confronted with a situation involving conflict. The main reason for this is probably the time-honored perception of conflict situations, that is, as strictly win or lose propositions. But what if this isn't necessarily true? What if it's possible to have a conflict situation in which nobody loses? If this idea is new to you or you are tired of reacting to conflict situations by hiding, fighting, submitting, or running away, a careful reading of Roy W. Pneuman's and Margaret E. Bruehl's "Managing Conflict" is likely to reward your effort. Beginning with the first paragraph, it's as though the authors have taken a seat beside you and are urging, probing, and guiding your thought processes.

Unlike most publications on management, collective bargaining, and tactics, this book is geared toward problem-solving rather than gamesmanship. Although the authors start with the premise that conflict is inevitable, they argue that it can and should be searched out, respected, encouraged, and managed. Toward that end, they have developed a general model for dealing with conflict situations and have provided step-by-step instructions to follow as we work through some managerial, personal, or other conflict situation. Of special help are the conflict source checklist, critical (that is, strategic) issues analysis form, viable choices evaluation form, capsule outline of the entire process, and an abundance of anecdotes and illustrations (graphic and narrative) sprinkled throughout the text.

The book fails to provide information on what to do when the preventive measures fail? However, that deficiency is somewhat compensated for by the fact that the authors' illustrations and anecdotes portray the type of real-life situations to which we can relate.

For example, the point is made that, as individuals, a significant shortcoming is our tendency to assume that the way we see things is the way they are and, therefore, others see (or should see) them the same way. To illustrate the point, they relate the following story: A high relationship-oriented, low task-oriented young minister accepted a position on the staff of a large church. During the first year, she found much satisfaction in developing relationships among the people with whom she worked, but neglected a number of her important tasks and goals. The senior minister, who related positively to the young minister, was both relationship-oriented and task-oriented. So, he kindly called her to accountability

for her neglected tasks. At her annual evaluation, she was shocked when the church council was highly critical of her performance. She claimed that throughout the year, no one had told her they were dissatisfied. She later recognized that she had "projected" her own views onto the senior minister and, therefore, when he called her to accountability, she experienced only his kindness and failed to notice the call to be responsive to assigned goals and tasks.

The authors place strong emphasis on the communication process and the role it plays in the creation and escalation of conflict. To assist the reader in understanding this interaction, they discuss and illustrate problems created by the message sender, the media by which the message is transmitted, and the receiver of the message. In this regard, the following story is both entertaining and instructive. Alice, a clinical psychologist, when trying to help a counselee understand the connection between a current behavior and the words used to describe it, would often ask, "Where are you?" This is a jargon they understood and found helpful. One evening at home, her 10-year-old son, Brian, began a long, rambling, and unclear, but highly emotional tale. Finally, Alice asked, "Brian, where are you?" Brian's quick, but quizzical, reply was, "Mom, I'm right here in the kitchen."

As previously noted, this book is problem-solving oriented. Like all treatises concerned with problemsolving methodologies and techniques, it uses as its framework the following basic steps: (1) recognizing, that is, identifying the problem; (2) understanding and classifying the problem; (3) analyzing and evaluating the problem; (4) deciding whether to attempt to solve the problem; (5) devising a plan for solving the problem; (6) carrying out the plan, and (7) checking the results. Thus, it provides a model that, with some relatively minor modifications, should prove useful in many problem situations, whether or not they involve conflict as traditionally perceived.

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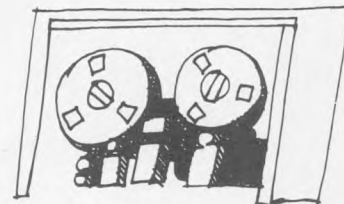
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NOTES ON CURRENT LABOR STATISTICS

This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics. A brief introduction to each group of tables provides definitions, notes on the data, sources, and other material usually found in footnotes.

Readers who need additional information are invited to consult the BLS regional offices listed on the inside front cover of this issue of the *Review*. Some general notes applicable to several series are given below.

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might otherwise mask short-term movements of the statistical series. Tables containing these data are identified as "seasonally adjusted." Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted labor force data in tables 3-8 were revised in the February 1983 issue of the *Review*, to reflect experience through 1982.

Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are being seasonally adjusted with a new procedure called X-11/ARIMA, which was developed at Statistics Canada as an extension of the standard X-11 method. A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method* by Estela Bee Dagum (Statistics Canada Catalogue No. 12-564E, February 1980). The second change is that seasonal factors are now being calculated for use during the first 6 months of the year, rather than for the entire year, and then are calculated at mid-year for the July-December period. Revisions of historical data continue to be made only at the end of each calendar year.

Annual revision of the seasonally adjusted payroll data shown in tables 10, 12, and 14 were made in August 1981 using the X-11 ARIMA seasonal adjustment methodology. New seasonal factors for productivity data in tables 28 and 29 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month to month and from quarter to quarter are

published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of \$3 and a current price index number of 150, where 1967 = 100, the hourly rate expressed in 1967 dollars is \$2 ($\$3/150 \times 100 = \2). The resulting values are described as "real," "constant," or "1967" dollars.

Availability of information. Data that supplement the tables in this section are published by the Bureau of Labor Statistics in a variety of sources. Press releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule given below. More information from household and establishment surveys is provided in *Employment and Earnings*, a monthly publication of the Bureau. Comparable household information is published in a two-volume data book—*Labor Force Statistics Derived From the Current Population Survey*, Bulletin 2096. Comparable establishment information appears in two data books—*Employment and Earnings, United States*, and *Employment and Earnings, States and Areas*, and their annual supplements. More detailed information on wages and other aspects of collective bargaining appears in the monthly periodical, *Current Wage Developments*. More detailed price information is published each month in the periodicals, the *CPI Detailed Report* and *Producer Prices and Price Indexes*.

Symbols

p = preliminary. To improve the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.

r = revised. Generally, this revision reflects the availability of later data but may also reflect other adjustments.

n.e.c. = not elsewhere classified.

Schedule of release dates for major BLS statistical series

Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	April 1	March	February 4	January	March 4	February	1-10
Producer Price Index	April 15	March	February 11	January	March 18	February	21-25
Consumer Price Index	April 22	March	February 25	January	March 23	February	17-20
Real earnings	April 22	March	February 25	January	March 23	February	11-15
Productivity and costs:							
Nonfarm business and manufacturing ..	April 27	1st quarter 1983	.....	.....	.....	.....	26-29
Nonfinancial corporations .....	.....	.....	.....	.....	March 1	4th quarter	26-29
Major collective bargaining settlements ..	April 27	1st quarter 1983	.....	.....	.....	.....	33-34
Employment Cost Index .....	.....	.....	February 3	4th quarter 1982	.....	.....	30-32

EMPLOYMENT DATA FROM THE HOUSEHOLD SURVEY

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 60,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all civilians who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. Members of the Armed Forces stationed in the United States are also included in the employed total. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff or waiting to start new jobs within the next 30 days are also counted among the unemployed. The **overall unemployment rate** represents the number unemployed as a percent of the labor force, including the resident Armed Forces. The **unemployment rate** for all civilian workers represents the number un-

employed as a percent of the civilian labor force.

The **labor force** consists of all employed or unemployed civilians plus members of the Armed Forces stationed in the United States. Persons **not in the labor force** are those not classified as employed or unemployed; this group includes persons retired, those engaged in their own housework, those not working while attending school, those unable to work because of long-term illness, those discouraged from seeking work because of personal or job market factors, and those who are voluntarily idle. The **noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy, and members of the Armed Forces stationed in the United States. The **labor force participation rate** is the proportion of the noninstitutional population that is in the labor force. The **employment-population ratio** is total employment (including the resident Armed Forces) as a percent of the noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the preceding years. These adjustments affect the comparability of historical data presented in table 1. A description of these adjustments and their effect on the various data series appear in the Explanatory Notes of *Employment and Earnings*.

Data in tables 2-8 are seasonally adjusted, based on the seasonal experience through December 1982.

1. Employment status of the noninstitutional population, 16 years and over, selected years, 1950-82

[Numbers in thousands]

Year	Noninstitutional population	Labor force										Not in labor force
		Number	Percent of population	Employed						Unemployed		
				Total	Percent of population	Resident Armed Forces	Civilian			Number	Percent of labor force	
							Total	Agriculture	Nonagricultural industries			
1950	106,164	63,377	59.7	60,087	56.6	1,169	58,918	7,160	51,758	3,288	5.2	42,787
1955	111,747	67,087	60.0	64,234	57.5	2,064	62,170	6,450	55,722	2,852	4.3	44,660
1960	119,106	71,489	60.0	67,639	56.8	1,861	65,778	5,458	60,318	3,852	5.4	47,617
1965	128,459	76,401	59.5	73,034	56.9	1,946	71,088	4,361	66,726	3,366	4.4	52,058
1966	130,180	77,892	59.8	75,017	57.6	2,122	72,895	3,979	68,915	2,875	3.7	52,288
1967	132,092	79,565	60.2	76,590	58.0	2,218	74,372	3,844	70,527	2,975	3.7	52,527
1968	134,281	80,990	60.3	78,173	58.2	2,253	75,920	3,817	72,103	2,817	3.5	53,291
1969	136,573	82,972	60.8	80,140	58.7	2,238	77,902	3,606	74,296	2,832	3.4	53,602
1970	139,203	84,889	61.0	80,796	58.0	2,118	78,678	3,463	75,215	4,093	4.8	54,315
1971	142,189	86,355	60.7	81,340	57.2	1,973	79,367	3,394	75,972	5,016	5.8	55,834
1972	145,939	88,847	60.9	83,966	57.5	1,813	82,153	3,484	78,669	4,882	5.5	57,091
1973	148,870	91,203	61.3	86,838	58.3	1,774	85,064	3,470	81,594	4,365	4.8	57,667
1974	151,841	93,670	61.7	88,515	58.3	1,721	86,794	3,515	83,279	5,156	5.5	58,171
1975	154,831	95,453	61.6	87,524	56.5	1,678	85,846	3,408	82,438	7,929	8.3	59,377
1976	157,818	97,826	62.0	90,420	57.3	1,668	88,752	3,331	85,421	7,406	7.6	59,991
1977	160,689	100,665	62.6	93,673	58.3	1,656	92,017	3,283	88,734	6,991	6.9	60,025
1978	163,541	103,882	63.5	97,679	59.7	1,631	96,048	3,387	92,661	6,202	6.0	59,659
1979	166,460	106,559	64.0	100,421	60.3	1,597	98,824	3,347	95,477	6,137	5.8	59,900
1980	169,349	108,544	64.1	100,907	59.6	1,604	99,303	3,364	95,938	7,637	7.0	60,806
1981	171,775	110,315	64.2	102,042	59.4	1,645	100,397	3,368	97,030	8,273	7.5	61,460
1982	173,939	111,872	64.3	101,194	58.2	1,668	99,526	3,401	96,125	10,678	9.5	62,067

2. Employment status of the population, including Armed Forces in the United States, by sex, seasonally adjusted

[Numbers in thousands]

Employment status and sex	Annual average		1982												1983
	1981	1982	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Total															
Noninstitutional population ^{1,2}	171,775	173,939	172,991	173,153	173,338	173,512	173,691	173,854	174,038	174,200	174,360	174,549	174,718	174,864	175,021
Labor force ²	110,315	111,872	110,690	111,028	111,149	111,408	112,043	111,811	112,090	112,303	112,528	112,420	112,702	112,794	112,215
Participation rate ³	64.2	64.3	64.0	64.1	64.1	64.2	64.5	64.3	64.4	64.5	64.5	64.4	64.5	64.5	64.1
Total employed ²	102,042	101,194	101,344	101,359	101,268	101,152	101,659	101,345	101,262	101,372	101,213	100,844	100,796	100,758	100,770
Employment-population ratio ⁴	59.4	58.2	58.6	58.5	58.4	58.3	58.5	58.3	58.2	58.2	58.0	57.8	57.7	57.6	57.6
Resident Armed Forces ¹	1,645	1,668	1,656	1,664	1,671	1,668	1,665	1,664	1,674	1,689	1,670	1,668	1,660	1,665	1,667
Civilian employed	100,397	99,526	99,688	99,695	99,597	99,484	99,994	99,681	99,588	99,683	99,543	99,176	99,136	99,093	99,103
Agriculture	3,368	3,401	3,379	3,367	3,367	3,356	3,446	3,371	3,445	3,429	3,363	3,413	3,466	3,411	3,412
Nonagricultural industries	97,030	96,125	96,309	96,328	96,230	96,128	96,548	96,310	96,143	96,254	96,180	95,763	95,670	95,682	95,691
Unemployed	8,273	10,678	9,346	9,669	9,881	10,256	10,384	10,466	10,828	10,931	11,315	11,576	11,906	12,036	11,446
Unemployment rate ⁵	7.5	9.5	8.4	8.7	8.9	9.2	9.3	9.4	9.7	9.7	10.1	10.3	10.6	10.7	10.2
Not in labor force	61,460	62,067	62,301	62,125	62,189	62,104	61,648	62,043	61,948	61,897	61,832	62,129	62,016	62,070	62,806
Men, 16 years and over															
Noninstitutional population ^{1,2}	82,023	83,052	82,599	82,673	82,763	82,844	82,929	83,006	83,097	83,173	83,231	83,323	83,402	83,581	83,652
Labor force ²	63,486	63,979	63,568	63,683	63,693	63,829	64,172	63,851	63,898	64,055	64,301	64,300	64,414	64,384	63,916
Participation rate ³	77.4	77.0	77.0	77.0	77.0	77.0	77.4	76.9	76.9	77.0	77.3	77.2	77.2	77.0	76.4
Total employed ²	58,909	57,800	58,187	58,197	58,031	57,973	58,251	57,775	57,664	57,710	57,598	57,456	57,408	57,338	57,283
Employment-population ratio ⁴	71.8	69.6	70.4	70.4	70.1	70.0	70.2	69.6	69.4	69.4	69.2	69.0	68.8	68.6	68.5
Resident Armed Forces ¹	1,512	1,527	1,520	1,527	1,532	1,529	1,527	1,526	1,537	1,551	1,526	1,524	1,516	1,529	1,531
Civilian employed	57,397	56,271	56,667	56,670	56,499	56,444	56,724	56,249	56,127	56,159	56,072	55,932	55,892	55,809	55,752
Unemployed	4,577	6,179	5,381	5,486	5,662	5,856	5,921	6,076	6,234	6,345	6,703	6,844	7,006	7,046	6,633
Unemployment rate ⁵	7.2	9.7	8.5	8.6	8.9	9.2	9.2	9.5	9.8	9.9	10.4	10.6	10.9	10.9	10.4
Women, 16 years and over															
Noninstitutional population ^{1,2}	89,751	90,887	90,392	90,480	90,576	90,668	90,762	90,848	90,941	91,027	91,129	91,226	91,316	91,283	91,369
Labor force ²	46,829	47,894	47,122	47,345	47,456	47,579	47,871	47,960	48,192	48,248	48,227	48,120	48,288	48,410	48,299
Participation rate ³	52.2	52.7	52.1	52.3	52.4	52.5	52.7	52.8	53.0	53.0	52.9	52.7	52.9	53.0	52.9
Total employed ²	43,133	43,395	43,157	43,162	43,237	43,179	43,408	43,570	43,598	43,662	43,615	43,388	43,388	43,420	43,486
Employment-population ratio ⁴	48.1	47.7	47.7	47.7	47.7	47.6	47.8	48.0	47.9	48.0	47.9	47.6	47.5	47.6	47.6
Resident Armed Forces ¹	133	139	136	137	139	139	138	138	137	138	144	144	144	136	136
Civilian employed	43,000	43,256	43,021	43,025	43,098	43,040	43,270	43,432	43,461	43,524	43,471	43,244	43,244	43,284	43,350
Unemployed	3,696	4,499	3,965	4,183	4,219	4,400	4,463	4,390	4,594	4,586	4,612	4,732	4,900	4,990	4,813
Unemployment rate ⁵	7.9	9.4	8.4	8.8	8.9	9.2	9.3	9.2	9.5	9.5	9.6	9.8	10.1	10.3	10.0

¹ The population and Armed Forces figures are not adjusted for seasonal variation.

² Includes members of the Armed Forces stationed in the United States.

³ Labor force as a percent of the noninstitutional population.

⁴ Total employed as a percent of the noninstitutional population.

⁵ Unemployment as a percent of the labor force (including the resident Armed Forces).

3. Employment status of the civilian population by sex, age, race, and Hispanic origin, seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1982												1983	
	1981	1982	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
TOTAL																
Civilian noninstitutional population ¹	170,130	172,271	171,335	171,489	171,667	171,844	172,026	172,190	172,364	172,511	172,690	172,881	173,058	173,199	173,354	
Civilian labor force	108,670	110,204	109,034	109,364	109,478	109,740	110,378	110,147	110,416	110,614	110,858	110,752	111,042	111,129	110,548	
Participation rate	63.9	64.0	63.6	63.8	63.8	63.9	64.2	64.0	64.1	64.2	64.1	64.2	64.1	64.2	63.8	
Employed	100,397	99,526	99,688	99,695	99,597	99,484	99,994	99,681	99,588	99,683	99,543	99,176	99,136	99,093	99,103	
Employment-population ratio ²	59.0	57.8	58.2	58.1	58.0	57.9	58.1	57.9	57.8	57.8	57.6	57.4	57.3	57.2	57.2	
Agriculture	3,368	3,401	3,379	3,367	3,367	3,356	3,446	3,371	3,445	3,429	3,363	3,413	3,466	3,411	3,412	
Nonagricultural industries	97,030	96,125	96,309	96,328	96,230	96,128	96,548	96,310	96,143	96,254	96,180	95,763	95,670	95,682	95,691	
Unemployed	8,273	10,678	9,346	9,669	9,881	10,256	10,384	10,466	10,828	10,931	11,315	11,576	11,906	12,036	11,446	
Unemployment rate	7.6	9.7	8.6	8.8	9.0	9.3	9.4	9.5	9.8	9.9	10.2	10.5	10.7	10.8	10.4	
Not in labor force	61,460	62,067	62,301	62,125	62,189	62,104	61,648	62,043	61,948	61,897	61,832	62,129	62,016	62,070	62,806	
Men, 20 years and over																
Civilian noninstitutional population ¹	72,419	73,644	73,120	73,209	73,287	73,392	73,499	73,585	73,685	73,774	73,867	73,984	74,094	74,236	74,339	
Civilian labor force	57,197	57,980	57,461	57,581	57,633	57,794	58,008	57,959	58,055	58,064	58,354	58,363	58,454	58,443	58,048	
Participation rate	79.0	78.7	78.6	78.7	78.6	78.7	78.9	78.8	78.8	78.7	79.0	78.9	78.9	78.7	78.1	
Employed	53,582	52,891	53,099	53,130	53,026	53,024	53,190	52,943	52,905	52,832	52,776	52,649	52,589	52,534	52,452	
Employment-population ratio ²	74.0	71.8	72.6	72.6	72.4	72.2	72.4	71.9	71.8	71.6	71.4	71.2	71.0	70.8	70.6	
Agriculture	2,384	2,422	2,386	2,388	2,392	2,417	2,446	2,424	2,462	2,433	2,436	2,444	2,434	2,389	2,426	
Nonagricultural industries	51,199	50,469	50,713	50,742	50,634	50,607	50,744	50,519	50,443	50,399	50,340	50,205	50,155	50,145	50,025	
Unemployed	3,615	5,089	4,362	4,451	4,607	4,770	4,818	5,016	5,150	5,232	5,578	5,714	5,865	5,909	5,597	
Unemployment rate	6.3	8.8	7.6	7.7	8.0	8.3	8.3	8.7	8.9	9.0	9.6	9.8	10.0	10.1	9.6	
Women, 20 years and over																
Civilian noninstitutional population ¹	81,497	82,864	82,260	82,367	82,478	82,591	82,707	82,811	82,926	83,035	83,152	83,271	83,385	83,383	83,490	
Civilian labor force	42,485	43,699	42,926	43,111	43,285	43,355	43,632	43,819	43,983	44,039	43,996	43,936	44,112	44,286	44,201	
Participation rate	52.1	52.7	52.2	52.3	52.5	52.5	52.8	52.9	53.0	53.0	52.9	52.8	52.9	53.1	52.9	
Employed	39,590	40,086	39,817	39,825	39,883	39,827	40,064	40,254	40,311	40,368	40,286	40,112	40,123	40,215	40,238	
Employment-population ratio ²	48.6	48.4	48.4	48.4	48.4	48.2	48.4	48.6	48.6	48.6	48.4	48.2	48.1	48.2	48.2	
Agriculture	604	601	626	620	625	600	614	586	598	598	588	578	590	628	625	
Nonagricultural industries	38,986	39,485	39,191	39,205	39,258	39,227	39,450	39,668	39,713	39,770	39,698	39,534	39,533	39,587	39,613	
Unemployed	2,895	3,613	3,109	3,286	3,402	3,528	3,568	3,565	3,672	3,671	3,710	3,824	3,989	4,071	3,963	
Unemployment rate	6.8	8.3	7.2	7.6	7.9	8.1	8.2	8.1	8.3	8.3	8.4	8.7	9.0	9.2	9.0	
Both sexes, 16 to 19 years																
Civilian noninstitutional population ¹	16,214	15,763	15,955	15,913	15,902	15,861	15,820	15,794	15,753	15,702	15,671	15,625	15,579	15,580	15,525	
Civilian labor force	8,988	8,526	8,647	8,672	8,560	8,591	8,738	8,369	8,378	8,511	8,508	8,453	8,476	8,400	8,299	
Participation rate	55.4	54.1	54.2	54.5	53.8	54.2	55.2	53.0	53.2	54.2	54.3	54.1	54.4	53.9	53.5	
Employed	7,225	6,549	6,772	6,740	6,688	6,633	6,740	6,484	6,372	6,483	6,481	6,415	6,424	6,344	6,413	
Employment-population ratio ²	44.6	41.5	42.4	42.4	42.1	41.8	42.6	41.1	40.4	41.3	41.4	41.1	41.2	40.7	41.3	
Agriculture	380	378	367	359	350	339	386	361	385	406	399	391	442	394	361	
Nonagricultural industries	6,845	6,171	6,405	6,381	6,338	6,294	6,354	6,123	5,987	6,077	6,142	6,024	5,982	5,950	6,052	
Unemployed	1,763	1,977	1,875	1,932	1,872	1,968	1,998	1,885	2,006	2,028	2,027	2,038	2,052	2,056	1,886	
Unemployment rate	19.6	23.2	21.7	22.3	21.9	22.8	22.9	22.5	23.9	23.8	23.8	24.1	24.2	24.5	22.7	
White																
Civilian noninstitutional population ¹	147,908	149,441	148,842	148,855	149,132	149,249	149,250	149,429	149,569	149,536	149,652	149,838	149,887	150,056	150,129	
Civilian labor force	95,052	96,143	95,289	95,459	95,602	95,941	96,405	96,165	96,385	96,375	96,640	96,453	96,719	96,864	96,176	
Participation rate	64.3	64.3	64.0	64.1	64.1	64.3	64.6	64.4	64.4	64.4	64.6	64.4	64.5	64.6	64.1	
Employed	88,709	87,903	88,078	88,080	88,033	88,011	88,350	88,089	88,021	87,979	87,872	87,477	87,443	87,443	87,466	
Employment-population ratio ²	60.0	58.8	59.2	59.2	59.0	59.0	59.2	59.0	58.8	58.8	58.7	58.4	58.3	58.3	58.3	
Unemployed	6,343	8,241	7,211	7,379	7,569	7,930	8,055	8,076	8,364	8,396	8,768	8,976	9,284	9,421	8,711	
Unemployment rate	6.7	8.6	7.6	7.7	7.9	8.3	8.4	8.4	8.7	8.7	9.1	9.3	9.6	9.7	9.1	
Black																
Civilian noninstitutional population ¹	18,219	18,584	18,423	18,450	18,480	18,511	18,542	18,570	18,600	18,626	18,659	18,692	18,723	18,740	18,768	
Civilian labor force	11,086	11,331	11,184	11,219	11,228	11,201	11,318	11,267	11,341	11,400	11,443	11,398	11,475	11,522	11,542	
Participation rate	60.8	61.0	60.7	60.8	60.8	60.5	61.0	60.7	61.0	61.2	61.3	61.0	61.3	61.5	61.5	
Employed	9,355	9,189	9,295	9,260	9,209	9,135	9,209	9,171	9,211	9,220	9,172	9,102	9,159	9,127	9,142	
Employment-population ratio ²	51.3	49.4	50.5	50.2	49.8	49.3	49.7	49.4	49.5	49.5	49.2	48.7	48.9	48.7	48.7	
Unemployed	1,731	2,142	1,889	1,959	2,019	2,066	2,109	2,096	2,130	2,180	2,271	2,296	2,316	2,395	2,400	
Unemployment rate	15.6	18.9	16.9	17.5	18.0	18.4	18.6	18.6	18.8	19.1	19.8	20.1	20.2	20.8	20.8	
Hispanic origin																
Civilian noninstitutional population ¹	9,310	9,400	9,400	9,341	9,297	9,235	9,297	9,428	9,521	9,689	9,464	9,474	9,355	9,301	9,328	
Civilian labor force	5,972	5,983	6,048	6,051	6,015	5,986	6,004	5,965	5,972	6,045	5,961	5,973	5,923	5,898	5,981	
Participation rate	64.1	63.6	64.3	64.8	64.7	64.6	64.6	63.3	62.7	62.4	63.0	63.0	63.3	63.4	64.1	
Employed	5,348	5,158	5,325	5,297	5,253	5,211	5,182	5,155	5,136	5,162	5,097	5,075	5,012	4,998	5,053	
Employment-population ratio ²	57.4	54.9	56.6	56.7	56.5	56.4	55.7	54.7	53.9	53.3	53.9	53.6	53.7	54.2	54.2	
Unemployed	624	825	723	754	762	755	822	810	836	883	864	898	911	900	929	
Unemployment rate	10.4	13.8	12.0	12.5	12.7	12.7	13.7	13.6	14.0	14.6	14.5	15.0	15.4	15.3	15.5	

¹ The population figures are not seasonally adjusted.

² Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

4. Selected employment indicators, seasonally adjusted

[Numbers in thousands]

Selected categories	Annual average		1982												1983
	1981	1982	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
CHARACTERISTIC															
Civilian employed, 16 years and over	100,397	99,526	99,688	99,695	99,597	99,484	99,994	99,681	99,588	99,683	99,543	99,176	99,136	99,093	99,103
Men	57,397	56,271	56,667	56,670	56,499	56,444	56,724	56,249	56,127	56,159	56,073	55,932	55,892	55,809	55,752
Women	43,000	43,256	43,021	43,025	43,098	43,040	43,270	43,432	43,461	43,524	43,471	43,244	43,244	43,284	43,350
Married men, spouse present	38,882	38,074	38,306	38,326	38,227	38,212	38,274	38,254	38,177	38,121	37,998	37,852	37,641	37,507	37,450
Married women, spouse present	23,915	24,053	23,803	23,807	23,933	23,891	24,112	24,331	24,173	24,235	24,159	24,081	23,985	24,155	24,205
Women who maintain families	4,998	5,099	5,095	5,157	5,094	5,093	4,991	5,120	5,200	5,208	5,118	5,107	5,025	4,985	5,038
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,464	1,505	1,402	1,430	1,428	1,442	1,530	1,457	1,523	1,548	1,537	1,576	1,584	1,547	1,637
Self-employed workers	1,638	1,636	1,662	1,613	1,645	1,656	1,679	1,661	1,655	1,620	1,569	1,621	1,628	1,627	1,587
Unpaid family workers	266	261	348	334	270	266	251	254	254	255	254	229	241	224	231
Nonagricultural industries:															
Wage and salary workers	89,543	88,462	88,825	88,702	88,620	88,454	88,872	88,548	88,491	88,576	88,562	88,064	87,936	87,976	87,813
Government	15,689	15,516	15,546	15,515	15,491	15,464	15,454	15,614	15,471	15,562	15,681	15,436	15,514	15,477	15,386
Private industries	73,853	72,945	73,279	73,187	73,129	72,990	73,418	72,934	73,020	73,014	72,881	72,628	72,422	72,499	72,427
Private households	1,208	1,207	1,239	1,181	1,218	1,196	1,204	1,205	1,200	1,227	1,220	1,216	1,221	1,163	1,162
Other	72,645	71,738	72,040	72,006	71,911	71,794	72,214	71,729	71,820	71,787	71,661	71,412	71,201	71,336	71,265
Self-employed workers	7,097	7,262	7,004	7,097	7,150	7,246	7,262	7,301	7,286	7,338	7,422	7,332	7,349	7,335	7,465
Unpaid family workers	390	401	416	410	431	410	392	398	393	408	378	403	382	383	380
PERSONS AT WORK ¹															
Nonagricultural industries	91,377	90,552	90,301	90,087	90,579	90,755	91,082	90,917	90,414	90,486	90,884	90,232	90,238	90,219	90,903
Full-time schedules	74,339	72,245	72,916	73,026	72,699	72,562	72,869	72,545	72,288	72,045	71,723	71,394	71,442	71,499	71,786
Part time for economic reasons	4,499	5,852	5,066	5,489	5,611	5,750	5,731	5,561	5,577	5,820	6,495	6,903	6,411	6,425	6,845
Usually work full time	1,738	2,169	1,808	2,155	2,187	2,197	2,195	2,126	2,047	2,100	2,519	2,381	2,228	2,153	2,200
Usually work part time	2,761	3,683	3,258	3,334	3,424	3,553	3,536	3,435	3,530	3,720	3,976	4,022	4,183	4,272	4,645
Part time for noneconomic reasons	12,539	12,455	12,319	12,352	12,269	12,443	12,482	12,811	12,549	12,621	12,666	12,435	12,385	12,295	12,271

¹Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

5. Selected unemployment indicators, seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1982												1983
	1981	1982	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
CHARACTERISTIC															
Total, all civilian workers	7.6	9.7	8.6	8.8	9.0	9.3	9.4	9.5	9.8	9.9	10.2	10.4	10.7	10.8	10.4
Both sexes, 16 to 19 years	19.6	23.2	21.7	22.3	21.9	22.8	22.9	22.5	23.9	23.8	23.8	24.1	24.2	24.5	22.7
Men, 20 years and over	6.3	8.8	7.6	7.7	8.0	8.3	8.3	8.7	8.9	9.0	9.6	9.8	10.0	10.1	9.6
Women, 20 years and over	6.8	8.3	7.2	7.6	7.9	8.1	8.2	8.1	8.3	8.3	8.4	8.7	9.0	9.2	9.0
White, total	6.7	8.6	7.6	7.7	7.9	8.3	8.4	8.4	8.7	8.7	9.1	9.3	9.6	9.7	9.1
Both sexes, 16 to 19 years	17.3	20.4	19.4	19.7	19.2	20.4	19.9	19.7	20.9	20.8	20.7	21.5	21.2	21.6	20.0
Men, 16 to 19 years	17.9	21.7	20.6	20.4	20.4	21.9	20.9	21.2	22.5	22.5	22.2	23.0	22.6	22.8	21.2
Women, 16 to 19 years	16.6	19.0	18.1	19.0	17.9	18.8	18.7	18.0	19.1	18.9	19.1	19.9	19.8	20.4	18.7
Men, 20 years and over	5.6	7.8	6.6	6.7	7.0	7.3	7.5	7.7	7.9	8.0	8.6	8.8	9.1	9.2	8.4
Women, 20 years and over	5.9	7.3	6.4	6.6	6.8	7.1	7.2	7.1	7.3	7.2	7.5	7.6	8.0	8.1	7.8
Black, total	15.6	18.9	16.9	17.5	18.0	18.4	18.6	18.6	18.8	19.1	19.8	20.1	20.2	20.8	20.8
Both sexes, 16 to 19 years	41.4	48.0	42.1	43.5	46.3	48.0	49.4	51.2	49.3	51.2	48.6	47.7	49.8	49.5	45.7
Men, 16 to 19 years	40.7	48.9	38.2	42.2	47.6	48.4	49.7	55.7	48.9	50.5	51.0	49.2	53.0	52.5	45.9
Women, 16 to 19 years	42.2	47.1	46.3	45.0	44.9	47.7	49.1	46.0	49.7	52.1	45.9	45.9	46.2	46.2	45.5
Men, 20 years and over	13.5	17.8	16.0	16.2	16.3	17.0	17.1	17.3	17.4	17.6	19.2	19.6	19.2	20.5	19.7
Women, 20 years and over	13.4	15.4	13.7	14.5	15.1	15.4	15.3	15.1	15.5	15.4	15.7	16.2	16.5	16.5	18.2
Hispanic origin, total	10.4	13.8	12.0	12.5	12.7	12.7	13.7	13.6	14.0	14.6	14.5	15.0	15.4	15.3	15.5
Married men, spouse present	4.3	6.5	5.3	5.4	5.6	6.0	6.1	6.4	6.6	6.8	7.2	7.5	7.6	7.8	7.1
Married women, spouse present	6.0	7.4	6.3	6.9	7.0	7.6	7.3	7.1	7.4	7.3	7.6	7.9	8.2	8.2	7.8
Women who maintain families	10.4	11.7	10.4	10.4	10.8	11.5	11.9	12.1	12.0	11.7	12.4	11.3	12.5	13.2	13.2
Full-time workers	7.3	9.6	8.4	8.5	8.9	9.1	9.2	9.4	9.6	9.7	10.2	10.5	10.6	10.8	10.3
Part-time workers	9.4	10.5	9.7	10.4	10.0	10.8	10.5	10.0	11.2	10.4	10.6	10.3	11.3	11.1	10.6
Unemployed 15 weeks and over	2.1	3.2	2.2	2.5	2.7	2.8	3.0	3.2	3.2	3.3	3.5	3.8	4.1	4.3	4.2
Labor force time lost ¹	8.5	11.0	9.9	9.9	10.3	10.4	10.7	10.4	10.7	10.9	11.7	12.0	12.4	12.7	11.7
INDUSTRY															
Nonagricultural private wage and salary workers ..	7.7	10.1	8.8	9.0	9.4	9.8	9.8	10.0	10.2	10.2	11.0	11.0	11.4	11.6	10.8
Mining	6.0	13.4	7.9	8.3	9.3	10.6	12.1	14.0	15.8	16.0	18.5	17.9	18.1	18.1	17.1
Construction	15.6	20.0	18.5	18.3	18.2	19.3	18.9	19.5	20.3	20.4	22.3	22.3	21.8	22.0	20.0
Manufacturing	8.3	12.3	10.3	10.6	10.7	11.3	11.5	12.2	12.1	12.4	14.1	14.1	14.8	14.8	13.0
Durable goods	8.2	13.3	10.9	11.2	10.8	11.9	12.2	13.1	12.8	13.3	16.0	16.0	17.0	17.1	14.7
Nondurable goods	8.4	10.8	9.5	9.6	10.6	10.6	10.4	11.1	11.0	11.2	11.2	11.2	11.4	11.4	10.5
Transportation and public utilities	5.2	6.8	6.2	5.9	5.7	6.7	6.4	6.8	6.6	7.1	7.9	7.9	8.3	8.0	7.8
Wholesale and retail trade	8.1	10.0	8.8	9.1	10.1	9.9	10.2	9.7	10.3	10.0	10.4	10.4	10.6	11.0	10.8
Finance and service industries	5.9	6.9	6.0	6.5	6.8	7.0	6.8	6.9	7.0	7.0	7.1	7.1	7.7	7.9	7.6
Government workers	4.7	4.9	4.8	5.1	4.8	5.2	4.9	4.7	4.7	4.7	4.9	4.9	5.1	5.1	5.7
Agricultural wage and salary workers	12.1	14.7	15.3	13.4	14.0	14.6	18.1	15.0	14.1	14.2	13.3	13.3	15.6	16.5	16.0

¹ Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

6. Unemployment rates by sex and age, seasonally adjusted

[Civilian workers]

Sex and age	Annual average		1982												1983
	1981	1982	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Total, 16 years and over	7.6	9.7	8.6	8.8	9.0	9.3	9.4	9.5	9.8	9.9	10.2	10.5	10.7	10.8	10.4
16 to 24 years	14.9	17.8	16.4	16.9	16.9	17.4	17.4	17.3	17.9	18.2	18.3	18.7	19.0	18.9	18.3
16 to 19 years	19.6	23.2	21.7	22.3	21.9	22.8	22.9	22.5	23.9	23.8	23.8	24.1	24.2	24.5	22.7
16 to 17 years	21.4	24.9	22.3	22.9	23.2	24.4	25.1	23.6	25.8	25.8	26.5	26.1	26.3	27.4	24.1
18 to 19 years	18.4	22.1	21.1	21.8	21.3	21.8	21.4	22.0	22.6	22.5	22.0	22.9	22.8	22.7	21.7
20 to 24 years	12.3	14.9	13.6	14.1	14.1	14.5	14.5	14.7	15.3	15.3	15.8	16.3	16.0	16.1	
25 years and over	5.4	7.4	6.3	6.5	6.8	7.0	7.1	7.3	7.5	7.5	7.9	8.1	8.3	8.6	8.1
25 to 54 years	5.8	7.9	6.8	6.9	7.2	7.4	7.6	7.7	8.0	8.0	8.6	8.7	8.9	9.1	8.7
55 years and over	3.6	5.0	4.2	4.3	4.6	4.9	4.9	5.1	5.3	5.2	5.2	5.5	5.7	5.8	5.4
Men, 16 years and over	7.4	9.9	8.7	8.8	9.1	9.4	9.5	9.7	10.0	10.2	10.7	10.9	11.1	11.2	10.6
16 to 24 years	15.7	19.1	17.5	17.9	18.2	18.7	18.6	18.7	19.2	19.5	20.0	20.2	20.6	20.5	19.7
16 to 19 years	20.1	24.4	22.2	22.6	23.3	24.1	23.8	24.3	25.2	25.1	25.4	25.6	25.7	25.8	23.9
16 to 17 years	22.0	26.4	23.2	23.3	24.5	24.8	26.3	25.4	27.7	27.4	29.0	28.8	28.2	29.0	24.4
18 to 19 years	18.8	23.1	21.5	22.1	22.6	23.7	22.2	23.7	23.4	23.4	23.0	23.4	24.1	24.0	23.5
20 to 24 years	13.2	16.4	14.9	15.3	15.6	15.9	15.8	15.9	16.2	16.6	17.3	17.4	18.0	17.8	17.6
25 years and over	5.1	7.5	6.3	6.4	6.7	6.9	7.0	7.4	7.5	7.7	8.2	8.5	8.6	8.8	8.2
25 to 54 years	5.5	8.0	6.7	6.8	7.1	7.3	7.5	7.9	8.1	8.2	9.0	9.1	9.2	9.4	8.7
55 years and over	3.5	5.1	4.3	4.3	4.7	5.0	4.7	4.9	4.9	5.5	5.5	6.0	6.2	6.3	5.8
Women, 16 years and over	7.9	9.4	8.4	8.9	8.9	9.3	9.3	9.2	9.6	9.5	9.6	9.9	10.2	10.3	10.0
16 to 24 years	14.0	16.2	15.2	15.9	15.2	16.0	16.0	15.6	16.4	16.8	16.3	17.0	17.2	17.1	16.7
16 to 19 years	19.0	21.9	21.1	21.9	20.3	21.3	21.8	20.6	22.6	22.5	22.1	22.5	22.6	23.0	21.5
16 to 17 years	20.7	23.2	21.2	22.4	21.7	24.0	23.6	21.6	23.8	23.9	23.8	22.9	24.2	25.6	23.7
18 to 19 years	17.9	21.0	20.7	21.6	19.9	19.8	20.6	20.2	21.9	21.5	20.9	22.3	21.4	21.3	19.8
20 to 24 years	11.2	13.2	12.0	12.6	12.5	13.0	12.9	13.0	13.1	13.7	13.1	14.0	14.4	14.0	14.2
25 years and over	5.9	7.3	6.3	6.6	6.9	7.1	7.3	7.2	7.4	7.1	7.5	7.6	7.9	8.2	7.9
25 to 54 years	6.3	7.7	6.8	7.0	7.4	7.5	7.8	7.5	7.7	7.7	8.0	8.2	8.5	8.8	8.7
55 years and over	3.8	4.8	4.1	4.3	4.7	4.7	5.0	5.4	5.8	4.8	4.8	4.8	4.9	5.1	4.8

7. Unemployed persons by reason for unemployment, seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		1982												1983
	1981	1982	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
NUMBER OF UNEMPLOYED															
Job losers	4,267	6,268	5,243	5,246	5,628	5,889	5,938	6,181	6,323	6,446	6,979	7,325	7,369	7,295	6,704
On layoff	1,430	2,127	1,852	1,777	1,858	1,967	1,956	2,097	2,126	2,218	2,625	2,519	2,531	2,468	2,131
Other job losers	2,837	4,141	3,391	3,469	3,770	3,922	3,982	4,084	4,197	4,228	4,354	4,806	4,838	4,827	4,573
Job leavers	923	840	842	942	885	901	864	826	819	814	786	803	794	826	839
Reentrants	2,102	2,384	2,133	2,272	2,261	2,342	2,393	2,378	2,478	2,440	2,437	2,322	2,546	2,629	2,623
New entrants	981	1,185	1,055	1,096	1,061	1,096	1,159	1,091	1,230	1,304	1,303	1,296	1,244	1,288	1,174
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	100.0	100.0
Job losers	51.6	58.7	56.5	54.9	57.2	57.6	57.3	59.0	58.3	58.6	60.7	62.4	61.6	60.6	59.1
On layoff	17.3	19.9	20.0	18.6	18.9	19.2	18.9	20.0	19.6	20.2	22.8	21.4	21.2	20.5	18.8
Other job losers	34.3	38.8	36.6	36.3	38.3	38.3	38.5	39.0	38.7	38.4	37.8	40.9	40.5	40.1	40.3
Job leavers	11.2	7.9	9.1	9.9	9.0	8.8	8.3	7.9	7.5	7.4	6.8	6.8	6.6	6.9	7.4
Reentrants	25.4	22.3	23.0	23.8	23.0	22.9	23.1	22.7	22.8	22.2	21.2	19.8	21.3	21.8	23.1
New entrants	11.9	11.1	11.4	11.5	10.8	10.7	11.2	10.4	11.3	11.9	11.3	11.0	10.4	10.7	10.4
PERCENT OF CIVILIAN LABOR FORCE															
Job losers	3.9	5.7	4.8	4.8	5.1	5.4	5.4	5.6	5.7	5.8	6.3	6.6	6.6	6.6	6.1
Job leavers	.8	.8	.8	.9	.8	.8	.8	.7	.7	.7	.7	.7	.7	.7	.8
Reentrants	1.9	2.2	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.3	2.4	2.4
New entrants	.9	1.1	1.0	1.0	1.0	1.0	1.1	1.0	1.1	1.2	1.2	1.2	1.1	1.2	1.1

8. Duration of unemployment, seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1982												1983
	1981	1982	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Less than 5 weeks	3,449	3,883	3,830	3,807	3,831	3,930	3,871	3,605	3,959	3,933	4,004	3,930	3,963	4,019	3,536
5 to 14 weeks	2,539	3,311	3,079	3,068	3,098	3,255	3,281	3,398	3,249	3,346	3,549	3,511	3,549	3,460	3,328
15 weeks and over	2,285	3,485	2,402	2,750	2,962	3,080	3,267	3,517	3,569	3,637	3,856	4,167	4,524	4,732	4,634
15 to 26 weeks	1,122	1,708	1,209	1,479	1,605	1,582	1,633	1,683	1,780	1,808	1,830	1,951	2,191	2,125	1,928
27 weeks and over	1,162	1,776	1,193	1,271	1,357	1,498	1,634	1,834	1,789	1,829	2,026	2,216	2,333	2,607	2,706
Mean duration, in weeks	13.7	15.6	13.4	14.0	13.9	14.3	14.9	16.3	15.6	16.1	16.6	17.1	17.3	18.0	19.4
Median duration, in weeks	6.9	8.7	7.3	7.4	7.7	8.3	8.6	9.8	8.3	8.3	9.4	9.6	10.0	10.1	11.5

EMPLOYMENT, HOURS, AND EARNINGS DATA FROM ESTABLISHMENT SURVEYS

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by 177,000 establishments representing all industries except agriculture. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted in each establishment which reports them.

Production workers in manufacturing include blue-collar worker supervisors and all nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 11-15 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in transportation and public utilities; in wholesale and retail trade; in finance, insurance, and real estate; and in services industries. These groups account for about four-fifths of the total employment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special

payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). The **Hourly Earnings Index** is calculated from average hourly earnings data adjusted to exclude the effects of two types of changes that are unrelated to underlying wage-rate developments: fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes and seasonal factors in the proportion of workers in high-wage and low-wage industries.

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received and are different from standard or scheduled hours. **Overtime hours** represent the portion of gross average weekly hours which were in excess of regular hours and for which overtime premiums were paid.

Notes on the data

Establishment data collected by the Bureau of Labor Statistics are periodically adjusted to comprehensive counts of employment (called "benchmarks"). The latest complete adjustment was made with the release of May 1982 data, published in the July 1982 issue of the *Review*. Consequently, data published in the *Review* prior to that issue are not necessarily comparable to current data. Earlier comparable unadjusted and seasonally adjusted data are published in a Supplement to *Employment and Earnings* (unadjusted data from April 1977 through February 1982 and seasonally adjusted data from January 1974 through February 1982) and in *Employment and Earnings, United States, 1909-78*, BLS Bulletin 1312-11 (for prior periods).

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9-20. See also *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976).

9. Employment by industry, selected years, 1950-81

[Nonagricultural payroll data, in thousands]

Year	Total	Private sector	Goods-producing				Service-producing							Government		
			Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade			Finance, insurance, and real estate	Services	Total	Federal	State and local
									Total	Wholesale trade	Retail trade					
1950	45,197	39,170	18,506	901	2,364	15,241	26,691	4,034	9,386	2,635	6,751	1,888	5,357	6,026	1,928	4,098
1955	50,641	43,727	20,513	792	2,839	16,882	30,128	4,141	10,535	2,926	7,610	2,298	6,240	6,914	2,187	4,727
1960 ¹	54,189	45,836	20,434	712	2,926	16,796	33,755	4,004	11,391	3,143	8,248	2,629	7,378	8,353	2,270	6,083
1964	58,283	48,686	21,005	634	3,097	17,274	37,278	3,951	12,160	3,337	8,823	2,911	8,660	9,596	2,348	7,248
1965	60,765	50,689	21,926	632	3,232	18,062	38,839	4,036	12,716	3,466	9,250	2,977	9,036	10,074	2,378	7,696
1966	63,901	53,116	23,158	627	3,317	19,214	40,743	4,158	13,245	3,597	9,648	3,058	9,498	10,784	2,564	8,220
1967	65,803	54,413	23,308	613	3,248	19,447	42,495	4,268	13,606	3,689	9,917	3,185	10,045	11,391	2,719	8,672
1968	67,897	56,058	23,737	606	3,350	19,781	44,160	4,318	14,099	3,779	10,320	3,337	10,567	11,839	2,737	9,102
1969	70,384	58,189	24,361	619	3,575	20,167	46,023	4,442	14,705	3,907	10,798	3,512	11,169	12,195	2,758	9,437
1970	70,880	58,325	23,578	623	3,588	19,367	47,302	4,515	15,040	3,993	11,047	3,645	11,548	12,554	2,731	9,823
1971	71,214	58,331	22,935	609	3,704	18,623	48,278	4,476	15,352	4,001	11,351	3,772	11,797	12,881	2,696	10,185
1972	73,675	60,341	23,668	628	3,889	19,151	50,007	4,541	15,949	4,113	11,836	3,908	12,276	13,334	2,684	10,649
1973	76,790	63,058	24,893	642	4,097	20,154	51,897	4,656	16,607	4,277	12,329	4,046	12,857	13,732	2,663	11,068
1974	78,265	64,095	24,794	697	4,020	20,077	53,471	4,725	16,987	4,433	12,554	4,148	13,441	14,170	2,724	11,446
1975	76,945	62,259	22,600	752	3,525	18,323	54,345	4,542	17,060	4,415	12,645	4,165	13,892	14,686	2,748	11,937
1976	79,382	64,511	23,352	779	3,576	18,997	56,030	4,582	17,755	4,546	13,209	4,271	14,551	14,871	2,733	12,138
1977	82,471	67,344	24,346	813	3,851	19,682	58,125	4,713	18,516	4,708	13,808	4,467	15,303	15,127	2,727	12,399
1978	86,697	71,026	25,585	851	4,229	20,505	61,113	4,923	19,542	4,969	14,573	4,724	16,252	15,672	2,753	12,919
1979	89,823	73,876	26,461	958	4,463	21,040	63,363	5,136	20,192	5,204	14,989	4,975	17,112	15,947	2,773	13,147
1980	90,406	74,166	25,658	1,027	4,346	20,285	64,748	5,146	20,310	5,275	15,035	5,160	17,890	16,241	2,866	13,375
1981	91,105	75,081	25,481	1,132	4,176	20,173	65,625	5,157	20,551	5,359	15,192	5,301	18,592	16,024	2,772	13,253

¹Data include Alaska and Hawaii beginning in 1959.

10. Employment by State

[Nonagricultural payroll data, in thousands]

State	December 1981	November 1982	December 1982 ^p	State	December 1981	November 1982	December 1982 ^p
Alabama	1,352.8	1,319.1	1,316.6	Montana	292.5	280.6	279.2
Alaska	176.0	189.4	187.5	Nebraska	629.1	610.2	605.0
Arizona	1,060.4	1,040.8	1,043.4	Nevada	417.3	413.3	410.4
Arkansas	735.0	725.6	725.6	New Hampshire	397.1	390.1	390.1
California	10,167.6	9,944.8	9,969.5	New Jersey	3,095.8	3,063.3	3,059.8
Colorado	1,298.3	1,283.7	1,287.4	New Mexico	479.0	475.4	476.3
Connecticut	1,447.1	1,419.0	1,424.1	New York	7,355.7	7,286.1	7,284.8
Delaware	260.1	255.4	258.6	North Carolina	2,391.6	2,349.8	2,352.6
District of Columbia	606.8	605.6	606.7	North Dakota	253.7	254.1	252.7
Florida	3,823.9	3,818.5	3,863.9	Ohio	4,301.4	4,186.0	4,175.9
Georgia	2,185.4	2,158.5	2,164.6	Oklahoma	1,221.9	1,191.6	1,193.1
Hawaii	406.6	400.9	401.6	Oregon	995.2	964.3	956.5
Idaho	321.7	314.3	312.2	Pennsylvania	4,703.8	4,472.7	4,436.7
Illinois	4,754.2	4,564.5	4,544.6	Rhode Island	402.2	394.3	391.7
Indiana	2,081.5	1,983.7	1,989.3	South Carolina	1,195.1	1,178.4	1,179.4
Iowa	1,085.1	1,044.7	1,037.8	South Dakota	235.8	230.6	227.8
Kansas	953.8	918.4	916.9	Tennessee	1,734.8	1,693.3	1,688.4
Kentucky	1,193.5	1,146.4	1,150.1	Texas	6,299.0	6,196.3	6,202.1
Louisiana	1,651.4	1,614.2	1,611.6	Utah	568.5	564.1	563.1
Maine	412.3	409.4	406.3	Vermont	203.6	201.9	202.3
Maryland	1,706.6	1,688.4	1,687.7	Virginia	2,176.2	2,173.2	2,172.6
Massachusetts	2,674.4	2,626.5	(¹)	Washington	1,576.6	1,560.2	1,557.1
Michigan	3,322.0	3,208.1	3,202.3	West Virginia	628.9	596.1	592.5
Minnesota	1,763.6	1,699.2	1,691.5	Wisconsin	1,912.8	1,867.0	1,848.3
Mississippi	821.9	794.6	794.9	Wyoming	224.6	215.5	212.2
Missouri	1,967.5	1,956.1	1,944.8	Virgin Islands	36.6	35.0	35.5

^p= preliminary.

¹Data not available.

11. Employment by industry division and major manufacturing group, seasonally adjusted

[Nonagricultural payroll data, in thousands]

Industry division and group	Annual average		1982												1983
	1980	1981	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. ^P	Jan. ^P
TOTAL	90,406	91,105	90,460	90,459	90,304	90,083	90,166	89,839	89,535	^c 89,313	^c 89,264	^c 88,877	88,750	88,535	88,874
PRIVATE SECTOR	74,166	75,081	74,596	74,609	74,445	74,231	74,313	74,007	73,900	73,640	73,504	73,118	72,996	72,779	73,206
GOODS-PRODUCING	25,658	25,481	24,684	24,631	24,450	24,289	24,255	23,994	23,840	23,657	23,530	23,239	23,081	22,975	23,113
Mining	1,027	1,132	1,201	1,203	1,197	1,182	1,152	1,124	1,100	1,086	1,075	1,058	1,046	1,034	1,028
Construction	4,346	4,176	3,966	3,974	3,934	3,938	3,988	3,940	3,927	3,899	3,883	3,856	3,854	3,812	3,927
Manufacturing	20,285	20,173	19,517	19,454	19,319	19,169	19,115	18,930	18,813	18,672	18,572	18,325	18,181	18,129	18,158
Production workers	14,214	14,021	13,431	13,290	13,179	13,042	13,008	12,852	12,760	12,647	12,566	12,335	12,203	12,173	12,205
Durable goods	12,187	12,117	11,622	11,575	11,490	11,375	11,332	11,203	11,133	10,993	10,900	10,666	10,550	10,523	10,540
Production workers	8,442	8,301	7,793	7,759	7,685	7,576	7,553	7,443	7,388	7,272	7,191	6,979	6,874	6,857	6,883
Lumber and wood products	690.5	668.7	607	611	607	615	617	615	614	614	616	614	616	621	629
Furniture and fixtures	465.8	467.3	452	449	446	443	443	442	439	443	439	434	435	435	435
Stone, clay, and glass products	662.1	638.2	596	596	590	584	586	580	579	574	571	565	556	552	551
Primary metal industries	1,142.2	1,121.1	1,038	1,024	1,007	976	945	926	906	889	865	831	813	806	810
Fabricated metal products	1,613.1	1,592.4	1,515	1,505	1,496	1,481	1,472	1,452	1,446	1,427	1,414	1,381	1,365	1,359	1,364
Machinery, except electrical	2,494.0	2,507.0	2,459	2,446	2,419	2,389	2,377	2,322	2,274	2,230	2,208	2,142	2,108	2,087	2,068
Electric and electronic equipment	2,090.6	2,092.2	2,055	2,048	2,038	2,034	2,034	2,026	2,018	2,011	1,995	1,969	1,963	1,949	1,955
Transportation equipment	1,899.7	1,892.6	1,777	1,778	1,774	1,748	1,755	1,745	1,759	1,719	1,709	1,658	1,631	1,660	1,669
Instruments and related products	711.3	726.8	720	718	716	713	713	708	708	702	701	694	689	683	683
Miscellaneous manufacturing	418.0	410.7	403	400	397	392	390	387	390	384	382	378	374	371	376
Nondurable goods	8,098	8,056	7,895	7,879	7,829	7,794	7,783	7,727	7,680	7,679	7,672	7,659	7,631	7,606	7,618
Production workers	5,772	5,721	5,548	5,531	5,494	5,466	5,455	5,409	5,372	5,375	5,375	5,356	5,329	5,316	5,322
Food and kindred products	1,708.0	1,674.3	1,657	1,663	1,658	1,643	1,652	1,637	1,643	1,628	1,629	1,644	1,644	1,631	1,634
Tobacco manufactures	68.9	69.8	69	68	68	67	67	67	65	65	63	63	61	65	66
Textile mill products	847.7	822.5	780	777	760	773	759	741	741	737	735	735	726	725	719
Apparel and other textile products	1,263.5	1,244.0	1,201	1,201	1,186	1,165	1,165	1,126	1,126	1,145	1,143	1,141	1,134	1,129	1,134
Paper and allied products	692.8	687.8	674	670	668	664	661	658	657	653	657	650	652	650	648
Printing and publishing	1,252.1	1,265.8	1,275	1,276	1,278	1,274	1,274	1,269	1,267	1,269	1,269	1,268	1,266	1,266	1,270
Chemicals and allied products	1,107.4	1,107.3	1,095	1,093	1,088	1,082	1,079	1,073	1,068	1,070	1,066	1,061	1,059	1,055	1,055
Petroleum and coal products	197.9	215.6	210	208	207	206	207	205	205	205	209	208	206	206	208
Rubber and miscellaneous plastics products	726.8	736.1	712	708	703	706	708	704	700	699	694	684	678	678	681
Leather and leather products	232.9	233.0	222	215	213	214	211	212	208	208	207	205	205	201	203
SERVICE-PRODUCING	64,748	65,625	65,776	65,828	65,854	65,794	65,911	65,845	65,695	^c 65,656	^c 65,734	^c 65,638	65,669	65,560	65,761
Transportation and public utilities	5,146	5,157	5,125	5,115	5,100	5,094	5,101	5,078	5,044	5,025	5,031	5,007	4,992	4,984	4,973
Wholesale and retail trade	20,310	20,551	20,630	20,670	20,655	20,584	20,652	20,595	20,615	20,550	20,492	20,441	20,425	20,306	20,549
Wholesale trade	5,275	5,359	5,346	5,343	5,336	5,323	5,331	5,307	5,299	5,278	5,272	5,254	5,228	5,204	5,208
Retail trade	15,035	15,192	15,284	15,327	15,319	15,261	15,321	15,288	15,316	15,272	15,220	15,187	15,197	15,102	15,341
Finance, insurance, and real estate	5,160	5,301	5,326	5,326	5,336	5,335	5,342	5,352	5,359	5,360	5,367	5,357	5,363	5,373	5,401
Services	17,890	18,592	18,831	18,867	18,904	18,929	18,963	18,988	19,042	19,048	19,084	19,074	19,135	19,141	19,170
Government	16,241	16,024	15,864	15,850	15,859	15,852	15,853	15,832	15,635	^c 15,673	^c 15,760	^c 15,759	15,754	15,756	15,668
Federal	2,866	2,772	2,741	2,737	2,736	2,730	2,728	2,739	2,737	^c 2,740	^c 2,731	^c 2,740	2,745	2,761	2,751
State and local	13,375	13,253	13,123	13,113	13,123	13,122	13,125	13,093	12,898	12,933	13,029	13,019	13,009	12,995	12,917

p=preliminary.

c=corrected.

12. Hours and earnings, by industry division, selected years, 1950-81

[Gross averages, production or nonsupervisory workers on nonagricultural payrolls]

Year	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings
	Private sector			Mining			Construction			Manufacturing		
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
1955	67.72	39.6	1.71	89.54	40.7	2.20	90.90	37.1	2.45	75.30	40.7	1.85
1960 ¹	80.67	38.6	2.09	105.04	40.4	2.60	112.67	36.7	3.07	89.72	39.7	2.26
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	95.45	38.8	2.46	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	112.19	41.4	2.71
1967	101.84	38.0	2.68	135.89	42.6	3.19	154.95	37.7	4.11	114.49	40.6	2.82
1968	107.73	37.8	2.85	142.71	42.6	3.35	164.49	37.3	4.41	122.51	40.7	3.01
1969	114.61	37.7	3.04	154.80	43.0	3.60	181.54	37.9	4.79	129.51	40.6	3.19
1970	119.83	37.1	3.23	164.40	42.7	3.85	195.45	37.3	5.24	133.33	39.8	3.35
1971	127.31	36.9	3.45	172.14	42.4	4.06	211.67	37.2	5.69	142.44	39.9	3.57
1972	136.90	37.0	3.70	189.14	42.6	4.44	221.19	36.5	6.06	154.71	40.5	3.82
1973	145.39	36.9	3.94	201.40	42.4	4.75	235.89	36.8	6.41	166.46	40.7	4.09
1974	154.76	36.5	4.24	219.14	41.9	5.23	249.25	36.6	6.81	176.80	40.0	4.42
1975	163.53	36.1	4.53	249.31	41.9	5.95	266.08	36.4	7.31	190.79	39.5	4.83
1976	175.45	36.1	4.86	273.90	42.4	6.46	283.73	36.8	7.71	209.32	40.1	5.22
1977	189.00	36.0	5.25	301.20	43.4	6.94	295.65	36.5	8.10	228.90	40.3	5.68
1978	203.70	35.8	5.69	332.88	43.4	7.67	318.69	36.8	8.66	249.27	40.4	6.17
1979	219.91	35.7	6.16	365.07	43.0	8.49	342.99	37.0	9.27	269.34	40.2	6.70
1980	235.10	35.3	6.66	397.06	43.3	9.17	367.78	37.0	9.94	288.62	39.7	7.27
1981	255.20	35.2	7.25	439.19	43.7	10.05	398.52	36.9	10.80	318.00	39.8	7.99
	Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services		
1950				\$44.55	40.5	\$1.100	\$50.52	37.7	\$1.340			
1955				55.16	39.4	1.40	63.92	37.6	1.70			
1960 ¹				66.01	38.6	1.71	75.14	37.2	2.02			
1964	\$118.78	41.1	\$2.89	74.66	37.9	1.97	85.79	37.3	2.30	\$70.03	36.1	\$1.94
1965	125.14	41.3	3.03	76.91	37.7	2.04	88.91	37.2	2.39	73.60	35.9	2.05
1966	128.13	41.2	3.11	79.39	37.1	2.14	92.13	37.3	2.47	77.04	35.5	2.17
1967	130.82	40.5	3.23	82.35	36.6	2.25	95.72	37.1	2.58	80.38	35.1	2.29
1968	138.85	40.6	3.42	87.00	36.1	2.41	101.75	37.0	2.75	83.97	34.7	2.42
1969	147.74	40.7	3.63	91.39	35.7	2.56	108.70	37.1	2.93	90.57	34.7	2.61
1970	155.93	40.5	3.85	96.02	35.3	2.72	112.67	36.7	3.07	96.66	34.4	2.81
1971	168.82	40.1	4.21	101.09	35.1	2.88	117.85	36.6	3.22	103.06	33.9	3.04
1972	187.86	40.4	4.65	106.45	34.9	3.05	122.98	36.6	3.36	110.85	33.9	3.27
1973	203.31	40.5	5.02	111.76	34.6	3.23	129.20	36.6	3.53	117.29	33.8	3.47
1974	217.48	40.2	5.41	119.02	34.2	3.48	137.61	36.5	3.77	126.00	33.6	3.75
1975	233.44	39.7	5.88	126.45	33.9	3.73	148.19	36.5	4.06	134.67	33.5	4.02
1976	256.71	39.8	6.45	133.79	33.7	3.97	155.43	36.4	4.27	143.52	33.3	4.31
1977	278.90	39.9	6.99	142.52	33.3	4.28	165.26	36.4	4.54	153.45	33.0	4.65
1978	302.80	40.0	7.57	153.64	32.9	4.67	178.00	36.4	4.89	163.67	32.8	4.99
1979	325.58	39.9	8.16	164.96	32.6	5.06	190.77	36.2	5.27	175.27	32.7	5.36
1980	351.25	39.6	8.87	176.46	32.2	5.48	209.60	36.2	5.79	190.71	32.6	5.85
1981	382.18	39.4	9.70	190.95	32.2	5.93	229.05	36.3	6.31	208.97	32.6	6.41

¹ Data include Alaska and Hawaii beginning in 1959.

13. Weekly hours, by industry division and major manufacturing group, seasonally adjusted

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1982												1983
	1980	1981	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. ^P	Jan. ^P
PRIVATE SECTOR	35.3	35.2	34.4	35.0	34.9	34.9	35.0	34.9	34.9	34.8	34.8	34.7	34.7	34.8	35.2
MANUFACTURING	39.7	39.8	37.6	39.4	39.0	39.0	39.1	39.2	39.2	39.0	38.8	38.8	38.9	38.9	39.7
Overtime hours	2.8	2.8	2.3	2.4	2.3	2.4	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3
Durable goods	40.1	40.2	38.2	39.8	39.5	39.5	39.6	39.7	39.7	39.4	38.9	39.0	39.2	39.2	40.1
Overtime hours	2.8	2.8	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.0	2.1	2.1	2.1
Lumber and wood products	38.5	38.7	35.0	37.9	37.6	37.6	38.5	38.7	38.6	38.2	38.5	38.0	38.5	38.5	40.6
Furniture and fixtures	38.1	38.4	33.6	37.7	37.3	37.4	37.5	37.8	37.6	37.9	37.4	37.5	37.6	37.6	39.0
Stone, clay, and glass products	40.8	40.6	38.6	40.1	40.0	40.0	40.2	40.4	40.6	40.3	40.2	40.2	40.2	40.0	41.5
Primary metal industries	40.1	40.5	38.3	39.4	38.8	38.5	38.5	38.9	38.9	38.8	37.8	38.0	38.2	38.8	39.0
Fabricated metal products	40.4	40.3	38.1	39.7	39.5	39.4	39.5	39.4	39.5	39.2	38.8	38.9	39.0	39.2	39.6
Machinery, except electrical	41.0	40.9	39.3	40.7	40.2	40.1	39.8	39.6	39.8	39.5	39.0	39.2	39.2	39.3	39.7
Electric and electronic equipment	39.8	39.9	38.3	39.8	39.4	39.3	39.4	39.5	39.8	39.3	38.8	39.0	39.2	39.3	39.9
Transportation equipment	40.6	40.9	39.0	40.5	40.4	41.1	41.1	41.6	41.0	40.5	39.8	40.1	40.8	39.9	41.3
Instruments and related products	40.5	40.4	39.0	39.9	39.9	39.9	40.2	40.2	40.1	40.1	39.8	39.4	39.2	39.6	40.4
Miscellaneous manufacturing	38.7	38.8	37.3	38.6	38.6	38.5	38.7	38.6	38.7	38.6	38.3	38.6	38.6	38.5	39.1
Nondurable goods	39.0	39.1	36.8	38.9	38.5	38.4	38.5	38.6	38.6	38.5	38.6	38.5	38.5	38.5	39.2
Overtime hours	2.8	2.8	2.5	2.6	2.5	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.5	2.5	2.5
Food and kindred products	39.7	39.7	39.1	40.2	39.5	39.4	39.4	39.5	39.5	39.1	39.4	39.7	39.4	39.2	39.2
Textile mill products	40.1	39.6	32.3	38.3	37.6	37.7	37.9	37.8	37.7	38.2	38.1	38.2	38.6	38.4	40.3
Apparel and other textile products	35.4	35.7	31.4	35.5	35.0	34.7	34.8	35.1	35.2	35.0	35.2	35.0	35.1	35.0	36.6
Paper and allied products	42.2	42.5	41.3	42.3	41.8	42.1	41.8	42.0	41.9	41.7	41.5	41.7	41.6	41.5	41.7
Printing and publishing	37.1	37.3	36.9	37.4	37.1	37.1	36.8	37.1	37.0	36.8	37.0	36.9	37.1	37.1	37.5
Chemicals and allied products	41.5	41.6	41.0	41.2	40.7	40.7	41.0	41.0	40.9	40.9	41.2	40.8	40.6	41.0	41.2
Petroleum and coal products	41.8	43.2	44.3	43.5	43.5	44.0	44.1	44.1	43.3	43.9	44.0	43.3	43.9	44.5	45.3
Rubber and miscellaneous plastics products	40.0	40.3	37.9	40.0	39.6	39.8	39.9	40.1	40.2	39.7	39.6	39.0	39.3	39.7	40.3
Leather and leather products	36.7	36.8	34.1	35.6	35.8	35.6	35.6	35.7	36.1	36.0	35.7	35.2	35.9	35.5	36.2
WHOLESALE AND RETAIL TRADE	32.2	32.2	31.7	32.0	31.9	31.8	32.0	31.9	31.9	31.9	32.1	31.9	31.8	32.1	32.2
WHOLESALE TRADE	38.5	38.6	38.1	38.5	38.4	38.3	38.5	38.6	38.5	38.5	38.4	38.3	38.4	38.4	38.6
RETAIL TRADE	30.2	30.1	29.7	29.9	29.8	29.8	30.0	29.8	29.9	29.9	30.1	29.9	29.8	30.2	30.3
SERVICES	32.6	32.6	32.5	32.6	32.6	32.7	32.7	32.7	32.6	32.6	32.8	32.6	32.6	32.6	32.8

p=preliminary.

14. Hourly earnings, by industry division and major manufacturing group

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1982												1983
	1980	1981	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. P	Jan. P
PRIVATE SECTOR	\$6.66	\$7.25	\$7.55	\$7.54	\$7.55	\$7.58	\$7.63	\$7.64	\$7.67	\$7.70	\$7.76	\$7.79	\$7.81	\$7.82	\$7.89
Seasonally adjusted	(¹)	(¹)	7.52	7.53	7.54	7.59	7.65	7.67	7.71	7.74	7.72	7.77	7.79	7.83	7.86
MINING	9.17	10.05	10.65	10.62	10.62	10.65	10.66	10.82	10.91	10.93	11.04	11.02	11.06	11.05	11.10
CONSTRUCTION	9.94	10.80	11.59	11.32	11.33	11.32	11.46	11.41	11.53	11.60	11.68	11.82	11.66	11.90	11.88
MANUFACTURING	7.27	7.99	8.42	8.34	8.37	8.42	8.45	8.50	8.55	8.51	8.59	8.56	8.61	8.69	8.70
Durable goods	7.75	8.53	8.92	8.89	8.91	8.94	9.01	9.06	9.11	9.09	9.16	9.13	9.17	9.24	9.24
Lumber and wood products	6.55	7.00	7.38	7.27	7.28	7.24	7.41	7.59	7.64	7.61	7.70	7.61	7.63	7.60	7.67
Furniture and fixtures	5.49	5.91	6.28	6.19	6.21	6.21	6.23	6.30	6.34	6.39	6.41	6.41	6.44	6.47	6.50
Stone, clay, and glass products	7.50	8.27	8.70	8.62	8.65	8.72	8.80	8.86	8.93	8.93	9.03	9.04	9.04	9.08	9.07
Primary metal industries	9.77	10.81	11.23	11.20	11.15	11.24	11.23	11.31	11.37	11.49	11.54	11.42	11.49	11.54	11.51
Fabricated metal products	7.45	8.20	8.55	8.57	8.64	8.69	8.79	8.83	8.85	8.85	8.90	8.85	8.90	8.96	8.97
Machinery, except electrical	8.00	8.81	9.19	9.20	9.18	9.24	9.26	9.27	9.30	9.33	9.40	9.34	9.36	9.41	9.41
Electric and electronic equipment	6.94	7.62	7.98	7.96	8.01	8.03	8.05	8.09	8.18	8.24	8.31	8.34	8.38	8.47	8.47
Transportation equipment	9.35	10.39	10.79	10.82	10.89	10.89	11.08	11.21	11.25	11.18	11.24	11.30	11.35	11.46	11.41
Instruments and related products	6.80	7.43	7.93	7.94	8.00	8.07	8.16	8.23	8.31	8.40	8.44	8.48	8.57	8.66	8.71
Miscellaneous manufacturing	5.46	5.96	6.27	6.29	6.32	6.35	6.38	6.41	6.40	6.39	6.49	6.50	6.56	6.65	6.65
Nondurable goods	6.55	7.18	7.67	7.54	7.57	7.65	7.66	7.70	7.77	7.74	7.84	7.81	7.88	7.96	7.99
Food and kindred products	6.85	7.43	7.82	7.74	7.79	7.90	7.92	7.90	7.88	7.85	7.91	7.88	8.00	8.05	8.04
Tobacco manufactures	7.74	8.88	9.21	9.56	9.72	10.05	9.93	10.35	10.42	9.53	9.57	9.50	10.16	9.78	9.85
Textile mill products	5.07	5.52	5.76	5.76	5.76	5.79	5.79	5.79	5.81	5.82	5.86	5.87	5.92	6.02	6.06
Apparel and other textile products	4.56	4.96	5.18	5.13	5.15	5.18	5.16	5.18	5.17	5.18	5.20	5.19	5.22	5.26	5.32
Paper and allied products	7.84	8.60	9.06	8.99	9.03	9.11	9.14	9.28	9.41	9.45	9.63	9.54	9.60	9.65	9.62
Printing and publishing	7.53	8.18	8.58	8.56	8.59	8.59	8.61	8.66	8.74	8.79	8.90	8.87	8.91	8.98	9.00
Chemicals and allied products	8.30	9.12	9.68	9.68	9.71	9.81	9.83	9.95	10.02	10.03	10.20	10.24	10.28	10.34	10.35
Petroleum and coal products	10.10	11.38	11.91	12.29	12.32	12.50	12.52	12.53	12.42	12.42	12.62	12.57	12.69	12.74	13.25
Rubber and miscellaneous plastics products	6.52	7.16	7.51	7.49	7.45	7.52	7.56	7.64	7.65	7.64	7.76	7.72	7.79	7.89	7.93
Leather and leather products	4.58	4.99	5.19	5.22	5.24	5.32	5.32	5.36	5.30	5.33	5.41	5.39	5.41	5.46	5.46
TRANSPORTATION AND PUBLIC UTILITIES	8.87	9.70	10.10	10.13	10.07	10.14	10.17	10.20	10.29	10.43	10.46	10.48	10.59	10.62	10.69
WHOLESALE AND RETAIL TRADE	5.48	5.93	6.17	6.16	6.16	6.18	6.20	6.20	6.21	6.22	6.26	6.30	6.32	6.28	6.42
WHOLESALE TRADE	6.96	7.57	7.94	7.94	7.93	7.97	8.03	8.01	8.07	8.11	8.14	8.17	8.18	8.24	8.32
RETAIL TRADE	4.88	5.25	5.43	5.42	5.43	5.44	5.47	5.47	5.48	5.48	5.52	5.54	5.58	5.55	5.67
FINANCE, INSURANCE, AND REAL ESTATE	5.79	6.31	6.56	6.62	6.59	6.64	6.77	6.71	6.78	6.87	6.90	6.97	7.01	7.04	7.21
SERVICES	5.85	6.41	6.79	6.79	6.77	6.81	6.85	6.84	6.87	6.90	6.99	7.05	7.08	7.12	7.19

¹ Not available.

p=preliminary.

15. Hourly Earnings Index, for production workers on private nonagricultural payrolls, by industry

[1977=100]

Industry	Not seasonally adjusted					Seasonally adjusted						
	Jan. 1982	Nov. 1982	Dec. 1982 P	Jan. 1983 P	Percent change from: Jan. 1982 to Jan. 1983	Jan. 1982	Sept. 1982	Oct. 1982	Nov. 1982	Dec. 1982 P	Jan. 1983 P	Percent change from: Dec. 1982 to Jan. 1983
PRIVATE SECTOR (in current dollars)	145.5	151.4	152.1	153.3	5.4	144.9	150.1	150.8	151.2	152.1	152.7	0.4
Mining	156.2	163.3	163.2	163.4	4.6	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Construction	139.7	141.7	144.0	143.7	2.9	139.9	140.4	142.3	141.0	143.9	143.9	.1
Manufacturing	149.3	155.4	156.3	156.9	5.1	148.9	154.7	154.6	155.3	155.7	156.4	.5
Transportation and public utilities	145.8	153.6	154.0	155.1	6.4	145.5	149.9	151.1	152.3	153.2	154.8	1.0
Wholesale and retail trade	143.0	147.6	147.6	149.6	4.6	142.1	146.8	147.6	148.1	148.5	148.7	.1
Finance, insurance, and real estate	143.7	152.7	153.6	157.2	9.3	143.1	151.3	152.9	152.7	154.2	156.5	1.5
Services	144.5	151.1	152.0	153.5	6.2	143.4	149.7	150.8	150.9	152.3	152.3	.0
PRIVATE SECTOR (in constant dollars)	93.6	93.7	94.5	(²)	(²)	92.9	93.2	93.2	93.4	94.1	(²)	(²)

¹ This series is not seasonally adjusted because the seasonal component is small relative to the trend-cycle, irregular components, or both, and consequently cannot be separated with sufficient precision.

² Not available.
p = preliminary.

16. Weekly earnings, by industry division and major manufacturing group

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1982												1983
	1980	1981	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. ^P	Jan. ^P
PRIVATE SECTOR															
Current dollars	\$235.10	\$255.20	\$255.95	\$262.39	\$261.99	\$262.27	\$265.52	\$267.40	\$269.98	\$271.04	\$270.05	\$270.31	\$271.01	\$273.70	\$273.78
Seasonally adjusted	(¹)	(¹)	258.69	263.55	263.15	264.89	267.75	267.68	269.08	269.35	268.66	269.62	270.31	272.48	276.67
Constant (1977) dollars	172.74	170.13	164.70	168.31	168.37	167.80	168.16	167.33	167.90	168.24	167.42	167.06	167.81	170.11	(¹)
MINING	397.06	439.19	456.89	463.03	465.16	454.76	454.12	463.10	463.68	463.43	462.58	461.74	460.10	464.10	\$469.53
CONSTRUCTION	367.78	398.52	385.95	406.39	419.21	415.44	429.75	427.88	438.14	436.16	430.99	438.52	420.93	437.92	437.18
MANUFACTURING															
Current dollars	288.62	318.00	312.38	326.93	327.27	325.85	329.55	334.05	332.60	331.89	334.15	333.84	338.37	344.99	340.17
Constant (1977) dollars	212.06	212.00	201.02	209.70	210.33	208.48	208.71	209.04	206.84	206.40	207.16	206.33	209.52	214.41	(¹)
Durable goods															
Lumber and wood products	252.18	270.90	248.71	272.63	273.73	270.05	285.29	297.53	294.90	295.27	298.76	292.22	293.76	295.64	299.13
Furniture and fixtures	209.17	226.94	204.10	231.51	233.50	230.39	231.76	238.77	233.31	243.46	241.66	244.22	245.36	249.74	245.05
Stone, clay, and glass products	306.00	335.76	325.38	337.90	344.27	347.93	355.52	361.49	362.56	362.56	365.72	367.02	367.02	366.83	364.61
Primary metal industries	391.78	437.81	431.23	443.52	434.85	434.99	430.11	439.96	437.75	440.07	438.52	431.68	440.07	451.21	450.04
Fabricated metal products	300.98	330.46	323.19	337.66	342.14	338.91	346.33	349.67	344.27	346.04	346.21	346.04	350.66	360.19	352.52
Machinery except electrical	328.00	360.33	360.25	374.44	370.87	367.75	367.62	367.09	363.63	364.80	367.54	365.19	370.66	380.16	372.64
Electric and electronic equipment	276.21	304.04	304.04	316.81	316.40	313.17	315.56	319.56	319.84	322.18	322.43	326.09	331.85	340.49	336.26
Transportation equipment	379.61	424.95	414.34	437.13	439.96	441.05	455.39	466.34	456.75	447.20	443.98	457.65	467.62	475.59	464.39
Instruments and related products	275.40	300.17	306.10	317.60	320.80	318.77	327.22	330.85	328.25	335.16	335.91	334.96	341.09	349.86	348.40
Miscellaneous manufacturing	211.30	231.25	229.48	241.54	244.58	242.57	245.63	247.43	244.48	246.65	250.51	253.50	256.50	260.02	255.36
Nondurable goods															
Food and kindred products	271.95	294.97	302.63	307.28	303.81	306.52	312.05	312.05	312.05	310.86	315.61	312.84	317.60	319.59	311.95
Tobacco manufactures	294.89	344.54	332.48	366.15	362.56	367.83	369.40	397.44	383.46	363.09	379.93	370.50	386.08	371.64	361.50
Textile mill products	203.31	218.59	179.71	219.46	217.15	215.39	219.44	220.60	216.13	222.91	223.85	227.17	231.47	235.98	235.73
Apparel and other textile products	161.42	177.07	155.40	180.58	180.77	178.19	180.08	183.89	183.02	183.37	182.52	183.21	184.79	186.20	186.20
Paper and allied products	330.85	365.50	374.18	377.58	376.55	380.80	379.31	389.76	391.46	393.12	401.57	397.82	402.24	409.16	401.15
Printing and publishing	279.36	305.11	312.31	317.58	318.69	316.11	315.99	319.55	322.51	326.11	331.08	328.19	332.34	340.34	333.00
Chemicals and allied products	344.45	379.39	394.94	397.85	395.20	399.27	401.06	406.96	407.81	408.22	420.24	417.79	421.48	429.11	424.35
Petroleum and coal products	422.18	491.62	514.51	518.64	522.37	550.00	549.63	553.83	546.48	546.48	572.95	555.59	564.71	565.66	585.65
Rubber and miscellaneous plastics products	260.80	288.55	283.88	298.85	295.77	297.04	300.13	306.36	302.94	303.31	307.30	303.40	308.48	318.76	318.79
Leather and leather products	168.09	183.63	172.83	184.27	186.54	187.26	191.52	196.71	191.33	192.95	192.06	190.27	194.76	195.47	192.74
TRANSPORTATION AND PUBLIC UTILITIES	351.25	382.18	388.85	397.10	392.73	393.43	394.60	399.84	403.37	409.90	405.85	406.62	413.01	415.24	411.57
WHOLESALE AND RETAIL TRADE	176.46	190.95	191.89	194.66	194.66	195.91	197.78	199.02	202.45	202.77	200.95	200.97	200.34	203.47	202.87
WHOLESALE TRADE	267.96	292.20	300.13	303.31	303.72	304.45	308.35	309.19	312.31	313.05	312.58	314.55	314.93	318.89	318.66
RETAIL TRADE	147.38	158.03	157.47	159.35	159.64	161.02	163.01	164.65	168.24	168.24	166.70	165.09	165.73	169.83	167.83
FINANCE, INSURANCE, AND REAL ESTATE	209.60	229.05	237.47	239.64	239.22	240.37	245.75	242.23	245.44	249.38	249.09	252.31	253.76	254.85	263.17
SERVICES	190.71	208.97	219.32	220.68	220.03	221.33	222.63	224.35	227.40	227.70	228.57	229.13	230.10	232.11	234.39

¹ Not available.

p = preliminary.

UNEMPLOYMENT INSURANCE DATA

NATIONAL UNEMPLOYMENT INSURANCE DATA are compiled monthly by the Employment and Training Administration of the U.S. Department of Labor from monthly reports of unemployment insurance activity prepared by State agencies. Railroad unemployment insurance data are prepared by the U.S. Railroad Retirement Board.

Definitions

Data for all programs represent an unduplicated count of insured unemployment under State programs, Unemployment Compensation for Ex-Servicemen, and Unemployment Compensation for Federal Employees, and the Railroad Insurance Act.

Under both State and Federal unemployment insurance programs for civilian employees, insured workers must report the completion of at least 1 week of unemployment before they are defined as unem-

ployed. Persons not covered by unemployment insurance (about 10 percent of the labor force) and those who have exhausted or not yet earned benefit rights are excluded from the scope of the survey. **Initial claims** are notices filed by persons in unemployment insurance programs to indicate they are out of work and wish to begin receiving compensation. A claimant who continued to be unemployed a full week is then counted in the insured unemployment figure. The **rate of insured unemployment** expresses the number of insured unemployed as a percent of the average insured employment in a 12-month period.

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. **Number of payments** are payments made in 14-day registration periods. The **average amount of benefit payment** is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments. However, **total benefits** paid have been adjusted.

17. Unemployment insurance and employment service operations

[All items except average benefits amounts are in thousands]

Item	1982												
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. ^P
All programs:													
Insured unemployment	3,935	4,681	4,723	4,892	4,760	4,388	4,327	4,495	4,398	4,283	4,391	4,635	5,078
State unemployment insurance program: ¹													
Initial claims ²	3,272	3,328	2,272	2,418	2,347	1,989	2,399	2,655	2,358	r 2,342	2,443	2,641	3,006
Insured unemployment (average weekly volume)	3,778	4,470	4,376	4,282	4,067	3,729	3,707	r 3,912	3,831	r 3,712	3,828	4,156	4,583
Rate of insured unemployment	4.3	5.1	5.0	4.9	4.6	4.3	4.3	4.6	4.4	4.2	4.4	4.7	5.2
Weeks of unemployment compensated	14,592	15,962	15,631	18,144	16,158	13,679	14,648	14,655	15,015	r 14,547	13,786	15,162	17,785
Average weekly benefit amount for total unemployment	\$112.83	\$114.83	\$116.95	\$117.10	\$117.61	\$118.08	\$118.64	\$117.28	r \$118.97	r \$120.78	\$122.75	\$123.36	123.28
Total benefits paid	\$1,592,546	\$1,764,206	\$1,781,830	\$2,072,642	\$1,849,881	\$1,573,444	\$1,692,150	\$1,679,378	\$1,746,195	r \$1,710,573	\$1,646,554	\$1,818,220	\$2,122,161
State unemployment insurance program: ¹ (Seasonally adjusted data)													
Initial claims ²	2,106	2,304	2,354	2,521	2,442	2,379	2,528	2,317	2,814	r 2,902	2,688	.....	.....
Insured unemployment (average weekly volume)	3,593	3,604	3,644	3,777	3,939	3,925	3,995	3,959	4,137	r 4,446	4,680	.....	.....
Rate of insured unemployment	4.1	4.1	4.2	4.3	4.5	4.5	4.6	4.5	4.7	5.1	5.3	.....	.....
Unemployment compensation for ex-servicemen: ³													
Initial claims ¹	11	8	8	10	9	8	10	10	11	11	10	17	23
Insured unemployment (average weekly volume)	19	16	13	11	10	9	8	7	7	8	9	14	26
Weeks of unemployment compensated	93	65	49	48	37	31	29	25	24	25	28	33	88
Total benefits paid	\$10,155	\$7,098	\$5,304	\$5,141	\$4,013	\$3,395	\$3,314	\$2,821	\$2,793	\$2,900	\$3,378	\$4,007	10,917
Unemployment compensation for Federal civilian employees: ⁴													
Initial claims	17	17	12	13	13	11	14	13	12	13	16	14	15
Insured unemployment (average weekly volume)	39	40	40	38	33	29	28	29	27	26	28	31	33
Weeks of unemployment compensated	174	162	154	172	146	120	123	120	118	111	109	126	145
Total benefits paid	\$18,891	\$18,040	\$17,517	\$19,677	\$16,806	\$13,526	\$13,922	\$13,445	\$13,140	\$12,303	\$12,119	\$14,023	\$16,099
Railroad unemployment insurance:													
Applications	19	22	11	9	5	5	36	68	68	14	20	17	17
Insured unemployment (average weekly volume)	54	75	67	65	57	44	44	55	55	61	82	81	83
Number of payments	117	153	140	154	130	95	93	100	100	137	159	162	172
Average amount of benefit payment	\$212.33	\$213.39	\$214.07	\$215.71	\$209.48	\$200.75	\$199.15	\$202.54	\$202.54	\$216.14	\$212.35	\$216.55	\$217.00
Total benefits paid	\$25,292	\$30,544	\$28,011	\$33,853	\$26,262	\$19,110	\$18,574	\$17,998	\$17,998	\$31,123	\$31,638	\$35,061	\$39,500
Employment service: ⁵													
New applications and renewals	4,081	.....	.....	7,439	.....	.....	10,965	.....	.....	P 13,346	.....	.....	.....
Nonfarm placements	731	.....	.....	1,232	.....	.....	1,902	.....	.....	P 2,629	.....	.....	.....

¹ Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.

² Excludes transition claims under State programs.

³ Excludes data on claims and payments made jointly with other programs.

⁴ Excludes data on claims and payments made jointly with State programs.

⁵ Cumulative total for fiscal year (October 1-September 30). Data computed quarterly.

NOTE: Data for Puerto Rico and the Virgin Islands included. Dashes indicate data not available.

p = preliminary.

r = revised.

PRICE DATA

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period (1967 = 100, unless otherwise noted).

Definitions

The **Consumer Price Index** is a monthly statistical measure of the average change in prices in a fixed market basket of goods and services. Effective with the January 1978 index, the Bureau of Labor Statistics began publishing CPI's for two groups of the population. One index, a new CPI for All Urban Consumers, covers 80 percent of the total noninstitutional population; and the other index, a revised CPI for Urban Wage Earners and Clerical Workers, covers about half the new index population. The All Urban Consumers index includes, in addition to wage earners and clerical workers, professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctor's and dentist's fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items is kept essentially unchanged between major revisions so that only price changes will be measured. Prices are collected from over 18,000 tenants, 24,000 retail establishments, and 18,000 housing units for property taxes in 85 urban areas across the country. All taxes directly associated with the purchase and use of items are included in the index. Because the CPI's are based on the expenditures of two population groups in 1972-73, they may not accurately reflect the experience of individual families and single persons with different buying habits.

Though the CPI is often called the "Cost-of-Living Index," it measures only price change, which is just one of several important factors affecting living costs. Area indexes do not measure differences in the level of prices among cities. They only measure the average change in prices for each area since the base period.

Producer Price Indexes measure average changes in prices received in primary markets of the United States by producers of commodities in all stages of processing. The sample used for calculating these indexes contains about 2,800 commodities and about 10,000 quotations per month selected to represent the movement of prices of all commodities produced in the manufacturing, agriculture, forestry, fishing, mining, gas and electricity, and public utilities sectors. The universe includes all commodities produced or imported for sale in commercial transactions in primary markets in the United States.

Producer Price Indexes can be organized by stage of processing or by commodity. The stage of processing structure organizes products by degree of fabrication (that is, finished goods, intermediate or semifinished goods, and crude materials). The commodity structure organizes products by similarity of end-use or material composition.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States, from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire.

Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

In calculating Producer Price Indexes, price changes for the various commodities are averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1972. The detailed data are aggregated to obtain indexes for stage of processing groupings, commodity groupings, durability of product groupings, and a number of special composite groupings.

Price indexes for the output of selected SIC industries measure average price changes in commodities produced by particular industries, as defined in the *Standard Industrial Classification Manual 1972* (Washington, U.S. Office of Management and Budget, 1972). These indexes are derived from several price series, combined to match the economic activity of the specified industry and weighted by the value of shipments in the industry. They use data from comprehensive industrial censuses conducted by the U.S. Bureau of the Census and the U.S. Department of Agriculture.

Notes on the data

Beginning with the May 1978 issue of the *Review*, regional CPI's cross classified by population size, were introduced. These indexes will enable users in local areas for which an index is not published to get a better approximation of the CPI for their area by using the appropriate population size class measure for their region. The cross-classified indexes will be published bimonthly. (See table 19.)

For further details about the new and the revised indexes and a comparison of various aspects of these indexes with the old unrevised CPI, see *Facts About the Revised Consumer Price Index*, a pamphlet in the Consumer Price Index Revision 1978 series. See also *The Consumer Price Index: Concepts and Content Over the Years*, Report 517, revised edition (Bureau of Labor Statistics, May 1978).

For interarea comparisons of living costs at three hypothetical standards of living, see the family budget data published in the *Handbook of Labor Statistics, 1977*, Bulletin 1966 (Bureau of Labor Statistics, 1977), tables 122-133. Additional data and analysis on price changes are provided in the *CPI Detailed Report* and *Producer Prices and Price Indexes*, both monthly publications of the Bureau.

As of January 1976, the Wholesale Price Index (as it was then called) incorporated a revised weighting structure reflecting 1972 values of shipments. From January 1967 through December 1975, 1963 values of shipments were used as weights.

For a discussion of the general method of computing consumer, producer, and industry price indexes, see *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976), chapters 13-15. See also John F. Early, "Improving the measurement of producer price change," *Monthly Labor Review*, April 1978, pp. 7-15. For industry prices, see also Bennett R. Moss, "Industry and Sector Price Indexes," *Monthly Labor Review*, August 1965, pp. 974-82.

18. Consumer Price Index for Urban Wage Earners and Clerical Workers, annual averages and changes, 1967-82

[1967=100]

Year	All items		Food and beverages		Housing		Apparel and upkeep		Transportation		Medical care		Entertainment		Other goods and services	
	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change
1967	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...
1968	104.2	4.2	103.6	3.6	104.0	4.0	105.4	5.4	103.2	3.2	106.1	6.1	105.7	5.7	105.2	5.2
1969	109.8	5.4	108.8	5.0	110.4	6.2	111.5	5.8	107.2	3.9	113.4	6.9	111.0	5.0	110.4	4.9
1970	116.3	5.9	114.7	5.4	118.2	7.1	116.1	4.1	112.7	5.1	120.6	6.3	116.7	5.1	116.8	5.8
1971	121.3	4.3	118.3	3.1	123.4	4.4	119.8	3.2	118.6	5.2	128.4	6.5	122.9	5.3	122.4	4.8
1972	125.3	3.3	123.2	4.1	128.1	3.8	122.3	2.1	119.9	1.1	132.5	3.2	126.5	2.9	127.5	4.2
1973	133.1	6.2	139.5	13.2	133.7	4.4	126.8	3.7	123.8	3.3	137.7	3.9	130.0	2.8	132.5	3.9
1974	147.7	11.0	158.7	13.8	148.8	11.3	136.2	7.4	137.7	11.2	150.5	9.3	139.8	7.5	142.0	7.2
1975	161.2	9.1	172.1	8.4	164.5	10.6	142.3	4.5	150.6	9.4	168.6	12.0	152.2	8.9	153.9	8.4
1976	170.5	5.8	177.4	3.1	174.6	6.1	147.6	3.7	165.5	9.9	184.7	9.5	159.8	5.0	162.7	5.7
1977	181.5	6.5	188.0	6.0	186.5	6.8	154.2	4.5	177.2	7.1	202.4	9.6	167.7	4.9	172.2	5.8
1978	195.3	7.6	206.2	9.7	202.6	8.6	159.5	3.4	185.8	4.9	219.4	8.4	178.2	5.1	183.2	6.4
1979	217.7	11.5	228.7	10.9	227.5	12.3	166.4	4.3	212.8	14.5	240.1	9.4	187.6	6.5	196.3	7.2
1980	247.0	13.5	248.7	8.7	263.2	15.7	177.4	6.6	250.5	17.7	267.2	11.3	203.7	8.5	213.6	8.8
1981	272.3	10.2	267.8	7.7	293.2	11.4	186.6	5.2	281.3	12.3	295.1	10.4	219.0	7.5	233.3	9.2
1982	288.6	6.0	278.5	4.0	314.7	7.3	190.9	2.3	293.1	4.2	326.9	10.8	232.4	6.1	257.0	10.2

19. Consumer Price Index for All Urban Consumers and revised CPI for Urban Wage Earners and Clerical Workers, U.S. city average—general summary and groups, subgroups, and selected items

[1967=100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1981		1982					1981		1982				
	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.
All items	281.5	292.2	292.8	293.3	294.1	293.6	292.4	281.1	291.8	292.4	292.8	293.6	293.2	292.0
Food and beverages	270.5	280.8	279.9	280.1	279.6	279.1	279.1	270.8	281.2	280.2	280.4	279.9	279.4	279.6
Housing	305.2	319.2	320.1	319.7	320.7	319.0	316.3	304.7	319.3	320.5	320.0	321.2	319.6	316.8
Apparel and upkeep	190.5	189.7	191.8	194.9	195.5	195.4	193.6	189.4	188.7	190.7	194.1	194.6	194.4	192.8
Transportation	289.8	296.1	296.2	295.3	295.5	295.8	294.8	291.5	297.9	298.0	296.9	297.0	297.3	296.3
Medical care	310.2	330.0	333.3	336.0	338.7	342.2	344.3	309.1	328.1	331.3	333.9	336.5	339.8	341.8
Entertainment	227.3	236.6	237.4	238.3	240.3	239.9	240.1	224.4	233.5	233.9	234.8	236.5	236.1	236.5
Other goods and services	246.7	257.2	258.3	266.6	271.2	273.8	276.6	243.5	254.5	255.7	262.8	267.0	270.9	274.0
Commodities	258.4	266.5	266.4	266.6	267.5	267.8	267.7	258.8	266.9	266.8	267.0	267.9	268.2	268.2
Commodities less food and beverages	248.7	255.7	255.9	256.1	257.6	258.2	258.0	249.3	256.3	256.5	256.8	258.3	258.9	258.8
Nondurables less food and beverages	266.7	268.2	268.8	269.9	271.0	271.4	270.0	268.9	270.3	270.7	271.8	272.9	273.3	271.9
Durables	233.7	244.7	244.6	244.1	246.0	246.6	247.3	232.7	243.9	244.0	243.6	245.4	246.2	247.0
Services	321.8	337.0	338.9	339.7	340.3	338.6	335.6	322.4	337.9	340.0	340.5	341.2	339.3	336.2
Rent, residential	216.5	224.8	226.0	226.9	228.9	230.2	230.8	216.0	224.3	225.5	226.4	228.4	229.7	230.3
Household services less rent	390.4	409.4	411.7	410.4	409.2	404.1	396.8	394.8	415.3	418.1	416.5	415.6	410.4	402.7
Transportation services	284.2	297.2	297.8	298.7	300.5	299.9	299.4	283.6	295.7	296.5	296.9	298.4	297.5	296.7
Medical care services	335.7	357.3	361.0	364.0	366.9	371.0	373.4	334.0	354.7	358.3	361.1	363.9	367.7	370.1
Other services	249.5	258.0	259.7	266.3	268.4	269.2	270.0	248.0	256.6	258.4	264.0	266.1	266.8	267.5
Special indexes:														
All items less food	280.8	291.5	292.5	292.9	294.0	293.6	292.1	280.7	291.4	292.4	292.8	293.9	293.5	292.1
All items less mortgage interest costs	264.9	275.1	275.6	276.7	278.0	278.2	278.4	265.2	275.3	275.8	276.7	277.9	278.1	278.3
Commodities less food	246.5	253.5	253.8	253.9	255.4	256.0	255.8	247.2	254.1	254.4	254.7	256.1	256.7	256.6
Nondurables less food	261.1	263.0	263.6	264.6	265.7	266.1	264.7	263.3	265.0	265.4	266.5	267.5	267.9	266.6
Nondurables less food and apparel	300.7	304.3	304.2	304.2	305.5	306.2	305.2	302.5	305.8	305.5	305.6	306.9	307.5	306.5
Nondurables	269.8	275.7	275.5	276.2	276.5	276.4	275.8	270.9	276.8	276.5	277.2	277.4	277.4	276.8
Services less rent	342.0	358.5	360.5	361.3	361.6	359.3	355.5	342.9	359.9	362.2	362.5	362.9	360.4	356.5
Services less medical care	318.1	332.5	334.1	334.8	335.1	332.9	329.3	318.7	333.6	335.6	335.8	336.3	334.0	330.4
Domestically produced farm foods	259.1	270.7	268.4	268.0	266.6	265.3	264.8	258.2	269.7	267.4	267.0	265.5	264.4	264.0
Selected beef cuts	270.7	287.4	280.8	279.3	272.0	271.9	270.0	271.9	288.8	281.9	280.7	273.2	273.2	271.2
Energy	414.6	424.5	424.5	424.2	425.0	422.6	419.9	417.6	426.5	426.1	425.6	426.0	423.7	420.8
All items less energy	271.1	282.0	282.7	283.1	284.0	283.6	282.5	269.9	280.8	281.5	281.9	282.8	282.5	281.5
All items less food and energy	267.9	278.7	279.8	280.4	281.5	281.2	279.9	266.6	277.6	278.7	279.2	280.4	280.2	279.0
Commodities less food and energy	224.2	233.1	233.6	234.1	236.0	236.6	237.1	223.3	232.4	232.8	233.6	235.4	236.2	236.8
Energy commodities	448.0	438.2	436.6	433.3	431.9	431.6	425.4	448.7	439.0	437.3	433.8	432.3	431.8	425.6
Services less energy	318.9	331.8	333.6	334.2	334.4	333.1	329.6	319.5	332.6	334.7	333.8	335.2	333.7	330.1
Purchasing power of the consumer dollar, 1967 = \$1	\$0.355	\$0.342	\$0.342	\$0.341	\$0.340	\$0.341	\$0.342	\$0.356	\$0.343	\$0.342	\$0.342	\$0.341	\$0.341	\$0.342

c= corrected.

19. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1981		1982					1981		1982				
	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.
FOOD AND BEVERAGES	270.5	280.8	279.9	280.1	279.6	279.1	279.1	270.8	281.2	280.2	280.4	279.9	279.4	279.6
Food	277.8	288.5	287.4	287.6	287.0	286.4	286.5	277.9	288.6	287.5	287.7	287.2	286.6	286.7
Food at home	271.7	282.8	280.8	280.6	279.4	278.3	277.8	270.8	281.9	279.8	279.7	278.5	277.4	277.1
Cereals and bakery products	277.7	284.3	284.8	284.6	285.0	285.5	286.3	276.6	283.0	283.4	283.4	283.7	284.1	284.9
Cereals and cereal products (12/77 = 100)	151.5	154.8	154.5	154.3	154.0	153.2	153.4	152.5	155.8	155.5	155.2	154.9	154.1	154.2
Flour and prepared flour mixes (12/77 = 100)	137.8	143.5	141.6	141.4	139.9	139.2	139.5	138.4	144.0	142.1	141.8	140.3	139.5	139.8
Cereal (12/77 = 100)	160.2	166.3	166.5	166.9	167.5	167.2	168.0	162.1	168.5	168.6	169.0	169.7	169.4	170.1
Rice, pasta, and cornmeal (12/77 = 100)	151.7	148.9	149.3	148.2	147.6	146.1	145.3	152.9	150.0	150.5	149.4	148.7	147.3	146.5
Bakery products (12/77 = 100)	145.4	149.0	149.4	149.4	149.7	150.3	150.9	144.2	147.8	148.1	148.2	148.6	149.1	149.6
White bread	241.5	246.1	246.6	246.1	246.7	246.8	248.1	237.4	241.9	242.5	241.9	242.6	242.6	243.9
Other breads (12/77 = 100)	143.4	145.1	146.2	147.1	146.5	147.3	147.6	145.3	147.0	148.2	149.0	148.4	149.4	149.6
Fresh biscuits, rolls, and muffins (12/77 = 100)	145.9	148.9	150.5	149.5	151.0	150.9	151.6	141.9	145.4	146.6	145.6	147.1	146.9	147.6
Fresh cakes and cupcakes (12/77 = 100)	144.9	148.9	149.5	150.3	150.1	150.5	151.5	143.7	147.2	147.6	148.7	148.5	148.8	149.7
Cookies (12/77 = 100)	147.6	150.0	149.6	150.9	152.2	153.6	153.7	148.4	150.9	150.6	152.1	153.2	154.5	154.6
Crackers, bread, and cracker products (12/77 = 100)	134.2	141.8	141.3	140.8	141.9	143.3	144.1	135.6	143.2	142.6	142.3	143.3	144.6	145.5
Fresh sweetrolls, coffee cake, and donuts (12/77 = 100)	145.4	148.5	148.9	149.2	148.7	149.6	150.4	147.8	151.1	151.5	151.8	151.4	152.3	152.9
Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers (12/77 = 100)	149.3	156.2	156.6	154.7	154.4	155.8	155.2	143.0	149.2	149.5	148.1	147.6	148.6	148.4
Meats, poultry, fish, and eggs	253.7	268.5	265.4	267.8	265.1	263.6	261.6	253.1	268.3	265.1	267.7	265.0	263.5	261.5
Meats, poultry, and fish	258.4	276.2	273.7	275.3	272.4	270.8	268.8	257.7	275.8	273.3	275.1	272.1	270.6	268.6
Meats	258.7	278.8	276.5	278.4	274.9	273.6	271.1	257.9	278.2	275.8	277.9	274.6	273.2	270.8
Beef and veal	270.5	286.7	280.5	279.1	272.2	272.0	270.2	270.9	287.4	280.8	279.8	272.7	272.5	270.6
Ground beef other than canned	264.5	272.5	268.1	265.4	262.4	263.0	261.7	265.8	273.9	269.0	267.0	263.7	264.2	262.7
Chuck roast	282.2	296.2	289.7	286.9	281.9	281.7	281.0	291.5	305.3	298.9	295.9	290.4	290.3	289.6
Round roast	242.6	251.8	245.0	245.4	237.9	241.4	243.0	245.9	254.7	247.9	249.2	244.5	244.3	246.4
Round steak	254.6	271.2	263.4	262.0	253.4	257.1	253.5	252.2	269.4	261.1	260.6	251.0	255.1	251.3
Sirloin steak	260.1	295.6	285.5	285.2	266.3	259.8	253.0	260.7	298.0	286.8	286.0	260.6	260.6	252.7
Other beef and veal (12/77 = 100)	161.0	173.3	169.7	169.3	164.9	164.1	162.8	159.1	171.7	168.0	167.6	163.4	162.4	161.2
Pork	234.3	265.4	268.2	277.1	277.9	274.2	270.1	233.8	264.9	267.6	276.3	277.0	273.4	269.5
Bacon	237.2	283.9	295.6	315.5	312.4	298.7	290.8	240.5	288.7	300.4	320.7	317.7	304.0	296.1
Chops	212.4	248.9	248.0	252.5	252.3	249.0	242.4	211.0	247.3	246.3	250.6	250.0	247.0	240.8
Ham other than canned (12/77 = 100)	109.1	115.3	116.8	122.1	126.5	127.3	129.6	106.3	112.4	113.8	119.1	123.4	124.2	126.4
Sausage	299.1	331.9	332.2	341.2	342.1	337.7	332.0	300.0	332.9	333.5	342.5	343.2	338.5	332.5
Canned ham	244.3	255.3	257.6	259.7	267.2	270.5	272.4	247.7	258.7	261.1	263.5	271.4	275.0	276.9
Other pork (12/77 = 100)	130.0	150.3	150.8	153.8	151.3	149.6	145.6	129.2	149.5	150.0	153.0	150.5	148.6	144.9
Other meats	260.6	272.0	272.8	272.1	272.2	271.6	269.7	258.7	271.3	272.3	271.7	272.2	271.5	269.8
Frankfurters	261.0	274.2	275.6	275.3	274.8	274.4	268.9	260.0	273.4	274.9	274.7	274.0	273.8	268.4
Bologna, liverwurst, and salami (12/77 = 100)	146.4	156.5	157.5	156.6	158.5	156.6	155.3	146.3	156.6	157.6	156.6	158.5	156.4	155.1
Other luncheats (12/77 = 100)	132.6	137.3	138.3	138.9	140.1	141.3	141.8	130.6	135.1	136.1	136.7	137.9	139.1	139.8
Lamb and organ meats (12/77 = 100)	140.7	143.9	142.3	140.5	137.0	135.4	134.3	143.9	147.3	145.6	143.6	140.6	138.5	137.5
Poultry	191.7	199.6	196.2	196.2	195.4	192.0	190.4	189.5	197.8	194.4	194.2	193.2	190.0	188.4
Fresh whole chicken	190.1	201.2	193.8	194.8	192.6	189.3	185.4	187.8	198.8	191.8	192.5	190.3	187.4	183.5
Fresh and frozen chicken parts (12/77 = 100)	128.1	129.4	128.2	127.1	126.8	125.3	124.8	126.3	127.9	126.5	125.4	124.9	123.5	123.1
Other poultry (12/77 = 100)	120.7	127.3	127.2	127.9	128.5	125.4	126.0	119.8	126.9	127.4	127.4	128.0	124.6	125.3
Fish and seafood	359.6	370.2	367.6	369.4	367.1	366.6	369.6	358.6	368.7	365.8	368.4	366.0	365.3	368.2
Canned fish and seafood (12/77 = 100)	140.7	140.5	139.4	139.3	138.6	139.0	138.9	140.2	139.9	138.8	138.7	138.1	138.4	138.2
Fresh and frozen fish and seafood (12/77 = 100)	134.7	141.3	140.4	141.5	140.5	140.0	141.9	134.4	140.8	139.7	141.3	140.2	139.6	141.5
Eggs	198.0	173.6	161.2	175.2	175.8	175.0	172.5	198.8	174.7	162.3	176.1	176.7	176.2	173.3
Dairy products	245.5	247.5	247.5	247.0	247.1	247.4	247.8	244.9	246.8	246.8	246.3	246.4	246.7	247.1
Fresh milk and cream (12/77 = 100)	135.2	135.6	135.4	135.1	135.0	135.1	135.5	134.6	135.1	134.8	134.5	134.5	134.6	135.0
Fresh whole milk	221.2	221.6	221.2	220.8	220.8	220.9	221.9	220.2	220.7	220.3	219.9	220.0	220.1	221.1
Other fresh milk and cream (12/77 = 100)	135.3	136.2	136.0	135.6	135.3	135.4	135.2	134.9	135.7	135.5	135.0	134.7	134.9	134.7
Processed dairy products (12/77 = 100)	143.9	145.9	146.3	146.1	146.2	146.6	146.6	144.2	146.2	146.6	146.3	146.5	146.9	146.9
Butter	248.7	251.1	252.1	252.2	252.6	252.5	252.1	251.3	253.7	254.6	254.7	255.1	255.1	254.5
Cheese (12/77 = 100)	141.0	144.2	144.8	144.9	144.7	144.5	144.6	141.3	144.5	145.1	145.2	145.0	144.8	144.9
Ice cream and related products (12/77 = 100)	150.3	150.4	150.6	149.3	150.4	152.4	151.8	149.4	149.6	149.6	148.4	149.6	151.5	150.8
Other dairy products (12/77 = 100)	139.7	141.3	140.7	141.1	141.0	140.9	141.7	140.5	142.0	141.6	141.8	141.7	141.5	142.4
Fruits and vegetables	276.4	299.7	291.4	284.1	280.7	276.1	277.6	272.6	295.3	286.7	278.8	275.0	271.3	273.6
Fresh fruits and vegetables	274.9	313.8	296.9	283.5	277.4	268.3	272.3	269.4	307.1	289.7	275.2	268.4	261.0	266.6
Fresh fruits	269.6	332.4	336.1	329.0	317.1	288.9	273.9	260.5	320.5	323.2	313.6	300.4	275.4	262.5
Apples	261.2	331.8	314.5	285.5	250.7	239.4	243.7	261.2	333.3	316.7	286.6	251.9	239.9	243.7
Bananas	254.9	245.4	233.7	240.7	227.8	243.7	242.6	252.8	243.6	231.3	238.5	226.7	241.9	242.0
Oranges	280.6	438.2	473.0	516.3	520.8	399.6	313.0	252.8	399.9	433.5	468.8	465.7	360.4	283.0
Other fresh fruits (12/77 = 100)	141.0	161.6	163.9	152.1	148.0	143.3	144.8	136.7	156.1	158.1	146.4	142.4	137.5	138.7
Fresh vegetables	279.8	296.4	280.2	241.0	240.2	249.1	270.8	277.6	295.0	259.6	240.6	239.7	248.1	270.4
Potatoes	286.8	370.9	328.1	272.4	243.8	240.8	241.3	280.0	366.0	323.4	280.6	240.5	235.9	237.5
Lettuce	343.1	254.5	246.3	236.1	259.2	259.2	334.6	342.7	253.0	247.5	237.9	260.9	258.8	336.0
Tomatoes	204.6	270.2	194.3	184.9	210.5	242.9	272.8	207.8	274.9	198.2	197.9	213.7	246.6	278.4
Other fresh vegetables (12/77 = 100)	150.4	155.6	138.3	134.0	13									

19. Continued—Consumer Price Index—U.S. city average

[1967=100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers (revised)							
	1981	1982					1981	1982						
	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.
FOOD AND BEVERAGES—Continued														
Food—Continued														
Food at home—Continued														
Fruits and vegetables—Continued														
Cut corn and canned beans except lima (12/77=100)	138.9	141.0	143.6	141.3	140.8	140.8	140.3	136.5	138.6	141.2	138.8	138.4	138.4	137.8
Other canned and dried vegetables (12/77=100)	134.8	135.4	135.6	134.8	133.9	133.0	132.0	133.2	134.1	134.2	133.3	132.4	131.6	130.5
Other foods at home	325.6	332.2	333.3	333.6	334.8	334.3	333.7	326.4	333.1	334.0	334.5	335.7	335.1	334.6
Sugar and sweets	359.3	369.5	370.1	371.2	370.6	370.3	369.2	359.3	369.7	370.3	371.3	370.6	370.1	369.1
Candy and chewing gum (12/77=100)	149.9	150.5	150.0	149.7	149.4	149.6	149.5	149.9	150.6	150.1	149.8	149.3	149.5	149.6
Sugar and artificial sweeteners (12/77=100)	153.4	164.6	166.7	167.5	167.3	165.2	164.3	154.6	166.1	168.2	169.0	168.8	166.6	165.6
Other sweets (12/77=100)	146.1	149.8	149.6	151.1	151.0	152.5	151.7	144.2	147.9	147.5	148.9	148.9	150.2	149.4
Fats and oils (12/77=100)	261.1	259.3	258.3	258.4	258.4	258.6	258.6	261.0	259.3	258.2	258.3	258.4	258.5	258.7
Margarine	255.7	258.4	257.9	259.3	258.4	257.5	256.5	254.9	258.0	257.3	258.5	257.8	256.8	255.4
Nondairy substitutes and peanut butter (12/77=100)	160.1	154.9	154.2	151.2	151.2	152.0	151.7	158.5	153.1	152.4	149.5	149.5	150.3	150.2
Other fats, oils, and salad dressings (12/77=100)	129.7	129.2	128.5	129.4	129.7	129.8	130.3	130.1	129.7	129.0	130.0	130.2	130.3	130.8
Nonalcoholic beverages	412.5	422.8	423.8	424.2	427.5	426.2	424.3	414.2	424.4	425.3	425.9	429.2	427.9	426.1
Cola drinks, excluding diet cola	298.1	302.9	304.3	305.0	308.9	308.8	307.2	295.7	300.4	301.7	302.8	306.2	306.2	304.8
Carbonated drinks, including diet cola (12/77=100)	139.3	143.3	144.8	144.6	146.2	144.8	142.4	137.2	141.1	142.6	142.3	144.0	142.4	140.2
Roasted coffee	344.4	364.3	365.5	362.9	362.0	360.0	361.4	340.1	359.3	360.4	357.9	357.2	354.8	356.2
Freeze dried and instant coffee	332.0	344.9	344.9	343.1	343.6	344.2	346.1	331.6	344.4	344.4	342.5	343.2	343.7	345.6
Other noncarbonated drinks (12/77=100)	137.0	139.2	137.7	138.8	139.1	138.8	139.0	137.1	139.5	137.8	139.0	139.3	139.1	139.2
Other prepared foods	262.8	268.0	269.9	269.9	270.5	270.2	270.7	264.4	269.8	271.5	271.7	272.2	271.9	272.4
Canned and packaged soup (12/77=100)	133.7	136.9	137.9	137.4	136.8	136.6	136.9	135.7	138.9	140.0	139.5	138.7	138.5	138.9
Frozen prepared foods (12/77=100)	145.9	146.7	149.1	148.9	148.5	149.7	149.0	145.3	146.0	148.5	148.4	147.9	149.2	148.5
Snacks (12/77=100)	152.2	152.7	153.1	153.0	153.3	153.1	152.7	154.2	154.8	155.1	155.0	155.4	155.2	154.8
Seasonings, olives, pickles, and relish (12/77=100)	148.8	152.7	154.1	155.3	156.5	157.1	157.4	147.7	152.1	153.2	154.4	155.6	156.2	156.4
Other condiments (12/77=100)	144.6	151.4	151.9	152.2	152.1	151.7	152.6	146.2	153.2	153.6	154.0	153.9	153.4	154.4
Miscellaneous prepared foods (12/77=100)	145.8	149.3	150.2	149.7	151.4	150.2	151.0	145.8	149.5	150.3	149.9	151.6	150.3	151.2
Other canned and packaged prepared foods (12/77=100)	142.5	144.6	145.4	145.9	145.8	145.0	146.1	143.9	145.9	146.8	147.3	147.2	146.4	147.3
Food away from home	297.7	307.6	308.7	309.8	310.7	311.4	312.6	300.7	310.7	311.8	312.9	313.8	314.6	315.8
Lunch (12/77=100)	144.6	149.6	150.3	150.7	151.2	151.6	152.2	146.3	151.2	152.0	152.3	152.8	153.2	153.8
Dinner (12/77=100)	144.0	148.1	148.6	149.2	149.5	149.7	150.4	145.6	149.8	150.3	150.9	151.2	151.4	152.1
Other meals and snacks (12/77=100)	144.7	150.5	150.7	151.5	152.1	152.7	153.0	145.4	151.1	151.3	152.1	152.7	153.3	153.7
Alcoholic beverages	202.7	209.2	210.1	210.1	210.6	210.9	210.9	204.9	211.3	212.1	212.2	212.8	213.0	213.0
Alcoholic beverages at home (12/77=100)	131.4	135.5	136.1	135.9	136.2	136.2	136.1	132.8	136.9	137.4	137.2	137.6	137.5	137.4
Beer and ale	204.1	211.4	211.9	211.4	212.7	212.5	212.6	203.5	210.5	210.9	210.5	211.8	211.7	211.7
Whiskey	145.0	148.9	149.6	148.8	150.0	150.7	150.2	145.9	149.8	150.4	150.5	150.7	151.2	150.7
Wine	230.0	236.5	238.9	237.5	236.4	235.9	235.6	238.0	245.0	247.1	246.2	244.8	243.7	243.3
Other alcoholic beverages (12/77=100)	117.3	119.6	120.3	120.3	120.3	120.4	120.2	117.4	119.6	120.5	120.4	120.3	120.4	120.1
Alcoholic beverages away from home (12/77=100)	135.8	140.8	141.2	142.5	142.7	143.6	144.2	137.3	142.1	142.4	143.9	144.0	144.8	145.3
HOUSING	305.2	319.2	320.1	319.7	320.7	319.0	316.3	304.7	319.3	320.5	320.0	321.2	319.6	316.8
Shelter	328.0	342.8	344.2	342.6	342.8	340.7	335.9	329.3	344.6	346.5	344.7	345.2	343.0	338.0
Rent, residential	216.5	224.8	226.0	226.9	228.9	230.2	230.8	216.0	224.3	225.5	226.4	228.4	229.7	230.3
Other rental costs	306.3	330.0	333.9	343.0	341.6	337.8	333.0	305.3	329.4	333.3	341.1	339.5	335.6	330.7
Lodging while out of town	319.9	356.5	362.0	363.1	358.0	351.6	343.7	318.0	354.2	359.5	360.7	355.6	349.3	341.4
Tenants' insurance (12/77=100)	140.7	145.6	147.5	147.3	149.3	150.1	150.3	140.6	144.8	146.6	146.3	148.3	149.1	149.3
Homeownership	367.8	384.5	385.9	383.0	382.8	379.5	372.9	370.4	388.0	390.1	387.0	387.1	383.7	376.8
Home purchase	270.5	287.7	287.9	286.8	289.9	290.4	290.9	268.7	286.8	287.3	286.4	289.7	290.4	290.9
Financing, taxes, and insurance	506.3	524.3	527.3	519.9	514.3	504.8	486.2	512.9	532.4	536.8	528.9	524.3	514.6	495.7
Property insurance	394.1	401.5	402.5	404.8	405.8	406.9	409.4	396.5	403.7	404.6	407.4	408.5	409.7	412.1
Property taxes	210.7	219.3	221.8	223.7	224.5	225.5	227.1	212.5	221.1	223.7	225.6	226.4	227.5	228.8
Contracted mortgage interest cost	666.6	690.4	694.0	681.2	672.0	656.4	626.3	668.1	694.0	699.6	686.3	678.8	663.4	633.5
Mortgage interest rates	243.9	237.3	238.8	235.3	230.0	224.3	213.5	245.3	239.2	241.2	237.5	232.4	226.6	215.9
Maintenance and repairs	324.1	334.7	335.9	338.4	339.4	339.0	337.8	321.0	331.5	332.5	334.6	335.4	334.9	333.7
Maintenance and repair services	355.4	366.9	368.5	372.5	374.1	373.4	371.4	356.5	368.1	369.6	373.4	374.9	374.0	371.7
Maintenance and repair commodities	250.3	258.7	258.8	257.7	257.3	257.8	258.5	244.9	252.9	253.0	251.8	251.2	251.6	252.3
Paint and wallpaper, supplies, tools, and equipment (12/77=100)	147.3	153.4	154.2	153.0	152.8	153.1	153.6	140.5	146.5	147.3	145.9	145.7	145.9	146.5
Lumber, awnings, glass, and masonry (12/77=100)	124.3	125.0	124.1	123.6	122.8	123.3	123.7	121.6	122.5	121.7	121.3	120.4	120.8	121.3
Plumbing, electrical, heating, and cooling supplies (12/77=100)	131.5	137.1	136.3	136.1	135.4	135.8	136.4	131.6	136.6	135.6	135.3	134.6	135.3	136.2
Miscellaneous supplies and equipment (12/77=100)	132.5	138.3	138.8	139.0	139.4	139.4	139.0	134.7	140.5	140.9	141.2	141.8	141.6	141.2
Fuel and other utilities	331.8	354.7	356.3	359.5	363.4	362.2	364.1	332.7	356.2	357.7	361.0	364.7	363.6	365.5
Fuels	420.0	452.0	454.0	458.5	464.5	461.9	464.0	419.6	451.9	453.8	458.4	464.0	461.7	463.9
Fuel oil, coal, and bottled gas	682.5	659.9	659.9	662.8	677.2	691.3	688.5	685.5	662.9	662.7	665.4	679.7	693.7	690.8
Fuel oil	713.5	688.6	686.8	685.9	699.1	712.8	708.7	716.0	691.1	689.1	688.1	701.2	714.7	710.6
Other fuels (6/78=100)	169.4	166.0	169.2	176.8	183.7	189.0	190.4	170.8	167.4	170.5	178.0	184.8	190.3	191.6
Gas (piped) and electricity	359.9	402.1	404.4	409.2	413.4	407.6	410.6	358.8	401.5	403.7	408.6	412.4	406.9	410.0
Electricity	300.3	330.5	333.7	332.5	327.0	318.4	319.6	299.3	330.8	333.7	332.5	326.3	317.3	318.7
Utility (piped) gas	438.2	500.2	500.6	517.6	542.0	543.1	549.6	436.4	496.9	497.5	514.5	538.8	541.6	547.6

19. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1981	1982						1981	1982					
	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.
HOUSING—Continued														
Fuel and other utilities—Continued														
Other utilities and public services	191.9	201.4	202.4	203.6	204.5	205.1	206.6	192.2	202.1	203.1	204.3	205.3	205.9	207.3
Telephone services	156.8	163.8	164.2	165.5	166.2	166.6	168.2	156.9	164.2	164.6	165.9	166.6	167.0	168.6
Local charges (12/77 = 100)	124.4	131.9	132.5	134.3	135.2	135.4	137.8	124.6	132.3	132.9	134.8	135.7	135.9	138.1
Interstate toll calls (12/77 = 100)	116.7	119.7	119.7	119.7	119.7	119.7	119.7	116.8	120.1	120.1	120.1	120.2	120.2	120.2
Intrastate toll calls (12/77 = 100)	107.1	110.0	110.0	110.1	110.4	111.1	111.5	106.9	109.6	109.6	109.7	110.1	110.9	111.3
Water and sewerage maintenance	307.4	327.7	331.9	332.4	334.1	335.1	335.8	309.4	330.8	334.8	335.4	337.1	338.2	338.9
Household furnishings and operations	227.7	234.1	233.4	234.2	235.4	235.1	235.7	224.2	230.9	230.0	231.0	232.3	231.8	232.3
Household furnishings	189.2	194.7	193.3	194.3	195.9	195.1	195.3	187.1	192.7	191.3	192.4	193.9	193.0	193.2
Textile household furnishings	211.2	218.6	220.4	222.1	223.2	222.6	222.0	213.9	221.1	222.9	225.0	226.4	225.8	224.9
Household linens (12/77 = 100)	128.8	131.9	132.9	135.4	136.4	133.8	132.7	129.9	133.3	134.1	136.4	137.6	135.0	134.0
Curtains, drapes, slipcovers, and sewing materials (12/77 = 100)	134.7	140.8	142.2	141.6	142.0	144.0	144.4	137.4	143.2	144.7	144.8	145.3	147.5	147.6
Furniture and bedding	209.7	214.2	210.3	213.3	215.8	214.1	215.4	206.0	210.5	206.9	210.3	212.3	210.3	211.6
Bedroom furniture (12/77 = 100)	138.6	144.8	141.4	145.5	146.7	146.2	147.4	135.2	141.2	137.3	142.1	143.5	142.1	143.4
Sofas (12/77 = 100)	119.4	117.7	117.0	117.2	119.4	116.4	118.2	119.5	118.1	117.5	117.7	119.6	117.0	118.8
Living room chairs and tables (12/77 = 100)	119.0	121.9	121.1	123.1	122.6	122.1	122.2	119.1	122.0	121.4	123.4	122.9	122.5	122.5
Other furniture (12/77 = 100)	138.4	140.9	137.1	137.8	140.6	140.1	140.4	134.0	136.3	133.3	134.1	136.0	135.3	135.6
Appliances including TV and sound equipment	147.9	151.6	151.3	151.5	152.0	151.7	151.5	147.5	151.5	151.2	151.4	151.9	151.5	151.4
Television and sound equipment (12/77 = 100)	108.9	108.7	108.3	108.2	108.5	108.1	107.2	108.0	107.8	107.5	107.4	107.6	107.3	106.3
Television	104.7	104.0	103.9	103.7	103.5	102.9	102.6	103.3	102.7	102.7	102.6	102.1	101.7	101.4
Sound equipment (12/77 = 100)	113.7	114.0	113.3	113.2	114.1	113.9	112.4	112.9	113.2	112.6	112.5	112.3	113.1	111.4
Household appliances	175.9	184.2	184.1	184.7	185.4	185.2	186.1	176.0	184.8	184.6	185.1	185.9	185.6	186.7
Refrigerators and home freezers	179.9	187.4	187.4	190.2	191.1	192.7	193.3	185.3	192.9	192.9	196.1	196.9	198.4	199.1
Laundry equipment (12/77 = 100)	130.5	137.3	137.3	137.6	140.0	140.0	141.0	130.3	137.5	137.5	137.9	140.4	140.3	141.4
Other household appliances (12/77 = 100)	118.7	124.4	124.3	124.0	123.5	122.7	123.2	116.8	123.0	122.7	122.0	121.7	120.7	121.5
Stoves, dishwashers, vacuums, and sewing machines (12/77 = 100)	117.9	123.3	122.7	123.4	122.9	120.7	121.5	116.2	122.2	121.4	121.5	121.4	119.2	120.1
Office machines, small electric appliances, and air conditioners (12/77 = 100)	119.6	125.6	126.0	124.6	124.0	124.7	125.1	117.3	123.9	124.2	122.5	122.0	122.4	123.0
Other household equipment (12/77 = 100)	134.0	139.6	138.2	137.8	139.6	139.1	139.2	131.9	137.5	136.0	135.6	137.6	137.1	137.1
Floor and window coverings, infants', laundry, cleaning, and outdoor equipment (12/77 = 100)	135.9	142.7	142.9	143.3	143.4	142.6	142.7	128.3	135.4	135.4	135.9	136.0	134.5	134.3
Clocks, lamps, and decor items (12/77 = 100)	128.4	132.3	129.8	129.7	131.3	131.3	131.0	124.7	128.3	125.1	124.9	126.4	126.8	126.6
Tableware, serving pieces, and nonelectric kitchenware (12/77 = 100)	141.0	145.9	143.8	141.6	145.1	144.6	145.1	137.1	141.9	140.0	137.6	141.3	141.0	141.2
Lawn equipment, power tools, and other hardware (12/77 = 100)	126.3	133.2	132.3	133.4	134.8	134.2	134.1	131.5	138.5	137.2	138.8	140.1	139.5	139.5
Housekeeping supplies	277.4	288.4	288.7	289.2	290.1	290.3	292.3	274.1	285.0	284.9	285.7	286.7	287.1	288.8
Soaps and detergents	271.6	281.4	279.4	282.8	283.5	283.5	285.0	268.0	277.6	275.4	278.9	279.7	279.9	281.5
Other laundry and cleaning products (12/77 = 100)	138.8	145.3	144.6	145.6	146.8	147.3	148.0	137.5	144.2	143.6	144.5	145.7	146.2	146.9
Cleansing and toilet tissue, paper towels and napkins (12/77 = 100)	144.5	147.7	148.5	148.0	148.9	148.2	148.6	144.4	147.4	148.3	147.9	148.9	148.1	148.5
Stationery, stationery supplies, and gift wrap (12/77 = 100)	128.8	134.3	135.4	136.8	137.6	138.3	137.9	131.6	137.8	138.6	140.0	140.7	141.4	141.0
Miscellaneous household products (12/77 = 100)	145.4	150.3	150.7	150.2	150.9	151.6	152.3	140.4	145.1	145.5	145.0	145.6	146.2	146.9
Lawn and garden supplies (12/77 = 100)	136.7	145.3	145.7	143.8	142.3	141.9	145.7	129.4	138.1	138.1	136.4	135.1	134.9	138.5
Housekeeping services	306.9	312.5	312.9	313.4	313.8	314.3	315.0	305.4	311.6	312.2	312.7	313.2	313.7	314.5
Postage	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5
Moving, storage, freight, household laundry, and drycleaning services (12/77 = 100)	147.8	155.3	156.1	156.6	157.0	157.7	158.6	147.6	155.4	156.4	156.8	157.2	157.8	158.7
Appliance and furniture repair (12/77 = 100)	133.0	137.5	137.7	138.3	139.0	139.5	140.2	131.6	136.0	136.1	136.7	137.4	137.9	138.5
APPAREL AND UPKEEP	190.5	189.7	191.8	194.9	195.5	195.4	193.6	189.4	188.7	190.7	194.1	194.6	194.4	192.8
Apparel commodities	180.7	178.6	180.8	184.1	184.6	184.3	182.3	180.1	178.2	180.3	183.8	184.1	183.8	181.9
Apparel commodities less footwear	176.6	174.0	176.9	180.4	180.9	180.6	178.4	175.6	173.4	176.2	179.9	180.2	179.8	177.8
Men's and boys'	181.6	182.4	183.7	186.5	188.6	189.0	187.4	181.7	182.6	183.5	186.6	188.6	188.9	187.6
Men's (12/77 = 100)	114.5	114.9	115.9	117.7	119.0	119.3	118.3	115.0	115.4	116.2	118.2	119.4	119.7	118.8
Suits, sport coats, and jackets (12/77 = 100)	106.4	105.5	108.0	110.6	111.6	111.5	108.7	99.5	99.2	101.2	103.5	104.3	104.2	101.7
Coats and jackets (12/77 = 100)	101.4	98.2	99.1	103.7	103.7	103.4	103.2	104.1	99.8	100.3	106.4	106.4	105.4	105.5
Furnishings and special clothing (12/77 = 100)	134.2	138.7	138.4	138.6	141.0	142.4	141.5	130.6	135.3	134.9	135.8	137.7	139.1	137.9
Shirts (12/77 = 100)	122.7	121.6	121.9	123.8	125.2	125.8	126.5	125.3	123.6	123.9	126.2	128.1	128.7	129.2
Dungarees, jeans, and trousers (12/77 = 100)	108.5	109.5	110.5	111.4	112.4	112.6	111.9	114.1	115.0	116.0	116.9	118.0	118.1	117.5
Boys' (12/77 = 100)	117.2	118.6	118.4	120.2	121.7	121.6	120.7	115.4	116.9	116.7	118.3	119.8	119.7	119.0
Coats, jackets, sweaters, and shirts (12/77 = 100)	109.9	109.0	110.5	113.7	114.5	113.7	112.2	110.9	109.7	111.3	114.6	115.3	114.6	113.3
Furnishings (12/77 = 100)	127.5	132.1	131.1	132.6	133.6	132.6	132.4	123.5	128.2	127.2	128.6	129.5	128.5	128.3
Suits, trousers, sport coats, and jackets (12/77 = 100)	118.8	120.7	119.5	120.3	122.7	123.4	122.8	115.9	118.3	117.1	117.3	119.7	120.5	120.0
Women's and girls'	159.6	154.6	159.2	163.6	163.0	162.2	159.6	160.7	156.2	160.9	165.7	164.7	163.8	161.3
Women's (12/77 = 100)	105.8	102.1	105.4	108.7	108.1	107.3	105.5	107.1	103.5	106.9	110.5	109.8	108.8	106.8
Coats and jackets	161.8	154.9	163.0	169.7	170.5	169.5	166.3	167.3	161.8	171.0	176.9	176.8	173.2	171.0
Dresses	164.0	152.8	158.5	165.1	162.6	161.4	159.0	149.5	138.4	145.9	151.2	149.2	147.7	144.9
Separates and sportswear (12/77 = 100)	100.7	96.7	98.3	101.4	102.0	100.1	97.1	101.3	97.6	99.1	102.6	102.9	100.9	97.8
Underwear, nightwear, and hosiery (12/77 = 100)	124.8	127.7	129.3	129.7	129.9	130.6	130.8	124.5	127.4	129.0	129.4	129.6	130.2	130.5
Suits (12/77 = 100)	87.7	77.6	85.6	92.7	88.6	87.4	82.8	106.0	93.1	99.8	111.9	106.7	105.8	99.7
Girls' (12/77 = 100)	107.7	106.3	108.2	109.6	109.9	110.4	109.5	106.0	105.4	107.4	108.9	108.7	109.6	109.2
Coats, jackets, dresses, and suits (12/77 = 100)	98.4	98.8	101.4	102										

19. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1981		1982					1981		1982				
	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.
APPAREL AND UPKEEP—Continued														
Apparel commodities—Continued														
Apparel commodities less footwear—Continued														
Infants' and toddlers'	259.4	268.8	272.4	276.8	275.8	274.2	273.1	270.6	277.8	283.0	288.1	286.8	285.5	284.2
Other apparel commodities	214.5	209.7	210.8	212.6	213.1	212.7	210.1	203.2	198.7	199.5	201.2	201.7	201.4	199.2
Sewing materials and notions (12/77 = 100)	118.3	120.0	121.5	121.9	119.3	120.0	120.8	116.2	118.5	119.6	120.0	117.7	118.2	118.5
Jewelry and luggage (12/77 = 100)	147.4	142.2	142.6	144.1	145.6	144.9	142.2	138.4	133.1	133.3	134.7	136.2	135.7	133.5
Footwear	205.7	206.4	204.4	206.2	206.8	206.9	205.9	205.9	206.7	204.1	205.9	206.7	206.7	205.8
Men's (12/77 = 100)	130.7	132.3	130.9	132.4	133.2	132.5	132.0	134.3	132.7	134.1	135.0	134.2	134.2	133.7
Boys' and girls' (12/77 = 100)	132.1	131.7	128.7	129.4	129.5	129.3	129.0	134.8	134.4	131.3	131.9	132.1	131.8	131.5
Women's (12/77 = 100)	125.4	125.6	125.4	126.5	126.9	127.6	128.0	121.6	121.5	121.1	122.4	122.8	123.6	122.9
Apparel services	266.4	276.6	277.4	279.2	281.3	282.0	282.8	264.4	274.3	275.2	277.2	279.7	280.3	281.1
Laundry and drycleaning other than coin operated (12/77 = 100)	159.2	165.4	165.6	166.7	167.2	167.9	168.9	157.8	163.8	164.1	165.2	165.8	166.4	167.5
Other apparel services (12/77 = 100)	139.1	144.1	145.0	145.9	148.2	148.1	147.7	139.6	144.6	145.5	146.6	149.3	149.2	148.8
TRANSPORTATION	289.8	296.1	296.2	295.3	295.5	295.8	294.8	291.5	297.9	298.0	296.9	297.0	297.3	296.3
Private	286.5	292.3	292.4	291.1	291.1	291.4	290.4	289.0	295.1	295.2	293.8	293.8	294.1	293.1
New cars	197.0	198.6	198.7	197.7	197.7	199.0	200.1	196.9	198.5	198.6	197.5	197.4	198.7	199.9
Used cars	281.9	302.4	304.4	304.6	306.7	310.5	312.6	281.9	302.4	304.4	304.6	306.7	310.5	312.6
Gasoline	408.4	400.3	398.4	394.2	390.6	388.1	381.3	409.8	401.6	399.7	395.5	391.9	389.5	383.0
Automobile maintenance and repair	304.1	318.0	319.2	320.6	321.9	322.3	323.1	304.8	318.7	320.0	321.3	322.6	323.1	323.8
Body work (12/77 = 100)	150.6	157.5	158.2	159.4	160.4	161.0	161.4	148.9	156.0	156.8	158.1	159.4	159.8	160.2
Automobile drive train, brake, and miscellaneous mechanical repair (12/77 = 100)	144.7	151.9	152.5	153.1	153.2	153.7	154.3	148.5	156.1	156.6	157.1	157.2	157.8	158.3
Maintenance and servicing (12/77 = 100)	141.5	147.9	148.5	148.9	149.3	149.3	149.9	141.0	147.3	147.8	148.2	148.6	148.6	149.2
Power plant repair (12/77 = 100)	145.6	151.7	152.4	153.3	154.3	154.4	154.2	145.1	151.2	151.9	152.8	153.8	153.9	153.7
Other private transportation	250.6	260.8	260.8	260.0	261.4	260.7	259.6	254.2	264.0	263.9	263.0	264.1	262.9	261.6
Other private transportation commodities	214.5	216.3	214.8	213.9	214.4	215.1	214.3	216.9	218.8	217.1	216.3	216.9	217.7	216.9
Motor oil, coolant, and other products (12/77 = 100)	148.7	151.5	153.2	152.5	151.9	153.3	153.3	147.2	150.3	151.8	151.2	151.0	152.3	152.3
Automobile parts and equipment (12/77 = 100)	137.2	138.2	136.8	136.3	136.7	137.0	136.5	139.2	140.1	138.6	138.1	138.6	139.0	138.4
Tires	191.5	191.8	189.5	188.5	189.6	190.4	190.0	195.2	195.5	193.0	192.1	193.2	194.0	193.7
Other parts and equipment (12/77 = 100)	133.9	136.6	135.8	135.8	135.4	135.1	133.8	133.9	136.8	136.0	135.8	135.4	135.4	133.9
Other private transportation services	262.6	275.1	275.5	274.7	276.4	275.3	274.2	266.6	278.5	278.9	277.9	279.1	277.5	276.0
Automobile insurance	266.0	275.4	275.8	276.9	283.9	286.9	288.8	265.6	274.9	275.2	276.3	283.2	286.1	288.2
Automobile finance charges (12/77 = 100)	190.5	193.6	193.5	189.6	185.2	178.9	173.8	189.9	192.6	192.9	188.9	184.6	178.1	173.0
Automobile rental, registration, and other fees (12/77 = 100)	120.8	137.4	138.0	138.9	138.8	139.2	139.3	121.4	138.4	138.8	140.0	139.8	140.0	140.1
State registration	149.0	183.6	183.8	183.7	183.7	183.8	183.8	149.0	183.2	183.4	183.3	183.2	183.4	183.4
Drivers' licenses (12/77 = 100)	111.9	132.8	132.8	132.8	132.8	132.8	132.8	111.9	133.1	133.1	133.1	133.1	133.1	133.1
Vehicle inspection (12/77 = 100)	128.3	128.5	128.5	128.5	128.5	128.5	128.5	129.0	129.9	129.9	129.9	129.9	129.8	128.8
Other vehicle-related fees (12/77 = 100)	141.6	151.0	151.9	154.5	154.2	155.0	155.2	149.2	158.7	159.4	163.0	162.7	162.9	163.2
Public	333.8	347.2	348.1	353.3	356.3	356.0	355.6	328.6	339.8	341.0	345.4	348.2	348.2	348.0
Airline fare	374.7	397.4	397.5	409.5	413.7	411.6	408.8	372.8	393.2	393.5	407.0	411.1	408.8	405.9
Inter-city bus fare	365.2	368.3	370.5	368.9	370.6	373.8	377.7	366.1	370.6	372.3	371.0	372.5	375.7	379.3
Intracity mass transit	304.6	311.0	312.8	312.6	315.2	316.1	317.7	303.9	310.3	312.3	312.1	314.7	315.7	316.7
Taxi fare	294.7	299.3	299.7	299.8	300.2	300.5	300.8	304.1	308.7	309.3	309.3	309.9	310.1	310.5
Inter-city train fare	319.2	338.4	338.6	338.4	338.4	348.3	351.3	318.9	338.4	338.6	338.4	338.4	349.3	351.9
MEDICAL CARE	310.2	330.0	333.3	336.0	338.7	342.2	344.3	309.1	328.1	331.3	333.9	336.5	339.8	341.8
Medical care commodities	194.9	206.5	208.2	209.9	211.6	212.9	213.7	195.4	207.1	208.8	210.5	212.1	213.4	214.0
Prescription drugs	181.0	193.4	195.6	197.2	199.4	201.0	202.8	181.9	194.4	196.6	198.2	200.5	202.1	203.9
Anti-infective drugs (12/77 = 100)	137.8	144.2	146.0	147.5	149.1	150.1	150.9	139.7	146.0	147.5	149.2	151.2	152.3	153.1
Tranquilizers and sedatives (12/77 = 100)	144.8	156.1	157.6	158.8	161.5	163.5	165.8	144.4	155.8	157.4	158.6	161.1	163.2	165.5
Circulators and diuretics (12/77 = 100)	131.9	139.3	140.7	141.5	143.0	144.0	144.9	131.8	139.1	140.6	141.3	142.8	143.9	144.8
Hormones, diabetic drugs, biologicals, and prescription medical supplies (12/77 = 100)	164.6	179.6	181.6	182.3	183.5	183.9	185.5	165.9	181.1	183.1	183.8	185.1	185.2	187.0
Pain and symptom control drugs (12/77 = 100)	145.9	155.4	157.6	159.5	161.7	164.0	166.2	147.3	157.1	159.3	161.4	163.6	166.0	168.0
Supplements, cough and cold preparations, and respiratory agents (12/77 = 100)	138.1	147.9	149.6	150.8	152.3	153.4	154.2	138.0	148.1	149.8	150.9	152.4	153.6	154.5
Nonprescription drugs and medical supplies (12/77 = 100)	139.2	146.4	147.2	148.4	149.2	149.9	149.7	139.7	147.1	147.9	149.1	149.8	150.5	150.3
Eyeglasses (12/77 = 100)	128.4	131.6	131.6	131.9	132.6	132.9	133.0	127.1	130.4	130.3	130.5	131.4	131.6	131.8
Internal and respiratory over-the-counter drugs	221.6	234.9	236.6	239.3	240.7	241.9	241.3	222.8	236.2	237.9	240.6	241.9	243.0	242.2
Nonprescription medical equipment and supplies (12/77 = 100)	134.6	142.2	142.9	143.5	144.1	145.2	145.2	135.2	143.2	144.2	144.8	145.1	146.2	146.3
Medical care services	335.7	357.3	361.0	364.0	366.9	371.0	373.4	334.0	354.7	358.3	361.1	363.9	367.7	370.1
Professional services	290.0	302.8	304.4	305.9	306.6	308.3	309.4	290.3	302.9	304.6	306.1	306.9	308.4	309.5
Physicians' services	313.0	328.7	330.4	332.3	334.2	335.3	336.6	316.0	331.6	333.5	335.4	337.4	338.6	339.9
Dental services	273.9	284.8	286.4	287.7	287.0	289.2	290.1	272.3	282.9	284.4	285.7	285.0	287.0	288.0
Other professional services (12/77 = 100)	140.3	144.8	145.6	145.9	146.1	147.2	147.6	137.2	141.5	142.5	142.7	143.0	143.9	144.4
Other medical care services	390.9	423.2	429.4	434.1	439.8	446.8	450.8	388.1	419.4	425.4	429.9	435.6	442.3	446.3
Hospital and other medical services (12/77 = 100)	162.7	174.7	177.1	178.3	180.0	182.6	183.2	161.1	172.9	175.2	176.5	178.3	180.7	181.5
Hospital room	519.3	557.8	565.5	570.1	576.8	586.6	588.5	512.6	549.7	557.6	562.1	569.1	578.7	581.3
Other hospital and medical care services (12/77 = 100)	159.6	171.2	173.6	174.7	176.0	178.1	178.7	158.4	170.0	172.2	173.3	174.7	176.7	177.5

19. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1981	1982						1981	1982					
	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.
ENTERTAINMENT	227.3	236.6	237.4	238.3	240.3	239.9	240.1	224.4	233.5	233.9	234.8	236.5	236.1	236.5
Entertainment commodities	230.6	241.1	240.5	240.8	242.9	241.4	241.8	225.4	235.5	234.4	235.0	236.6	235.4	236.0
Reading materials (12/77 = 100)	139.6	150.4	149.4	150.1	153.1	153.4	154.3	139.1	149.7	148.9	149.6	152.4	152.7	153.8
Newspapers	267.7	285.9	286.3	288.5	290.4	290.9	294.7	267.6	285.6	286.0	288.2	290.1	290.5	294.8
Magazines, periodicals, and books (12/77 = 100)	143.5	156.1	153.8	153.9	159.2	159.6	159.3	143.4	156.0	153.6	153.8	159.2	159.6	159.2
Sporting goods and equipment (12/77 = 100)	130.0	132.8	133.2	132.9	134.3	132.1	131.6	122.4	125.7	124.9	125.0	125.8	124.7	124.3
Sport vehicles (12/77 = 100)	132.1	135.4	135.7	135.3	137.1	133.8	133.3	120.2	124.1	122.4	122.8	123.6	122.2	122.0
Indoor and warm weather sport equipment (12/77 = 100)	119.9	120.3	119.7	120.5	120.6	119.9	120.0	117.9	118.0	117.5	118.1	118.3	117.6	117.7
Bicycles	193.9	198.3	199.4	199.0	198.7	198.3	197.1	195.2	199.4	200.4	200.0	199.9	199.5	198.5
Other sporting goods and equipment (12/77 = 100)	126.2	129.4	130.3	129.4	131.9	131.5	130.6	126.3	129.8	130.9	129.8	132.1	131.3	130.0
Toys, hobbies, and other entertainment (12/77 = 100)	132.0	137.3	136.9	137.1	137.1	136.4	136.8	130.9	136.1	135.7	136.0	136.1	135.2	135.6
Toys, hobbies, and music equipment (12/77 = 100)	130.1	137.2	136.4	136.4	136.4	135.5	135.5	126.9	133.7	132.8	132.9	133.0	131.8	132.0
Photographic supplies and equipment (12/77 = 100)	125.2	130.8	130.2	130.1	129.6	129.0	129.7	126.3	131.9	131.4	131.3	130.6	130.1	130.8
Pet supplies and expenses (12/77 = 100)	140.2	142.0	142.5	143.4	143.9	143.4	144.2	140.9	143.0	143.6	144.6	145.0	144.5	145.1
Entertainment services	223.0	230.8	233.5	235.2	237.2	238.2	238.2	223.9	231.3	234.2	235.8	237.6	238.4	238.5
Fees for participant sports (12/77 = 100)	137.6	141.8	143.4	146.0	148.0	149.0	148.9	139.3	143.0	144.8	147.4	149.4	150.1	150.0
Admissions (12/77 = 100)	129.7	135.5	137.4	136.4	136.6	136.9	137.3	128.7	134.6	136.5	135.5	135.6	135.9	136.4
Other entertainment services (12/77 = 100)	123.7	127.8	128.3	128.8	129.6	129.8	129.6	124.3	128.8	129.2	129.6	130.5	130.7	130.6
OTHER GOODS AND SERVICES	246.7	257.2	258.3	266.6	271.2	273.8	276.6	243.5	254.5	255.7	262.8	267.8	270.9	274.0
Tobacco products	226.8	239.2	240.1	246.8	257.3	264.0	272.3	225.9	238.3	239.3	246.1	256.6	263.4	271.9
Cigarettes	229.7	242.2	243.1	250.6	262.3	269.8	279.0	228.7	241.3	242.3	249.8	261.4	268.8	278.0
Other tobacco products and smoking accessories (12/77 = 100)	134.4	142.1	142.4	142.6	142.9	142.8	143.8	134.7	142.2	142.5	142.8	143.1	143.0	143.9
Personal care	239.1	249.4	250.6	251.1	252.9	254.2	254.8	237.1	247.5	248.8	249.3	250.9	252.1	252.5
Toilet goods and personal care appliances	234.7	247.7	249.5	249.1	251.5	253.5	252.2	235.4	248.6	250.5	250.0	252.1	254.1	253.1
Products for the hair, hairpieces, and wigs (12/77 = 100)	136.5	145.0	145.0	144.6	147.8	148.3	146.8	135.8	144.2	144.4	144.0	146.9	147.3	146.2
Dental and shaving products (12/77 = 100)	141.2	150.9	153.1	153.3	155.2	157.2	156.2	139.8	149.5	151.6	151.8	153.5	155.4	154.6
Cosmetics, bath and nail preparations, manicure and eye makeup implements (12/77 = 100)	133.2	139.9	141.3	140.7	141.4	141.7	142.2	133.7	140.5	142.0	141.4	142.1	142.3	143.0
Other toilet goods and small personal care appliances (12/77 = 100)	136.0	141.8	142.5	142.4	142.2	144.7	143.2	139.1	145.4	146.2	146.2	145.8	148.4	147.0
Personal care services	243.9	251.8	252.5	253.8	255.1	255.8	258.0	239.2	246.9	247.6	248.9	250.0	250.6	252.4
Beauty parlor services for women	245.2	254.4	255.0	256.3	258.3	258.9	262.1	238.8	247.9	248.7	249.8	251.6	252.1	254.7
Haircuts and other barber shop services for men (12/77 = 100)	136.8	139.8	140.2	141.1	141.0	141.4	141.6	135.7	138.5	139.0	139.9	139.8	140.3	140.4
Personal and educational expenses	285.1	294.5	295.6	316.1	319.3	320.0	320.5	285.9	296.4	297.9	317.4	320.4	321.3	321.7
Schoolbooks and supplies	254.5	264.8	265.3	280.5	283.0	283.1	283.3	258.5	269.0	269.6	284.3	286.8	286.8	287.0
Personal and educational services	292.3	301.7	303.1	324.4	327.7	328.6	329.1	292.8	303.4	305.1	325.6	328.7	329.8	330.3
Tuition and other school fees	149.1	152.0	152.6	165.6	167.2	167.2	167.2	149.4	152.5	153.2	166.2	167.7	167.7	167.7
College tuition (12/77 = 100)	148.3	151.8	151.9	164.9	166.8	166.8	166.8	148.1	152.0	152.0	165.0	166.9	166.9	166.9
Elementary and high school tuition (12/77 = 100)	152.0	152.2	154.6	168.7	168.6	168.7	168.7	152.7	152.9	155.6	169.6	169.6	169.7	169.7
Personal expenses (12/77 = 100)	153.4	166.0	167.4	169.4	171.9	174.1	175.4	152.7	166.1	167.6	169.6	171.7	174.0	175.2
Special indexes:														
Gasoline, motor oil, coolant, and other products	402.8	395.0	393.2	389.2	385.7	383.5	377.0	404.0	396.2	394.4	390.3	386.9	384.8	378.5
Insurance and finance	423.1	439.1	441.3	436.0	432.9	426.2	413.4	422.1	438.8	441.7	436.3	433.9	427.2	414.7
Utilities and public transportation	293.9	318.7	320.3	323.8	326.5	324.1	326.0	292.6	317.8	319.4	322.8	325.4	323.2	325.1
Housekeeping and home maintenance services	341.3	350.3	351.4	353.8	355.0	354.8	354.0	341.5	351.0	352.2	354.6	355.7	355.4	354.4

20. Consumer Price Index for All Urban Consumers: Cross classification of region and population size class by expenditure category and commodity and service group

[December 1977 = 100]

Category and group	Size class A (1.25 million or more)			Size class B (385,000-1.250 million)			Size class C (75,000-385,000)			Size class D (75,000 or less)		
	1982			1982			1982			1982		
	Aug.	Oct.	Dec.	Aug.	Oct.	Dec.	Aug.	Oct.	Dec.	Aug.	Oct.	Dec.
Northeast												
EXPENDITURE CATEGORY												
All items	149.0	151.8	151.0	155.8	156.6	157.1	161.2	160.7	162.3	155.3	155.8	156.3
Food and beverages	144.9	145.1	144.4	143.4	142.4	142.1	148.9	147.0	147.4	142.9	141.9	142.0
Housing	153.3	157.7	155.9	164.5	164.9	166.5	174.5	172.9	175.2	163.7	163.0	163.2
Apparel and upkeep	119.6	122.2	119.8	122.4	127.0	124.9	128.4	128.5	129.1	124.8	131.4	131.1
Transportation	159.4	160.7	161.0	166.5	166.6	166.7	164.7	165.2	166.2	163.7	164.6	164.5
Medical care	150.0	151.4	153.6	156.1	158.1	160.6	157.2	161.5	163.6	156.1	157.0	159.8
Entertainment	139.7	140.6	140.2	137.4	139.9	135.9	136.8	138.1	139.2	143.8	144.8	145.0
Other goods and services	141.7	150.0	152.8	143.2	151.4	153.9	148.1	154.3	157.8	144.6	153.4	158.7
COMMODITY AND SERVICE GROUP												
Commodities	145.3	147.7	147.5	151.6	152.4	153.5	152.3	152.0	153.7	149.8	150.9	151.7
Commodities less food and beverages	145.5	149.3	149.4	155.6	157.2	159.0	153.9	154.3	156.6	153.1	155.2	156.3
Services	153.8	157.1	155.6	162.4	163.3	162.9	175.6	175.0	176.4	163.8	163.5	163.4
North Central Region												
EXPENDITURE CATEGORY												
All items	162.2	163.1	162.0	157.0	158.9	159.3	158.9	155.9	156.2	160.2	159.0	156.8
Food and beverages	143.7	143.5	143.3	142.7	142.6	141.9	144.9	143.8	143.4	149.2	149.2	149.1
Housing	179.8	181.2	179.1	165.6	168.5	169.1	169.4	162.6	162.8	171.4	167.8	161.9
Apparel and upkeep	117.0	118.8	116.4	124.1	128.7	129.4	126.7	127.8	126.1	120.1	121.9	121.4
Transportation	166.1	164.5	163.8	165.0	164.1	164.5	166.7	165.0	165.2	164.1	163.1	163.8
Medical care	155.8	157.9	160.3	161.2	162.7	164.0	157.7	160.9	162.9	161.0	163.7	166.5
Entertainment	138.8	140.7	140.2	131.7	133.5	134.1	139.9	142.5	143.7	131.4	133.3	134.5
Other goods and services	142.3	150.5	152.8	153.3	161.4	163.8	142.8	148.1	150.6	150.2	157.3	160.3
COMMODITY AND SERVICE GROUP												
Commodities	150.9	151.9	151.7	148.8	149.7	150.8	150.8	148.2	148.7	149.1	147.6	148.4
Commodities less food and beverages	154.2	155.8	155.7	151.3	152.6	154.5	153.4	150.1	150.9	149.0	147.0	148.1
Services	179.0	179.7	177.3	170.3	173.7	173.1	172.0	168.6	168.4	177.8	177.0	170.1
South												
EXPENDITURE CATEGORY												
All items	156.9	158.1	157.5	159.1	159.6	159.3	158.6	159.1	158.8	158.8	159.8	159.1
Food and beverages	147.2	146.8	147.0	146.5	146.4	146.4	146.0	145.6	145.4	147.5	147.5	147.3
Housing	165.0	166.1	164.3	167.9	167.5	166.0	167.8	167.3	166.0	168.4	169.7	168.2
Apparel and upkeep	124.0	127.5	128.0	122.6	125.3	124.7	121.0	123.7	122.6	107.9	112.4	111.1
Transportation	165.3	164.7	164.6	168.6	167.7	168.0	166.4	166.0	166.8	165.6	164.5	163.5
Medical care	156.2	160.9	164.0	157.3	161.3	163.5	166.2	169.4	173.5	169.3	173.9	179.4
Entertainment	131.7	135.5	135.0	145.0	147.3	148.5	142.1	144.5	144.4	148.1	149.7	143.8
Other goods and services	145.6	152.9	155.0	143.6	152.5	158.1	145.2	153.3	154.9	152.3	153.2	155.8
COMMODITY AND SERVICE GROUP												
Commodities	149.7	150.1	150.9	150.9	151.7	152.3	149.6	149.9	150.2	149.6	150.6	150.6
Commodities less food and beverages	150.8	151.6	152.6	152.8	154.0	154.8	151.2	151.8	152.3	150.5	152.0	151.9
Services	166.9	169.2	166.9	171.5	171.5	169.9	172.4	173.2	172.1	172.6	173.6	172.1
West												
EXPENDITURE CATEGORY												
All items	160.3	160.3	156.9	159.9	160.1	157.9	153.3	152.6	150.1	158.5	158.1	157.8
Food and beverages	147.5	148.3	147.8	148.6	148.6	149.2	144.9	145.7	144.8	150.6	150.8	150.7
Housing	167.7	166.9	160.7	166.6	166.0	161.2	155.6	153.4	148.3	160.5	158.7	158.3
Apparel and upkeep	119.8	120.7	119.9	124.9	126.5	125.8	122.8	123.8	123.4	138.5	138.6	136.9
Transportation	169.9	169.4	166.3	169.7	169.8	168.1	167.0	166.0	165.1	166.2	165.7	165.2
Medical care	167.1	168.9	171.1	163.3	165.1	168.4	167.0	168.8	170.7	168.5	169.6	171.5
Entertainment	135.8	136.6	137.8	141.0	142.4	142.5	135.7	136.2	137.2	153.1	154.9	154.3
Other goods and services	149.3	155.4	159.3	149.8	155.0	158.9	141.7	148.0	153.0	154.4	164.2	165.2
COMMODITY AND SERVICE GROUP												
Commodities	148.8	149.4	148.1	151.0	151.6	150.7	149.9	150.6	149.0	149.2	147.7	148.9
Commodities less food and beverages	149.4	149.9	148.3	152.1	152.9	151.3	152.0	152.6	150.7	148.7	146.4	148.1
Services	175.5	174.8	168.5	172.1	171.8	167.9	158.1	155.4	151.7	172.1	173.4	171.0

21. Consumer Price Index—U.S. city average, and selected areas

[1967 = 100 unless otherwise specified]

Area ¹	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1981	1982						1981	1982					
	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	July	Aug.	Sept.	Oct.	Nov.	Dec.
U.S. city average ² .....	...	292.2	292.8	293.3	294.1	293.6	...	...	291.8	292.4	292.8	293.6	293.2	...
Anchorage, Alaska (10/67=100) .....	...	263.6	...	263.4	...	257.2	...	...	259.1	...	258.9	...	254.4	...
Atlanta, Ga.	282.2	...	295.6	...	297.8	...	296.1	284.1	...	297.1	...	298.7	...	297.8
Baltimore, Md. ....	...	286.1	...	289.2	...	290.1	...	...	287.0	...	288.8	...	289.7	...
Boston, Mass. ....	...	279.2	...	282.9	...	285.0	...	...	278.7	...	282.7	...	284.4	...
Buffalo, N.Y.	264.3	...	267.7	...	277.1	...	277.8	262.7	...	265.5	...	274.3	...	275.0
Chicago, Ill.-Northwestern Ind.	273.9	293.1	293.2	294.0	294.4	294.3	293.1	274.4	292.7	292.5	292.9	293.2	293.1	291.8
Cincinnati, Ohio-Ky.-Ind.	293.3	...	...	300.2	...	304.2	...	...	295.9	...	302.8	...	307.1	...
Cleveland, Ohio	281.6	...	312.2	...	316.6	...	317.6	281.2	...	310.6	...	314.1	...	315.0
Dallas-Ft. Worth, Tex.	295.1	...	304.3	...	306.7	...	303.3	291.0	...	300.2	...	302.5	...	299.4
Denver-Boulder, Colo. ....	...	319.9	...	324.5	...	326.2	...	...	326.3	...	331.3	...	332.5	...
Detroit, Mich.	278.3	292.4	292.7	294.9	295.2	296.0	292.6	275.1	289.3	289.3	291.2	291.2	292.1	288.7
Honolulu, Hawaii	258.3	...	269.4	...	275.2	...	269.9	259.3	...	269.5	...	274.7	...	271.0
Houston, Tex.	302.7	...	318.6	...	317.6	...	318.1	298.8	...	315.3	...	314.9	...	316.1
Kansas City, Mo.-Kansas	273.5	...	285.0	...	289.3	...	290.6	272.0	...	283.6	...	287.3	...	288.6
Los Angeles-Long Beach, Anaheim, Calif.	282.1	289.3	289.1	288.2	289.5	288.5	285.3	285.9	293.0	292.8	291.7	292.8	291.6	288.0
Miami, Fla. (11/77=100) ....	...	155.1	...	156.1	...	156.8	...	...	156.9	...	157.5	...	158.6	...
Milwaukee, Wis. ....	...	296.5	...	302.4	...	303.1	...	...	299.6	...	306.3	...	306.9	...
Minneapolis-St. Paul, Minn.-Wis.	298.7	...	313.8	...	307.7	...	306.1	298.3	...	313.3	...	307.6	...	306.1
New York, N.Y.-Northeastern N.J.	267.9	277.3	278.5	280.7	284.5	283.6	281.8	266.9	276.1	277.1	278.9	282.7	281.9	280.3
Northeast, Pa. (Scranton) ....	...	275.1	...	276.0	...	279.4	...	...	277.3	...	277.1	...	280.6	...
Philadelphia, Pa.-N.J.	274.9	281.1	281.3	283.0	281.8	282.9	281.6	274.1	280.9	280.7	282.1	281.2	282.0	281.0
Pittsburgh, Pa.	281.8	...	291.4	...	300.7	...	302.1	282.6	...	291.8	...	300.3	...	301.7
Portland, Oreg.-Wash. ....	...	292.5	...	288.2	...	285.6	...	...	290.6	...	285.8	...	283.5	...
St. Louis, Mo.-Ill. ....	...	290.2	...	294.1	...	290.0	...	...	289.2	...	293.1	...	288.9	...
San Diego, Calif. ....	...	334.8	...	325.6	...	321.7	...	...	329.4	...	321.1	...	318.2	...
San Francisco-Oakland, Calif.	294.0	...	304.3	...	302.4	...	293.9	292.7	...	302.8	...	301.3	...	293.6
Seattle-Everett, Wash. ....	...	296.6	...	302.2	...	297.5	...	...	292.9	...	298.3	...	294.1	...
Washington, D.C.-Md.-Va. ....	...	281.3	...	286.5	...	286.3	...	...	286.3	...	291.9	...	291.6	...

¹The areas listed include not only the central city but the entire portion of the Standard Metropolitan Statistical Area, as defined for the 1970 Census of Population, except that the Standard Consolidated

Area is used for New York and Chicago.
²Average of 85 cities.

22. Producer Price Indexes, by stage of processing

[1967=100]

Commodity grouping	Annual average 1982	1982												1983
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ¹	Oct.	Nov.	Dec.	Jan.
FINISHED GOODS														
Finished goods	280.6	277.9	277.9	277.3	277.3	277.8	279.9	281.7	282.3	'281.2	284.1	284.9	285.1	283.6
Finished consumer goods	280.9	278.3	278.6	277.7	277.3	277.7	280.1	282.1	282.8	'281.9	284.2	285.2	285.1	283.0
Finished consumer foods	259.3	256.4	258.2	257.1	260.0	262.3	263.4	260.6	259.7	'259.9	257.8	257.6	258.2	258.3
Crude	252.5	280.6	282.5	263.3	266.6	259.9	254.7	241.0	239.2	'228.2	232.0	235.6	247.2	232.6
Processed	257.7	252.1	254.0	254.5	257.3	260.3	262.0	260.2	259.4	'260.6	258.0	257.4	257.1	258.4
Nondurable goods less foods	333.5	329.3	330.3	328.8	325.7	324.3	328.7	335.3	337.2	'338.3	339.7	342.4	341.4	335.2
Durable goods	226.7	226.2	224.0	223.9	224.1	225.0	225.9	226.7	227.5	'223.0	231.1	230.8	231.5	231.9
Consumer nondurable goods less food and energy	223.6	217.4	219.6	220.5	222.3	223.1	223.5	223.7	224.3	'225.5	227.4	228.1	228.3	227.4
Capital equipment	279.6	276.2	275.0	275.8	277.2	278.1	279.2	280.2	280.7	'278.7	283.8	284.0	285.1	285.7
INTERMEDIATE MATERIALS														
Intermediate materials, supplies, and components	310.4	311.0	311.1	310.6	309.9	309.8	309.9	311.1	310.8	'310.5	310.0	310.1	310.2	309.9
Materials and components for manufacturing	289.9	290.4	290.9	290.4	290.6	291.4	289.8	289.2	288.7	'289.9	289.5	288.9	288.7	289.0
Materials for food manufacturing	255.2	250.7	252.8	252.0	254.4	260.0	260.7	259.7	258.0	'257.3	254.7	251.4	250.1	250.9
Materials for nondurable manufacturing	284.5	289.0	289.3	288.8	287.6	287.6	285.4	282.6	282.6	'281.7	280.3	279.5	278.2	277.4
Materials for durable manufacturing	310.1	313.6	313.1	310.9	311.0	311.0	307.5	308.0	306.5	'310.5	310.0	309.8	309.8	312.1
Components for manufacturing	274.0	269.8	270.9	271.8	272.6	273.6	273.6	273.9	274.3	'275.8	276.9	277.0	277.7	277.4
Materials and components for construction	293.5	292.0	293.0	293.3	294.0	293.7	294.5	294.3	293.5	'294.2	293.2	293.0	294.5	296.2
Processed fuels and lubricants	591.8	604.4	596.8	593.0	579.9	570.9	581.1	600.7	603.8	'592.3	590.2	594.3	593.6	583.5
Manufacturing industries	497.9	505.9	497.8	496.1	487.5	481.4	491.7	506.9	510.7	'496.4	496.9	502.5	500.4	493.2
Nonmanufacturing industries	674.4	691.3	684.2	678.3	661.1	649.5	659.5	683.0	685.5	'676.9	672.1	674.9	675.5	662.7
Containers	285.5	282.5	285.5	286.3	287.0	287.0	286.5	286.3	285.4	'285.3	285.1	284.7	284.6	284.9
Supplies	272.2	269.8	270.4	270.6	272.1	273.4	273.4	273.1	272.6	'272.2	272.3	273.0	273.2	273.6
Manufacturing industries	266.0	262.6	263.3	264.5	265.3	266.7	266.7	266.8	266.5	'266.7	267.4	267.2	267.4	268.0
Nonmanufacturing industries	275.7	273.8	274.4	274.1	276.0	277.2	277.1	276.7	276.0	'275.3	275.1	276.3	276.5	276.8
Feeds	207.1	214.8	212.0	208.1	213.1	214.2	213.1	210.3	203.1	'198.1	193.3	199.5	204.9	206.9
Other supplies	289.9	285.7	287.3	287.9	288.9	290.1	290.4	290.5	291.1	'291.3	292.1	292.2	291.3	291.3
CRUDE MATERIALS														
Crude materials for further processing	319.5	318.4	321.6	320.0	322.6	328.3	325.6	323.4	319.8	'316.1	312.2	313.4	312.6	313.7
Foodstuffs and feedstuffs	247.8	242.6	248.3	247.9	254.4	262.6	259.9	255.5	249.6	242.9	236.3	236.3	237.0	239.6
Nonfood materials	474.0	481.5	479.3	475.2	469.9	470.2	467.7	469.8	471.0	'473.7	475.4	479.0	475.0	473.0
Nonfood materials except fuel	376.9	399.5	394.8	387.1	378.8	376.6	370.0	369.2	369.5	'369.5	372.2	369.5	366.0	368.1
Manufacturing industries	387.2	413.2	407.5	398.4	389.0	386.3	378.9	378.4	378.9	'379.1	382.4	379.3	375.0	377.5
Construction	270.7	267.6	270.5	273.2	273.3	274.5	274.2	271.4	270.3	'268.8	267.1	267.3	269.4	268.9
Crude fuel	886.3	812.9	824.5	839.7	851.2	864.8	883.9	901.3	906.9	'923.5	919.4	955.3	949.5	926.3
Manufacturing industries	1,034.8	940.3	954.4	974.7	989.1	1,006.7	1,032.0	1,053.9	1,061.1	'1,083.6	1,077.5	1,124.8	1,117.0	1,088.2
Nonmanufacturing industries	782.7	725.6	735.4	746.6	755.8	766.4	780.5	794.5	798.9	'810.7	808.3	835.2	830.9	812.0
SPECIAL GROUPINGS														
Finished goods excluding foods	285.7	283.0	282.4	281.9	281.1	281.0	283.4	286.7	287.9	'286.3	290.8	291.9	292.0	289.9
Finished consumer goods excluding foods	287.8	285.2	284.9	284.0	282.3	281.8	284.8	288.8	290.2	'288.9	293.3	294.6	294.3	291.1
Finished consumer goods less energy	251.2	240.5	241.3	241.3	243.0	244.3	245.1	244.5	252.0	'250.9	246.4	246.5	254.7	254.7
Intermediate materials less foods and feeds	315.7	316.4	316.4	316.0	315.1	314.6	314.7	316.1	316.0	'315.9	315.5	315.7	315.7	315.3
Intermediate materials less energy	290.5	289.9	290.7	290.5	291.0	291.6	290.8	290.4	289.7	'290.5	290.1	289.9	290.2	290.7
Intermediate foods and feeds	239.5	238.8	239.4	237.7	240.9	245.0	245.1	243.6	240.2	'238.1	234.8	234.6	235.4	236.5
Crude materials less agricultural products	536.5	546.1	543.9	538.4	531.6	531.5	529.1	531.5	532.0	'535.5	537.9	542.3	537.0	534.8
Crude materials less energy	240.4	239.1	243.4	242.8	247.3	252.8	248.7	245.1	240.7	'235.6	230.0	229.3	229.9	232.6

¹ Data for September 1982 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

r= revised.

23. Producer Price Indexes, by commodity groupings

[1967=100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1982	1982												1983
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. 1	Oct.	Nov.	Dec.	Jan.
	All commodities	299.3	298.3	298.6	298.0	298.0	298.6	299.3	300.4	300.2	'299.3	299.9	300.4	300.6	300.0
	All commodities (1957-59 = 100)	317.6	316.5	316.8	316.2	316.2	316.8	317.6	318.7	318.5	'317.6	318.2	318.7	318.9	318.3
	Farm products and processed foods and feeds	248.9	246.0	248.4	247.5	251.6	255.8	255.3	252.4	249.6	'247.4	243.9	244.0	244.8	245.9
	Industrial commodities	312.3	311.8	311.6	311.0	309.9	309.6	310.6	312.8	313.2	'312.7	314.4	315.1	315.0	314.0
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS														
01	Farm products	242.3	242.2	247.1	244.7	250.6	256.5	252.7	246.6	240.8	'234.5	229.1	230.6	232.5	233.1
01-1	Fresh and dried fruits and vegetables	253.4	289.2	290.1	257.3	267.6	271.5	264.5	239.1	238.6	'221.0	222.3	232.5	248.1	227.0
01-2	Grains	210.9	225.2	223.2	220.9	226.0	228.2	225.7	212.8	197.2	187.3	183.2	198.6	202.3	206.3
01-3	Livestock	257.8	236.8	251.2	255.6	267.6	282.9	277.5	270.3	268.4	259.0	248.5	239.1	237.2	242.3
01-4	Live poultry	191.9	186.8	197.3	197.7	186.2	192.7	207.2	212.5	189.3	196.5	177.1	181.6	177.8	177.1
01-5	Plant and animal fibers	202.9	198.2	193.5	199.5	207.4	214.1	203.1	220.8	207.5	196.8	198.1	195.3	200.6	201.7
01-6	Fluid milk	282.5	287.6	285.8	282.5	280.3	278.8	278.9	279.0	278.8	281.9	285.0	285.9	285.5	284.5
01-7	Eggs	178.7	187.0	200.6	204.0	192.1	164.3	159.3	171.7	171.7	173.3	177.9	172.5	170.0	170.0
01-8	Hay, hayseeds, and oilseeds	212.8	218.4	217.6	213.7	222.8	227.3	219.3	220.0	204.5	201.8	194.3	204.8	209.0	212.4
01-9	Other farm products	274.5	280.1	273.7	273.0	274.2	273.9	271.8	265.5	274.4	276.8	274.0	276.3	280.1	279.9
02	Processed foods and feeds	251.5	247.1	248.1	248.1	251.1	254.4	255.8	254.6	253.5	'253.5	251.0	250.4	250.6	251.8
02-1	Cereal and bakery products	253.9	256.6	253.3	253.3	253.5	252.8	252.7	253.0	252.7	'254.0	253.2	254.6	256.6	256.9
02-2	Meats, poultry, and fish	257.6	243.7	247.9	250.0	258.2	267.6	271.2	266.0	262.2	265.7	256.9	251.2	249.9	252.2
02-3	Dairy products	248.9	247.7	248.0	248.0	248.4	248.5	248.7	248.6	248.8	'249.1	250.0	250.2	250.8	250.7
02-4	Processed fruits and vegetables	274.3	273.2	276.3	275.9	275.2	273.8	275.8	274.4	274.1	'272.8	273.7	273.1	273.0	274.6
02-5	Sugar and confectionery	269.9	256.8	257.2	255.0	256.0	265.3	269.1	275.7	285.5	'278.5	276.7	281.1	280.8	281.8
02-6	Beverages and beverage materials	256.9	253.9	255.1	256.4	256.6	256.5	256.7	256.9	258.0	'257.1	258.4	258.9	259.0	260.9
02-7	Fats and oils	215.5	216.6	216.8	213.7	218.1	222.3	221.8	221.3	215.6	'211.4	214.9	209.0	204.3	203.6
02-8	Miscellaneous processed foods	248.6	251.0	250.9	249.5	249.6	248.0	248.6	248.1	245.9	'247.0	247.7	247.9	248.6	248.9
02-9	Prepared animal feeds	211.3	217.4	214.9	211.4	216.3	217.4	216.4	213.9	207.5	'204.3	200.1	205.7	210.5	212.1
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel	204.3	205.0	205.6	205.0	205.4	205.4	205.0	204.1	204.2	'204.3	201.6	203.5	202.4	201.6
03-1	Synthetic fibers (12/75 = 100)	162.4	162.9	163.2	161.3	163.0	163.4	162.8	161.5	162.2	'162.5	162.0	162.1	160.6	158.4
03-2	Processed yarns and threads (12/75 = 100)	137.7	139.2	140.7	140.5	140.4	141.0	139.4	135.9	135.9	136.6	129.5	136.7	136.7	135.1
03-3	Gray fabrics (12/75 = 100)	145.3	148.2	147.3	146.6	146.3	145.9	146.0	144.9	144.6	'143.6	143.6	143.0	143.3	144.8
03-4	Finished fabrics (12/75 = 100)	124.6	126.8	127.1	125.6	125.4	125.2	124.0	123.8	124.3	'123.7	123.4	123.1	122.9	122.3
03-81	Apparel	193.8	192.7	193.2	193.4	194.1	194.5	195.0	194.8	195.1	'195.4	193.5	193.8	191.7	192.9
03-82	Textile housefurnishings	240.0	237.6	240.8	241.4	241.8	239.5	239.7	238.2	236.4	'238.2	240.5	240.5	240.5	240.8
04	Hides, skins, leather, and related products	263.0	261.8	261.6	260.6	263.4	263.2	261.8	263.1	262.0	'263.5	264.7	264.3	265.2	265.6
04-2	Leather	311.3	319.0	317.7	313.3	310.6	309.8	307.7	307.4	304.9	309.2	309.5	312.8	314.3	314.9
04-3	Footwear	245.0	238.9	238.6	238.8	244.8	244.5	244.2	247.3	247.7	'248.3	249.2	249.1	248.2	247.5
04-4	Other leather and related products	248.9	247.5	248.1	248.1	248.1	248.1	245.6	246.9	244.9	'247.7	252.4	250.9	253.1	254.6
05	Fuels and related products and power	693.4	705.1	697.8	689.7	670.6	662.2	677.3	701.1	705.6	'700.4	699.6	707.3	702.6	686.3
05-1	Coal	535.3	525.3	529.9	529.6	532.6	534.0	533.6	538.0	539.0	'538.5	539.7	540.3	540.3	532.3
05-2	Coke	461.8	469.7	469.7	467.5	467.5	467.5	462.0	460.3	459.1	'460.0	453.0	452.3	452.3	450.9
05-3	Gas fuels ²	1,061.2	987.9	982.6	990.5	992.7	1,001.2	1,027.5	1,054.3	1,074.6	'1,112.2	1,133.6	1,190.9	1,177.4	1,143.5
05-4	Electric power	406.6	392.8	392.9	403.7	406.3	407.1	405.7	416.0	414.9	'415.0	409.1	405.2	410.3	411.2
05-61	Crude petroleum ³	733.5	787.2	770.3	744.8	717.9	717.8	718.2	718.4	718.4	'718.3	735.8	734.1	720.4	720.1
05-7	Petroleum products, refined ⁴	761.5	801.9	789.7	770.6	733.5	713.2	739.4	776.5	781.7	'761.6	754.9	759.9	753.0	727.1
06	Chemicals and allied products	292.4	292.9	293.6	294.6	294.3	295.0	293.3	291.6	291.6	'290.7	290.4	290.5	289.3	289.2
06-1	Industrial chemicals ⁵	353.0	362.9	362.2	361.4	357.8	357.1	351.2	349.1	349.1	'346.5	347.6	345.8	342.9	339.9
06-21	Prepared paint	262.9	258.9	258.9	258.9	258.9	264.7	264.7	264.7	264.7	'264.7	265.1	265.1	265.1	265.1
06-22	Paint materials	304.6	306.6	306.4	306.8	306.7	306.9	304.9	304.5	302.5	303.0	303.0	302.3	301.5	301.3
06-3	Drugs and pharmaceuticals	210.1	202.2	204.4	205.9	208.9	209.9	209.7	210.0	211.2	'212.4	214.7	215.4	216.0	218.3
06-4	Fats and oils, inedible	267.1	272.8	274.2	290.1	282.6	288.4	287.5	278.2	254.2	254.1	242.3	239.6	240.8	241.9
06-5	Agricultural chemicals and chemical products	292.7	296.8	298.0	297.1	295.8	294.8	294.1	291.5	290.8	'289.9	289.4	287.3	286.2	282.8
06-6	Plastic resins and materials	283.3	286.1	287.3	285.5	286.0	283.2	282.1	280.9	282.2	'281.6	281.6	281.4	281.4	282.8
06-7	Other chemicals and allied products	269.8	263.8	264.9	268.5	270.0	272.7	273.8	271.1	272.3	'271.2	268.1	271.7	270.2	272.6
07	Rubber and plastic products	241.6	237.3	239.3	240.8	241.1	242.1	242.5	242.0	242.6	'242.5	243.0	242.6	243.0	244.5
07-1	Rubber and rubber products	268.5	262.5	266.0	266.7	266.6	269.0	269.3	268.8	270.1	'269.5	271.1	270.2	270.5	273.9
07-11	Crude rubber	278.9	281.8	282.1	283.5	283.3	283.7	282.5	280.3	278.7	'276.6	272.4	270.8	271.0	271.0
07-12	Tires and tubes	255.2	253.6	256.7	253.7	253.4	254.9	255.3	255.0	257.8	'255.6	255.8	254.8	256.2	259.1
07-13	Miscellaneous rubber products	278.8	263.8	268.8	274.3	274.7	278.8	279.5	279.4	279.7	'281.6	287.1	286.5	285.5	290.7
07-2	Plastic products (6/78 = 100)	132.2	130.5	131.0	132.3	132.6	132.5	132.8	132.5	132.5	'132.7	132.4	132.4	132.8	132.6
08	Lumber and wood products	284.7	285.5	285.2	285.3	286.5	284.6	289.0	288.6	284.2	283.0	279.6	279.9	284.8	292.1
08-1	Lumber	310.8	310.0	308.1	308.2	312.4	310.5	315.8	319.2	311.6	'310.3	306.8	305.1	311.0	324.2
08-2	Millwork	279.4	277.1	278.6	276.5	276.6	276.3	280.5	282.3	280.2	279.5	278.6	280.3	286.1	293.7
08-3	Plywood	232.1	237.4	235.1	236.5	234.0	230.5	239.2	232.4	229.0	'228.5	224.0	227.8	231.2	234.4
08-4	Other wood products	236.2	238.2	238.7	238.6	237.7	237.4	236.0	236.0	235.8	235.6	235.8	233.1	231.3	232.0

See footnotes at end of table.

23. Continued—Producer Price Indexes, by commodity groupings

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1982	1982												1983
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ¹	Oct.	Nov.	Dec.	Jan.
INDUSTRIAL COMMODITIES—Continued															
09	Pulp, paper, and allied products	288.6	285.5	286.3	287.4	288.5	289.6	289.5	289.1	289.3	289.4	289.2	289.6	289.5	291.1
09-1	Pulp, paper, and products, excluding building paper and board	273.3	276.1	276.8	276.6	275.3	274.8	274.1	272.6	272.2	271.5	270.4	269.9	269.1	269.1
09-11	Woodpulp	379.8	410.3	410.3	411.6	389.9	393.3	388.0	368.3	367.0	365.0	352.5	349.4	349.3	350.5
09-12	Wastepaper	121.1	135.2	128.8	129.2	128.1	121.5	115.2	115.6	116.0	116.0	116.0	116.0	116.0	116.0
09-13	Paper	286.6	289.2	289.8	289.6	289.4	288.2	287.8	286.3	285.3	285.3	285.6	281.7	280.0	279.8
09-14	Paperboard	254.9	259.7	261.4	261.1	261.2	258.8	255.9	255.0	255.4	250.7	248.0	247.6	244.5	243.6
09-15	Converted paper and paperboard products	264.4	263.9	264.7	264.5	264.3	264.3	264.5	264.4	264.3	264.2	263.9	265.0	264.9	265.0
09-2	Building paper and board	239.3	233.8	231.4	239.6	236.3	240.2	240.0	239.8	244.4	243.4	241.5	240.1	241.4	240.5
10	Metals and metal products	301.8	304.7	304.2	302.9	303.1	302.8	299.3	299.5	299.2	301.8	302.1	301.0	300.9	301.7
10-1	Iron and steel	339.1	343.1	342.9	342.5	342.8	341.3	338.3	337.5	337.1	336.5	337.6	336.3	333.3	333.2
10-17	Steel mill products	349.7	350.6	350.3	350.5	352.2	352.1	349.9	349.0	348.6	348.2	349.8	349.3	345.5	343.7
10-2	Nonferrous metals	263.6	274.4	273.6	267.2	266.1	263.6	253.4	256.4	255.7	265.1	263.2	262.0	264.0	267.6
10-3	Metal containers	328.1	324.3	326.2	327.2	330.0	330.2	329.9	330.0	328.8	328.8	328.7	327.0	325.7	327.0
10-4	Hardware	279.5	274.1	274.8	278.2	278.5	278.9	280.3	281.2	282.6	282.7	280.8	280.8	283.5	284.9
10-5	Plumbing fixtures and brass fittings	278.7	274.6	276.4	279.1	280.3	281.0	282.6	283.3	274.6	277.1	277.8	278.2	279.1	280.6
10-6	Heating equipment	237.3	233.4	233.1	235.4	236.0	237.2	238.5	238.9	238.4	239.1	238.7	238.9	239.3	240.1
10-7	Fabricated structural metal products	304.2	303.4	304.0	304.5	305.2	304.9	305.3	303.9	304.3	306.4	303.7	302.8	304.6	303.3
10-8	Miscellaneous metal products	284.1	281.2	278.7	279.0	279.7	284.5	283.9	283.2	283.3	283.8	289.7	288.5	288.7	288.6
11	Machinery and equipment	278.7	274.1	275.4	276.2	277.6	278.2	278.6	279.6	279.9	280.2	280.9	281.3	281.8	282.7
11-1	Agricultural machinery and equipment	310.9	303.1	304.6	306.4	306.8	308.2	309.7	311.0	312.2	314.1	317.0	318.1	319.9	321.4
11-2	Construction machinery and equipment	343.8	337.0	337.9	339.2	341.5	343.5	343.9	346.1	346.5	347.5	346.6	347.8	347.9	348.6
11-3	Metalworking machinery and equipment	320.7	315.9	317.2	317.8	319.6	320.7	321.2	322.5	322.8	323.1	322.4	323.0	323.1	323.7
11-4	General purpose machinery and equipment	303.9	300.0	301.3	302.0	303.4	303.8	303.5	304.8	304.9	305.0	305.5	306.0	306.6	306.9
11-6	Special industry machinery and equipment	325.2	320.4	320.7	321.3	322.9	323.9	325.0	327.1	326.7	326.8	327.9	329.1	330.1	331.7
11-7	Electrical machinery and equipment	231.5	228.7	229.5	230.3	231.7	231.3	231.5	231.6	231.8	231.7	233.0	233.0	233.3	234.3
11-9	Miscellaneous machinery	268.2	261.4	264.0	264.9	266.1	267.9	268.5	269.5	270.9	271.5	270.9	271.7	272.0	272.5
12	Furniture and household durables	206.8	203.5	204.6	205.5	206.0	206.5	207.0	206.8	208.1	208.3	208.4	208.3	208.6	210.1
12-1	Household furniture	229.9	227.5	227.4	227.6	229.7	230.0	230.2	230.0	230.4	230.7	231.3	231.6	231.8	231.5
12-2	Commercial furniture	275.7	266.7	271.2	273.6	274.2	275.2	276.0	277.4	278.1	278.2	278.8	279.1	279.0	281.6
12-3	Floor coverings	180.7	180.3	180.6	180.6	181.1	181.3	181.9	181.2	181.0	181.5	180.3	180.2	180.1	181.0
12-4	Household appliances	198.8	193.4	195.3	197.3	197.8	198.9	199.6	200.2	201.0	201.2	200.5	200.3	200.7	202.1
12-5	Home electronic equipment	88.1	89.3	89.6	89.1	87.9	88.0	88.4	87.2	88.0	87.4	88.0	87.3	87.2	87.6
12-6	Other household durable goods	288.2	283.4	283.7	285.0	285.9	285.4	286.1	285.1	291.8	293.4	293.8	294.5	295.4	302.0
13	Nonmetallic mineral products	320.2	315.6	319.0	319.9	320.2	321.2	320.9	321.1	320.5	321.2	321.2	321.5	320.9	321.5
13-11	Flat glass	221.5	216.2	216.2	216.2	216.2	226.4	226.4	226.1	221.1	221.1	221.1	225.3	225.3	229.7
13-2	Concrete ingredients	310.5	306.2	308.4	309.8	309.5	312.5	312.7	311.8	311.2	310.8	311.9	311.7	309.3	308.1
13-3	Concrete products	297.8	295.5	295.9	296.3	297.7	298.2	298.5	298.8	299.0	298.7	298.7	298.1	298.5	298.6
13-4	Structural clay products, excluding refractories	259.9	257.5	257.7	257.7	258.1	258.6	258.9	259.3	263.9	264.0	259.5	264.3	264.3	264.4
13-5	Refractories	337.3	316.8	335.1	337.4	338.7	339.5	340.4	340.4	340.7	340.8	341.3	337.7	337.7	338.2
13-6	Asphalt roofing	396.9	401.3	400.4	394.4	386.7	385.5	396.4	399.8	400.1	413.4	405.1	397.5	395.4	392.2
13-7	Gypsum products	256.0	250.4	255.0	260.7	263.2	259.4	256.4	255.8	253.9	253.9	255.1	254.9	253.9	259.7
13-8	Glass containers	355.6	335.4	352.2	356.0	358.1	358.1	358.1	358.1	358.0	358.6	358.4	358.5	358.5	358.2
13-9	Other nonmetallic minerals	471.6	474.7	478.7	479.6	479.1	471.3	465.2	466.6	466.0	467.7	470.4	471.3	470.6	471.8
14	Transportation equipment (12/68 = 100)	249.7	248.6	245.2	245.2	245.8	247.5	249.1	249.8	250.6	244.5	256.4	256.1	257.5	257.1
14-1	Motor vehicles and equipment	251.3	250.8	246.8	246.8	247.2	249.2	251.1	252.0	252.8	244.6	258.1	257.5	257.9	257.8
14-4	Railroad equipment	348.7	345.8	345.8	346.3	343.5	342.8	342.8	342.6	347.7	348.0	357.5	357.5	357.5	357.6
15	Miscellaneous products	276.6	268.3	273.5	272.7	273.2	272.2	271.5	273.4	272.0	279.5	285.9	285.7	290.3	284.7
15-1	Toys, sporting goods, small arms, ammunition	222.1	218.4	220.1	220.7	221.0	221.8	221.9	222.0	223.5	221.8	223.7	223.7	223.2	223.7
15-2	Tobacco products	323.2	278.2	306.6	306.6	306.7	307.0	307.0	311.5	311.5	329.1	366.0	365.1	383.5	350.9
15-3	Notions	277.1	270.3	270.4	271.5	271.5	280.1	280.1	280.1	280.1	280.1	280.3	280.1	280.1	280.5
15-4	Photographic equipment and supplies	210.7	209.9	210.5	212.1	214.2	210.6	210.4	208.9	208.9	209.9	210.2	210.2	210.3	210.3
15-5	Mobile homes (12/74 = 100)	161.7	159.5	159.6	161.9	162.2	162.5	162.4	162.4	162.8	162.9	161.5	161.4	161.5	161.3
15-9	Other miscellaneous products	338.1	342.2	341.1	334.5	334.1	331.3	328.6	333.7	327.0	345.2	344.7	344.6	351.0	350.3

¹ Data for September 1982 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.
² Prices for natural gas are lagged 1 month.
³ Includes only domestic production.

⁴ Most prices for refined petroleum products are lagged 1 month.
⁵ Some prices for industrial chemicals are lagged 1 month.
 r = revised.

24. Producer Price Indexes, for special commodity groupings

[1967 = 100 unless otherwise specified]

Commodity grouping	Annual average 1982	1982												1983
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ¹	Oct.	Nov.	Dec.	Jan.
All commodities — less farm products	303.0	302.0	301.9	301.4	300.9	301.2	302.2	303.9	304.1	† 303.7	304.7	305.2	305.2	304.6
All foods	254.5	251.6	253.2	251.6	254.7	257.9	259.0	256.6	255.8	† 255.3	252.9	252.1	252.7	252.4
Processed foods	256.1	250.5	251.9	252.1	255.1	259.0	260.8	259.5	258.7	† 259.2	256.5	255.0	254.8	255.8
Industrial commodities less fuels	272.8	271.1	271.5	271.7	272.3	272.8	272.4	272.5	272.6	† 272.5	274.4	274.4	274.8	275.4
Selected textile mill products (Dec. 1975 = 100)	138.2	139.3	139.7	139.0	139.0	138.7	138.2	137.6	137.8	† 137.8	137.3	137.1	136.6	136.6
Hosiery	138.3	136.9	136.9	137.5	138.0	138.5	138.5	138.5	138.5	† 138.7	138.7	139.7	139.7	141.7
Underwear and nightwear	217.4	213.9	215.6	215.9	215.9	215.9	217.4	218.6	218.6	† 219.6	219.2	219.4	219.5	223.1
Chemicals and allied products, including synthetic rubber and fibers and yarns	283.9	284.3	285.1	285.6	285.6	286.1	284.5	282.9	283.3	† 282.5	282.3	282.4	281.2	280.8
Pharmaceutical preparations	206.0	196.8	199.3	201.1	204.5	205.8	205.4	205.9	207.4	† 209.0	211.5	212.3	213.0	215.5
Lumber and wood products, excluding millwork	288.8	289.9	287.9	288.5	290.5	288.1	294.5	294.6	288.3	† 287.2	283.4	283.5	288.6	298.7
Steel mill products, including fabricated wire products	349.4	350.6	350.3	350.5	352.2	352.1	349.9	348.4	348.1	† 347.8	349.4	348.5	344.8	343.1
Finished steel mill products, excluding fabricated wire products	348.4	349.3	348.9	349.2	351.0	350.9	348.6	347.7	347.3	† 346.9	348.6	348.0	344.0	342.1
Finished steel mill products, including fabricated wire products	348.1	349.3	348.9	349.2	351.0	350.9	348.6	347.0	346.7	† 346.3	348.2	347.2	343.3	341.5
Special metals and metal products	286.7	287.9	286.0	285.3	285.6	286.3	285.2	285.7	285.8	† 284.0	289.9	289.0	289.2	289.7
Fabricated metal products	292.0	289.4	289.0	289.9	290.8	292.6	292.8	292.0	291.9	† 292.9	294.1	293.1	294.0	293.9
Copper and copper products	185.6	194.5	194.1	190.8	191.6	193.0	179.7	179.2	179.8	† 181.0	179.2	181.8	182.1	190.5
Machinery and motive products	272.1	268.9	268.1	268.5	269.6	270.7	271.7	272.8	273.3	† 270.7	276.3	276.7	277.6	277.9
Machinery and equipment, except electrical	306.3	300.7	302.3	303.1	304.6	305.7	306.2	307.6	308.1	† 308.6	308.9	309.6	310.3	311.1
Agricultural machinery, including tractors	322.8	315.1	316.0	318.4	319.0	319.9	321.3	321.8	322.8	† 325.5	329.8	331.3	333.7	336.0
Metalworking machinery	350.4	343.8	344.9	346.4	348.8	349.3	350.1	352.6	353.1	† 353.5	354.2	354.3	354.2	354.8
Numerically controlled machine tools (Dec. 1971 = 100)	239.8	240.1	239.8	239.9	239.9	239.9	240.0	239.2	239.2	† 239.4	239.8	239.8	239.8	238.0
Total tractors	354.7	346.9	346.9	349.1	352.4	353.6	354.1	354.8	355.5	† 359.6	360.8	360.7	363.2	365.3
Agricultural machinery and equipment less parts	313.5	306.5	307.4	309.7	310.3	311.0	312.2	312.8	313.6	† 315.8	319.5	320.8	323.1	325.1
Farm and garden tractors less parts	327.4	319.7	319.7	323.5	323.5	325.0	325.8	325.4	326.0	† 333.0	334.9	334.9	339.1	342.2
Agricultural machinery, excluding tractors less parts	319.3	311.6	313.2	314.6	315.6	316.1	317.9	319.1	320.4	† 319.6	325.9	328.6	329.6	331.2
Construction materials	288.0	286.6	286.9	287.5	288.2	288.2	289.5	289.2	288.3	† 288.4	287.7	287.6	288.3	290.0

¹ Data for September 1982 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

† = revised.

25. Producer Price Indexes, by durability of product

[1967 = 100]

Commodity grouping	Annual average 1982	1982												1983
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ¹	Oct.	Nov.	Dec.	Jan.
Total durable goods	279.0	277.6	277.4	277.4	278.1	278.5	278.3	278.9	278.8	† 278.6	281.4	281.2	282.0	282.8
Total nondurable goods	315.3	314.7	315.4	314.2	313.6	314.5	316.0	317.6	317.1	† 315.7	314.3	315.5	315.1	313.4
Total manufactures	292.7	291.9	292.0	291.4	291.1	291.3	292.4	293.7	293.8	† 292.9	293.9	294.0	294.1	293.7
Durable	279.9	278.0	277.8	277.8	278.7	279.2	279.3	279.9	279.8	† 279.6	282.4	282.4	283.2	283.9
Nondurable	306.4	306.8	307.2	305.9	304.1	304.0	306.3	308.5	308.6	† 307.1	305.9	306.3	305.6	303.9
Total raw or slightly processed goods	331.3	328.9	330.6	329.7	331.9	335.1	333.4	333.2	331.1	† 329.9	328.2	331.1	331.5	330.3
Durable	234.1	253.8	253.7	250.1	245.3	239.7	225.4	225.3	225.0	† 226.2	225.1	220.0	218.2	225.2
Nondurable	337.4	333.4	335.2	334.5	337.2	341.1	340.3	340.1	337.9	† 336.5	334.8	338.2	338.8	337.0

¹ Data for September 1982 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

† = revised.

26. Producer Price Indexes for the output of selected SIC industries

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1982	1982												1983	
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. 1	Oct.	Nov.	Dec.	Jan.	
MINING																
1011	Iron ores (12/75 = 100)	175.2	171.3	171.3	171.3	171.3	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1	177.1
1092	Mercury ores (12/75 = 100)	312.2	347.9	313.7	325.0	327.0	308.3	307.5	306.2	287.5	†289.5	312.5	308.3	312.5	306.2	306.2
1311	Crude petroleum and natural gas	925.7	919.7	913.9	905.4	893.3	901.2	914.3	924.3	926.7	†937.6	946.7	969.0	956.0	942.8	942.8
1455	Kaolin and ball clay (6/76 = 100)	151.2	149.6	149.6	149.6	151.7	151.7	151.7	151.7	151.7	151.7	151.7	151.7	151.7	151.7	153.6
MANUFACTURING																
2021	Creamery butter	276.0	275.0	276.4	276.8	275.3	274.9	274.9	275.0	276.3	276.8	276.8	276.5	277.8	275.5	275.5
2024	Ice cream and frozen desserts (12/72 = 100)	214.4	212.8	212.8	210.9	214.2	214.2	214.2	213.6	213.6	216.5	216.5	216.5	216.5	216.5	216.5
2041	Flour mills (12/71 = 100)	186.2	191.5	187.5	187.3	192.5	188.4	189.1	185.5	180.2	182.2	179.6	184.8	185.5	182.6	182.6
2044	Rice milling	185.1	205.9	192.2	183.5	177.9	183.0	180.3	177.6	183.0	183.0	183.0	175.2	196.1	191.3	191.3
2067	Chewing gum	304.1	303.3	303.3	303.3	303.4	303.4	303.4	303.3	304.7	304.7	304.8	306.0	306.1	326.0	326.0
2074	Cottonseed oil mills	168.3	184.9	170.5	158.1	164.7	167.9	170.2	174.6	173.1	†164.4	157.6	164.2	169.4	157.5	157.5
2083	Malt	256.9	267.1	267.1	267.1	259.1	259.8	259.8	259.8	251.2	251.2	240.6	240.6	240.6	232.6	232.6
2085	Distilled liquor, except brandy (12/75 = 100)	140.1	140.1	137.9	140.2	140.2	139.8	139.8	139.8	140.4	140.4	140.4	141.3	141.3	141.3	141.3
2091	Canned and cured seafoods (12/73 = 100)	187.0	187.2	187.0	187.7	188.2	188.0	188.4	187.8	184.3	186.2	186.3	186.4	186.6	182.8	182.8
2098	Macaroni and spaghetti	258.5	259.5	259.5	259.5	259.5	259.5	259.5	259.5	259.5	259.5	255.5	255.5	255.5	255.5	255.5
2251	Women's hosiery, except socks (12/75 = 100)	116.8	115.6	115.6	116.1	116.2	116.9	116.9	116.8	116.9	†116.9	116.8	118.5	118.4	118.6	118.6
2261	Finishing plants, cotton (6/76 = 100)	139.5	140.5	140.3	140.8	141.6	141.5	141.4	140.3	139.8	†138.5	136.8	136.2	136.1	135.3	135.3
2262	Finishing plants, synthetics, silk (6/76 = 100)	128.2	129.4	129.9	128.5	128.5	128.4	127.6	126.8	129.0	†128.2	127.4	127.7	127.2	125.6	125.6
2284	Thread mills (6/76 = 100)	157.2	156.8	156.8	156.8	156.7	156.6	156.6	156.5	158.0	158.0	157.9	157.8	157.8	157.9	157.9
2298	Cordage and twine (12/77 = 100)	141.5	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	142.6	142.6	142.6	142.6	142.6	142.6
2321	Men's and boys' shirts and nightwear	214.6	173.4	215.9	216.9	217.3	217.5	217.8	218.2	218.2	†221.5	219.4	220.9	220.4	223.4	223.4
2323	Men's and boys' neckwear (12/75 = 100)	119.5	115.3	117.3	117.3	117.3	117.3	121.3	121.3	121.3	†121.3	121.3	121.3	121.3	121.3	121.3
2331	Women's and misses' blouses and waists (6/78 = 100)	125.8	126.5	126.5	126.5	126.5	126.5	126.6	126.7	126.7	†126.6	123.8	125.5	124.8	124.8	124.8
2361	Children's dresses and blouses (12/77 = 100)	120.6	123.2	123.2	123.2	122.2	122.2	122.2	119.4	120.3	118.6	118.6	117.0	117.0	117.0	117.0
2381	Fabric dress and work gloves	292.1	293.8	297.4	295.5	295.5	295.5	294.5	294.5	288.2	288.2	287.4	287.4	287.4	288.8	288.8
2394	Canvas and related products (12/77 = 100)	145.6	144.9	144.9	147.2	145.7	145.9	143.1	143.1	143.1	†144.8	148.0	148.0	148.0	149.4	149.4
2396	Automotive and apparel trimmings (12/77 = 100)	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	†131.0	131.0	131.0	131.0	131.0	131.0
2448	Wood pallets and skids (12/75 = 100)	145.5	149.8	149.0	148.2	145.9	144.7	144.2	144.1	143.9	143.8	144.3	144.1	144.5	144.5	144.5
2515	Mattresses and bedsprings	207.2	204.4	205.6	205.6	205.7	205.9	205.9	205.7	205.9	†206.0	210.3	210.3	210.3	208.7	208.7
2521	Wood office furniture	270.6	261.9	270.7	270.8	270.8	270.8	270.8	270.9	271.3	†271.3	272.4	272.4	272.4	272.5	272.5
2647	Sanitary paper products	348.4	344.6	344.6	344.5	344.5	343.6	346.2	346.9	351.5	†352.3	349.5	358.5	356.6	356.9	356.9
2654	Sanitary food containers	260.2	254.0	256.9	260.0	259.9	259.9	259.9	259.9	259.9	†260.8	263.2	263.1	263.2	263.2	263.2
2655	Fiber cans, drums, and similar products (12/75 = 100)	177.8	176.4	176.5	176.5	176.5	176.7	176.7	176.7	177.5	†177.5	177.8	180.7	183.8	183.8	183.8
2911	Petroleum refining (6/76 = 100)	278.4	293.0	289.1	281.7	267.4	259.2	267.9	281.5	283.7	†279.6	278.5	280.5	278.4	268.3	268.3
2952	Asphalt felts and coating (12/75 = 100)	172.9	174.2	173.8	171.2	168.1	168.4	173.1	174.7	174.4	†180.4	176.5	173.1	172.3	170.8	170.8
3031	Reclaimed rubber (12/73 = 100)	207.1	200.3	200.4	207.2	209.2	209.5	210.7	209.9	209.7	†209.8	207.5	207.0	206.5	207.1	207.1
3251	Brick and structural clay tile	306.6	298.9	299.4	299.4	303.4	304.5	305.0	305.9	313.8	†314.0	307.5	316.9	316.9	317.1	317.1
3253	Ceramic wall and floor tile (12/75 = 100)	139.7	140.4	140.4	140.4	140.6	140.6	140.6	140.7	†140.7	138.0	138.0	138.0	138.0	138.0	138.0
3255	Clay refractories	353.1	329.6	354.4	355.6	355.2	355.5	356.2	356.3	356.8	†356.9	357.9	351.2	351.2	352.0	352.0
3259	Structural clay products, n.e.c.	219.8	255.6	226.0	225.9	215.9	215.8	215.9	215.9	219.0	†219.0	219.5	219.4	219.5	219.5	219.5
3261	Vitreous plumbing fixtures	265.0	261.1	260.6	260.8	261.8	265.4	265.5	264.2	263.9	†267.2	269.1	270.3	269.7	272.1	272.1
3262	Vitreous china food utensils	354.3	347.7	347.7	347.3	346.5	355.5	360.2	360.2	360.2	†360.2	350.3	359.4	366.8	369.2	369.2
3263	Fine earthenware food utensils	317.5	315.1	315.1	315.0	314.9	316.2	316.9	316.9	316.9	†316.9	321.3	322.7	323.7	363.5	363.5
3269	Pottery products, n.e.c. (12/75 = 100)	166.4	164.3	164.3	164.2	164.0	166.3	167.4	167.4	167.4	†167.4	166.9	169.1	170.9	183.8	183.8
3274	Lime (12/75 = 100)	186.4	178.8	183.7	185.7	186.3	188.0	188.3	188.0	188.0	†187.8	188.1	187.8	186.0	187.5	187.5
3297	Nonclay refractories (12/74 = 100)	201.8	191.2	198.3	200.4	202.3	203.2	203.8	203.8	203.8	†203.8	203.8	203.7	203.6	203.7	203.7
3313	Electrometallurgical products (12/75 = 100)	121.4	125.3	123.4	120.3	120.3	120.3	120.4	120.4	121.4	†121.4	121.3	121.3	121.2	121.1	121.1
3425	Hand saws and saw blades (12/72 = 100)	218.9	211.6	214.8	214.9	215.3	221.3	221.4	221.5	221.6	†221.6	221.2	221.4	221.2	221.4	221.4
3482	Small arms ammunition (12/75 = 100)	170.7	167.5	167.5	167.5	166.3	166.3	170.3	170.3	170.3	†149.0	175.9	175.9	174.8	180.9	180.9
3623	Welding apparatus, electric (12/72 = 100)	237.9	236.8	236.9	232.3	237.6	237.6	237.8	241.6	242.4	†242.8	237.8	238.0	238.3	238.5	238.5
3636	Sewing machines (12/75 = 100)	154.3	156.0	155.8	155.8	154.3	154.3	154.3	154.3	153.6	†153.6	153.6	153.6	153.6	153.6	153.6
3641	Electric lamps	294.0	282.1	286.1	283.6	296.6	294.5	293.9	291.8	293.7	†296.3	302.9	303.0	303.4	305.6	305.6
3648	Lighting equipment, n.e.c. (12/75 = 100)	170.0	162.8	167.8	168.8	170.9	171.2	171.1	171.1	171.2	†171.2	171.2	171.2	171.5	171.5	171.5
3671	Electron tubes, receiving type	382.3	374.1	374.2	374.4	374.5	374.4	374.5	375.4	375.4	†380.2	380.8	414.5	414.5	431.6	431.6
3942	Dolls (12/75 = 100)	136.6	135.5	136.6	136.6	136.8	136.8	136.8	136.8	136.8	†136.8	136.5	136.5	136.5	136.8	136.8
3944	Games, toys, and children's vehicles	233.1	228.4	232.5	234.1	234.1	234.3	234.3	234.4	234.4	†234.8	232.6	232.8	232.8	232.7	232.7
3955	Carbon paper and inked ribbons (12/75 = 100)	140.0	140.3	140.3	140.3	140.3	140.5	140.6	140.4	140.5	†139.3	139.3	139.2	139.4	139.2	139.2
3995	Burial caskets (6/76 = 100)	148.4	142.7	143.8	143.8	145.3	149.3	149.3	150.8	150.8	†150.8	150.8	150.8	150.8	147.0	147.0
3996	Hard surface floor coverings (12/75 = 100)	155.9	155.1	155.2	156.1	156.1	156.3	154.3	155.0	155.7	†156.9	156.9	156.9	156.8	159.2	159.2

¹ Data for September 1982 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

NOTE: Indexes which were deleted may now be found in Table 4 of the BLS monthly report, *Producer Prices and Price Indexes*.
† = revised.

PRODUCTIVITY DATA

PRODUCTIVITY DATA are compiled by the Bureau of Labor Statistics from establishment data and from estimates of compensation and output supplied by the U.S. Department of Commerce and the Federal Reserve Board.

Definitions

Output is the constant dollar gross domestic product produced in a given period. Indexes of **output per hour of labor input**, or labor productivity, measure the value of goods and services produced per hour of labor. **Compensation per hour** includes wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The data also include an estimate of wages, salaries, and supplementary payments for the self-employed, except for nonfinancial corporations, in which there are no self-employed. **Real compensation per hour** is compensation per hour adjusted by the Consumer Price Index for All Urban Consumers.

Unit labor cost measures the labor compensation cost required to produce one unit of output and is derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from the current dollar gross domestic product and dividing by output. In these tables, **unit nonlabor costs** contain all the components of unit nonlabor payments except unit profits. **Unit profits** include corporate profits and inventory valuation adjustments per unit of output.

The **implicit price deflator** is derived by dividing the current dollar estimate of gross product by the constant dollar estimate, making the deflator, in effect, a price index for gross product of the sector reported.

The use of the term "man hours" to identify the labor component of productivity and costs, in tables 26 through 29, has been discontinued. **Hours of all persons** is now used to describe the labor input of payroll workers, self-employed persons, and unpaid family workers. **Output per all-employee hour** is now used to describe labor productivity in nonfinancial corporations where there are no self-employed.

Notes on the data

In the business sector and the nonfarm business sector, the basis for the output measure employed in the computation of output per hour is Gross Domestic Product rather than Gross National Product. Computation of hours includes estimates of nonfarm and farm proprietor hours.

Output data are supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly manufacturing output indexes are adjusted by the Bureau of Labor Statistics to annual estimates of output (gross product originating) from the Bureau of Economic Analysis. Compensation and hours data are from the Bureau of Economic Analysis and the Bureau of Labor Statistics.

Beginning with the September 1982 issue of the *Review*, all of the productivity and cost measures contained in these tables are based on revised output and compensation measures released by the Bureau of Economic Analysis in July as part of the regular revision cycle of the National Income and Product Accounts. Measures of labor input have been revised to reflect results of the 1980 census, and seasonal factors have been recomputed for use in the preparation of quarterly measures. The word "private" is no longer being used as part of the series title of one of the two business sector measures prepared by BLS; no change has been made in the definition or content of the measures as a result of this change.

27. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years, 1950-82

[1977=100]

Item	1950	1955	1960	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982
Business sector:													
Output per hour of all persons	50.4	58.3	65.2	78.3	86.2	94.5	97.6	100.0	100.6	99.6	98.9	100.7	P 101.0
Compensation per hour	20.0	26.4	33.9	41.7	58.2	85.5	92.9	100.0	108.6	119.1	131.4	144.1	P 154.6
Real compensation per hour	50.5	59.6	69.5	80.1	90.8	96.3	98.9	100.0	100.9	99.4	96.7	96.0	P 97.0
Unit labor cost	39.7	45.2	52.0	53.3	67.5	90.5	95.1	100.0	108.0	119.5	132.9	143.1	P 153.0
Unit nonlabor payments	43.4	47.6	50.6	57.6	63.2	90.4	94.0	100.0	106.7	112.8	119.3	135.2	P 138.9
Implicit price deflator	41.0	46.0	51.6	54.7	66.0	90.5	94.7	100.0	107.5	117.2	128.3	140.4	P 148.2
Nonfarm business sector:													
Output per hour of all persons	56.3	62.8	68.3	80.5	86.8	94.7	97.8	100.0	100.6	99.3	98.5	99.9	P 100.0
Compensation per hour	21.8	28.3	35.7	42.8	58.7	86.0	93.0	100.0	108.6	118.8	130.9	143.6	P 154.0
Real compensation per hour	55.0	64.0	73.0	82.2	91.5	96.8	99.0	100.0	100.9	99.2	96.3	95.7	P 96.7
Unit labor cost	38.8	45.0	52.2	53.2	67.6	90.8	95.1	100.0	108.0	119.6	133.0	143.8	P 153.9
Unit nonlabor payments	42.7	47.8	50.4	58.0	63.7	88.5	93.5	100.0	105.3	110.3	119.1	134.8	P 133.9
Implicit price deflator	40.1	46.0	51.6	54.8	66.3	90.0	94.6	100.0	107.1	116.5	128.3	140.8	P 149.0
Nonfinancial corporations:													
Output per hour of all employees	(¹)	(¹)	68.0	81.9	87.4	95.5	98.2	100.0	100.9	100.7	100.3	102.0	(¹)
Compensation per hour	(¹)	(¹)	37.0	43.9	59.4	86.1	92.9	100.0	108.5	118.7	130.9	143.5	(¹)
Real compensation per hour	(¹)	(¹)	75.8	84.3	92.7	96.9	98.9	100.0	100.8	99.1	96.2	95.6	(¹)
Unit labor cost	(¹)	(¹)	54.4	53.5	68.0	90.2	94.6	100.0	107.5	117.8	130.5	140.6	(¹)
Unit nonlabor payments	(¹)	(¹)	54.6	60.8	63.1	90.8	95.0	100.0	104.2	106.9	117.7	134.8	(¹)
Implicit price deflator	(¹)	(¹)	54.5	56.1	66.3	90.4	94.7	100.0	106.4	114.1	126.1	138.6	(¹)
Manufacturing:													
Output per hour of all persons	49.4	56.4	60.0	74.5	79.1	93.4	97.5	100.0	100.9	101.5	101.7	104.5	P 103.4
Compensation per hour	21.5	28.8	36.7	42.8	57.6	85.4	92.3	100.0	108.3	118.9	132.8	146.4	P 158.8
Real compensation per hour	54.0	65.1	75.1	82.3	89.8	96.2	98.3	100.0	100.6	99.2	97.7	97.5	P 99.7
Unit labor cost	43.4	51.0	61.1	57.5	72.7	91.5	94.6	100.0	107.4	117.1	130.6	140.0	P 153.5
Unit nonlabor payments	54.3	58.5	61.1	69.3	65.0	87.3	93.7	100.0	102.5	99.9	97.1	108.8	P (¹)
Implicit price deflator	46.6	53.2	61.1	61.0	70.5	90.3	94.4	100.0	106.0	112.0	120.8	130.8	P (¹)

¹ Not available.

p= preliminary.

28. Annual changes in productivity, hourly compensation, unit costs, and prices, 1972-82

Item	Year											Annual rate of change	
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1950-82	1972-82
Business sector:													
Output per hour of all persons	3.5	2.6	-2.4	2.2	3.3	2.4	0.6	-0.9	-0.7	1.8	P0.4	P2.4	P1.1
Compensation per hour	6.5	8.0	9.4	9.6	8.6	7.7	8.6	9.7	10.4	9.6	P7.3	P6.3	P9.0
Real compensation per hour	3.1	1.6	-1.4	0.5	2.6	1.2	0.9	-1.4	-2.8	-0.7	P1.1	P2.3	P0.1
Unit labor cost	2.9	5.3	12.1	7.3	5.1	5.1	8.0	10.7	11.2	7.7	P6.9	P3.8	P7.8
Unit nonlabor payments	4.5	5.9	4.4	15.1	4.0	6.4	6.7	5.7	5.8	13.3	P2.7	P3.7	P7.3
Implicit price deflator	3.4	5.5	9.5	9.8	4.7	5.6	7.5	9.0	9.4	9.5	P5.5	P3.7	P7.5
Nonfarm business sector:													
Output per hour of all persons	3.7	2.4	-2.5	2.0	3.2	2.2	0.6	-1.3	-0.9	1.4	P0.2	P2.1	P0.9
Compensation per hour	6.7	7.6	9.4	9.6	8.1	7.5	8.6	9.3	10.2	9.7	P7.3	P6.0	P8.8
Real compensation per hour	3.3	1.3	-1.4	0.4	2.2	1.0	0.9	-1.7	-2.9	-0.7	P1.1	P2.0	P0.0
Unit labor cost	2.9	5.0	12.2	7.5	4.7	5.2	8.0	10.7	11.2	8.1	P7.1	P3.8	P7.8
Unit nonlabor payments	3.2	1.3	5.9	16.7	5.7	6.9	5.3	4.7	8.0	13.1	P3.4	P3.7	P7.5
Implicit price deflator	3.0	3.8	10.2	10.3	5.0	5.7	7.1	8.8	10.2	9.7	P5.9	P3.8	P7.7
Nonfinancial corporations:													
Output per hour of all employees	2.9	2.4	-3.7	2.9	2.9	1.8	0.9	-0.2	-0.4	1.7	(¹)	(¹)	P1.0
Compensation per hour	5.7	7.5	9.4	9.6	7.9	7.6	8.5	9.4	10.3	9.6	(¹)	(¹)	P8.8
Real compensation per hour	2.4	1.2	-1.5	0.4	2.0	1.1	0.8	-1.7	-2.9	-0.7	(¹)	(¹)	P0.0
Unit labor cost	2.8	4.9	13.6	6.5	4.9	5.7	7.5	9.6	10.7	7.8	(¹)	(¹)	P7.7
Unit nonlabor payments	2.7	1.5	7.1	20.1	4.6	5.3	4.2	2.6	10.1	14.6	(¹)	(¹)	P7.4
Implicit price deflator	2.8	3.8	11.4	10.9	4.8	5.6	6.4	7.2	10.5	10.0	(¹)	(¹)	P7.6
Manufacturing:													
Output per hour of all persons	5.0	5.4	-2.4	2.9	4.4	2.5	0.9	0.7	0.2	2.8	-1.0	P2.6	P1.7
Compensation per hour	5.4	7.2	10.6	11.9	8.0	8.3	8.3	9.7	11.8	10.2	8.5	P5.9	P9.5
Real compensation per hour	2.0	0.9	-0.3	2.5	2.1	1.8	0.6	-1.4	-1.6	-0.2	2.2	P1.9	P0.6
Unit labor cost	0.3	1.7	13.3	8.8	3.4	5.7	7.4	9.0	11.6	7.2	9.6	P3.2	P7.7
Unit nonlabor payments	0.8	-3.3	-1.8	25.9	7.4	6.7	2.5	-2.6	-2.7	12.0	(¹)	P2.1	P3.7
Implicit price deflator	0.5	0.3	9.0	13.1	4.6	6.0	6.0	5.7	7.8	8.4	(¹)	P2.9	P6.7

¹ Not available.

p = preliminary.

29. Quarterly indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted

[1977=100]

Item	Annual average		Quarterly indexes										
			1980			1981				1982			
	1981	1982	II	III	IV	I	II	III	IV	I	II	III	IV
Business sector:													
Output per hour of all persons	100.7	P101.0	98.2	98.9	99.3	100.7	100.7	101.0	100.2	100.0	100.3	r101.2	P102.2
Compensation per hour	144.1	P154.6	130.0	133.1	136.1	140.0	142.5	145.6	148.2	150.9	153.4	155.7	P158.0
Real compensation per hour	96.0	P97.0	96.4	96.9	96.2	96.2	96.4	95.7	95.6	96.5	97.1	96.8	P97.5
Unit labor cost	143.1	P153.0	132.3	134.7	137.0	139.0	141.5	144.2	147.9	150.9	152.9	r153.8	P154.5
Unit nonlabor payments	135.2	P138.9	116.2	120.6	124.6	131.8	133.4	137.4	138.3	136.4	137.0	r140.0	P142.4
Implicit price deflator	140.4	P148.2	126.9	129.9	132.8	136.5	138.8	141.9	144.6	146.0	147.5	r149.1	P150.4
Nonfarm business sector:													
Output per hour of all persons	99.9	P100.0	97.6	98.4	99.2	100.4	100.0	100.0	99.1	99.2	99.4	r100.3	P100.9
Compensation per hour	143.6	P154.0	129.3	132.6	135.7	139.5	142.0	145.1	147.7	150.4	152.7	155.1	P157.4
Real compensation per hour	95.7	P96.7	96.0	96.5	95.9	96.0	96.0	95.4	95.3	96.3	96.6	96.4	P97.2
Unit labor cost	143.8	P153.9	132.5	134.7	136.8	139.0	141.9	145.1	149.0	151.6	153.5	r154.7	P155.9
Unit nonlabor payments	134.8	P139.3	116.7	120.3	124.4	131.5	132.8	136.7	138.4	136.7	137.2	r140.1	P143.2
Implicit price deflator	140.8	P149.0	127.2	129.9	132.7	136.5	138.9	142.3	145.5	146.6	148.1	149.8	P151.7
Nonfinancial corporations:													
Output per hour of all employees	102.0	(¹)	99.3	100.6	101.1	102.3	102.2	102.2	101.6	101.6	102.3	103.5	(¹)
Compensation per hour	143.5	(¹)	129.3	132.6	135.6	139.6	141.9	144.8	147.7	150.7	153.0	155.2	(¹)
Real compensation per hour	95.6	(¹)	95.9	96.6	95.8	96.0	96.0	95.2	95.3	96.5	96.8	96.4	(¹)
Total unit costs	143.4	(¹)	130.4	132.9	135.8	138.3	141.7	144.7	149.1	151.8	153.8	154.8	(¹)
Unit labor cost	140.6	(¹)	130.2	131.9	134.1	136.5	138.9	141.7	145.4	148.3	149.5	150.0	(¹)
Unit nonlabor costs	151.4	(¹)	131.0	135.7	140.7	143.4	149.6	153.1	159.6	161.8	166.0	168.5	(¹)
Unit profits	101.6	(¹)	81.9	87.8	90.5	104.7	98.8	105.2	97.6	86.1	82.3	88.7	(¹)
Implicit price deflator	138.6	(¹)	124.8	127.7	130.6	134.5	136.8	140.2	143.2	144.3	145.6	147.2	(¹)
Manufacturing:													
Output per hour of all persons	104.5	P103.4	100.4	100.3	103.6	105.2	105.0	105.0	102.8	102.1	102.3	104.2	P104.3
Compensation per hour	146.4	P158.8	130.9	135.2	138.4	142.6	144.9	147.3	150.7	154.7	157.6	160.0	P161.8
Real compensation per hour	97.5	P99.7	97.1	98.5	97.8	98.0	97.9	96.8	97.2	99.0	99.7	99.4	P99.9
Unit labor cost	140.0	P153.5	130.3	134.9	133.6	135.5	138.0	140.3	146.6	151.5	154.0	153.6	P155.2

¹ Not available.
r = revised.

p = preliminary.

30. Percent change from preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted at annual rate

[1977 = 100]

Item	Quarterly percent change at annual rate						Percent change from same quarter a year ago					
	II 1981 to III 1981	III 1981 to IV 1981	IV 1981 to I 1982	I 1982 to II 1982	II 1982 to III 1982	III 1982 to IV 1982	III 1980 to III 1981	IV 1980 to IV 1981	I 1981 to I 1982	II 1981 to II 1982	III 1981 to III 1982	IV 1981 to IV 1982
	Business sector:											
Output per hour of all persons	1.1	-2.9	-1.0	1.4	4.2	P4.1	2.2	0.9	-0.7	-0.4	0.4	P2.0
Compensation per hour	9.0	7.4	7.3	6.9	6.1	P6.0	9.4	8.9	7.8	7.6	6.9	P6.6
Real compensation per hour	-2.6	-0.4	3.9	2.2	-1.4	P3.3	-1.3	-0.6	0.3	0.8	1.1	P2.0
Unit labor costs	7.8	10.6	8.4	5.5	1.8	P1.8	7.1	7.9	8.6	8.1	6.5	P4.5
Unit nonlabor payments	12.5	2.9	-5.4	1.7	9.3	P7.0	13.9	11.0	3.5	2.7	2.0	P2.9
Implicit price deflator	9.3	8.0	3.8	4.3	4.1	P3.5	9.2	8.9	6.9	6.3	5.0	P4.0
Nonfarm business sector:												
Output per hour of all persons	-0.3	-3.5	0.6	0.8	4.0	P2.7	1.6	-0.1	-1.1	-0.6	0.4	P1.9
Compensation per hour	9.0	7.3	7.7	6.1	6.6	P6.0	9.4	8.8	7.8	7.5	6.9	P6.6
Real compensation per hour	-2.6	-0.5	4.3	1.4	-0.9	P3.3	-1.2	-0.6	0.3	0.6	1.1	P2.0
Unit labor costs	9.3	11.2	7.1	5.2	2.6	P3.2	7.7	8.9	9.0	8.2	6.5	P4.6
Unit nonlabor payments	12.1	5.1	-4.6	1.3	9.5	P9.2	13.6	11.2	4.0	3.3	2.7	P3.5
Implicit price deflator	10.2	9.2	3.3	4.0	4.7	P5.1	9.6	9.6	7.4	6.6	5.3	P4.3
Nonfinancial corporations:												
Output per hour of all employees	0.2	-2.4	0.3	2.7	4.6	(¹)	1.6	0.5	-0.6	0.2	1.3	(¹)
Compensation per hour	8.4	8.2	8.4	6.2	5.9	(¹)	9.2	8.9	8.0	7.8	7.2	(¹)
Real compensation per hour	-3.1	0.3	5.0	1.6	-1.6	(¹)	-1.4	-0.5	0.5	0.9	1.3	(¹)
Total unit costs	8.6	12.8	7.4	5.4	2.6	(¹)	8.9	9.8	9.7	8.5	7.0	(¹)
Unit labor costs	8.2	10.9	8.1	3.4	1.2	(¹)	7.5	8.4	8.6	7.6	5.8	(¹)
Unit nonlabor costs	9.8	17.8	5.7	10.7	6.4	(¹)	12.9	13.4	12.8	10.9	10.1	(¹)
Unit profits	28.4	^c -25.9	-39.4	-16.7	35.4	(¹)	19.7	7.9	-17.8	-16.7	-15.6	(¹)
Implicit price deflator	10.2	8.9	3.0	3.8	4.6	(¹)	9.7	9.6	7.3	6.4	5.0	(¹)
Manufacturing:												
Output per hour of all persons	-0.1	-8.2	-2.4	0.8	7.3	P0.4	4.7	-0.8	-2.9	-2.5	-0.8	P1.5
Compensation per hour	6.8	9.6	11.1	7.8	6.2	P4.5	8.9	8.9	8.5	8.8	8.7	P7.4
Real compensation per hour	-4.6	1.6	7.6	3.1	-1.3	P1.9	-1.7	-0.6	1.0	1.8	2.7	P2.8
Unit labor costs	6.8	19.4	13.9	6.9	-1.0	P4.1	4.0	9.8	11.7	11.6	P9.5	P5.8

¹Not available.

^c= corrected.

p= preliminary.

WAGE AND COMPENSATION DATA

DATA FOR THE EMPLOYMENT COST INDEX are reported to the Bureau of Labor Statistics by a sample of 2,000 private nonfarm establishments and 750 State and local government units selected to represent total employment in those sectors. On average, each reporting unit provides wage and compensation information on five well-specified occupations.

Data on negotiated wage and benefit changes are obtained from contracts on file at the Bureau, direct contact with the parties, and secondary sources.

Definitions

The **Employment Cost Index (ECI)** is a quarterly measure of the average change in the cost of employing labor. The rate of total compensation, which comprises wages, salaries, and employer costs for employee benefits, is collected for workers performing specified tasks. Employment in each occupation is held constant over time for all series produced in the ECI, except those by region, bargaining status, and area. As a consequence, only changes in compensation are measured. Industry and occupational employment data from the 1970 Census of Population are used in deriving constant weights for the ECI. While holding total industry and occupational employment fixed, in the estimation of indexes by region, bargaining status, and area, the employment in those measures is allowed to vary over time in accord with changes in the sample. The rate of change (in percent) is available for wages and salaries, as well as for total compensation. Data are collected for the pay period including the 12th day of the survey months of March, June, September, and December. The statistics are neither annualized nor adjusted for seasonal influence.

Wages and salaries consist of earnings before payroll deductions, excluding premium pay for overtime, work on weekends and holidays, and shift differentials. Production bonuses, incentive earnings, commissions, and cost-of-living adjustments are included; nonproduction bonuses are included with other supplemental pay items in the benefits category; and payments-in-kind, free room and board, and tips are excluded. *Benefits* include supplemental pay, insurance, retirement and savings plans, and hours-related and legally required benefits.

Data on negotiated wage changes apply to private nonfarm industry collective bargaining agreements covering 1,000 workers or more. Data on compensation changes apply only to those agreements covering 5,000 workers or more. *First-year wage* or compensation changes refer to average negotiated changes for workers covered by settlements reached in the period and implemented within the first 12 months after the effective date of the agreement. *Changes over the life*

of the agreement refer to all adjustments specified in the contract, expressed as an average annual rate. These measures exclude wage changes that may occur under cost-of-living adjustment clauses, that are triggered by movements in the Consumer Price Index. *Wage-rate changes* are expressed as a percent of straight-time hourly earnings; *compensation changes* are expressed as a percent of total wages and benefits.

Effective wage adjustments reflect all negotiated changes implemented in the reference period, regardless of the settlement date. They include changes from settlements reached during the period, changes deferred from contracts negotiated in an earlier period, and cost-of-living adjustments. The data also reflect contracts providing for no wage adjustment in the period. Effective adjustments and each of their components are prorated over all workers in bargaining units with at least 1,000 workers.

Notes on the data

The Employment Cost Index data series began in the fourth quarter of 1975, with the quarterly percent change in wages and salaries in the private nonfarm sector. Data on employer costs for employee benefits were included in 1980, to produce a measure of the percent change in employers' cost for employees' total compensation. State and local government units were added to the ECI coverage in 1981, providing a measure of total compensation change in the civilian nonfarm economy.

Data for the broad white-collar, blue-collar, and service worker groups, and the manufacturing, nonmanufacturing, and service industry groups are presented in the ECI. Additional occupation and industry detail are provided for the wages and salaries component of total compensation in the private nonfarm sector. For State and local government units, additional industry detail is shown for both total compensation and its wages and salaries component.

Historical indexes (June 1981 = 100) of the quarterly rates of changes presented in the ECI are also available.

For a more detailed discussion of the ECI, see chapter 11, "The Employment Cost Index," of the BLS *Handbook of Methods* (Bulletin 2134-1), and the *Monthly Labor Review* articles: "Employment Cost Index: a measure of change in the 'price of labor,'" July 1975; "How benefits will be incorporated into the Employment Cost Index," January 1978; and "The Employment Cost Index: recent trends and expansion," May 1982.

Additional data for the ECI and other measures of wage and compensation changes appear in *Current Wage Developments*, a monthly publication of the Bureau.

31. Employment Cost Index, total compensation, by occupation and industry group

[June 1981 = 100]

Series	1980	1981				1982				Percent change	
		Dec.	March	June	Sept.	Dec.	March	June	Sept.	Dec.	3 months ended	12 months ended
	December 1982										
Civilian nonfarm workers¹	—	—	100.0	102.6	104.5	106.3	107.5	110.1	111.4	1.2	6.6
Workers, by occupational group											
White-collar workers	—	—	100.0	102.7	104.9	106.5	107.7	110.7	111.9	1.1	6.7
Blue-collar workers	—	—	100.0	102.3	104.1	105.7	107.1	109.2	110.5	1.2	6.1
Service workers	—	—	100.0	102.8	104.2	107.2	108.3	110.8	112.4	1.4	7.9
Workers, by industry division											
Manufacturing	—	—	100.0	102.1	104.0	106.0	107.2	109.3	110.4	1.0	6.2
Nonmanufacturing	—	—	100.0	102.8	104.8	106.4	107.7	110.5	111.8	1.2	6.7
Services	—	—	100.0	104.4	107.1	108.2	109.2	113.5	115.0	1.3	7.4
Public administration ²	—	—	100.0	104.3	106.0	108.1	109.1	112.8	113.6	.7	7.2
Private nonfarm workers	94.7	98.1	100.0	102.0	104.0	105.8	107.2	109.3	110.7	1.3	6.4
Workers, by occupational group											
White-collar workers	94.5	98.3	100.0	101.8	104.0	105.8	107.2	109.5	110.8	1.2	6.5
Blue-collar workers	94.9	97.8	100.0	102.2	104.0	105.6	107.0	109.0	110.3	1.2	6.1
Service workers	94.3	99.3	100.0	101.9	103.1	106.7	107.9	109.6	111.8	2.0	8.4
Workers, by industry division											
Manufacturing	94.7	98.0	100.0	102.1	104.0	106.0	107.2	109.3	110.4	1.0	6.2
Nonmanufacturing	94.7	98.2	100.0	102.0	103.9	105.7	107.1	109.3	110.8	1.4	6.6
State and local government workers	—	—	100.0	105.3	107.4	108.8	109.3	114.3	115.1	.7	7.2
Workers, by occupational group											
White-collar workers	—	—	100.0	105.7	107.8	109.1	109.5	114.9	115.8	.8	7.4
Blue-collar workers	—	—	100.0	104.2	105.9	108.2	108.9	112.7	113.0	.3	6.7
Workers, by industry division											
Services	—	—	100.0	105.8	107.9	109.0	109.4	114.9	115.9	.9	7.4
Schools	—	—	100.0	106.0	107.9	108.9	109.1	114.8	115.8	.9	7.3
Elementary and secondary	—	—	100.0	106.3	108.3	109.3	109.5	115.6	116.6	.9	7.7
Hospitals and other services ³	—	—	100.0	105.0	107.8	109.5	110.3	115.3	116.0	.6	7.6
Public administration ²	—	—	100.0	104.3	106.0	108.1	109.1	112.8	113.6	.7	7.2

¹Excludes household and Federal workers.

²Consists of legislative, judicial, administrative, and regulatory activities.

³Includes, for example, library, social, and health services.

NOTE: Dashes indicate data not available.

32. Employment Cost Index, wages and salaries, by occupation and industry group

[June 1981 = 100]

Series	1980	1981				1982				Percent change		
		Dec.	March	June	Sept.	Dec.	March	June	Sept.	Dec.	3 months ended	12 months ended
											December 1982	
Civilian nonfarm workers¹	—	—	100.0	102.5	104.4	106.3	107.3	109.7	110.9	1.1	6.2	
Workers, by occupational group												
White-collar workers	—	—	100.0	102.6	104.7	106.7	107.6	110.4	111.4	.9	6.4	
Blue-collar workers	—	—	100.0	102.4	104.0	105.5	106.7	108.6	109.8	1.1	5.6	
Service workers	—	—	100.0	102.5	103.6	106.8	107.9	110.1	111.8	1.5	7.9	
Workers, by industry division												
Manufacturing	—	—	100.0	102.1	104.0	105.9	107.0	108.8	109.8	.9	5.6	
Nonmanufacturing	—	—	100.0	102.7	104.5	106.5	107.5	110.1	111.3	1.1	6.5	
Services	—	—	100.0	104.4	106.6	108.6	109.5	113.2	114.4	1.1	7.3	
Public administration ²	—	—	100.0	103.8	105.5	107.5	108.4	111.9	112.6	.6	6.7	
Private nonfarm workers	95.4	98.0	100.0	102.0	103.8	105.9	107.1	109.0	110.3	1.2	6.3	
Workers, by occupational group												
White-collar workers	95.2	98.1	100.0	101.8	103.9	106.2	107.3	109.4	110.6	1.1	6.4	
Professional and technical workers	95.3	98.2	100.0	103.3	105.5	108.0	109.4	111.8	112.9	1.0	7.0	
Managers and administrators	94.7	98.6	100.0	101.6	102.8	105.8	107.2	108.5	109.3	.7	6.3	
Salesworkers	94.8	96.2	100.0	98.0	101.9	102.2	101.8	104.5	106.2	1.6	4.2	
Clerical workers	95.7	98.6	100.0	102.7	104.2	107.0	108.3	110.3	111.6	1.2	7.1	
Blue-collar workers	95.7	97.7	100.0	102.3	103.9	105.4	106.6	108.5	109.7	1.1	5.6	
Craft and kindred workers	96.1	97.8	100.0	102.9	104.3	106.2	107.6	109.6	111.2	1.5	6.6	
Operatives, except transport	95.5	97.8	100.0	102.1	104.1	105.4	106.6	108.3	109.3	.9	5.0	
Transport equipment operatives	95.3	96.8	100.0	101.0	102.7	103.2	104.1	106.0	106.9	.8	4.1	
Nonfarm laborers	95.7	97.5	100.0	101.5	103.3	104.1	105.1	106.5	107.8	1.2	4.4	
Service workers	94.8	99.2	100.0	101.8	102.7	106.7	107.9	109.3	111.4	1.9	8.5	
Workers, by industry division												
Manufacturing	95.7	97.9	100.0	102.1	104.0	105.9	107.0	108.8	109.8	.9	5.6	
Durables	95.7	97.9	100.0	102.1	104.5	106.3	107.4	109.0	110.3	1.2	5.6	
Nondurables	95.7	97.8	100.0	102.0	103.1	105.3	106.3	108.5	109.1	.6	5.8	
Nonmanufacturing	95.2	98.1	100.0	102.0	103.8	105.9	107.1	109.1	110.5	1.3	6.5	
Construction	95.9	97.6	100.0	103.0	104.3	105.9	107.3	109.1	109.7	.6	5.2	
Transportation and public utilities	95.6	97.7	100.0	102.0	103.6	105.7	106.9	109.5	111.1	1.5	7.2	
Wholesale and retail trade	95.1	98.2	100.0	101.3	102.3	103.9	105.8	106.5	107.2	.7	4.8	
Wholesale trade	95.9	98.5	100.0	102.0	103.4	106.3	108.9	109.0	109.8	.7	6.2	
Retail trade	94.8	98.1	100.0	101.0	101.9	103.0	104.5	105.5	106.1	.6	4.1	
Finance, insurance, and real estate	93.1	95.7	100.0	98.3	102.3	103.7	102.4	106.1	109.0	2.7	6.5	
Services	95.7	99.6	100.0	103.6	105.8	108.8	110.0	112.5	114.3	1.6	8.0	
State and local government workers	—	—	100.0	105.0	107.0	108.2	108.7	113.5	114.0	.4	6.5	
Workers, by occupational group												
White-collar workers	—	—	100.0	105.4	107.5	108.5	108.9	114.2	114.6	.4	6.6	
Blue-collar workers	—	—	100.0	103.9	105.5	107.5	107.9	111.5	112.0	.4	6.2	
Workers, by industry division												
Services	—	—	100.0	105.5	107.6	108.4	108.8	114.2	114.6	.4	6.5	
Schools	—	—	100.0	105.7	107.7	108.3	108.5	114.2	114.5	.3	6.3	
Elementary and secondary	—	—	100.0	106.0	107.9	108.7	108.8	114.9	115.1	.2	6.7	
Hospitals and other services ³	—	—	100.0	104.6	107.3	108.8	109.5	114.3	114.9	.5	7.1	
Public administration ²	—	—	100.0	103.8	105.5	107.5	108.4	111.9	112.6	.6	6.7	

¹Excludes household and Federal workers.

²Consists of legislative, judicial, administrative, and regulatory activities.

³Includes, for example, library, social, and health services.

NOTE: Dashes indicate data not available.

33. Employment Cost Index, private nonfarm workers, by bargaining status, region, and area size

[June 1981 = 100]

Series	1980	1981				1982				Percent change	
		Dec.	March	June	Sept.	Dec.	March	June	Sept.	Dec.	3 months ended
											December 1982
COMPENSATION											
Workers, by bargaining status ¹											
Union	94.7	97.6	100.0	102.5	104.8	106.5	108.4	110.6	112.3	1.5	7.2
Manufacturing	—	—	100.0	102.3	104.6	106.3	108.0	110.3	111.8	1.4	6.9
Nonmanufacturing	—	—	100.0	102.7	105.0	106.8	108.7	111.0	112.8	1.6	7.4
Nonunion	94.6	98.4	100.0	101.7	103.5	105.3	106.5	108.5	109.7	1.1	6.0
Manufacturing	—	—	100.0	101.8	103.5	105.7	106.6	108.4	109.2	.7	5.5
Nonmanufacturing	—	—	100.0	101.7	103.5	105.2	106.4	108.6	109.9	1.2	6.2
Workers, by area size ¹											
Metropolitan areas	94.7	98.1	100.0	102.1	104.1	105.7	107.2	109.4	110.9	1.4	6.5
Other areas	94.2	98.1	100.0	101.8	103.2	106.2	107.0	108.6	109.1	.5	5.7
WAGES AND SALARIES											
Workers, by bargaining status ¹											
Union	95.8	97.4	100.0	102.7	105.0	106.5	108.1	110.3	111.8	1.4	6.5
Manufacturing	96.1	97.7	100.0	102.6	104.7	105.9	107.3	109.5	110.8	1.2	5.8
Nonmanufacturing	95.5	97.1	100.0	102.8	105.2	107.0	108.8	111.1	112.7	1.4	7.1
Nonunion	95.1	98.2	100.0	101.6	103.2	105.6	106.5	108.3	109.5	1.1	6.1
Manufacturing	95.4	97.9	100.0	101.7	103.3	105.9	106.7	108.2	109.1	.8	5.6
Nonmanufacturing	95.0	98.3	100.0	101.6	103.2	105.5	106.4	108.3	109.6	1.2	6.2
Workers, by region ¹											
Northeast	96.0	98.3	100.0	101.7	104.4	106.1	106.7	109.7	111.5	1.6	6.8
South	94.9	98.0	100.0	101.9	102.8	105.7	107.4	108.8	109.8	.9	6.8
North Central	95.3	98.1	100.0	101.6	103.3	104.7	106.1	107.6	108.6	.9	5.1
West	95.3	97.9	100.0	103.2	105.1	107.9	108.6	110.7	112.0	1.2	6.6
Workers, by area size ¹											
Metropolitan areas	95.4	97.9	100.0	102.1	104.0	105.9	107.1	109.1	110.5	1.3	6.3
Other areas	95.1	98.3	100.0	101.8	103.1	106.0	106.8	108.3	108.8	.5	5.5

¹ The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see BLS *Handbook of Methods*, Bulletin 1910.

34. Wage and compensation change, major collective bargaining settlements, 1978 to date

[In percent]

Measure	Annual average					Quarterly average							
	1978	1979	1980	1981	1982 ^p	1981				1982 ^p			
						I	II	III	IV	I	II	III	IV
Total compensation changes covering 5,000 workers or more, all industries:													
First year of contract	8.3	9.0	10.4	10.2	3.2	7.7	11.6	10.5	11.0	1.9	2.6	6.2	3.0
Annual rate over life of contract . .	6.3	6.6	7.1	8.3	2.7	7.2	10.8	8.1	5.8	1.2	2.0	4.7	4.9
Wage rate changes covering at least 1,000 workers, all industries:													
First year of contract	7.6	7.4	9.5	9.8	3.8	7.1	11.8	10.8	9.0	3.0	3.4	5.5	3.7
Annual rate over life of contract . .	6.4	6.0	7.1	7.9	3.6	6.2	9.7	8.7	5.7	2.8	3.2	4.6	5.0
Manufacturing:													
First year of contract	8.3	6.9	7.4	7.2	2.9	6.4	8.2	9.0	6.6	2.5	1.8	5.3	4.2
Annual rate over life of contract . .	6.6	5.4	5.4	6.1	2.7	5.5	6.7	7.5	5.4	2.7	1.7	4.1	4.6
Nonmanufacturing (excluding construction):													
First year of contract	8.0	7.6	9.5	9.8	4.2	8.0	11.8	8.6	9.6	2.7	6.6	5.5	3.2
Annual rate over life of contract . .	6.5	6.2	6.6	7.3	4.1	7.3	9.1	7.2	5.6	2.1	6.1	4.8	5.4
Construction:													
First year of contract	6.5	8.8	13.6	13.5	6.5	11.4	12.9	16.4	11.4	8.6	6.2	6.3	4.6
Annual rate over life of contract . .	6.2	8.3	11.5	11.3	6.4	10.3	11.1	12.4	11.7	8.2	6.3	5.9	3.8

p=preliminary.

35. Effective wage adjustments in collective bargaining units covering 1,000 workers or more, 1978 to date

Measure	Year					Year and quarter							
	1978	1979	1980	1981	1982 ^p	1981				1982 ^p			
						I	II	III	IV	I	II	III	IV
Average percent adjustment (including no change):													
All industries	8.2	9.1	9.9	9.5	6.7	1.7	3.2	3.3	1.5	1.0	2.0	2.4	1.3
Manufacturing	8.6	9.6	10.2	9.4	5.2	2.3	2.4	3.1	1.9	.9	1.0	1.8	1.5
Nonmanufacturing	7.9	8.8	9.7	9.5	7.9	1.2	3.8	3.4	1.1	1.0	2.7	2.9	1.2
From settlements reached in period	2.0	3.0	3.6	2.5	1.7	.4	1.1	.5	.4	.2	.4	.5	.6
Deferred from settlements reached in earlier period	3.7	3.0	3.5	3.8	3.6	.5	1.4	1.5	.4	.6	1.4	1.3	.4
From cost-of-living clauses	2.4	3.1	2.8	3.2	1.4	.7	.7	1.2	.6	.3	.2	.6	.3
Total number of workers receiving wage change (in thousands) ¹	—	—	—	8,648	7,855	3,855	4,701	4,364	3,225	2,882	3,431	3,759	3,387
From settlements reached in period	—	—	—	2,270	1,893	579	909	540	604	203	511	620	815
Deferred from settlements reached in earlier period	—	—	—	6,267	4,850	888	2,055	3,023	882	997	1,603	2,399	850
From cost-of-living clauses	—	—	—	4,593	3,817	2,639	2,669	2,934	2,179	1,925	1,569	2,245	1,927
Number of workers receiving no adjustments (in thousands)	—	—	—	145	501	4,937	4,092	4,428	5,568	5,473	4,925	4,597	4,969

¹ The total number of workers who received adjustments does not equal the sum of workers that received each type of adjustment, because some workers received more than one type of adjustment during the period.

p=preliminary.

WORK STOPPAGE DATA

WORK STOPPAGES include all known strikes or lockouts involving 1,000 workers or more and lasting a full shift or longer. Data are based largely on newspaper accounts and cover all workers idle one shift or more in establishments directly involved in a stoppage. They do not measure the indirect or secondary effect on other establishments whose employees are idle owing to material or service shortages.

Estimates of days idle as a percent of estimated working time measures only the impact of larger strikes (1,000 workers or more). Formerly, these estimates measured the impact of strikes involving 6 workers or more; that is, the impact of virtually *all* strikes. Due to budget stringencies, collection of data on strikes involving 6 workers or more was discontinued with the December 1981 data.

36. Work stoppages involving 1,000 workers or more, 1947 to date

Month and year	Number of stoppages		Workers involved		Days idle		
	Beginning in month or year	In effect during month	Beginning in month or year (in thousands)	In effect during month (in thousands)	Number (in thousands)	Percent of estimated working time	
1947	270		1,629		25,720		
1948	245		1,435		26,127	.22	
1949	262		2,537		43,420	.38	
1950	424		1,698		30,390	.26	
1951	415		1,462		15,070	.12	
1952	470		2,746		48,820	.38	
1953	437		1,623		18,130	.14	
1954	265		1,075		16,630	.13	
1955	363		2,055		21,180	.16	
1956	287		1,370		26,840	.20	
1957	279		887		10,340	.07	
1958	332		1,587		17,900	.13	
1959	245		1,381		60,850	.43	
1960	222		896		13,260	.09	
1961	195		1,031		10,140	.07	
1962	211		793		11,760	.08	
1963	181		512		10,020	.07	
1964	246		1,183		16,220	.11	
1965	268		999		15,140	.10	
1966	321		1,300		16,000	.10	
1967	381		2,192		31,320	.18	
1968	392		1,855		35,567	.20	
1969	412		1,576		29,397	.16	
1970	381		2,468		52,761	.29	
1971	298		2,516		35,538	.19	
1972	250		975		16,764	.09	
1973	317		1,400		16,260	.08	
1974	424		1,796		31,809	.16	
1975	235		965		17,563	.09	
1976	231		1,519		23,962	.12	
1977	298		1,212		21,258	.10	
1978	219		1,006		23,774	.11	
1979	235		1,021		20,409	.09	
1980	187		795		20,844	.09	
1981	145		729		16,908	.07	
1982	96		656		9,061	.04	
1982	January	2	4	6.1	11.4	202.8	.01
	February	3	7	3.9	15.3	241.1	.01
	March	4	9	13.3	26.1	357.0	.02
	April	14	21	59.5	79.1	533.1	.03
	May	15	23	42.7	66.1	657.6	.04
	June	18	27	42.8	66.9	907.2	.05
	July	13	25	38.4	65.9	844.7	.04
	August	9	23	18.8	58.0	754.3	.04
	September	14	27	390.0	427.0	2,088.8	.11
	October	3	13	38.1	67.6	904.8	.05
	November	1	6	2.2	43.7	805.4	.04
	December	—	2	—	36.4	764.4	.04
1983 ^P	January	1	3	1.6	38.0	794.8	.04

p=preliminary.

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